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Re: IOSCO Consultation Report on "*Global Developments in Securitization Regulation*"

On behalf of the Shadow Banking Advisory Group of the Institute of International Finance (IIF), the global association of financial institutions, we appreciate the opportunity to comment on the Consultation Report "*Global Developments in Securitization Regulation*" issued by the Board of the International Organization of Securities Commissions (IOSCO) in June 2012 (henceforth, "the Consultation Report").

General Comments

We note that the Consultation Report is an output of the securitization workstream set up by the FSB as part of its wider work on "shadow banking". We recently issued a paper "*'Shadow Banking': A Forward-Looking Framework for Effective Policy*" (attached and henceforth the "IIF Paper"). In that paper we argued against applying the label "shadow banking" to securitization and other non-bank financial activities under the mistaken impression that they have the same characteristics, type and level of risks and need the same forms of risk mitigation. We called instead for the separate treatment of individual non-bank financial activities, combining an analysis of the risks from the activity with a macroprudential view of the risks to the system as a whole that the activity poses.

In the IIF Paper, we also agreed with the FSB that many non-bank financial activities which developed in the years leading up to the crisis could create substantial and even systemic risks if adequate disclosure and risk mitigation were not in place. We therefore support the aim of the Consultation Paper and many of the ideas in it. It is vital that risks are effectively monitored, controlled and mitigated. In our paper, we call for a three-step approach: the identification of relevant activities and data collection; the assessment of whether such activities could pose systemic risk; and if risks are identified, the use of appropriate risk mitigation tools including regulation as and when necessary.

Nevertheless as we emphasized in our paper, in analyzing activities, it is important to define them tightly rather than in generalities. We believe that the Consultation Paper would be far stronger if it treated securitization not as a single activity occurring in the same way in all jurisdictions, but as a set of activities involving different obligations – e.g. Residential Mortgage-Backed Securities, Commercial Mortgage-Backed Securities, the securitization of student loans, auto loans, credit loans etc. - that can be carried out in different forms and

with different funding methods – e.g. Term securities, Asset-Backed Commercial Paper, Collateralized Debt Obligations etc. - in different jurisdictions. The Consultation Paper acknowledges this to some degree, but we encourage you to develop a more differentiated and nuanced approach to these different activities, forms and funding methods that is at the same time broadly consistent across them.

We also encourage you to make a distinction between bilateral and multilateral transactions. We agree that there should be strong rules for the latter, but the former should be excluded from any IOSCO approach provided that it is clear that there is no onward distribution of the securitized assets. The rationale for this it is that is up to the two parties to agree the level of risk retention – if any – and the information provided, and for the purchaser to satisfy themselves that they have enough information to make an effective judgement.

We also think that the Consultation Paper could be clearer about the activity of securitization as distinct from other activities involved in the process such as underwriting, credit ratings, and investor due diligence. These activities form part of the overall securitization process, but are ultimately different activities that either can be or are carried out by different agents. As such, they need to be looked at in conjunction with securitization but treated separately. Policy makers and regulators should assess where in the process or chain of activities the risk originates or is greatest, where in the chain the most success could be achieved through risk mitigation tools, and which tool(s) would be most effective in mitigating that particular source of risk. On the basis of this assessment, they should act appropriately and target the source of the risk. The IIF has consistently supported such risk mitigation, not only in the IIF Paper, but since the start of the financial crisis, notably in our July 2008 report "*Final Report of the IIF Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations*". If they can do so effectively, there will be far less need to impose burdens on other activities. In other words, regulators should avoid throwing several stones at the same fly!

We also encourage you to focus more on the role of macroprudential oversight and policy in detecting and analyzing risk and interconnections between these activities, securitization and the regular banking system. In our view, the importance of macroprudential oversight and the additional policy tools of macroprudential regulators are being overlooked in the wider debate on "shadow banking".

In understanding and addressing risks from securitization though, it is essential that the benefits are not overlooked and are understood and preserved. We therefore welcome the recognition in the Consultation Paper that securitization is a "*valuable funding technique and efficient means of diversifying risk*" and the annex on Prime Collateralized Securities. We welcome the comment on page 4 that "*From a European perspective, there is a view that securitization is a viable alternative source of funding for the banking sector at a time when it needs funding diversification*" but wonder why it is from a European perspective only. Indeed we would encourage you to go further and carry out a full analysis of the benefits of securitization in general to the global markets and of specific types and forms of securitization.

We also think that you could usefully pay greater attention to restarting the securitization market. While as you say on page 4, "*There is evidence of a revival in investor appetite*" considerable work still needs to be done to ensure that global securitization markets restart and function fully.

As part of this work, we believe that local rules that have the effect of making securitization uneconomic – such as an unduly penal treatment of premium capture cash reserve accounts – would run contrary to at least the spirit of the G20-inspired regulatory reform of securitization. We therefore recommend that in moving to a common approach, IOSCO should promote the principle that regulation should not jeopardize the benefits of securitization.

As we argue in the IIF paper, we also applaud the aim of international consistency and convergence. We welcome the recent comments of IOSCO Secretary-General David Wright that "*We shouldn't have unnecessary overlapping and conflicting rules from Congress and the European Parliament. That adds cost for investors.*"

We welcome the recognition in the Consultation Paper that there has been extensive regulation and industry reform of securitization since the financial crisis. As the crisis developed, the IIF encouraged international cooperation and consistency in adopting rules. We welcome the admission in the Consultation Paper that this has not happened sufficiently in the last years and the admission that as a result unnecessary additional burdens have been imposed. We agree with Secretary-General Wright's comments that "*The answer is for IOSCO to be involved at an early stage, before it's too late […] It's no use trying to come up with a solution if the US and Europe have already separately decided on their own rules.*"

The extraterritorial effects of pending EU requirements on third-country issuers offer a perfect example of the kind of problem that a stronger role for IOSCO would avoid -- and which should still be remedied if possible. As it stands, any issuer that wants to sell to EU institutional investors, even in transactions taking place outside the EU, will have to comply with EU requirements -- regardless of its simultaneous compliance with other law that achieves equivalent "skin in the game" goals. Non-EU issuers are thus likely to have to comply with two bodies of law aimed at the same goal, adding complexity without adding any regulatory benefits or, if they choose not to, EU investors will see the range of products they can consider narrowed for no good reason.

As such, we recognize the difficulties that you face trying to introduce consistency at such a late stage. Nevertheless, in searching for a common approach, we believe that the aim should be sensible international standards that mitigate risks and ensure effective disclosure but do so without losing the benefits of securitization. IOSCO should avoid the temptation to "level up": doing so would hinder the very markets that are so needed. Indeed, we hope that you will develop proposals that make sense in their own right – and have been subjected to a rigorous cost-benefit analysis – rather than reflecting a compromise between existing regulatory standards in the EU, US and beyond.

While in some areas, as we make clear in our detailed comments below, in the long term international standards would be ideal, we believe that at a minimum you should move to full mutual recognition on the basis of common principles applied in all jurisdictions.

As the IIF paper stresses, "*the key to effective policy is that it be proportionate. Policy makers should use the least invasive and distortionary tool that still achieves the objective of risk mitigation.*" The result must be good policy using all available policy tools and avoiding international agreement or convergence on the wrong standards. We have particular concerns about the approach that you suggest on transparency and disclosure, which while guided by a laudable impulse to give investors sufficient information to take sensible decisions, would not be the most effective or proportionate means of doing so.

As a final general comment, while we understand the pressure from the Financial Stability Board (FSB) to deliver, we encourage you to take as much time as possible and devote as many resources as necessary to develop sensible, proportionate and differentiated solutions. If necessary, this may mean extending deadlines. What matters ultimately will be ensuring safe, strong securitization based on effective risk retention, adequate disclosure and strong safeguards for underwriting, credit ratings, and investor due diligence.

Detailed response to Policy Recommendations

Issue One: Risk Retention

Please comment on TFUMP's proposals regarding risk retention requirements.

We strongly agree that differences in retention requirements between US proposals and recent EU initiatives will have significant cost implications and may impede cross-border issuance, which is very much in line with our analysis. Clearly a full assessment is difficult given that US rules have not yet been finalized.

However, we wonder whether it is really sensible to wait for experience of problems to emerge before "*developing appropriate regulatory responses and mechanisms to address these differences.*" In line with the recent comments of Secretary-General Wright noted above, we urge you to act as soon as possible to address differences and conflicts.

Nevertheless, as you recognize, addressing this will not be easy, especially given that many of the differences stem from laws/ directives rather than regulations and so are much harder to amend. We therefore recommend that in the short-term, IOSCO work on identifying common principles that should be met by all jurisdictions, and on the basis of compliance with these principles, push for "substituted compliance" or mutual recognition between jurisdictions. Once this has been achieved, we believe that IOSCO should embark on a longer term project of promoting even greater convergence, including through common international standards.

In establishing common principles and in the longer term moving towards even greater convergence, however, we urge IOSCO and members to look to a "stand alone" approach and principles that make sense in their own right, rather than trying to aim for a compromise between existing or proposed requirements in the US, EU, Japan and other jurisdictions. As part of this, we recommend an impact/ cost-benefit analysis of proposed principles. As we have argued above, IOSCO should aim for an approach that is proportionate and effective.

Issue Two: Transparency Issues

Please comment on TFUMP's proposal on the disclosure of information about stress testing and scenario analysis.

We agree with IOSCO on the need for strong and effective transparency requirements. It is essential that investors are fully in a position to understand the products and securitized assets that they are buying and the risks associated with these. Since the crisis began, there have been considerable regulatory and industry efforts to improve and increase disclosure and transparency to investors. The IIF and its members are constantly

looking at how disclosure can be improved still further. The initiative of Prime Collateralized Securities is an important step forward in this respect.

We note that the treatment of investors as a whole was addressed in the recent IOSCO consultation on *"Suitability Requirements with respect to the Distribution of Complex Financial Products"* and draw attention to our response to this consultation (attached).

However, the question is how best this can be done. While we understand the appeal of disclosing to investors the outcomes of stress testing/ scenario analysis undertaken on underlying assets, we do not believe that this is workable. Furthermore, there is a risk that instead, disclosing stress test results and scenario analysis would lead to results that could be misunderstood and lead to investor overreaction. The comparison of stress testing results would be unworkable in practice because:

- All the parameters could be different from one bank to another especially when there is no direct observable data;
- Scenario analyses are not easily relatable to existing market conditions; and
- Results of stress testing depend on the way the firm calculated them.
- Investors could misunderstand certain scenarios;
- Investors could overreact to certain changes in the information, selling products too quickly or rushing towards others, potentially leading to excessive demand;

Further there is a risk that requiring the disclosure of stress test results and scenario testing could create incentives to issuers to carry out inadequate stress tests. In addition, such requirements could have very different legal ramifications in different jurisdictions that would create substantial legal liabilities for issuers without any real gain to investors.

Not only is such an approach unworkable: it is also unnecessary. As noted above, since the crisis, there have been considerable regulatory and industry efforts to improve and increase disclosure and transparency to investors. These and proposals currently on the table such as AB2 in the US will greatly improve disclosure, but need to be given time to take effect and for their effectiveness to be monitored. Further, even now, there are existing disclosures and reporting already in place such as the loan-level initiative by the ECB that would give investors effective information. Using this would be more cost effective; would allow investors to choose the most relevant disclosure; would address the issue of consistency raised above; and above all would avoid confusing investors. The securitization could be described in a detailed way, showing all the risks:

- A description of the underlying assets;
- A description of the risk transferred to investors and the consequences of this;
- A description of the risk retained by the issuer and the consequences of this.

All the scenario analysis would effectively be described instead of just giving results. Investors with all this information would be able to build their own stress test scenarios and compare one product to another with their own tools. This would be far more effective and we recommend that IOSCO adopt this solution instead. What is essential is that issuers alert investors to this reporting and disclosure and recommend that they read it.

We therefore recommend that existing disclosures and improvements already in the works be given a chance, and that IOSCO and regulators "wait and see" if these are effective before imposing any new requirements. If in due course, new requirements do prove necessary, we hope that you will carry out extensive consultation of both investors and issuers to ensure that you have a full understanding of the cost issues and potential legal obstacles.

A final comment on transparency is that bilateral transactions should be excluded from the scope of any approach here, provided that there is no onward or later distribution of the securitized assets. In such transactions, it is up to the two parties to agree the level of disclosure and there is little need for further requirements.

Issue Three: Standardization

Please comment on TFUMP's proposal regarding standardization of disclosure.

We support the idea of encouraging industry to develop sound practice templates. However, disclosure should be appropriate for the risk issues arising from each type and structure of transaction and there would be little benefit in a minimum template that might require disclosure of further, extraneous or less-relevant, information over that appropriate to a specific issuance... We note the work of the FSB's task force on enhanced risk disclosures and encourage IOSCO to align its efforts with the outcome of that process.

We also think that IOSCO should keep in mind that there are reasonable differences between jurisdictions in accounting standards, markets, product structures and financial institutions' business models that all make coming up with a fully standardized approach both difficult and potentially misleading. For this reason, and in line with our comments on suitability, we think that rather than focusing on standardization, it would be more effective to focus on providing information to investors in a way that is clear, fair and not misleading.

Annexes One and Two

Although we were not invited to comment on the Annexes, we felt that it would be useful to, given their importance for future work here. As the IIF Paper makes clear, we strongly endorse the Prime Collateralised Securities initiative. This could be potentially extremely useful as a way of restoring confidence and restarting markets.

In principle, we would be open to an attempt to develop standard definitions of different types of securitization products, especially if this were to be part of a differentiated treatment of such products as we have suggested. Nevertheless we would recommend proceeding with caution here. Different types of securitization products have developed in different jurisdictions for often very sensible reasons linked to local conditions. It is essential that any efforts on standard definitions do not come at the expense of investor choice or sensible innovations.

On Credit Rating Agencies, we have the same reservations that we have expressed above on Issue Two on transparency. While we agree that investors should have access to sufficient information, and while we agree that the hard data provided to CRAs should be publicly available, we think that there would be risks in compelling firms to hand over other

– potentially commercially sensitive – information. The risk instead is that issuers will limit the information provided to CRAs, making the accuracy of the rating even worse.

In principle we would support the idea of an integrated approach of good governance, possibly including initiatives such as a credible and transparent labeling initiative.

Conclusion

We strongly support the underlying aims of the Consultation Report and welcome the chance to comment. We would be very happy to engage further with IOSCO and other regulators in developing the most effective international regime possible.

Nevertheless, it that is to be achieved, we suggest that you to take as much time as possible and devote as many resources as necessary to develop sensible, proportionate and differentiated solutions. If necessary, this may mean extending deadlines.

We look forward to engaging further with IOSCO and are ready to answer any questions on the attached papers. If you have any questions, do not hesitate to contact Crispin Waymouth – cwaymouth@iif.com

Yours faithfully,

Attachments:

IIF Paper: "*'Shadow Banking': A Forward-Looking Framework for Effective Policy*", June 2012

Joint Associations letter providing Public Comment on Suitability Requirements with respect to the Distribution of Complex Financial Products

30 years IIF 1982-2012
INSTITUTE OF INTERNATIONAL FINANCE

"SHADOW BANKING": A FORWARD-LOOKING FRAMEWORK FOR EFFECTIVE POLICY

June 2012

30 years IIF 1982-2012
INSTITUTE OF INTERNATIONAL FINANCE

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INSTITUTE OF INTERNATIONAL FINANCE

"SHADOW BANKING": A FORWARD-LOOKING FRAMEWORK FOR EFFECTIVE POLICY

June 2012

PREFACE

THE IIF STRONGLY SUPPORTS THE INCREASED INTERNATIONAL FOCUS ON ADDRESSING RISKS FROM THE NON–BANK FINANCIAL SYSTEM AND IN PARTICULAR THOSE ACTIVITIES THAT CONTRIBUTE TO NON–BANK FINANCIAL INTERMEDIATION OR "SHADOW BANKING". WE WELCOME IN PARTICULAR THE WORK OF THE FINANCIAL STABILITY BOARD AND EUROPEAN COMMISSION ON GREATER INTERNATIONAL COORDINATION AND CONSISTENCY OF POLICY ACROSS JURISDICTIONS, AND WE ARE KEEN TO CONTRIBUTE TO THIS WORK.

Properly structured, and with risks properly managed, non–bank financial intermediation activities can provide significant benefits to investors, borrowers and the wider economy.

Nevertheless, the financial crisis showed that some non–bank financial activities and the interconnections between them and with the regular banking system have the potential to pose substantial and even systemic effects if the risks from them are not managed and mitigated effectively. In the last few years, there has been considerable effort by both the industry and regulators to mitigate these risks but it is essential that this work continues.

The central message from this paper is that the industry and regulators should focus on those non–bank financial activities that present specific risks to investors, financial stability and the wider economy, and analyze the most proportionate and effective ways of mitigating those risks while at the same time preserving benefits from the activities in question. This analysis must be done in a way that is internationally coordinated and forward–looking, and goes hand in hand with effective macroprudential oversight and policy.

We strongly believe that the debate must go beyond applying the "shadow banking" label to very disparate non–bank financial activities. Policy makers should avoid taking an approach based on the mistaken impression that they have the same characteristics, type and level of risks, and need the same forms of risk mitigation.

This paper therefore proposes an approach that would allow policy makers to assess whether risks are posed by a particular activity, how those risks are posed and whether they are being successfully mitigated by private sector initiatives or by regulation. We have developed a number of case studies that show how our approach would work in practice.

The paper also sets out several types of risk mitigation tools that could be used when regulators judge that a specific activity poses specific risks. These tools range from targeted communication and improved disclosure of risks to investors through the use of conduct of business regulation and prudential regulation when these are likely to be the most effective and proportionate.

The industry has a major role to play. This paper signifies the IIF's commitment to working with the policy community on these important issues. We look forward to engaging further.

The Institute is grateful to member firms for the commitment of their time and resources in developing this paper, in particular the members of the Shadow Banking Advisory Group.

The lists of the IIF Board of Directors, the membership of the Special Committee on Effective Regulation, and the members of the Shadow Banking Advisory Group are included in the paper.

Josef Ackermann
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Chairman of the Management Board
and the Group Executive Committee
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CONTENTS

PREFACE ii
CONTENTS iv
EXECUTIVE SUMMARY 1
INTRODUCTION 3

SECTION 1. "SHADOW BANKING": THE NEED FOR EFFECTIVE POLICY 4
The Basic Concept of "Shadow Banking" 4
The expansion of and rationale for non-bank financial intermediation 5
Non-Bank Financial Intermediation and the Financial Crisis 7
Understanding the risks in non-bank intermediation 7

SECTION 2. THE PRACTICALITIES OF ADDRESSING "SHADOW BANKING" 10
General Considerations on Policy towards "Shadow Banking" 10
Activities that might be thought of as "Shadow Banking" 11
The limitations of "shadow banking" as a term 12
The limitations of data 13
An alternative approach 13

SECTION 3. A POTENTIAL POLICY FRAMEWORK FOR IDENTIFICATION, ANALYSIS, AND EFFECTIVE RISK MITIGATION 14
Identification, Data Collection, and Monitoring 14
Analyzing and assessing non-bank financial activities: a possible template 15
Using effective risk mitigation tools 18
Deciding how to use the tools 20

SECTION 4. IMPLEMENTING THE POSSIBLE POLICY FRAMEWORK: CASE STUDIES 23
Case Study 1. Money Market Funds in the United States 25
Case Study 2. European Residential Mortgage-Backed Securities 26
Case Study 3: Repo Markets 26
Case Study 4. Securities Lending 27
Case Study 5. Chinese Trust Companies 28
Case Study 6. Sofoles in Mexico 28
General findings from the Studies 29

CONCLUSION: "SHADOW BANKING": A JOINT RESPONSIBILITY 31

ANNEX. CASE STUDIES 33

Case Study 1. Money Market Funds in the United States 33

Case Study 2. European Residential Mortgage-Backed Securities 37

Case Study 3. Repo Markets 43

Case Study 4. Securities Lending 49

Case Study 5. Chinese Trust Companies 56

Case Study 6: Sofoles in Mexico 62

IIF BOARD OF DIRECTORS 66

IIF SPECIAL COMMITTEE ON EFFECTIVE REGULATION 68

IIF SHADOW BANKING ADVISORY GROUP 72

EXECUTIVE SUMMARY

There has long been an awareness that non–bank financial activities can—separately or in combination—supplant and/or complement traditional banking activities. Many of these activities have come to be known as "shadow banking." Properly structured and with risks properly managed, many of these activities can provide significant benefits to investors, borrowers, and the wider economy by increasing efficiency, providing diversification and mitigation of risk, and providing increased liquidity and funding.

As the financial crisis has demonstrated though, when the risks from these activities are not managed and mitigated effectively, they have the potential to create substantial and even systemic effects if they involve imperfect maturity or liquidity transformation, imperfect credit risk transfer, or the build–up of leverage.

Since the crisis, regulators have quite rightly been responding to these risks through reforms to non–bank activities, both nationally and internationally. There have been considerable reforms of how securitization is implemented, the consolidation of risks on bank balance sheets, money market funds, and a wide range of other activities. Nevertheless, until recently, there has been little comprehensive analysis of the system as a whole. The Institute of International Finance (IIF) therefore welcomes the work of the Financial Stability Board (FSB) on "shadow banking" and the move to greater coherence and consistency of policy across jurisdictions.

The central issue is how to deliver policy that mitigates risks where they arise while preserving the benefits of non–bank financial activities for the financial system and wider economy. This balancing process will not be easy.

In particular, while the terms "shadow banking" or "non-bank credit intermediation" can be broadly described, this description is likely to be of limited value, and using it to develop practical policy is extremely challenging. Indeed, starting with the term and then attempting to come up with a definitive list of "shadow banking" activities or entities conducting these activities, or to come up with a single figure for the size of "shadow banking" is unworkable, unnecessary, and risks being a diversion from the real focus of policy, which should be the mitigation of systemic risk.

Policy makers should use an alternative approach. They should focus on those non–bank financial activities with the potential to create systemic risk and combine an analysis of the risks from these activities with a macroprudential view of the risks from the system as a whole.

In implementing this approach, the IIF believes that policy should focus primarily on the underlying activities involved and their associated risks, should be sufficiently forward–looking, and should take account of the variety and complexity of activities, rather than focusing on the entities that conduct those activities. Above all, the design of policy should be internationally consistent and coordinated.

The IIF has suggested a policy framework that would implement this approach, on the basis of three stages of action:

I. The identification of relevant activities and collection of relevant information about these activities;

II. An assessment of whether they could pose systemic risk; and

III. If risks are identified, the appropriate regulatory response and other risk mitigation tools.

On the collection of information, the IIF agrees with the FSB's approach of beginning by casting a wide net to collect data before narrowing its focus to those activities that could increase systemic risk. It is important that authorities have access to high–quality, relevant data and that the industry is open in supplying it, albeit with a clear understanding that it is not an automatic precursor to new or additional regulation.

On the assessment of whether an activity can pose systemic risk, the IIF has developed a template that macroprudential oversight bodies, regulators, and supervisors might use, on the basis of a series of questions on the nature of the activity; the risks from the activity; and the extent to which these are already being mitigated through disclosure, transparency, and/or regulation.

When risks are identified, policy makers should

make full use of the risk mitigation tools available, ranging from non–regulatory tools such as the targeted communication of risks; adequate disclosure of risks by firms to investors; and effective firm risk governance through to conduct–of–business regulation; and, when clearly justified, appropriate and proportionate prudential regulation.

While increased prudential requirements on banks connected to such activities may sometimes be justified, regulators should recognize the limitations of this approach. It would be particularly unhelpful to concentrate policy on the existing prudentially regulated sector, overlooking activities outside the bank sector. Such a response would be tantamount to creating a "Maginot Line" between banks and the non–bank sector, giving the illusion of safety but not addressing the underlying risks in the broader financial system.

It would be extremely difficult—and arguably impossible—to determine a precise set of rules ex ante for which tools will be most effective in any given case. Instead, policy makers should adopt a case–by–case approach, on the basis of the assessment of risks and of a rigorous cost–benefit analysis, being very careful in their precise design and implementation. The key is that policy must be proportionate. Policy makers should use the least invasive and distortionary tool that still achieves the objective of risk mitigation.

As a way to demonstrate the benefits of the proposed framework, how it would work in practice, and testing it against real–world examples, the IIF and its members have prepared six case studies of non–bank financial activities. The studies illustrate the wide variety of non–bank financial activities and their different risk characteristics.

Effective policy and mitigation of risks from non–bank financial activities and their connections with the banking system is a joint responsibility of the official sector and the financial services industry. Financial institutions need to work with regulators and supervisors to manage risks effectively, to alert them to concerns and provide information to help them assess risks, and to cooperate on the design and implementation of regulation and other forms of risk mitigation. This paper should be seen as a strong sign of the industry's commitment to do this. The IIF and its members are ready to work with policy makers in any way that they wish and to carry out further analysis of these vital issues.

INTRODUCTION

At the Seoul Summit of November 2010, G20 leaders called on the Financial Stability Board (FSB) to "strengthen regulation and oversight of shadow banking." The FSB responded to this request with an initial background note in April 2011 and an October 2011 report Shadow Banking: Strengthening Oversight and Regulation, in which it set out both a monitoring and data collection framework and proposed regulatory measures to address concerns, based on five workstreams, the first three of which are due to be completed in June 2012. In addition, some jurisdictions have or are in the process of addressing policy issues that "shadow banking" presents, including the European Commission, which has recently issued a Green Paper.

The Institute for International Finance (IIF) welcomes this focus and in particular the push toward a coordinated international approach. In November 2011, the IIF's Special Committee on Effective Regulation (SCER) agreed that the IIF should produce a paper to contribute to the FSB's work and to the emerging policy discussions.

To assist this process, the IIF established a working group: the Shadow Banking Advisory Group, under the chairmanship of Mr. Edward Greene, Senior Counsel, Cleary Gottlieb Steen & Hamilton. Members of this group include senior participants from a variety of backgrounds and jurisdictions, from both developed and emerging markets.

The paper that follows is the output of that group and is aimed at assisting policy makers with their efforts. Most importantly, the paper proposes a framework to assist regulators and supervisors in how to assess whether a non–bank financial activity poses systemic risks and lists some tools that could be used to mitigate these risks. The framework is designed to be forward–looking and sufficiently flexible to allow new and emerging sources of risk to be assessed and **mitigated** properly.

The paper is organized into four sections:

Section 1 sets out a basic concept of shadow banking/non-bank financial intermediation and its expansion over recent decades. It notes the potential benefits from such financial intermediation but agrees that an effective policy approach is needed to assess and control any systemic risk that it may pose.

Section 2 examines the practicalities of addressing such risks by setting out some general considerations to guide policy. It looks at the kinds of activities that might be considered to amount to "shadow banking" and examines whether an exclusive focus on "shadow banking" is sensible.

Section 3 offers an alternative approach based on effective data collection and monitoring; rigorous and ongoing analysis of whether a particular activity, entity, or set of interconnections could create systemic risk; and an effective and proportionate use of risk mitigation tools where such risk is identified. It includes a template that regulators could use to carry out this analysis.

Section 4 summarizes the findings from six indicative case studies of non–bank financial activities that apply the suggested framework and thus illustrate how it would work in practice. These case studies are attached as an annex to the paper.

SECTION 1. "SHADOW BANKING": THE NEED FOR EFFECTIVE POLICY

Key Messages

In modern financial systems, traditional banking activities can often be supplanted and/or complemented by non-bank activities. Many of these activities have come to be known as "shadow banking."

Many of these activities developed for both sensible and desirable reasons, and properly structured, provide significant benefits to investors, borrowers, and the wider economy by increasing efficiency, providing diversification, and spurring competition and innovation.

Nevertheless, the financial crisis showed that some of these activities can create substantial and even systemic risks if adequate risk mitigation is not in place. The IIF agrees with the FSB that such risks are heightened when they involve imperfect maturity and liquidity transformation, the build-up of leverage, and/or imperfect credit transfer.

It is essential that such risks from the non-bank financial system and their connectivity with the traditional banking system be effectively addressed. Since the financial crisis, in individual countries there have been considerable reforms of securitization, the consolidation of risks on bank balance sheets, money market funds, and a range of other activities. However, many reforms have been carried out unilaterally and without any coherent, consistent, and comprehensive analysis of what went wrong in the system as a whole or without any international coordination. The IIF therefore welcomes the increased attention paid to the non-bank financial system and the move to a greater coherence and consistency across jurisdictions.

THE BASIC CONCEPT OF "SHADOW BANKING"

If the term "shadow banking" is to mean anything, it must be understood by reference to conventional banking, which involves three core activities:

I. Taking highly liquid deposits as capital;

II. Extending credit, whether short, medium or long term (e.g., mortgage or business loans); and

III. Providing a payments system.

The combination of the first two activities typically involves some maturity and/or liquidity transformation. These activities also typically involve leverage. Banks are highly regulated because of the risks attached to these individual activities; because of the risks from their combination inside the same entity; and because of their interconnectedness with each other and the financial system as a whole, including through the payments system. Maintaining the certainty of repayment and the liquidity of deposits is key to wider confidence in the financial system, as is the smooth functioning of the payments system.

In modern financial systems, these core activities are often disaggregated and, in some cases, supplanted and/or complemented by activities provided by the non–bank financial system. Those with funds to place or invest have many alternatives to bank deposits, such as investment funds or hedge funds. Some borrowers are able to tap sources of finance directly through the capital markets, placing reliance on financial institutions' expertise in distribution, pricing, and timing but much less on their funding.

The banking function may also be broken up or disaggregated, with banks undertaking some functions but not others. Many of these non–bank financial intermediation activities[1] have come to be known as "shadow banking" and might, as a first approximation, be taken to include activities that

- **"Mimic" or approximate** to these three core activities of banks to some degree or
- **Provide related services or aspects of the necessary infrastructure.**

A recent speech by Adair Turner argued that "The shadow banking system is ... essentially a set of activities, markets, and contracts, as well as institutions; and the institutions are linked together via myriad multi–step chains."[2]

As the FSB has pointed out, these activities have the potential to increase systemic risk if they involve

1 Many but not all. Conventional insurance, securities, and derivatives activities, for example, exist outside the regular banking system, but their risks are well–understood and addressed by regulation.
2 Adair Turner Shadow Banking and Financial Instability, Cass Business School (14 March 2012).

maturity transformation, liquidity transformation, credit risk transfer, and the build–up of leverage.

THE EXPANSION OF AND RATIONALE FOR NON-BANK FINANCIAL INTERMEDIATION

Non–bank financial intermediation activities have existed in some form or other since the origins of modern finance. Many have emerged in their current form in the two decades leading up to 2008 and were a result of arbitrage opportunities stemming from the imposition of regulations and the inevitable tendency of firms and market participants to minimize the impact of regulations and their concomitant cost. The wish to manage balance sheets and to minimize the capital charges associated with traditional lending activities, for example, was a factor in the growth of the securitization market in the period up to 2007. As the crisis demonstrated, some forms of financial innovation and, in particular, the ways in which these were managed and regulated may have been of questionable value and others positively harmful.

But this result should not obscure the fact that a large number developed for both sensible and desirable reasons and can provide—if risks are properly managed—major benefits to investors, borrowers, and the wider economy. Box 1 and the case studies annexed to this paper provide some detailed examples of these benefits. In broad terms, the benefits from non–bank financial activities can include

- **Efficiency, innovation, and specialization.** An extensive study by the New York Federal Reserve argued that "there were also many examples of shadow banks that existed due to gains from specialization and comparative advantage over traditional banks. ... These ... could include non–bank finance companies, which are frequently more efficient than traditional banks through achieving economies of scale in the origination, servicing, structuring, trading, and funding of loans to both bankable and non–bankable credits."[3] This can have additional benefits such as aiding financial inclusion.
- **Diversification and mitigation of risk.** These activities can enable investors to diversify and mitigate their risks, as their deposits are not concentrated on a single bank balance sheet but are spread over a number of investments. They also can enable banks and borrowers to diversify their sources of funding and liquidity and therefore avoid relying on a single source.
- **Greater flexibility and investment opportunities.** These activities can give investors greater flexibility over the duration and risk profile of their investments and also broaden their investment opportunities, making available assets such as corporate treasury financing and mortgage loans, which might otherwise not be available.
- **Increased liquidity and funding.** For borrowers and market participants, such activities can lead to a greater diversity and supply of funding and liquidity in the market. This option allows firms to reduce reliance on traditional sources of funding, sometimes at lower cost.

This combination of efficiency, specialization, diversification and mitigation of risk, flexibility, and increased liquidity and funding can lead to potentially greater safety and financial stability. Indeed, as a recent International Monetary Fund (IMF) paper[4] shows, much of the growth of this non–bank system may have been the result of a search for safe and sensible cash management, which, when faced with limits on insurable bank deposits and a shortage of short–term government–guaranteed instruments such as Treasury bills, led cash managers to invest in alternative forms of short–term debt.

Part of this increase is also attributable to the perceived security offered by credit and liquidity enhancements made available by deposit–funded banks—which themselves had access to central bank liquidity—combined with the bankruptcy–remoteness of the securitized instruments and conduits from those banks.

As Bank of Canada Governor Mark Carney has said, "Properly structured, shadow banking can increase efficiency, provide diversification, and spur competition and innovation. It has the potential to make the system more robust, provided it does not rely on the regulated sector for liquidity or pretend to provide it with liquidity in times of stress."[5]

As such, if subject to proper risk mitigation, non–bank financial intermediation can complement banks and provide safe alternative sources of funding and a more tailored array of risk/return opportunities for investors.

3 Zoltan Pozsar, Tobias Adrian, Adam Ashcraft & Hayley Boesky, Shadow Banking, Federal Reserve Bank of New York Staff Report No. 458 (July 2010).

4 Zoltan Pozsar Institutional Cash Pools and the Triffin Dilemma of the U.S. Banking System, IMF Working Paper WP/11/190.

5 Mark Carney Some Issues in Financial Reform, Institute of International Finance (25 September, 2011).

Box 1. Three Examples of the Benefits of Non-Bank Financial Intermediation

In looking at non-bank financial activities, policy makers should not lose sight of the potential economic benefits to the financial system and wider economy that such activities provide if properly managed and if the risks are effectively mitigated. Three examples are MMFs, securitization, and securities lending and repo.

Money Market Funds

MMFs can provide significant benefits to investors and institutional cash managers as a relatively safe short-term investment. A speech by U.S. Securities and Exchange Commissioner (SEC) Luis Aguilar noted that,

> These funds provide a highly efficient conduit between issuers of high-quality short-term debt and investors. Money market funds enable the federal government, corporations, municipalities, and other issuers to readily sell their securities in bulk transactions rather than to a multitude of individual investors in separate transactions. Likewise, money market funds provide investors with easy access to high-quality investments and minimize transaction costs. [6]

As such, if risks are adequately mitigated, they can offer a relatively safe non-bank alternative for those looking to invest funds on a short-term and relatively liquid basis. They also allow investors to diversify risk and reduce the concentration of risk in the traditional banking system. Case Study 1 in the annex explores these benefits in more detail.

Securitization

Securitization can, has been, and should continue to be used as a helpful tool. It enables banks to offer lower cost financing and offer additional loans. Properly done, it makes financing available for a wide variety of purposes, enabling banks to spread their funding over more sources, optimizing funding costs. For investors, the purchase of asset-backed securities offers higher returns, liquidity, and diversification. As a recent academic paper[7] has pointed out, this diversification occurs in three ways:

> First, the pooling of mortgages means that the risk of default on any one mortgage is offset by the fact that other mortgages in the pool will continue to pay out. ... Second, ... investors ... are only buying a sliver of the mortgage pool's risk, and they can diversify this risk away through other investments in their portfolios. ... Third, investors can achieve diversification through the terms of the securities being issued ... the securities can be "structured" to create different classes or "tranches" of securities, with each class having a different level of risk and a different level of reward.

In this way, securitization offers significant potential gains to the economy by providing an additional source of funding for banks, finance companies, and industrial companies; providing an expanded source of financing for residential home ownership; providing the potential for the financing of infrastructure projects; and offering cost savings for borrowers. Case Study 2 in the annex provides more details of these benefits.

Securities Lending and Repo

Securities lending allows lenders to achieve an additional return on their investments and for fund managers to increase the performance of their portfolio, but with the security offered by the collateralization of the loan. It allows borrowers to cover operational needs such as covering shorts and preventing fails and helps finance inventory and balance sheet management. In doing so, it supports many trading and investment strategies that otherwise would be very difficult to execute and enables the hedging and arbitraging of price differentials, thus contributing to market efficiency.

A speech by Bank of England Deputy Governor Paul Tucker[8] recognized that, if carried out properly, securities lending "is straightforward and important: it intermediates the loan of securities ... by asset managers to short sellers who need to deliver securities in order to settle their transactions. Securities lending is absolutely vital to effective market making, and thus to effective capital markets."

Repurchase agreements (repo) serve an equally valuable purpose because they offer three distinct benefits: (i) liquidity, (ii) yield advantage, and (iii) flexibility. In terms of liquidity, they provide the ability to invest in cash overnight, improving liquidity management. In terms of yield, they tend to provide additional yield compared to traditional money market instruments such as Treasury bills, time deposits, or agency discount notes. They offer flexibility because the principal amount of repos can be adjusted up or down as fund cash flows dictate. [9] Both inject liquidity into the market, as well as increase market efficiency.

Case Studies 3 and 4 go into these benefits in more detail.

6 Commissioner Luis A. Aguilar, Making Sure Investors Benefit from Money Market Fund Reform, U.S. Securities and Exchange Commission, Investment Company Institute, and Federal Bar Association Mutual Funds and Investment Management Conference, Phoenix (15 March, 2010).
7 Erik F Gerding The Shadow Banking System and its Legal Origins (to be published 2012).
8 Paul Tucker Shadow Banking, Financing Markets And Financial Stability, remarks at the Bernie Gerald Cantor Partners Seminar (21 January, 2010).
9 Columbia Management, Repurchase Agreements: Benefits, Risks and Controls (6 October, 2008).

NON-BANK FINANCIAL INTERMEDIATION AND THE FINANCIAL CRISIS

Nevertheless, these benefits to investors, borrowers, and the wider economy come with potentially significant risks and are therefore conditional on effective risk mitigation by those carrying out the activity, those interacting with entities carrying out the activity, regulators, and supervisors.

As has been well documented, market, risk management, regulatory, and supervisory failures connected to non–bank financial intermediation activities all have played a major role in the origins and development of the financial crisis. Fundamental weaknesses were revealed that both provoked and aggravated the crisis, including

- Declining lending and due diligence standards in the U.S. mortgage–backed securities markets, which undermined the "originate–to–distribute" model;
- Inadequate understanding of the underlying assets, contractual structures, and other aspects of vehicles, especially those that performed maturity transformation by financing longer term assets not fully supported by committed liquidity lines;
- Excessive reliance by investors on credit ratings for structured products aggravated by the failure of the agencies to assess independently or communicate the full array of risks embedded in such products, the assumptions behind the modeling of particular structures, or the sensitivity of outcomes to changes in assumptions; and
- Inadequate internal risk management in banks, especially with regard to off–balance–sheet commitments and the failure to develop worst–case scenarios and provisions that would deal with a tail–risk event.
- Linked to these weaknesses, there was an often short–term and myopic approach to risk.

In addition, there were other shortcomings such as excessive leverage in parts of the system, over–reliance on short–term money markets to finance longer term loans, and a relaxation of collateral and margin requirements.

These market failures were aggravated by others in regulation, supervision, and oversight such as inadequate data collection and analysis of risks, and insufficient coordination between prudential and conduct–of–business supervisors and between jurisdictions. Above all, there was a failure on all sides, both official and private, to monitor, identify, and mitigate build–ups of systemic risk (see Box 2) in the prudentially–regulated banking sector and beyond.

Nevertheless, policy makers should keep in mind that, while there were problems with specific parts of the non–bank financial system, there were other parts that not only did not contribute to the crisis but also performed well, such as many securitization activities.

UNDERSTANDING THE RISKS IN NON-BANK INTERMEDIATION

Activities associated with non–bank financial intermediation may, on their own, be desirable and economically beneficial if carried out correctly and with proper diligence and with high risk management and supervisory standards. The lesson of the crisis however, is that, absent these safeguards, they can create substantial risks separately, in combination with other activities inside the entity undertaking them, or as a result of their interactions with the financial system as a whole. These risks can manifest themselves in two main ways:

- **Direct risks** to depositors/investors, and
- Risks from the **interconnectedness** within the non–bank financial system and between it and the regulated banking system, including increased procyclicality from what has been termed "self–referential approaches to credit pricing, combined with inherently myopic and unstable assessment of tail risks."[10] Where non–bank channels come to be relied upon as a critical source of liquidity in the financial sector as a whole, including the regulated banks, this risk from interconnectedness can be particularly problematic.

If these risks are not managed and mitigated effectively and become sufficiently material, they may destabilize the financial system and/or lead to a widespread loss of confidence. As the FSB has pointed out,

> Maturity/liquidity transformation within the shadow banking system, especially if combined with high leverage, raises systemic concerns ... because of the risk that short-term deposit-like funding ... can create "modern bank runs" if undertaken on a sufficiently large scale. ... the shadow banking system's interconnectedness with the regular banking system can raise systemic concerns.[11]

In assessing activities involved in non–bank financial intermediation, it is therefore essential that the activities being undertaken are understood properly and the risks created, including those risks resulting from connections with the traditional banking system, are

10 Turner, ibid.
11 FSB Shadow Banking: Scoping the Issues (12 April 2011).

effectively addressed.

Box 2. What is Systemic Risk?

In its report Systemic Risk and Systemically Important Firms,[12] the IIF has argued that,

There is no single, simple definition of systemic risk ... Systemic risk ... is identified not by its source but by its effects. It is dynamic and evolving. It involves multiple parts of the financial system, and occurrences seldom or never take the same form. It is never one thing, it is always the interconnection of a number of factors.

The IIF has consistently urged an approach that avoids excessive reliance on indicators such as size and interconnectedness and is sufficiently adaptive.

For the purposes of this paper, therefore, the IIF treats systemic risk as occurring when core functions provided by financial institutions are fundamentally undermined in a way that (i) threatens the ability of the institutions concerned to meet their obligations in full and on time, (ii) has a contagious element so that the inability of some institutions to meet their obligations is driven by "failures" in others, and (iii) has significant macroeconomic consequences.

12 IIF Systemic Risk and Systemically Important Firms: An Integrated Approach (May 2010).

It is particularly important to note that non–bank financial activities may be a source of risk in their own right or as the result of their impact on the regulated banking sector. In addition to the risks arising directly out of interconnectedness, other risks may be present. For example, regulatory arbitrage between an over–regulated banking system and an under–regulated or unregulated non–bank system may put competitive pressures on prudentially–regulated entities that might lead them to weaken internal controls and standards. And, while disaggregation of traditional banking functions may be quite legitimate, if the provision of financial services by regulated firms were to become too specialized and fragmented, they could end up with an unwarranted concentration of risks such as legal, reputational, or operational risks (e.g., if they were to become primarily administrators of loans or funds).

The emerging policy response

Regulators and supervisors both nationally and internationally have already taken a number of measures to respond to many of these weaknesses. To give just a few examples,

- Basel 2.5 reforms, imposing credit–related capital requirements for securitized exposures and on consolidation rules for bank–sponsored conduits and risk–based requirements for liquidity lines;
- Linked to these reforms, new rules on securitization, including Article 122a of the European Union's Second Capital Requirements Directive and the 2010 Dodd–Frank Act in the United States, both of which mandate minimum risk retention requirements as well as new due diligence and transparency standards;
- Capital requirements of liquidity facilities supporting securitization structures have been tightened—the 20% credit conversion factor for liquidity facilities under one year was raised to 50% and liquidity requirements with regard to liquidity enhancements to conduits will be introduced;
- The development of macroprudential oversight and institutions;
- Work by the SEC on MMFs, such as its amendments to Rule 2a–7 (see Case Study 1);
- Reform of Credit Rating Agencies, such as the European Union's Credit Rating Agency Regulation;
- Structural reforms, such as the Volcker Rule in the United States and the proposals of the Independent Commission on Banking in the United Kingdom; and
- In the U.S., the Second Notice of Proposed Rulemaking (Second NPR) on the designation of non–bank financial companies as systemically important issued by the Financial Stability Oversight Council (FSOC) in October 2011 (which states that the FSOC "may determine that a U.S. non–bank financial company shall be supervised by the [Federal Reserve] and shall be subject to prudential standards if the [FSOC] determines that material financial distress at the U.S. non–bank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the U.S. non–bank financial company, could pose a threat to the financial stability of the United States"[13]; this determination would potentially lead to the application of bank–like prudential regulation and supervision to non–bank financial entities).

Some of these reforms have been well thought out. However, they would be more effective if they

13 Financial Stability Oversight Council, Notice of proposed rulemaking 12CFR part1310, RIN 4030–AA00, Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies (October 2011).

were based on a more thorough analysis of the risks; were more proportionate to the risks being addressed; were consistent and connected with each other as part of a system–wide macroprudential appraisal of the risks; and were more internationally consistent and coordinated.

Implicitly acknowledging these problems, in October 2011, the FSB issued a report Shadow Banking: Strengthening Oversight and Regulation in which it developed a conceptual approach, set out a monitoring framework to assess "shadow–banking" risks, and provided recommendations ahead of the outcome of five regulatory work streams on (i) the regulation of banks' interactions with "shadow banking" entities; (ii) the regulatory reform of MMFs; (iii) the regulation of other "shadow banking" entities; (iv) the regulation of securitization; and (v) the regulation of activities related to securities lending/repos, including possible measures on margins and haircuts. Work on many of these is nearing completion. Both the International Organization of Securities Commissions (IOSCO) and the FSB Task Force on Securities Lending and Repos recently issued consultation papers.[14]

In addition, there has been considerable analysis and work at a European level. In March, the European Commission issued a Green Paper on "Shadow Banking", followed by a conference in April, and the European Central Bank issued a research paper on the issue.[15] Further, there has been notable recent commentary on "shadow banking" from Federal Reserve Chairman Ben Bernanke and UK Financial Services Authority Chairman Adair Turner.[16]

The IIF Perspective

The IIF welcomes the increased attention to this area and the move to greater coherence and consistency across jurisdictions. The central issue is how to turn this need for effective policy into practice in a way that mitigates risks where they arise while preserving the benefits of non–bank financial activities for the financial system and wider economy.

For the purposes of clarity and simplicity, the focus of this paper is on the identification, analysis, and mitigation of activities that could lead to material systemic risk to national markets rather than with other risks and detriments such as mis–selling and non–systemic failures. Such risks need to be addressed, but the Shadow Banking Advisory Group concluded that attempting to cover all forms of risk would likely confuse an already difficult conceptual framework. This approach is similar to that adopted in the October 2011 FSB paper.

14 IOSCO, Money Market Fund Systemic Risk Analysis and Reform Options: Consultation Report (April 2012); FSB Securities Lending and Repos: Market Overview and Financial Stability Issues" (April 2012).
15 ECB, Shadow Banking in the Euro Area: An Overview, ECB Occasional Paper No. 133 (April 2012).
16 Fostering Financial Stability: Remarks by Ben S. Bernanke, Chairman, Board of Governors of the Federal Reserve System at the 2012 Financial Markets Conference, Atlanta, Georgia (9 April, 2012); and Adair Turner, Cass Business School idem, Securitisation, Shadow Banking and the Value of Financial Innovation, Rostov Lecture on International Affairs, SAIS (19 April, 2012).

SECTION 2. THE PRACTICALITIES OF ADDRESSING "SHADOW BANKING"

Key Messages

The central issue for policy on "shadow banking" is how in practice to preserve the benefits and efficiencies from non-bank financial activities while effectively identifying and containing the risks they pose to the financial sector.

Policy should focus primarily on the underlying activities involved and the risks associated with them, keeping in mind that policy toward such activities will ultimately need to be applied to specific entities. It needs to be sufficiently forward-looking and take account of the variety and complexity of non-bank financial activities. Above all, the design of policy should be internationally consistent and coordinated.

In particular, while the term "shadow banking", or "non-bank credit intermediation", can be broadly described, this is of limited value, and turning such generality into practical policy is extremely challenging. Attempting to come up with a definitive list of "shadow banking" activities or entities engaged in these activities is unworkable, unnecessary and risks being a diversion from the real focus of policy: the mitigation of systemic risk.

Instead, policy makers should use an alternative and wider approach—focusing on non-bank financial activities that have the potential to create systemic risk and combining an analysis of the potential risks from these activities with a macroprudential view of the risks to the system as a whole if realized.

In the same vein, trying to come up with a single figure for the size of "shadow banking" is neither feasible nor necessary. What is important is to have data at the right level on individual activities and their trends as part of a macroprudential overview of the entire financial system and the potential risks to financial stability.

Non–bank financial intermediation has in the past accounted for a significant part of the financial system. However, as noted in Section 1, such activity is capable of creating systemic upheaval if the risks associated with it are not properly identified, monitored, and mitigated. The difficulty comes in turning that balance between ensuring the benefits and mitigating the risks into practical policy both nationally and internationally.

One immediate issue is whether the primary focus should be on activities that comprise non–bank financial intermediation or on the entities that undertake it. It is important to identify the primary focus in order to avoid a confusion of approaches that could lead to regulatory duplication or over–layering of prudential regulation on top of conduct–of–business or other regulation as well as gaps in oversight and risk mitigation.

A further issue is the need to have effective oversight not just of the activity but of its interaction with the wider financial system, including its connections to the prudentially–regulated banking system. As the FSB has acknowledged that "Although shadow banking may be conducted by a single entity that intermediates between end–suppliers and end–borrowers of funds, it often involves multiple entities and activities forming a chain of credit intermediation."[17]

GENERAL CONSIDERATIONS ON POLICY TOWARDS "SHADOW BANKING"

The IIF believes that the principal objective of policy should be to preserve the potential benefits and efficiencies associated with non–bank financial intermediation and other non–bank financial activities while effectively monitoring, analyzing, and containing potential risks. In doing so, the following considerations will be key:

I. **The policy should focus primarily on activities rather than the entities that conduct them,** and within this policy on the fundamental risk elements in or intrinsic characteristics of those activities. There are a number of reasons for this conclusion, including that: (i) entities will often carry out a number of activities, some of which may have the potential to

17 Shadow Banking: Strengthening Oversight and Regulation: Recommendations of the Financial Stability Board (27 October, 2011), p.3.

create systemic risk, while others may not; an approach that focuses on the entity alone may not distinguish adequately between these different activities; (ii) a number of very different entities may be engaged in the same financial activity (e.g., securities lending), so focusing on types of entity would risk different treatment of the same activity; and (iii) there is a danger that a focus on entities would create incentives for them to mutate to avoid regulation without changing the underlying risk.

This is not to say that entities should be ignored. Any regulation or laws relating to a financial activity will ultimately have to be applied to entities conducting them. Regulators will also need to pay attention to whether there are additional risks from the combination of activities inside a particular entity. It will also be necessary to examine linkages between activities and firms and the rest of the financial system, including the prudentially–regulated banking system, as these linkages may have an important bearing on the risks. These issues are examined in Section 3.

II. **Policy should be forward-looking and adaptive,** guiding a rational response to new types of activities and risks that will emerge in future, including in emerging markets. The IIF agrees with the FSB that it should position itself so as to be able "to capture important innovations and mutations in the financial system."[18] In doing so, regulators should be alert to the ways in which activities will evolve not just in response to innovation or market conditions, but crucially in response to regulation. Case Study 5 on trust companies in China below gives a very strong example of this.

III. **Policy should be premised on effective macroprudential oversight and analysis.** Such an approach must be based on adequate data that enables regulators and policy makers to get a comprehensive view of the emergence and build–up of risks in the wider financial system.

IV. **Policy should take account of the variety and complexity** of non–bank forms of intermediation and avoid the temptation to adopt a "one–size–fits–all" approach. A case–by–case approach is needed focusing on specific types of transactions or financing structures that raise clear systemic risk concerns. Section 3 suggests a template for such an approach.

V. **Policy should make use of the whole range of tools available to mitigate any potential risks** and, where necessary, act to correct any investor myopia. These tools range from the targeted communication of risks by regulators; adequate disclosure of risks by firms; and effective risk governance to conduct–of–business regulation, prudential regulation, and macroprudential policy. Policy should build on existing regulation and consider which tool is likely to be most effective and proportionate to the risks identified and whether it is consistent with the approach taken to similar activities either within the prudentially–regulated sector or beyond. Further details are provided in Section 3.

VI. Above all, **the design of policy should be internationally consistent and coordinated** in such a way that similar activities posing similar risks in different jurisdictions are addressed in a similar and consistent way.

ACTIVITIES THAT MIGHT BE THOUGHT OF AS "SHADOW BANKING"

As noted in Section 1, activities that have come to be known as "**shadow banking**" or might amount to non–bank financial intermediation individually or collectively might, as a first approximation, be taken to include activities that

- "Mimic" or approximate to the core activities of banks to some degree or
- Provide related services or aspects of the necessary infrastructure.

As noted earlier, these activities have the potential to increase systemic risk if they involve maturity transformation, liquidity transformation, imperfect credit risk transfer and for the build–up of leverage.

Examples of activities that could be said to **mimic or approximate to the deposit-taking** functions of banks are operating MMFs, the sale of Commercial Paper, or the pooling of funds by non–bank trust companies. The obligations created in these activities all have some of the characteristics of deposits in terms of ability to redeem and the creation of an expectation – even if unwarranted – of returns at or beyond par. The same may be true of other obligations such as the liabilities of hedge funds, but to a much lesser extent.

18 FSB, ibid.

Activities that could be said to mimic or approximate to the lending functions of banks to some extent could include the provision of loans and other types of short–term lending by non–banks such as finance companies, private lending by asset management companies to corporates, micro–finance in emerging markets, the purchase of instruments from structured investment vehicles (which effectively acts as a direct loan), company–to–company loans, and the purchase of repo. Nevertheless, the degree of this approximation varies enormously both by activity and within individual activities.

Further, there can be activities which, while not mimicking core functions of banks, nevertheless form a critical part of a financial intermediation process in some way. Such services or infrastructure include securities lending, collateral transformation, and the securitization of loans by broker–dealers.

The IIF, agrees, though with Adair Turner's observation that "shadow banking has to be understood as involving both in some cases new forms of non–bank interaction between the financial system and the real economy, and as entailing far more complex links within the financial system itself, including between banks and non–bank institutions."[19]

THE LIMITATIONS OF "SHADOW BANKING" AS A TERM

While the term "shadow banking" can be broadly described as "credit intermediation involving entities and activities outside the regular banking system" as the FSB has done, trying to define it in a sufficiently detailed and precise way for the purposes of regulation or legislation is extremely challenging. A number of attempts have been made to define it or some other term such as "market-based financing" or "non-bank credit intermediation", either in terms of the activities that comprise "shadow banking" or the entities that undertake it.

However, the IIF believes that, irrespective of the term used, attempting to come up with a definitive list of "shadow banking activities" is unworkable for a number of reasons:

i. Creating such a list would imply a "one–size–fits–all" approach to very different activities with diverse characteristics and risks such as monoline insurance, the use of hedge funds, and direct lending to retail borrowers by independent finance companies, and would be overly general or blunt.

ii. While in combination with other activities, an activity might result in a system of non–bank financial intermediation involving maturity and liquidity transformation, credit risk transfer, or the build–up of leverage, on its own it might have only some of these characteristics and thus not present systemic risk.

iii. Whether an activity forms part of a financial intermediation process and creates systemic risk will depend to a large extent on the context within which it takes place. For instance, securities lending can serve both financial intermediation and other market purposes such as generating increased yield. It would be impractical to make a distinction between these uses.

iv. Equally, whether an activity forms part of a financial intermediation process and creates systemic risk will depend on the scale at which it is carried out, which will vary over time. Some activities may present little risk to the financial system if carried out at a low level but may be system–threatening if they grow much larger and if the market relies on them. A hardwired list would not be able to pick up these variations.

v. Given that the premise of the term "shadow banking" as noted is that some activities come close to mimicking one or more of the core functions of banks, any definition or list would need to involve a judgment on just how closely an activity would need to mimic a core function to be classified as "shadow banking". For instance, does a hedge fund have sufficiently deposit–taking characteristics for it to be treated as a "shadow bank" even though, unlike a bank deposit, it might offer no guarantee of any investment being redeemed at or above par and is not redeemable on demand? Where exactly would one draw the line between "shadow banking" and "non–shadow banking", and how would one avoid this line being completely arbitrary? Any line could create incentives for funds to adjust their characteristics so as to move themselves to one side of it.

There are similar difficulties with attempting to list "shadow banking entities" instead. Indeed, using the term "shadow banking" creates an implicit assumption that entities carrying out these activities should be subject to prudential regulation similar to that for

19 Adair Turner Shadow Banking and Financial Instability, Cass Business School (14 March 2012).

banks when this may be neither justified nor the most effective and proportionate option.

There is a way to avoid these difficulties while still mitigating the risks from activities that could play a role in credit intermediation and that could involve maturity and liquidity transformation, the build–up of leverage, and/or imperfect credit risk transfer. The solution is to take an alternative – wider – approach, focusing on non–bank financial activities with the potential to create systemic risk and combining an analysis of the risks from these activities with a macroprudential view of the risks to the system as a whole. By taking this approach, policy makers would inherently include those activities that could play a role in credit intermediation but would also include any non–bank financial activity creating systemic risk in other ways.

Thus, not only is an exclusive focus on "shadow banking" unworkable; it is also unnecessary. Indeed, attempting to come up with a list of activities or entities would represent a diversion from the real focus of policy on the mitigation of risk.

THE LIMITATIONS OF DATA

There are also difficulties and limitations in coming up with consistent data across jurisdictions. The IIF agrees with the FSB October 2011 paper that there would be real advantages to consistent and convergent data collection across jurisdictions and would in principle support the idea of coming up with a single figure for macroprudential purposes. However, even if data were available and were consistently collected across jurisdictions, there would be a problem in coming up with a single global or even national figure for the size of the "shadow banking" system.

First, there is the difficulty of determining the purpose of activities. Linked to the point made earlier, how, for instance, would it be possible to capture data for securitization used for the purpose of non–bank credit intermediation as opposed to that used for other purposes?

Second, even if an entity–based approach were used to generate a figure, would the focus be only on those entities engaged in securities lending that were recognizably "shadow banks", ignoring the cash management operations of, say, insurance companies or corporates?

Given these difficulties, the IIF believes that a single figure, derived from Flow of Funds data or other data, would be at best meaningless and at worst misleading. Indeed, there is no inherent need to have a national or global figure for "shadow banking". What is important is to have data at the right level on the amount of securitization, repo, and so forth, in their own right and as part of a macroprudential overview of risks.

AN ALTERNATIVE APPROACH

As noted earlier, these limitations with definitions and data suggest that an alternative approach is needed, focusing on non–bank financial activities with the potential to create systemic risk regardless of whether they are deemed to be "shadow banking" activities or not and combining an analysis of the risks from the activity with a macroprudential view of the risks from the system as a whole. In Section 3, we suggest a detailed way to do this.

SECTION 3. A POTENTIAL POLICY FRAMEWORK FOR IDENTIFICATION, ANALYSIS, AND EFFECTIVE RISK MITIGATION

Key Messages

Any policy framework should be based on three stages of action: (i) the identification of relevant activities and collection of information; (ii) the assessment of whether such activities could pose systemic risk; and (iii) if risks are identified, the use of risk mitigation tools including regulation.

The IIF agrees with the FSB approach of beginning by casting a wide net for data gathering and surveillance before narrowing the focus to activities that could increase systemic risk or lead to regulatory arbitrage. It is important that macroprudential authorities, regulators, and supervisors have access to high-quality, relevant information to enable them to assess these risks. The industry needs to be open in supplying this information but with a clear understanding that this is not an automatic precursor to new or additional regulation.

This information should be used to assess whether there are new or growing systemic risks. The IIF has developed a template that macroprudential oversight bodies, regulators, and supervisors might use, setting out a series of questions on the nature of the activity; the risks from the activity; and the extent to which these are already being mitigated through disclosure, transparency, and regulation.

Once risks have been identified and assessed, policy makers should make full use of the risk mitigation tools available, including conduct-of-business regulation and, where clearly justified, the use of bank-like prudential regulation, but also including the use of effective communication of risks by regulators, voluntary increased disclosure by firms to the market and regulators, and firm risk governance. While increased prudential requirements on banks connected to such non-bank activities—"indirect regulation"—may sometimes be justified, regulators should avoid trying to create a "Maginot Line" between banks and the non-bank sector, giving the illusion of safety but not addressing the underlying risks in the financial system.

It would be extremely difficult—and arguably impossible—to come up with a precise set of rules for which tool(s) will be most effective in any given case. Instead, policy makers should take a case-by-case approach, based on the assessment of risks and on a rigorous cost-benefit analysis, and be very careful in their precise design and implementation. The key is that policy be proportionate. Policy makers should use the least invasive and distortionary tool that achieves the objective of risk mitigation.

The policy response to emerging sources of systemic risk should be based on three stages of action:

I. The identification of activities that might be judged a priori to be emerging sources of systemic risk and the collection of sufficient information to allow informed judgments to be made about this;

II. The analysis of those activities and an assessment of whether separately, in combination inside entities, and/or in their context in the wider financial system they pose potential systemic risks and the assessment of whether the risks posed by these activities are currently sufficiently controlled or mitigated; and

III. Where risks are identified that are not sufficiently controlled or mitigated, the effective and proportionate application of risk mitigation tools, which may range from monitoring to active prudential regulation.

IDENTIFICATION, DATA COLLECTION, AND MONITORING

The IIF agrees with the FSB approach of beginning by casting the net wide for data gathering and surveillance before narrowing the focus to activities that could increase systemic risk or lead to regulatory arbitrage. Indeed, consistent with the analysis in Section 2, an even wider macroprudential approach should be taken of monitoring all developments in the financial system, irrespective of whether or not they amount to "shadow banking" or not. The FSB approach as currently drafted

risks missing activities that could create systemic risk or where there is regulatory arbitrage. The IIF agrees with the seven principles listed in the FSB's October 2011 paper:

I. Having "an appropriate system–wide oversight framework in place";

II. Identifying and assessing the risks on a continuous basis;

III. Collecting all necessary data and information;

IV. Being flexible and adaptable to capture innovations and mutations in the financial system;

V. Being mindful of regulatory arbitrage;

VI. Taking into account the structure of financial markets and regulatory frameworks within different jurisdictions; and

VII. Ensuring appropriate information exchange across the relevant jurisdictions.

In doing so, it is important that microprudential and macroprudential authorities have access to high–quality, relevant information and that the industry—in the regulated banking sector and beyond—is open in supplying related data. It is in the industry's own best interest to alert authorities to emerging risk. There should be a clear and stated understanding, though, that specific ad hoc data requests will be issued only where there is a reasonable a priori case for judging that there may be a source of systemic risk and that its collection is not an automatic precursor to regulation.

Regulators and supervisors should ensure that information is gathered in the most efficient manner possible and communicated to other macroprudential authorities and national regulators. The creation of a global Legal Entity Identifier (LEI) would be a welcome contribution to this effort, and the IIF welcome the FSB's work here.

Regulators and supervisors should engage in regular discussions nationally and internationally with industry, in the regulated banking sector, and beyond. Banks and other service providers have a vested interest from a sound risk governance perspective and from a competitive perspective in alerting regulators and supervisors to new activities or developments that could pose risks, and providing relevant information on these, and indeed they have a duty to do so.

ANALYZING AND ASSESSING NON-BANK FINANCIAL ACTIVITIES: A POSSIBLE TEMPLATE

It is important to use this information effectively to assess whether there are new or growing systemic risks. While the October 2011 FSB paper proposed "narrowing down the focus to credit intermediation activities that pose systemic risks and/or arbitrage that undermine the effectiveness of financial regulation" and that authorities should focus on four key risk factors—maturity transformation, liquidity transformation, credit risk transfer, and leverage—the IIF believes that there would be benefit in taking a more nuanced approach, focused on examining a wider range of individual activities.

With this in mind, the Institute has developed a draft template designed as a "filter" to enable regulators and supervisors to identify those activities that might create systemic risk. The template is set out below (see Figure 1), together with a diagram showing how such a framework might be used. In Section 4, the paper sets out the results of six case studies designed to show how this framework would work in practice.

In analyzing activities, though, it is important to define them tightly rather than in a general sense, such as "carrying out securitization." Policy makers need to look closely at the constituent activities and chains of activities contained in such broad descriptions and their attendant risks.

It is also essential that this analysis is integrated with a wider macroprudential analysis of risks to the economy and the interconnections between activities. In the lead up to the crisis, there was no systematic and integrated assessment of these interconnections.

The IIF agrees that "the system can for a period of time appear to promise combinations of lower risk, higher return, and greater liquidity that cannot objectively in the longer term be sustained."[20] Macroprudential oversight bodies need to be alert to this and ready to act to deflate such expectations.

20 Adair Turner, ibid.

Figure 1. Outline template for assessment of non-bank financial activities

What is the activity? How does it work, and how extensive is it?	1. Nature of the activity • What is the activity? • Who engages in it? • What services does it provide and to whom?	• What potential benefits does it provide to the financial system? • What potential benefits does it provide to the wider economy?
	2. Generic characteristics of the activity To what extent does the activity involve • The use of leverage by the providing entity • The use of maturity transformation by the providing entity • The use of credit transfer by the providing entity • The facilitation of one or more of the above in "receiving" entities	• The facilitation of credit transfer by other entities • The use of collateral by the providing entity • The provision of "deposit-like" facilities to customers • The provision of services or products whose failure can have a material impact on other entities' (regulated or unregulated) risk profiles
	3. Scale of the activity • Are there any estimates of the current scale of the activity and how this has evolved?	• Who currently collects hard data on it?
What are the intrinsic risks associated with it?	4. Risks posed by the activity • What would characterize a "failure" in this activity and how does it happen? • Who would be affected by such a failure, and what detriment would ensue?	• Could failure have a detrimental impact on market infrastructure? Specifically, what scope would there be for such failure to: (a) Erode confidence in the financial system; and/or (b) Create disproportionate or unanticipated exposures elsewhere in the financial system; and/or (c) Undermine the core functions of other participants in the financial system?
The entity context	5 Risks posed by entities undertaking the activity • Are there reasons to believe that the risks associated with the activity may be significantly modified when account is taken of the entities in which it is typically carried out?	
The broader financial system context	6 Risks posed by linkages with the rest of the financial system • In what ways and to what extent does the activity involve interaction with the rest of the financial system? o With regulated entities o With unregulated entities o With retail customers • Are potentially system-wide risks created by the number of entities engaging in the activity concerned?	• Are there particular interconnections or interdependencies created or intensified by the activity? • In general, are there reasons to believe that the risks associated with the activity may be significantly modified when account is taken of the linkages with the rest of the financial system?
How good is disclosure?	7 Disclosure and transparency • Is there adequate transparency to allow market participants and regulators to assess the risks associated with the activity and where these reside?	• Are disclosures generally adequate to encourage market discipline in the use of the activity/product?
How, if all, is the activity currently regulated?	8 Regulation and other risk mitigation • What does the entity carrying out the activity do to mitigate the risks from it? Can this be relied upon, subject to effective supervision? • Is the activity currently regulated? • Is the activity subject to direct regulation? If so, is this principally: o Prudential regulation-which seeks to ensure that the entity undertaking the activity has adequate controls and financial resources to protect it against failure; or o Conduct-of-business regulation-which seeks to ensure that the entity undertaking the activity does not engage in conduct detrimental to markets, counterparties or customers?	• Are the activities involved specifically reflected in the regulation of counterparties (indirect regulation)? o Is it, for example, reflected in counterparty risk management, capital, liquidity, or concentration rules for regulated entities? o If the activities are subject to direct or indirect regulation, does this take account of any potentially systemic dimensions of the activity? • Are there other forms of risk mitigation that the entity carrying out the activity has put in place or that the industry has put in place?

DO WE UNDERSTAND THE ACTIVITY? Q1 & 2
DO WE HAVE THE DATA WE NEED? Q3
NO
GET THE DATA AND OTHER INFORMATION
YES
AFTER ALLOWING TIME FOR ACTIONS TO TAKE EFFECT AND MONITORING THEM, REVIEW WHETHER ACTIONS HAVE WORKED
DOES THE ACTIVITY POSE SYSTEMIC RISK? Q4
ARE THE RISKS MODIFIED BY THE ENTITY THAT CARRIES IT OUT? Q5
ARE THE RISKS MODIFIED WHEN ACCOUNT IS TAKEN OF THE LINKAGES WITH THE REST OF THE FINANCIAL SYSTEM? Q6
IS THERE ADEQUATE DISCLOSURE AND TRANSPARENCY? Q7
IS THIS SUFFICIENT TO ALLOW RISKS TO BE ADEQUATELY ADDRESSED? Q7
NO
IMPROVE DISCLOSURE
YES
SEEK MEASURED POLICY RESPONSE
IS THE ACTIVITY CURRENTLY REGULATED? Q8
IS CURRENT REGULATION EQUAL TO THE RISK? Q8
NO
YES
NO SYSTEMIC RISKS IDENTIFIED AT THIS STAGE. CARRY OUT CONTINUED MONITORING. ASSESS REGULARLY OR IN THE LIGHT OF MATERIAL CHANGES TO THE SCALE OR NATURE OF THE ACTIVITY TO SEE WHETHER THIS CONCLUSION IS STILL JUSTIFIED

USING EFFECTIVE RISK MITIGATION TOOLS

If the above assessment identifies potential sources of systemic risk in a particular activity or combination of activities and if it reveals that regulation is either absent or inadequate to address such risk, an effective and proportionate use of risk mitigation tools will be needed. In tackling risks that emerge system-wide, regulators should attempt to target the activity or interdependency that most exposes the system to risk.

Prudential bank-style regulation is an option here but clearly not the only one, and such an approach may not be the most cost-effective. There are a number of tools that could be used, including the following:

Non-Regulatory Tools

I. Targeted communication of risks to the general public by supervisors;

II. Improved disclosure of risks by firms to investors;

III. Improved firm risk governance either in entities engaged in the activity or in entities connected to it, including regulated banks; and

IV. The creation and adoption of industry-wide standards for entities engaged in the activity outside the prudentially-regulated financial sector or in entities connected to it, including regulated banks.

Conduct-of-Business Tools

V. This approach could involve insisting on effective disclosure; rules on the avoidance of conflicts of interests; rules on the separation of activities within the same firm, where necessary limiting or proscribing the activity altogether; or other forms of conduct-of-business regulation.

Micro- or Macroprudential Regulation Tools

VI. The prudential regulation of non-bank entities consistent with the regulatory approach to banks;

VII. Increased prudential requirements on regulated banks connected to entities engaging in a risky activity (indirect regulation); and

VIII. The use of macroprudential tools.

We explore each of these below and provide guidance on their usage. In addition, irrespective of the choice made, the role of effective supervision should not be overlooked. As the IIF's July 2011 paper Achieving Effective Supervision: An Industry Perspective[21] underlined, regulation alone cannot create a safer financial system, and needs to be partnered with improved industry practices and a strengthened global supervisory system. Supervision goes beyond ensuring compliance with regulations and must provide an effective oversight of the risk management of the firm as a whole, identifying potential risks and problems at an early stage and giving management a valuable alternative perspective on what is going on in the company.

The use of **targeted public communication of risks** by regulators and/or supervisors can be an effective and immediate way to mitigate them at an early stage. By disclosing relevant information together with an explanation of concerns, regulators can encourage the industry to put safeguards in place, limit or cease certain activities, or better price risks. Nevertheless, regulators should be careful in the form of their communications to avoid stoking unwarranted concerns among the public, thus stigmatizing potentially useful financial products. Market participants need to be confident in the quality of the analysis and judgment that is used to support such communications.

Adequate **disclosure** of risks and other information is essential in any circumstances. Where disclosure is not adequate, it must be stepped up. In the case of all investment products, for example, investors should have a clear understanding of what they are being sold, the risks, and the potential downsides. As noted below in the discussion of conduct-of-business regulation, where firms are already subject to regulation, regulators can insist on disclosure being made more prominent, clear, and relevant. Where they are not, voluntary arrangements may have a valuable role to play, at least as a first step. As with data collection, increased disclosure should not be an automatic precursor to regulation. On this basis, the industry should be ready to increase disclosure.

In cases in which firms are already subject to supervision or regulation, there may be a need for them to strengthen their **risk management and governance** in ways that allow them better to contain risks. Supervisors can insist on firms doing this and verify that they put in place more effective systems and management. The November 2011 FSB Progress Report on the Intensity and Effectiveness of SIFI Supervision[22] goes into more detail on this approach. For example, had regulated banks had stronger risk management

21 Institute of International Finance (IIF) Report, Achieving Effective Supervision: An Industry Perspective (July 2011).
22 FSB Progress Report on the Intensity and Effectiveness of SIFI Supervision (November 2011).

processes in place to monitor and mitigate their exposures to off–balance–sheet vehicles, the crisis might not have developed in quite the way it did. Had managers of institutional cash pools conducted more effective assessments of the risks of a collapse of the repo or securities lending markets and adjusted the haircuts or margin that they were prepared to accept at an earlier stage, much of the damage could have been averted.

The development of **industry-wide standards and agreements** may have a role to play, particularly in the case of entities that are not subject to regulation, subject to effective verification by supervisors that these are being complied with.

Going beyond these approaches, there may be a case for the use or increase of **conduct-of-business regulation** focused on the activity. This regulatory option could vary from requiring investors to be given timely, accurate, and effective information on the nature of the product or instrument that they are investing in, such that they are aware of potential risks, to the avoidance of conflicts of interests and the separation of activities within the same firm, to, at the other extreme, limiting or proscribing the activity altogether. The intensity of this regulation can be adjusted (i.e., by increasing mandatory reporting requirements or disclosure).

If regulators are still concerned about the risks, where the systemic risk assessment identified particular risks from certain aspects of the activity rather than the activity itself as a whole, there may be a case for regulators insisting on the alteration of certain limited aspects of the activity or how it is conducted, or of certain limited aspects of the infrastructure supporting the activity, as a condition for allowing it to take place. In all this, effective supervision has a major role to play.

If a strong case can be made that such measures are unlikely to be fully effective in mitigating potential systemic risks, **prudential regulation** should be considered. There are two main routes for this: direct and indirect regulation.

Where the assessment indicates risks from the entity carrying out an activity that would not be effectively mitigated by action focused on that activity or where other measures have failed, **direct regulation** may be justified. Nevertheless, this should not be an automatic response to any new market innovations outside the regulated banking sector. Neither should it be assumed that it is intrinsically preferable to, or more effective than, other tools for risk mitigation. It should be introduced only once regulators have sufficient information and analysis to satisfy themselves that it is indeed the most balanced and cost–effective approach.

There may be occasions in which increased prudential requirements on regulated entities connected to entities engaging in a risky activity—**indirect regulation—**will be the most effective option, as has been done, for instance, on rules on risk retention in securitization. This regulation may be effective in cases in which there is a clear or perceived linkage between the bank and the entity engaged in the activity and in which the bank provides either a "guarantee" or is involved in the selection of the assets underlying the securitization.

While indirect regulation may sometimes be the most appropriate response, there are limitations to such an approach. In some cases, because of its indirect nature, it may be less effective than direct regulation in addressing the inherent risks embodied in the activity. This may be compounded by the fact that imposing additional indirect regulation will have cost/competitiveness implications, putting further pressure on banks' business models. Further regulation on the already regulated sector may, other things equal, actually increase the incentives for the non–bank sector to develop.

Policy makers should therefore be extremely careful in considering whether to use indirect regulation. Otherwise, it risks becoming a "Maginot Line" between banks and the non–bank sector, giving the illusion of safety but without addressing the underlying risks.

Alongside addressing the risks from activities, and as Question 6 of the above template suggests, regulators will need to be attentive to system–wide risks and interconnectedness, together with any potential procyclicality that these might lead to. While good risk governance in firms and indirect regulation may mitigate these to some degree, regulators and supervisors should pay close attention to the potential of **macroprudential tools**, which if properly designed, can be highly effective in tackling system–wide risks.

Nevertheless, in designing such macroprudential tools, policy makers need to be aware of the need to target them effectively and to avoid unintended or perverse consequences just as much as they would when designing prudential or conduct–of–business requirements.

One potential macroprudential tool that has been suggested, for instance, is the use of minimum initial margins or haircuts to dampen the procyclicality of secured finance markets such as repo. The principle that haircuts should remain broadly risk based while also being calculated on a basis that makes them less procyclical is sound. However, in practice, devising a formula for the setting of such haircuts is likely to

be extremely difficult because of the need to strike the right balance between ensuring that capital held against the risk is appropriately reflective of the risk in a downturn without requiring that the worst–case scenario is assumed at each turn and the need to ensure consistency with approaches adopted toward the banking sector.

While many forms of financial innovation bring clear benefits and should be encouraged, there will inevitably be cases in which the regulator judges that any such benefit is more than outweighed by the costs and risks. In extreme cases, the regulator and/or supervisor should be ready to ban the activity or parts of it.

DECIDING HOW TO USE THE TOOLS

These tools will have different implications and effects, depending on whether or not the entity that carries out the activity is already regulated, and if so, whether it is subject to conduct–of–business or prudential regulation. Table 1 shows how the application and effectiveness of tools might differ.

It would be extremely difficult—and arguably impossible—to come up with a precise set of rules for which tools will be most effective in any given case. Instead, policy makers should take a case–by–case approach, based on the assessment of risks made using the above template and on a rigorous cost–benefit analysis. The right answer is not a blunt rule that damages good and bad forms of innovation, but instead designing a framework and tools dynamic enough to

Table 1. The Application and Effectiveness of Tools

		Largely Unregulated Activities	Activities Subject To Conduct–Of–Business Regulation	Activities/ Entities Subject To Prudential Regulation
Non-Regulatory Solutions	Increased disclosure and monitoring of activities.	Encourage.	Require as part of regulation/ supervision.	Require as part of regulation/ supervision.
	Enhanced risk management.	Encourage.	Encourage	Require and/or make a focus of enhanced supervisions.
	Industry–wide standards.	Yes, but verify.	Yes and supervise.	Yes and supervise.
	Targeted public communication of risks.	Yes.	Yes	Yes.
Conduct–of–Business Solutions	Make subject to conduct–of–business requirements. If necessary, require intensification or alteration of certain aspects.	If justified—scope and nature subject to cost–benefit analysis.	Yes	Yes, subject to coordination with prudential regulators and supervisors.
Microprudential Solutions	Make subject to prudential regulation.	If justified and after carrying out rigorous cost–benefit analysis.		(Already subject. Requirements could be increased.)
	Closer regulation of interactions with other entities.	If justified and likely to be most effective solution.		
Macroprudential Solutions	Application of measures to activities.	E.g., margin requirements that apply to all market participants.		
	Application of prudential measures to entities (e.g., additional capital buffers).	Tantamount to making subject to prudential regulation (but with macroprudential not microprudential tools).		Yes.

incentivize good forms of innovation and penalize bad ones.

In making the broad choice of risk mitigation tools, policy makers should ask themselves the following:

- Where does the risk assessment in Questions 4–6 of the template indicate that the systemic risk primarily resides? Is it in the activity, the combination of activities inside the entity, or in the system as a whole?
- What were the answers to Questions 7 and 8 on disclosure, transparency, and existing regulation? Are disclosure and transparent sufficient? Have other regulatory solutions been tried? How effective have they been?
- How severe is the risk?
- How have other national policy makers and regulators addressed similar risks from similar activities, including in the prudentially–regulated sector?

Where possible, policy makers should initially opt for the approach that is least likely to distort markets and undermine benefits and thus allow less burdensome and market–based solutions to be tested first, and having monitored the effects of this approach and only where it has demonstrably not succeeded or is clearly unlikely to succeed, proceed to more aggressive approaches such as (more) regulation. Table 2 shows a tentative typology for how they might do this.

Nevertheless, the choice of policy response should always depend on its effectiveness and not the seriousness of the problem. So, if it could be demonstrated that even where there was a severe concern, non–regulatory tools would be more or as effective as regulatory tools, it would be more sensible to use them on the grounds that they would be less likely to distort markets and undermine benefits.

Table 2. Use of Risk Mitigation Tools

Degree of Systemic Risk	Activity	Entity	System
Low	• Warn industry informally of concerns. • Informally call for greater disclosure both to investors and supervisors. • Tell regulated entities to increase risk governance. • Promote industry standards.		
Moderate	• Communicate concerns publicly. • Increase supervision of regulated entities engaged in activity or connected to entities engaged in activity.	• Communicate concerns publicly. • Increase supervision of regulated entities connected to entity.	• Communicate concerns publicly. • Increase supervision of regulated entities.
Growing	• Consider altering certain parts of the activity. • Make activity subject to some conduct–of–business requirements—disclosure to investors, registration and reporting requirements etc. • Increase supervision of regulated entities engaged in activity or connected to entities engaged in activity still further.	• Increase supervision of regulated entities connected to entity. • Consider the use of prudential supervision.	• Increase supervision of regulated entities. • Make limited use of macroprudential tools.
Elevated	• Increase supervision and regulation. • Give serious consideration to the use of prudential supervision.		• Increase supervision of regulated entities. • Make increased use of macroprudential tools.
High	• Make any entity engaged in activity subject to prudential supervision. • Give consideration to the use of indirect regulation on prudentially–regulated entities.		• Increase use and severity of macroprudential tools.
Severe	• Increase capital and other requirements, intervene, or ban activity.		

Once the decision has been taken on the choice of tools, policy makers should be careful on their precise design and implementation. The IIF agrees with the principles listed in the October 2011 FSB Report:

I. Focus: Regulatory measures should be carefully designed to target the externalities and risks the shadow-banking system creates.

II. Proportionality: Regulatory measures should be proportionate to the risks shadow banking poses to the financial system.

III. Forward-looking and adaptable: Regulatory measures should be forward looking and adaptable to emerging risks.

IV. Effectiveness: Regulatory measures should be designed and implemented in an effective manner, balancing the need for international consistency to address common risks and to avoid creating cross-border arbitrage opportunities against the need to take due account of differences between regulatory structures and systems across jurisdictions.

V. Assessment and review: Regulators should regularly assess the effectiveness of their regulatory measures after implementation and make adjustments to improve them as necessary in the light of experience.[23]

This approach, though, should apply to the design and implementation of risk mitigation tools as a whole and for both the non–bank and regulated banking system.

Further, in designing and implementing them, there needs to be close coordination among macroprudential authorities, micro–prudential regulators and conduct–of–business regulators to avoid policy confusion, or the unnecessary layering over of one form of regulation over another.

In line with Principle IV, national policy makers should consult with the FSB and policy makers in other jurisdictions to ensure international consistency or, at the very least, the absence of conflicts. Fragmented international regulation could jeopardize the effectiveness of the whole approach.

Policy should also be designed so as to be consistent with the treatment of similar activities or entities, including those subject to prudential regulation. This implies carefully considering the impact of potential measures, including whether they will lead to regulatory arbitrage and whether they will simply displace risk from one part of the financial system to another. They should consider the cumulative impact on the financial system and wider economy and policy should be balanced against the risk control benefits by using a cost–benefit or impact analysis.

However, above all, and linking analysis, design, and implementation, the key to effective policy is that it be proportionate. Policy makers should use the least invasive and distortionary tool that still achieves the objective of risk mitigation. That is the way to preserve the benefits to investors, borrowers, and the wider economy.

23 Shadow Banking: Strengthening Oversight and Regulation: Recommendations of the Financial Stability Board (27 October, 2011).

SECTION 4. IMPLEMENTING THE POSSIBLE POLICY FRAMEWORK: CASE STUDIES

Key Messages

As a way to demonstrate the potential value of the framework proposed in Section 3, illustrating how it would work in practice, and testing it out against real-world examples, the Shadow Banking Advisory Group explored how the framework could be applied in six cases.

The choice of these case studies should not be taken to suggest that the IIF sees these activities as "shadow banking". Indeed, what the studies underline is that policy makers would be much better advised to focus on non-bank financial activities and assess whether they present systemic risk rather than trying to decide whether the activities should attract the label "shadow banking".

The case studies demonstrate the wide variety of non-bank financial activities. They underline that non-bank financial activities often – indeed usually – emerge for sensible and practical reasons but can also emerge as a direct response to regulation.

Some—but not all—cases show that, without proper risk mitigation, there is a potential for systemic risk. Nevertheless, in all six cases, since the financial crisis, there have been changes to regulation, risk governance, and disclosure designed to address weaknesses revealed by the crisis or by earlier problems. While these studies are not exhaustive, they do show that a considerable number of measures have already been taken in this area.

The studies demonstrate, though, that policy makers and industry need to keep monitoring the situation and assessing the risks, including from the size of the market as a whole.

The IIF believes that the policy framework outlined in Section 3 could be effective and if adopted internationally, avoid many of the pitfalls in this difficult area.

As a way of demonstrating its benefits, illustrating how it would work in practice, and testing it out against real world examples, the Shadow Banking Advisory Group explored how its proposed policy framework could be applied in six cases.

The cases were selected with a view to covering both a wide range of activities in this area and also to testing the global applicability of the approach in both developed and emerging markets. In line with the IIF's rejection of the attempt to produce lists of "shadow banking" entities or activities, and given the many non–bank financial activities, the IIF opted for a representative sample. For each case, there is an explanation above the summary of why it was chosen.

Further, the IIF would not claim that the individual studies represent a full application of the framework. Any assessment by regulators of a particular activity would have to go into considerably more detail and be considerably more exhaustive. Nevertheless, the Group felt that even in the relatively condensed versions set out in the Annex, the cases shed useful light on the different nature of activities and potential risks involved. The Group will indeed rely on the framework in developing its responses to any detailed national, regional or international initiatives on non–bank financial activities including "shadow banking".

The choice of these studies should not be taken to suggest that the IIF sees these activities as "shadow banking", which, as Section 2 has shown, has severe limitations as a practical concept. Indeed, what the studies underline is that policy makers would be much better advised to focus on non–bank financial activities and assess whether they present systemic risk rather than try to attach particular labels to them.

The six cases are

I. MMFs in the United States,

II. European residential mortgage–backed securities (RMBS),

III. Repo markets,

IV. Securities lending,

V. Chinese trust companies, and

VI. Sofoles in Mexico;

The full studies are annexed to this paper but are summarized below.

Box 3. Investment Funds

Even though investment funds have not been explicitly identified so far in the FSB's work on "shadow banking", in some analyses, most notably the recent European Commission Green Paper "Investment Funds, including Exchange Traded Funds (ETFs) that provide credit or are leveraged" have been included under this label.

Further, two 2011 analyses by the FSB and European Securities Markets Authority (ESMA) considered the possible risks posed by ETFs in particular. The FSB argued that "While ETFs bring a number of benefits to investors and market participants, including cost efficiency, diversification and easier access to specific asset classes or risk exposures, they may also generate new types of risks, linked to the complexity and relative opacity of the newest breed of ETFs."[24]

Even where the focus has been on ETFs, though, the issues raised are ones that generally exist in the entire investment funds industry rather than specifically ETFs. As noted in Section 1, there have been concerns about other types of investment funds, most notably MMFs.

Given the centrality of MMFs in the "shadow banking" debate, the Shadow Banking Advisory Group felt that there was a need to examine them but concluded that for the purposes of the paper there was no need for a case study on investment funds beyond MMFs.

As Section 2 notes, while MMFs could be said to mimic or approximate the deposit-taking functions of funds to a certain extent, most others do so to a much lesser extent. Most investment funds do very little that mimics what a bank does. Investment funds do not take deposits, or have a significant connection with the payment system. Most extensions of credit take place in the form of purchasing fixed income securities.

Secondly, there is little to suggest that investment funds in general can create systemic risk or ETFs as a subset, despite the attention that they have received. ETF assets account for approximately only 9% of global investment fund assets. In Europe, ETFs account for less than 3% of such assets.

We agree with the FSB in pointing out the potential counterparty risks from ETFs. Nevertheless, these features exist in several other investment funds and are effectively mitigated through over-collateralizing the risk, marking the collateral to market on a daily basis, and disclosing the nature of the collateral held by reference to its credit rating. Effective risk management, disclosure, and transparency are the most effective mitigant here.

Equally, while the FSB was right to draw attention to the risks from securities lending, these are not unique to investment funds. Case Study 4 details how these risks can be effectively mitigated.

Further, investment funds are already subject to high standards of regulation. Within the EU, most investment funds are compliant with the Undertakings for Collective Investment in Transferable Securities (UCITS) Directive setting minimum standards around diversification, transparency, marketing, and fund governance. Publicly held investment funds in the U.S. are registered with the SEC and must comply with its applicable rules. In addition, commodity-based ETFs that invest in commodity futures are regulated by the Commodity Futures Trading Commission (CFTC). Funds also have transparency obligations, as evidenced by prospectuses, semi-annual and annual reports, as well as the publication of net asset values. It should also be noted that fund regulations are continually being reviewed and updated. For example, the EU's Alternative Investment Fund Managers Directive (AIFMD) will cover all non-UCITS funds in Europe, and expected revisions to UCITS provisions will also affect investment funds. The SEC also regularly updates rules related to funds, as noted in the MMFs Case Study.

Interlinkages between investment funds and the rest of the financial system do not seem to be sources of systemic risk. Unlike the controversy surrounding SIVs and MMFs, there is very little evidence of sponsor support for investment funds, as the risks are clearly viewed as being those of the investor. In addition, credit extension by banks to funds is subject to supervisory oversight as well as to Basel risk weights, and is treated like any other credit exposure. Further, market–making activities in funds (including the ETF creation and redemption process via Authorized Participants) is similar to any other market–making activity in listed securities, and prudential oversight of market makers in general covers this activity.

As such, Investment Funds seem unlikely to pose systemic risk to the financial system in the near future. Nor do they seem to amount to "shadow banking". Indeed they provide an example of why this label is unhelpful in analyzing risks to the financial system.

Of course, regulators must be vigilant and continue to monitor developing trends in these markets. In this regard, the work of the FSB, ESMA and the Senior Supervisors' Group in 2011 was an excellent example. If regulators become concerned about increasing risks in this area, the template will put them in a strong position to analyze these risks.

24 FSB Potential Financial Stability issues arising from recent trends in Exchange-Traded Funds (ETFs) (12 April, 2011).

CASE STUDY 1. MONEY MARKET FUNDS IN THE UNITED STATES

The issue of MMFs has featured centrally in the discussion on shadow banking" The International Organization of Securities Commissions (IOSCO) has recently launched a consultation on possible systemic risk from MMFs, their role in the financial crisis, and possible policy options for mitigating risks. The IIF therefore felt that it would be useful to examine MMFs. Given differences in characteristics of MMFs and regulation between jurisdictions, the case study focused on MMFs in the U.S. rather than as a whole.

MMFs in the U.S. are open–ended mutual funds that invest in high–quality short–term debt–such as U.S. Treasury securities, commercial paper, certificates of deposit, and repo. They aim to maintain a stable net asset value (NAV) of $1 per share and are redeemable on demand.

MMFs are bought by a wide variety of investors and gained widespread popularity because of their ease of use and conservative approach, including safety, liquidity, and simplicity. In normal economic circumstances, they offer a safe non–bank deposit alternative with slightly higher yields for those looking to invest funds on a short–term and relatively liquid basis.

In theory, all the credit risk is passed on to investors. However, in practice, the reputational risk from falling below the $1 NAV – known as "breaking the buck" – created an incentive for sponsors of MMFs to intervene to support them even when located in legally separate structures and absent any formal requirement to do so.

It has been suggested that MMFs have the potential to contribute to disruptions to the financial system and the wider economy, citing losses triggered during the financial crisis. Given their limited capital cushions, MMFs can be vulnerable to large external shocks such as a credit downgrade of the fund, a rapid increase in interest rates, or the default of a large debtor. This vulnerability was shown in September 2008 when Lehman Brothers declared bankruptcy, dramatically affecting the market values of the commercial paper held by the MMFs.

An actual or prospective breaking of the buck can lead to a loss of investor confidence in other MMFs, resulting in large–scale redemptions. Faced with this possibility, other MMFs may be forced to sell assets at reduced prices to meet the volume of redemptions. Redemptions can reduce funding to MMFs, resulting in liquidity crunches leading to further market stress. They are also likely to reduce funding to the repo, Asset–Backed Commercial Paper, and Commercial Paper markets. This reduction can cause disruptions to these markets, creating a sudden liquidity shortage for financial institutions dependent on the rolling over of short–term debt. This disruption can, in turn, lead to further liquidity stresses in those institutions or associated entities such as conduits or Structured Investment Vehicles, leading to further stress throughout the chain of credit intermediation.

MMFs have come to play a central role in the financial system. In the lead–up to the financial crisis, institutional cash managers and other investors relied on MMFs to place easily redeemable funds, and borrowers relied on them as a source of short–term liquidity. This reliance, when combined with a market shock, that may cause systemic risk.

Even before the crisis, there was substantial disclosure to investors and reporting to regulators. MMF prospectuses explain how funds are established, their investment strategies, and risks and rewards attributable to investors and make it clear that MMFs are not bank deposits and are not guaranteed by the Federal Deposit Insurance Corporation or any other government agency.

In the light of the crisis, rule changes now require MMF managers to increase the level and clarity of disclosure to investors and their warnings of the potential risks to enable investors and regulators to assess the associated risks. In addition, MMFs themselves have made redoubled their efforts to ensure that investors are aware of potential risks and know that they are not dealing with bank deposits.

While there is a legitimate question as to whether potential risks have been sufficiently mitigated or whether further regulatory measures are needed, given the extent of the recent regulatory changes, it may be more sensible to see first how they perform. At the very least, the evidence from the way in which MMFs have so far navigated the European sovereign debt crisis suggests that there is no imminent danger and at most that the reforms have been effective.

The financial crisis has also demonstrated the close links that exist between MMFs and other parts of the financial system. This issue may require further consideration, with the goal of mitigating potential systemic risk.

CASE STUDY 2. EUROPEAN RESIDENTIAL MORTGAGE-BACKED SECURITIES

Rather than covering securitization in general, the IIF felt that it would be useful to examine at a specific type of securitization in a specific geographical area. The case study thus illustrates that the aim and practice of securitization can, and has, differed widely across jurisdictions, sectors, and financial institutions. These differences will have an impact on whether systemic risk will be created.

RMBS are a type of asset–backed security that represents a claim on the cash flows from residential mortgage loans through securitization. Holders of an RMBS receive interest and principal payments that come from the borrowers of the residential debt.

The RMBS comprises a large number of pooled residential mortgages. More than one security is created from the same pool of mortgages. These multiple securities—or tranches of the RMBS structure—have different credit characteristics and typically provide a trickle–down repayment structure to the benefit of investors in the higher–rated securities. The subordinated tranches were either retained by banks on their own balance sheets or sold to funds with high risk appetites. In the case of European RMBS, the funding took place almost exclusively through the issuance of term RMBS with average lives of 1–5 years.

For banks and other mortgage lenders, RMBS originally offered a key means of funding using a much smaller amount of capital. For investors, RMBS offer the ability to tailor risk/return tradeoffs and the desired degree of liquidity—diversification of credit, interest rate, currency, and maturity exposures—allowing them to match their preferences in these areas precisely than would be possible with a conventional array of investment products. For the economy more widely, well–operated RMBS make intermediation of financial flows between savers and investors more efficient (including on a cross–border basis). Assets can be mobilized that would otherwise be quite illiquid, and financing can be made available to home buyers at lower cost than otherwise.

Securitization acquired a poor reputation as a result of bad experiences with the securitization of certain asset classes, and in certain markets, securitization structures amplified the crisis due to the interconnections with the wider financial system. However, the analysis in the case study makes it clear that there are significant variations (i) in the form of securitization and whether or not they effect maturity transformation; (ii) in the bank support attached to it—and consequently the extent to which the implied credit risk transfer is robust; (iii) in the underwriting standards of the underlying loans; and (iv) in the extent of the disclosure and transparency. All of these have a significant impact on the level of risk.

As the Organisation for Economic Cooperation and Development (OECD) has acknowledged, in Europe, securitization acted primarily as a legitimate funding tool, with appropriate engagement by European underwriters and robust underwriting standards. It is notable that default rates in the European RMBS market amounted to only 0.07% of all issues. This suggests that, for European RMBS the risks from the activity, its combination with other activities, and the interconnectedness with the wider system were not systemic.

Nevertheless, even for European RMBS, weaknesses were revealed that needed to be addressed. Since the crisis therefore, there has been a focus by both the industry and regulators to address these while at the same time revitalizing the securitization market. The European Financial Services Roundtable and AFME/ the European Securitisation Forum have been working to restore investor confidence in securitization markets by developing the Prime Collateralised Securitisation initiative.

In addition, many regulatory changes have been designed to reduce the risks from the market, most notably the introduction of risk retention requirements under Article 122a of the E.U. Capital Requirements Directive (CRD II); increases in European Central Bank haircuts applicable to asset–backed securities; due diligence requirements in CRD II and CRD III; and rules on the trading book.

It would be prudent for policy makers to allow these measures to take effect, while being attentive to new risks and developments. Policy makers also need to continue impact assessment of the reforms on the ability of the securitization markets to support credit growth, especially in Europe, where bank deleveraging appears likely to continue for several years.

CASE STUDY 3: REPO MARKETS

As with MMFs, repo is—rightly or wrongly—occupying a central place in the "shadow banking" debate. Repos feature in the FSB consultation on securities lending and repo noted above. Lord Turner in particular has argued that a major feature in the financial crisis was a "run on repo". The IIF therefore felt that it was essential to examine the activity.

A repurchase agreement, or a repo, is the sale of securities with a commitment to buy them back from the purchaser for an agreed–upon price on a designated future date. The subsequent repurchase is known as a

reverse repo. The agreement represents a collateralized loan whereby the securities purchased by the buyer constitute collateral to protect them against the seller failing to meet its repayment obligation.

The current policy discussion should not lose sight of the fact that the activity is central to the effective functioning of financial markets and the wider economy. Repo markets are vital to meeting the financing needs of a range of financial institutions, including banks, broker–dealers, insurance firms, and asset management firms. For investors such as MMFs, hedge funds, insurance companies, and pension funds, repos provide an opportunity to invest cash for a customized period of time on a secured basis. In the United States, the Federal Reserve, through the Federal Open Market Committee, transact in repos to either add to or withdraw from reserves to stabilize interest rates.

Nevertheless, the crisis showed that there are risks connected to the repo market. The use of collateral, while highly desirable, complicates these risks. The issue, though, is how to manage these risks and the special features of the repo market.

Further, regulators need to be much more precise about the nature and scale of those risks. The evidence does not justify the idea that there was a "run on repo" during the crisis and in fact suggests that the effects of changes in haircuts and margins were much smaller and that the role of repo in the crisis as a whole has been overstated.

The problem both with analyzing the repo market and with ensuring that risks are mitigated is that there is not enough centrally collected and consistent data. This needs to be the primary focus of regulators. In addressing this, as Section 3 above argues, it is essential that regulators think carefully about what data would be useful and do not collect additional data for the sake of it and on a basis which itself may affect behavior in unanticipated ways.

There is more that could be done on transparency and disclosure, albeit on an appropriately measured basis which contributes to a genuine improvement in the ability of market participants to make judgments about risk and return.

Even where specific risks have been identified and quantified, regulators need to adopt solutions that really do address those risks and do not create serious unintended consequences.

CASE STUDY 4. SECURITIES LENDING

Securities lending is also occupying a central place in the debate. The FSB workstream on securities lending and repo recently issued an Interim Report on their work, looking at market practice and arguing that there were several financial stability issues.

Securities lending involves a transfer of securities (e.g., shares or bonds) to a third party (the borrower), who will provide the lender with collateral in the form of shares, bonds, or cash. The borrower pays the lender a fee each month for the loan and is contractually obliged to return the securities on demand within the standard market settlement period. The borrower will also pass over to the lender any dividends/interest payments and corporate actions that may arise.

Securities lending is a well–established investment technique generating important incremental revenues for long–term institutional investors, driven by investor demand to hold safe, liquid assets, and in this regard is an important contributor to financial stability. Securities lending improves the reliability of the trade settlement process as institutions' ability to borrow securities helps to reduce settlement failures. This can enhance market liquidity indirectly as it contributes to investor confidence when trading.

Securities lending is already a regulated activity in many respects. It is fully collateralized, marked to market daily, does not use leverage, is largely conducted between prudentially–regulated (banks and broker–dealers) or soon–to–be prudentially–regulated entities (hedge funds), and in these respects does not trigger systemic risk concerns.

Nevertheless, as with repo, the financial crisis showed risks and weaknesses in the functioning of the securities lending market, particularly as regards disclosure and transparency, and particularly from the interconnectedness of the system. In 2008, losses for some securities lending participants led to more widespread counterparty concerns in the securities lending market. This prompted some participants to reduce their activity in the market, some withdrawing entirely, which contributed to the significant fall in securities lending activity by late 2008. This situation has contributed to impaired market liquidity for certain types of securities and exacerbated funding issues for banks and non–financial companies. While in the light of the failure of Lehman Brothers, most beneficial owners were able to liquidate their collateral and replace their lost securities, a few beneficial owners struggled to liquidate their collateral and made losses. Hedge funds that had borrowed securities via Lehman Brothers found it difficult to reclaim the collateral that

they had pledged to Lehman Brothers.

Further, there is currently insufficient publicly–available price data on securities lending, potentially leading to inconsistent pricing methodologies being adopted and potential uncertainty. A lack of transparency in risk exposures and a failure by beneficial owners to appreciate the counterparty and liquidity risks involved in their securities lending programs before the financial crisis also increased the level of risk.

Greater disclosure and transparency to the regulators of securities lending transactions is a key initial step, and this might usefully be accomplished via a trade data repository. As with repo, however, regulators should not overstate the extent of the problem and should consider targeted and effective responses.

CASE STUDY 5. CHINESE TRUST COMPANIES

International discussions on "shadow banking" have been almost exclusively focused on activities or entities in developed markets and have ignored the potential risks in emerging markets. Any global approach on non-bank financial activities must, however, be designed to identify, assess and mitigate risks wherever and whenever they occur. With this in mind, the IIF felt that there would be considerable benefit in examining two types of activity in emerging markets: Trust companies in China in Case Study 5 and Sofoles in Mexico in Case Study 6. Both have important lessons for the wider policy debate. Case Study 5 demonstrates the way in which activities may evolve and grow in response to regulatory changes and the need for regulators to monitor and adapt.

Trust companies in China raise funds from cash–rich companies and High Net Worth Individuals seeking higher returns and investment alternatives to bank deposits, as official deposit rates are subject to an administrative ceiling. Rather than invest them in a wide range of investments, trust companies invest them in specific areas such as infrastructure or real estate. Trust companies are leveraged and have typically shorter term liabilities than assets.

Trust companies vary considerably in how they are structured, where they invest, and whether they carry out additional activities normally associated with more mainstream financial intermediaries such as bond underwriting or acting as trustees for asset–backed securities issuances. Faced with economic pressures and a regulatory squeeze, trust companies have developed alternative products and are constantly evolving.

From 1979 to 2000, trust companies grew massively while regulatory constraint was placed on other players in the financial sector. By the end of 1992, there were 1,000. Government entities used trust companies to invest in key areas of economic development. Some notable bankruptcies occurred during this period because of poor credit assessment and structure of the trusts.

In 2000, the Peoples' Bank of China, the then–regulator of the trust industry, ordered all trust companies to cease businesses and resubmit certification applications. The establishment of the Trust Law in October 2001 significantly reduced the business scope of trust companies. As a result of this and of further regulations introduced between 2001 and 2011, the size of the trust company sector declined considerably, although it has begun to grow again in recent years.

The period from 1998 until now has been characterized by regulators bearing down on particular activities or tightening particular aspects of regulation, only for the trust companies to adapt and mutate, at which point regulators adjust again. What this process demonstrates is the way in which financial activities and agents constantly adapt to regulation and thus the need for any policy response to "shadow banking" to encompass a forward–looking approach.

At the moment, the China trust sector does not seem to pose systemic risk for the following reasons:

- Its relatively insignificant size: total assets under management US$764 billion at the end of 2011 (compared to bank lending of US$ 6.8 trillion);
- Recent conduct–of–business and prudential regulations; and
- Limited spill–over effect if borrowers default and trust companies' own capital is insufficient to cover the loss because shareholders have strong incentives to step in by granting loans to the issuers.

However, regulators should monitor their development and regularly review whether any factors in this assessment have changed.

CASE STUDY 6. SOFOLES IN MEXICO

Mexican Sofoles are predominantly small financial institutions specialized in mortgage intermediation. Their main activity is providing mortgage lending to those of lower–middle income – primarily in the informal sector – who are unable to benefit from government support programs or broader financing alternatives. However, they also provide homebuilders with short–term financing.

Sofoles do not take deposits and until 2008 relied on the issuance of mortgage–backed securities (MBS) to finance the loans. Mexican authorities supported the development of this market in the 2000s, recognizing the difficulties of the regulated mortgage market.

Prior to the financial crisis, Sofoles were unregulated and unsupervised, mainly because they did not receive deposits directly. They benefited from a stop–loss guarantee provided by the federal government on their issuances. Credit rating agencies used this as a sufficient criterion to give their MBS a AAA rating. These applied looser lending standards (higher loan–to–value ratios and lower income requirements than those of banks) for subprime borrowers and applied lower standards in the design and structure of their MBS.

Credit risk was transferred by Sofoles to investors through securitization. However, investors were unaware of the possible outcomes associated with the Sofoles' lending practices or the quality of the collateral in the MBS issuance.

Because Sofoles were focused on lower–middle income households with inadequate risk assessment, partly because of the implicit subsidy element and thus had weak incentives for sound origination and underwriting, their MBS had extremely high non–performing rates.

During the financial crisis, Sofoles were hit hard, leading to a significant increase in defaults. By the end of 2011, the three biggest Sofoles, which provided over 80% of issuances made by these types of institutions, saw non–performing levels in the 30%–45% range.

However, when the global financial crisis hit, the development of Sofoles was still at an early phase, so the impact was more limited than it might have been. Had the Sofoles market been bigger, their impact on the Mexican financial system could have been significant.

If such losses were to happen now, however, losses from Sofoles would have only a small impact on the private sector, because the government guarantee covers up to 35% of total issuance, and the Mexican federal government is the biggest investor.

As the main players in the MBS market at the time of the financial crisis, the collapse of Sofoles was arguably a factor in the freezing of issuing activity for other players, in particular banks. It may also have had a role in coloring perceptions of the Mexican financial sector as a whole.

Sofoles' most recent MBS issuance was in mid–2008. Since 2009, their only source of finance has been a credit line from the federal government to provide them with liquidity to restructure short–term liabilities.

While initial standards of disclosure and transparency were weak, the market and the government have introduced far stronger standards, comparable to those required of banks. The crisis has also led to tighter requirements in terms of reserves, collateral and capital held by issuers.

The Sofoles case illustrates the types of problems that non–bank financial activities may create in emerging markets. Namely, that without the proper incentives, regulation, and transparency, even small institutions could generate major losses for the financial system and society. Regulation efforts have been important and are heading in the right direction, especially because they have resulted from consultations with other market participants. Sofoles themselves are no longer important market participants, but those that have survived are being more closely supervised and subject to higher disclosure standards and regulation.

GENERAL FINDINGS FROM THE STUDIES

While the scope and detail of these studies could be enhanced considerably and while they are far from a comprehensive list, they do demonstrate the benefits of a systematic approach as set out in the template proposed in Section 3, and of the approach that the IIF proposes in this paper of focusing primarily on the underlying activity. Some general findings can be taken from the case studies:

I. **They demonstrate the considerable variety of non-bank financial activities.** Case Study 5, for instance, underlines both the number of different activities that can be undertaken by a single entity in that country and the fact that even under a broad label such as trust companies is a huge variety of entity and activity. Case Study 5 also shows the way in which financial market innovation is constantly leading to new forms of activity and entity and is always evolving. The studies underline the point made in Sections 2 and 3 that a focus on "shadow banking" or some comparable term is likely to be unworkable in practice. Instead, it is much better to focus on the individual activities and assess whether, in the context of the wider financial system, they present systemic risk.

II. They underline that **non-bank financial activities usually emerge for sensible and practical reasons**, most notably the desire to provide investors with new and more effective investment opportunities and borrowers with greater access to funding, and to exploit market

inefficiencies. They also show—for instance in Case Study 5 on Chinese Trust Companies—that activities may emerge as a response to regulation.

III. **Some cases show that without proper risk mitigation, there is a potential for systemic risk.** In some cases such as MMFs and trust companies this has already manifested itself, but in other cases, such as European RMBS and Sofoles, the potential was there, but it did not manifest itself.

IV. Nevertheless, in most of the cases, either before that risk manifested itself or in the light of a crisis, **the industry and regulators have acted to mitigate the risks.** In all cases, there is now regulation and supervision in place, and in all cases both have been introduced or upgraded in recent years. However, in line with the analysis of risk mitigation tools in Section 3 above, there are good grounds for thinking that conduct-of-business regulation or improvements to disclosure can often be required and should be considered ahead of prudential requirements. In all cases, there are disclosure standards, with the industry playing a significant and increasing role in managing its risk and ensuring effective disclosure of risks.

V. The cases demonstrate, though, that **policy makers and industry need to keep monitoring the situation and assessing the risks**, including from the size of the market as a whole. While in all cases, the risks have been reduced, policy makers and industry should remain alert.

CONCLUSION: "SHADOW BANKING": A JOINT RESPONSIBILITY

Non–bank credit intermediation has a potentially valuable role to play that can benefit investors, borrowers, banks, and the wider economy and that complements the traditional banking system. Far from being direct rivals for the same business, regulated banks both welcome the role that such activities can play and indeed rely on them to provide services. Subject to proper safeguards, these activities should be strongly encouraged.

Nevertheless, as the financial crisis has highlighted, unless properly managed, such activities both individually and collectively can pose significant systemic risk to the financial system and wider economy. It is essential that such risk is detected, monitored, assessed, and mitigated on a continuous and adaptive basis.

Policy makers should take a forward–looking approach focusing on individual non–bank activities irrespective of whether they could be classified as "shadow banking" by collecting sufficient data; carrying out an intelligent macroprudential assessment of whether the activities could create systemic risk, either of themselves or as part of an entity or wider system; and where necessary, using tools to mitigate any risks. Such an approach must be adopted and coordinated globally, equally effective in emerging markets as it is in developed ones. The template in Section 3 is a potential way to do this.

The central question, though, is how to carry out this risk mitigation to both preserve the benefits brought by these activities and to not simply displace risk to regulated banks or other parts of the financial system.

THE RESPONSIBILITY OF INDUSTRY

Effective policy and risk mitigation is a responsibility not just of regulators and supervisors but also of the financial services industry. The industry recognizes that it has a key and indispensable role to help mitigate risks throughout the financial system.

I. **Firms have a responsibility to manage their risks effectively.** As the IIF's July 2008 paper Final Report of the IIF Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations[25] argued, firms must have effective risk management in place to monitor and control exposures to the non–bank system. Since then, the IIF has worked with its members to ensure that such risk management is strengthened and that the necessary resources are devoted to the issue. Two June 2011 reports: Implementing Robust Risk Appetite Frameworks to Strengthen Financial Institutions, and Risk IT and Operations: Strengthening Capabilities [26]provide updates on this. The IIF and its members will continue to work hard on this.

II. **Firms have a responsibility to monitor risks from financial activities and alert regulators, supervisors, and macroprudential authorities to any concerns at an early stage.** Following its July 2008 paper, the IIF created a high–level Market Monitoring Group to detect early on the emergence of vulnerable spots. The group is chaired by former Governor of the Banque de France Jacques de Larosière and former Governor of the Bank of Canada David Dodge. It is keen to work with the Senior Supervisors Group (SSG) and other bodies to discuss any new risks at an early stage.

III. Once potential risks have been identified, **firms have a responsibility to provide related data and information** to regulators and supervisors to help them assess the magnitude and nature of those risks. This responsibility is irrespective of whether or not the institution is prudentially–regulated, but must go hand–in–hand with the responsibility of the regulator and supervisor to handle that information sensitively and without an automatic assumption that there will be a move to further regulation.

25 Institute of International Finance (IIF) Report, Final Report of the IIF Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations (July 2008).
26 Institute of International Finance (IIF) Report, Implementing Robust Risk Appetite Frameworks to Strengthen Financial Institutions, and Risk IT and Operations: Strengthening Capabilities (June 2011).

IV. **Firms have a responsibility to engage with regulators on their assessment of the risks** from non–bank financial activities. A good example of this was the discussion in 2011 between the SSG and the industry on the management and disclosure of risks in ETFs.

V. **Firms have a responsibility to work with regulators on the design and use of risk mitigation tools.** As noted in Section 3, non–regulatory tools such as improved disclosure or strengthened internal risk management may be the most proportionate solution, and institutions should be pro–active in volunteering these and ensuring that they work. Where regulatory tools are deemed to be the solution, financial institutions should engage with regulators to ensure that they are designed properly and do not lead to regulatory arbitrage or any other undesirable unintended consequences.

The IIF and its members understand their responsibilities and support such engagement because they recognize that, on their own, regulators and the industry can get only so far in mitigating any risks. The objective of maximizing the potential benefits and efficiencies associated with non–bank activities while effectively monitoring, analyzing, and containing the potential risks should therefore be seen as a common one for policy makers, regulators, and industry and one on which cooperation is essential.

The IIF and its Shadow Banking Advisory Group hope that this paper, the proposed template and the case studies will be seen as a strong sign of its commitment to do this.

ANNEX. CASE STUDIES

CASE STUDY 1. MONEY MARKET FUNDS IN THE UNITED STATES

Questions 1 and 2. Nature and generic characteristics of the activity

MMFs in the United States are open–ended mutual funds that invest in high–quality short–term debt such as U.S. Treasury securities, commercial paper (CP), certificates of deposit, and repo. MMFs aim to maintain a stable net asset value (NAV) of $1 per share and are redeemable on demand.[27]

MMFs are originated and run by dedicated fund managers. They typically exist as legally separate entities within asset management companies; securities companies; and in many cases, banking groups.

MMFs are bought by a wide variety of investors: retail, corporate, government, and institutional, and are required by Rule 2a–7 of the Investment Company Act—see Question 7—to invest in short–term debt that meets requirements relative to credit quality, liquidity, diversification and maturity.

MMFs gained widespread popularity because of their ease of use and conservative approach, including safety, liquidity, and simplicity. In normal economic circumstances, they offer a safe non–bank deposit alternative with slightly higher yields for those looking to invest funds on a short–term and relatively liquid basis. In addition to aiming at a stable NAV, MMFs provide same–day liquidity with no redemption penalties. Assets are fully segregated. They allow investors to diversify risk both away from the banking system and any one issuer and provide a service to investors by assessing, screening, and monitoring the credit quality of a diversified portfolio of individual issuers. Without such a service, many investors— especially retail investors—would effectively be limited to insured bank deposits or U.S. government instruments. MMFs also provide a valuable—and at times essential—source of liquidity to the government bond, CP, asset–backed commercial paper (ABCP), and repo markets.

Figure 1.1 provides a simple representation of the linkages between MMFs and the wider market.

MMFs use little to no leverage, and as noted above, invest directly in high–quality debt—in most cases with a maturity of less than 13 months. Nevertheless, given the ability to redeem on demand, there is still some maturity transformation risk, albeit to a lesser degree than for long–term loans.

In theory, all the credit risk associated with investments is passed on to investors[28]. However in practice, the aim of a constant NAV and the reputational risk from falling below the $1 NAV—known as "breaking the buck"—created an incentive for sponsors of MMFs to intervene to support them even when located in legally separate structures and absent any formal requirement to do so.

It should be noted that MMFs are able to maintain a stable NAV because the difference between the market prices of the high–quality, highly liquid assets they hold, and the value using amortized cost of these assets is small—not because of a guarantee to repay shares at a fixed price or as the result of an accounting trick. In addition, MMFs are required to track the "shadow price" of shares using the market values of underlying securities to ensure that the deviation between the "shadow price" and the amortized cost value is less than US$0.005/share. If the deviation is larger than this, the fund's board of directors will decide how to respond (a fund "breaks the buck" when its NAV is below 99.5 cents/share or above 100.5 cents/share).

Through their purchases of debt from banks and other intermediaries, MMFs can also be a source of leverage and maturity transformation to other market participants. To give two examples:

- The purchase of repo provides the receiving party with cash that it can reinvest and
- The purchase of ABCP enables the short–term funding of long–term assets.

27 Funds that meet the risk–limiting provisions of SEC Rule 2a–7—see Question 8—are allowed to value their securities at amortized cost rather than at market value. This allows the fund to fix a share price at $1, which gives the investor advantages of simple tax reporting and accounting.

28 The use of collateral can create counterparty credit risk given the difference in the maturity of the collateral or the ease of its liquidation and given the ability of the MMF investor to redeem on demand.

Figure 1.1 The Basic Functioning of an MMF in the United States

Question 3. Scale of the activity

Chart 1.1: U.S. Money Market Mutual Fund Shares Outstanding

Source: U.S. Flow of Funds, Federal Reserve

Outstanding shares of U.S. MMFs reached a peak in Q4 2008 of $3.8 trillion, but fell to $2.6 trillion in Q3 2011 (Chart 1.1).

Question 4. Risks posed by the activity

It has been suggested that MMFs have the potential to contribute to disruptions to the financial system and the wider economy, citing losses triggered during the financial crisis. As with most financial products, there are risks inherent in MMFs. The extent of these will depend on the level of regulation and transparency (see Questions 6 and 7).

Given their limited capital cushions, investors in MMFs can be vulnerable to large external shocks such as a credit downgrade, a rapid increase in interest rates, or the default of a large debtor. Whether the fund or the fund sponsor chooses to insulate investors from losses governs the extent to which this vulnerability will be transmitted to the fund itself. This was shown in September 2008 when Lehman Brothers declared bankruptcy. The Reserve Primary Fund held just over 1% of its assets in CP issued by Lehman and, even at this level, was unable to absorb the loss and therefore broke the buck.

An actual or prospective breaking of the buck can lead to a loss of investor confidence in other MMFs, including large-scale redemptions. Faced with this, other MMFs may be forced to sell assets at reduced prices to meet the volume of redemptions. Redemptions can reduce funding to the market, resulting in liquidity crunches leading to further market stress. They are also likely to reduce funding to the repo, ABCP, and CP markets. This can cause disruptions to these markets, creating a sudden liquidity shortage for financial institutions dependent on the rolling over of short-term debt. This can, in turn, lead to further liquidity stresses in those institutions or associated entities such as conduits or structured investment vehicles (SIVs), leading to further stress throughout the chain of credit

intermediation.

In response to the financial crisis, the U.S. Securities and Exchange Commission (SEC) introduced amendments to its rules, placing stricter requirements on the industry (see Sections 6 and 7).

Question 5. Risks posed by entities undertaking the activity

Banks that are sponsors of MMFs may carry the reputational risk of breaking the buck, which could have important consequences as highlighted during the financial crisis in 2008. Although the Reserve Primary Fund–which was not a bank–sponsored fund–was the only MMF to break the buck in this period, concerns regarding other MMFs led some sponsors to support their funds in order to prevent similar outcomes. As noted recently in a speech by Federal Reserve Bank of Boston President Eric Rosengren, this amounted to 47 funds.[29] John D. Hawke, Jr., former U.S. Comptroller of the Currency, points out that this means that 95% of MMFs received no sponsor support and that the Reserve Primary Fund was the only MMF to be redeemed at less than 100 cents on the dollar.[30] Still and in light of this experience, concerns have been raised that sponsors may feel obligated to bail out MMFs, but there is also countervailing pressure from regulators and securities analyst not to provide such support, which may make sponsor support less probable in the future.

Question 6. Risks posed by linkages with the rest of the financial system

MMFs play a central and critical role in the financial system. In the lead–up to the financial crisis, institutional cash managers and other investors relied on MMFs to place easily redeemable funds, and borrowers came increasingly to rely on them as a source of short–term liquidity. It is this reliance when combined with a market shock that may cause systemic risk. For example, during the European debt crisis, European banks' dependence on U.S. lenders through prime MMFs, which invested nearly half of their total[31] assets in European bank placements, was affected as MMFs sought to decrease their exposure. It must be noted, however, that due in part to the amended SEC rules – see below – the industry has so far navigated the Greek debt crisis and the U.S. budget issues in 2011 in spite of the increased redemption requests. Funds avoided creating the threat of runs precisely because they had more than sufficient cash on hand to meet redemption requests.

Question 7. Disclosure and Transparency

MMFs are subject to extensive disclosure and reporting requirements. Prospectuses explain how funds are established, their investment strategies, risks and rewards attributable to investors, and also make clear that MMFs are not bank deposits and are therefore not guaranteed by the Federal Deposit Insurance Corporation or any other government agency. However, the crisis revealed that despite these disclosures, many investors either did not consider or under–estimated the potential risks of a loss of value, with unforeseen consequences.

Since the financial crisis, changes to Rule 2a–7 approved in January 2010 require MMF managers to increase the level and clarity of their disclosure to investors and their warnings of the potential risks involved to enable better and more informed investment decisions. Indeed, MMFs are now also required to disclose portfolio holdings on the fund's Website at least monthly and maintain that disclosure for at least 6 months. They are also required to report to the SEC information on the fund's risk characteristics, yield, portfolio holdings, and mark–to–market ("shadow") NAV. This information is made public after 60 days.

In addition, MMFs themselves have made considerable efforts to ensure that investors are aware of potential risks and know that they are not dealing with bank deposits.

Question 8. Regulation and other risk mitigation

MMFs are regulated in the United States by Rule 2a–7 of the Investment Company Act of1940. The amendments noted in Question 6 came into force in May 2010.

The current rule contains the following main provisions:

- On liquidity, MMFs are required to maintain a daily portfolio liquidity of 10%, a weekly portfolio liquidity of 30%, with illiquid securities limited to 5% of the portfolio at the time of purchase;
- On maturity, individual securities can have a maximum maturity of 397 days, with the weighted average maturity (WAM) not exceeding 60 days, and the weighted average life (WAL) or spread WAM not

29 Eric Rosengren, Money Market Mutual Funds and Financial Stability, Remarks at the Federal Reserve Bank of Atlanta's 2012 Financial Markets Conference.
30 John D. Hawke, Jr., Comments of Federated Investors, Inc. on Financial Stability Oversight Council Rulemaking Proposal "Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies" 12 C.F.R. Part 130 (December 2011).
31 Prime MMFs principally invest in non–government securities, whereas Treasury MMFs exclusively invest in government securities.

exceeding 120 days;

- On credit and diversification, there is a maximum first–tier issuer concentration limit of 5% of portfolio assets and a maximum second–tier issuer concentration limit of 3% of portfolio, limited to 0.5% per issuer with a maturity of up to 45 days;
- Fully collateralized repo agreements can be used only for look–through purposes if comprised of cash items or government securities, with the adviser required to evaluate the creditworthiness of the repo counterparty;
- MMFs are required to have policies and procedures in place to carry out regular stress tests, be able to process redemptions electronically at a NAV of less than $1 per share, have "Know Your Client" procedures in place, be able to suspend redemptions under unusual circumstances, and be able to buy securities from a fund through an affiliate; and
- As noted above, there are also stringent disclosure and reporting requirements.

There are signs that regulators are considering further options, but so far, nothing has been proposed. The industry strongly believes that regulators should wait to see how the measures already implemented perform rather than rushing into a new wave of reform.

Conclusion

The financial crisis has demonstrated that, notwithstanding their benefits, MMFs can be vulnerable to external shocks.

As a result, while MMFs were already extensively regulated before the crisis, further regulatory measures have been introduced that have increased transparency and reduced credit risk and maturity mismatch. While there is a question as to whether potential risks have been sufficiently mitigated or whether further regulatory measures are needed, given the extent of the recent regulatory changes, it may be more sensible to see first how they perform. At the very least, the evidence from the way in which MMFs have successfully navigated the European sovereign debt crisis suggests that there is no imminent danger and at most that the reforms have been effective.

The financial crisis has also demonstrated the close links that exist between MMFs and other parts of the financial system. This is an issue that may require further consideration, with the goal to mitigate potential systemic risk.

Nevertheless, this should be seen in perspective. Despite the events of the financial crisis, over the past 40 years in the U.S., there have been just 2 cases in which an MMF paid out less than 100 cents on the dollar compared to the failure of 3,000 depository institutions.[32]

32 John D. Hawke, Jr., ibid.

CASE STUDY 2. EUROPEAN RESIDENTIAL MORTGAGE-BACKED SECURITIES

Question 1. Nature of the activity

Residential mortgage-backed securities (RMBS) are a type of asset–backed security that represents a claim on the cash flows from residential mortgage loans through securitization. Holders of an RMBS receive interest and principal payments that come ultimately from the borrowers of the residential debt, through structures such as SIVs. The RMBS comprises a large number of pooled residential mortgages.

European RMBS are debt instruments secured by residential mortgages. More than one security is created from the same pool of mortgages. These multiple securities—or tranches of the RMBS structure—have different credit characteristics and typically provide a trickle–down repayment structure to the benefit of investors in the higher–rated securities.

For banks and other mortgage lenders, RMBS originally—pre–2007—offered a key means of funding for the institution in a capital–efficient manner (from a Basel I perspective). If all tranches are sold, they also facilitated the transfer and potential dispersal of credit and duration risk. This transfer allowed risk to be taken by investors with the desire and means to do so rather than being concentrated on the balance sheets of banks. This transfer and the dispersal of risk that was supposed to result from it should have enhanced the resilience of the financial system.

For investors, RMBS offers the ability to tailor risk/return tradeoffs and their desired degree of liquidity —diversification of credit, interest rate, currency, and maturity exposures—allowing them to match their preferences in these areas more precisely than if they were confined to conventional investment opportunities.

For the economy more widely, well operated RMBS make intermediation of financial flows between savers and investors more efficient (including on a cross–border basis). Assets that otherwise be quite illiquid can be mobilized, and financing can be made available to home buyers at lower cost than otherwise.

For RMBS as for other forms of securitization, banks divide the securitized debt into tranches representing different levels of claim on the underlying assets. The subordinated tranches were either retained by the bank on their own balance sheet or sold to investors with higher risk appetites. In certain circumstances, purchased tranches were further bundled into collateralized debt obligations (CDOs), although this was rather rare in European RMBS relative to the size of the market. These highly rated tranches were sold to various investors.

A typical securitization funding of mortgages can take several forms:

- It is typically funded through the issuance of term RMBS bonds with average lives of 1–5 years;
- It may though be funded through the issuance of short–term asset–backed commercial paper (ABCP) of maturities of 7 days or longer (as noted below, this creates significant maturity mismatch); and
- Another option is the creation of asset–backed security collateralized debt obligations (ABS CDOs), pooling and restructuring a number of term RMBS.

In the case of European RMBS, however, the vast majority of the funding took place through term RMBS.

In the majority of securitizations, the bank sells the pool of underlying loans to a special purpose entity (SPE). Credit ratings agencies have treated these as bankruptcy–remote and legally separate from the bank, based on external counsel opinion. The SPE in turn carries out the securitization, using the proceeds to pay the bank the purchase price of the mortgages. The bank may offer credit and liquidity enhancements in addition to the underlying collateral, including contingent liquidity support commitments (typical in ABCP deals) or puts on given credit events, as a way to reassure potential investors.

However, banks have historically retained and/or bought back a portion of securitizations issued and will now be subject to "skin in the game" retention requirements in the major markets (see Question 7).

Question 2. Generic characteristics of the activity

Prior to the crisis, European issuance of RMBS was to an important degree driven by funding needs, in addition to the pressure from capital requirements. Securitization facilitated the build–up of leverage to the extent that banks were able to lend more with the fund from other banks that bought the securitized mortgage debt. Nevertheless, this did not create systemic risk in Europe.

As the New York Federal Reserve has recognized "not all forms of securitization facilitate maturity, credit, and liquidity transformation. ABS performs maturity, credit as well as liquidity transformation, however, term ABS and ABS CDO primarily perform credit and liquidity transformation, but due to their maturity–matched nature, no maturity

transformation."[33]

It follows that whether or not maturity transformation takes place will depend principally on whether the issuer of the RMBS finances it through ABCP or through the use of term ABS.

Since 2007, European banks have created some securitizations (typically RMBS) solely to be used as collateral for liquidity generation via the European Central Bank (ECB) rather than sold in the markets ("retained securitizations"). Many transactions continue to be sold into the markets. Originators in Europe have also been able to use existing eligible securitized products as collateral for Eurosystem or Bank of England credit operations.

Where RMBS are created for the purpose of pledging to the ECB or Bank of England liquidity facility, credit transformation is limited. In most cases, the extent of risk transfer is also dependent on whether or not the bank retains some of the RMBS on its balance sheet. Furthermore, the extent of the risk transfer is also crucially dependent on whether it is accompanied by credit and/or liquidity enhancement provided by the bank and the nature of any such credit and/or liquidity enhancement.

RMBS, like other forms of securitization, does expose investors to the risk of losses if there is are defaults on the underlying loans. The use of tranches of different levels of riskiness allows investors to control their exposure to these losses in theory, hence if securitization works as it is supposed to, the losses to investors are no different in nature from falls in the stock market and no more systemic. However, these losses were sometimes much greater in some asset classes than the investors had expected. In addition, a massive default in the underlying loans can cause large losses to investors, any banks retaining RMBS or providing credit or liquidity support, or, before the crisis, monoline insurance companies agreeing to insure against the risk of default.

As the financial crisis showed, certain asset– or mortgage–backed securities are very transparent, while others, such as ABCP conduits, structured investment vehicles (SIVs), or managed CDOs are more opaque. Data and structure transparency can mean different things to various stakeholders. Detailed information does not guarantee that all the stakeholders understand the risks. For example, many RMBS originators have provided detailed upfront and ongoing information on mortgage pool details and on the performance of the securities after issuance. Other transactions, such as CDOs, which were not used to a significant extent in Europe, in hindsight included such levels of complexity that many investors were unable, from a practical standpoint, to understand sufficient details on not only the underlying collateral but also on the interaction between the various structures included in the CDO. Nevertheless, as the answer to Question 7 shows, the level of transparency has changed significantly since the crisis.

Historically, it has been difficult for investors to evaluate the adequacy of underwriting of the original mortgages or the risk of potential adverse selection problem. Real or perceived lack of understanding increases the price volatility of instruments in times of crisis. Many securitizations of pools of residential mortgages performed very well, particularly with European mortgages as well as certain U.S. asset classes.

Nevertheless, these differences in transparency standards can be mitigated to some degree through additional information and improving the disclosure provided through such conventional sources as information memoranda, rating agency reports, investor presentations, and pool reports (see Question 7 below). Various proposals have been made in the market to enhance the transparency of underlying assets in RMBS pools, to enable investors better to evaluate their risks. As Gary B. Gorton and Andrew Metrick have noted, "While the underlying ... portfolio may contain thousands of individual assets and is by no means simple to evaluate, this portfolio is considerably more transparent than a corresponding bank balance sheet, which may have many such collections of assets and zero disclosure of individual loans."[34]

Question 3. Scale of the activity

Figure 2.1. European securitization issuance 2002–2010, EUR billion

33 Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, & Hayley Boesky, Shadow Banking, Federal Reserve Bank of New York Staff Report No. 458 (July 2010).

34 Gary B. Gorton & Andrew Metrick, Regulating the Shadow Banking System (September 2010).

Source: AFME (Association of Financial Markets in Europe).

Unlike the government sponsored enterprises (GSEs) in the U.S., Europe does not have a quasi–government guarantee system, and thus the growth of RMBS in Europe was more gradual (although the GSEs did not directly impact the growth of non–agency RMBS). European securitization issuance peaked at 625 billion euros in 2008, most of which was RMBS (Figure 2.1). However, this figure is misleading, because the banks retained the vast majority of the securities as a means to access central bank liquidity schemes. After the crisis, the European market for placement with third–party investors of securitized assets (excluding covered bonds) has remained subdued.

Question 4. Risks posed by the activity

Even if RMBS is carried out with adequate transparency to investors, and the risks are diversified across the financial market rather than being concentrated in banks, in the event of an economic shock leading to falling house prices and larger than expected levels of defaults on mortgages, there is still a risk to insurers, investors, and banks holding RMBS.

The primary risk of RMBS is, as with any other credit product, that the borrower—in this case the residential borrower—fails to pay interest and principal on the loan, which will be translated into mark–to–market and actual losses. A major concern with RMBS regarding systemic risk is if a lack of transparency of the quality of the underlying loans leads to an erroneous appreciation of the nature of this primary risk and, therefore, to underpricing of the risk (in other words, leaving the investors exposed to greater risks than they expected). Although the extent to which this could lead to investors losing confidence depends on the severity of its impact, the sudden awareness of the greater–than–expected risks could lose investors' confidence in the RMBS market as a whole and lead to sell–off of RMBS or refusal to buy or roll–over ABCP. In the latter case, this could lead to a freezing of the ABCP market and disruption to short–term funding markets. At the level of the individual investor, it will also depend on the tranche held and thus the level of certainty of continued payments.

However, in Europe as an OECD study has suggested,

> It was never really a credit story for the European securitization market but one of investors taking mark-to-market losses as securitization markets became illiquid and prices fell. A survey conducted by Bishopsfield Capital Partners in June 2010 revealed that 73% of investors believed that losses were attributed to market re-pricing rather than actual credit impairments. ... in Europe this under-pricing mainly reflected liquidity risks while credit risk was often properly priced."[35]

What this suggests is that, in Europe, the risk may have been more from the connections between securitization and the rest of the financial system rather than from the quality of the underlying activity (see Question 6).

Question 5. Risks posed by entities undertaking the activity

There can be a risk that the bank originating the mortgage may have little incentive to carry out proper underwriting if it knows (or believes) that the risk will be entirely transferred to the investor. However, given that in the European RMBS market banks retained more of the RMBS on their balance sheets and thus had more "skin in the game," as the OECD noted, "underwriting standards were seen to be significantly more robust in Europe." European banks both had incentives to and indeed evaluated the risks properly, as the low default rate (0.07% mid–2007 to Q4 2010) shows.

There can be an additional risk depending on whether the RMBS is subject to implicit or explicit

35 Hans J. Blommestein, Ahmet Keskinler, & Carrick Lucas, Outlook for the Securitization Market (2011).

liquidity or credit enhancements[36] by the originating bank and the actual nature of that enhancement. If there is no such enhancement or the enhancement has a very high seniority, is explicit and properly priced, there is no meaningful additional risk. However, if the RMBS is enhanced, even if only implicitly, there is a risk that in the event of large defaults or market price decline, the bank may be forced or feel commercially compelled to provide support. This happened to such a degree in the U.S. that in order to keep ABCP markets functioning, the Federal Reserve was forced to introduce explicit backstops for the ABCP market. In the European RMBS market, such enhancements were also provided by banks, but in the event, due to the low default rate on the underlying assets, have generally not led to difficulties.

Question 6. Risks posed by linkages with the rest of the financial system

As noted in Question 4, one risk from RMBS and other forms of securitization that might have been misunderstood is in its connection with the financial system as a whole. Even though the credit quality of European RMBS and European ABS remained high, markets were still affected by the withdrawal of investors. The RMBS market became less liquid and banks became unable to rely on this mechanism for funding. This contraction in liquidity proved fatal or near-fatal for leveraged entities with acute maturity mismatches.

A large economic shock leading to an increase in the number of defaults can lead to investors' ceasing to invest in RMBS. Moreover, this natural reaction can be amplified by the interconnectedness of the system and the imperfect risk transfer that became apparent during the crisis. Where it takes place through the issuance of ABCP or SIVs, which creates significant maturity transformation, it could cause a freezing of the market for short-term funding, imperiling banks either through contingent commitments backing ABCP structures or, as was seen in the crisis, by the market forcing banks to repurchase RMBS from failing SIVs that were closely associated with their names.

If banks become reliant on the ABCP or SIV market to fund their mortgages through conduits, this reliance can cause significant exposures arising from the maturity mismatch risk explicitly or implicitly taken by the banks on the structures. Any such exposure, which leads to significant impacts on banks, as seen in the crisis, can extend to banks' potential insolvency, which can in turn create systemic risk.

However, in the crisis the willingness of the ECB and the Bank of England to provide funding secured by pledges of RMBS has enabled banks to continue funding mortgages and other assets despite the drying up of external market funding. This could not necessarily prevent banks from deleveraging but has mitigated their risk of insolvency. Therefore, it is important to distinguish between RMBS backed solely by term securitization tranches, which pose no systemic risk, as compared to those RMBS structures that include ABCP, which can potentially create maturity transformation risks.

Question 7. Disclosure and Transparency

To deal with the transparency problems indicated earlier, even before the crisis, there were several sources available to investors to make informed investment decisions. Investors typically relied on four sources:

I. Information memoranda, including issuer descriptions, terms and conditions, form of notes, and selling restrictions;

II. Rating agency reports, usually from at least two agencies;

III. Investor presentations, outlining the structure of the program including details on credit enhancement and liquidity facilities; and

IV. Pool reports, typically distributed monthly and broadly describing current assets and compliance with program requirements.

In the lead-up to the crisis, however, proper risk evaluation was not always undertaken by professional investors and intermediaries, while too much faith was put in credit rating agencies whose own methodologies in assessing the risks of U.S. sub-prime lending and certain complex structured finance products were flawed. In addition, other gatekeepers of the public trust, including auditors, securities lawyers, regulators, and supervisors, failed to varying degrees.

Nevertheless, since the crisis, the industry has made strides toward greater transparency in the provision of details, including in some cases loan-by-loan information. In Europe, for example, the industry actively worked with both the ECB and the Bank of England on new required loan-by-loan reporting standards for RMBS used for repo at central banks.

In Europe, the European Securitisation Forum (ESF, now part of the Association for Financial Markets in Europe, or AFME) has also been working on market-led solutions to restore investor confidence in securitization

36 Liquidity enhancement includes providing temporary short-term liquidity to the SPE to support its cash flow while credit enhancement includes providing implicit or explicit guarantees against losses.

markets. Several initiatives include (i) support for standardization of securitization products; (ii) improved issuer disclosure and investor due diligence practices; and (iii) reduction of information asymmetries and improvement of alignment of incentives among originators, investors, and other market participants and (iv) improvement of access to market information on European securitization market activity through its quarterly and monthly data reports on issuance activity by country and product sector, balances outstanding, ratings changes, and secondary market spread changes.[37]

One example of AFME/ESF's work in recent months is an initiative to create a "quality label" designed to complement credit ratings. The label would be awarded to simply structured securitizations whose sizes are over a certain threshold and are backed by a certain quality of assets for which prices are easily available. This initiative, on which AFME/ESF has been working with the European Financial Services Roundtable, is supported by the ECB—which itself has been developing proposed new standards for disclosure and transparency—as well as other European policy makers.

In April 2010 the ECB itself announced it would move ahead with its proposed new eligibility requirements that refer to loan-level data reporting. The work will now be taken up by a series of technical committees to flesh out the plans, which include regular reports on the performance and status of the underlying loans.

Question 8. Regulation and other risk mitigation

Since the crisis there have been several regulatory changes designed to reduce the risks from the market.

Under Article 122a of the EU's Capital Requirements Directive (CRD II), risk retention requirements have been introduced, requiring issuers to retain a material net economic interest of not less than 5% on an ongoing basis. The Article also requires originators and bank investors in securitization to undertake heightened due diligence, risk management, and disclosure practices on an ongoing basis or face penalties.

There have been regulatory efforts targeting improvement in transparency and disclosure requirements, internal governance structures, supervisory oversight, and registration requirements for the credit rating agencies. Moreover, in Europe a special identifier must now be applied to the ratings of structured finance products, while regulators in Europe additionally require credit rating agencies to disclose the sensitivity of the assigned credit rating to changes in key credit risk-modeling parameters.

In January 2011, the ECB raised the haircut applicable to ABS from 12% to 16%. In addition, to be eligible for repo from March 2011 on, ABS have needed to carry two AAA ratings at issuance and a single A rating over the life of the security.

Both CRD II and CRD III impose ongoing due diligence requirements on banks when they invest in securitized products and require both originator and investor to disclose information. Specific rules for securitized products held in the trading book also stipulate higher capital charges, although these will not be implemented until the end of 2011 (CRD III). Significant regulatory changes are also underway in the U.S. due to the Dodd-Frank Act and other SEC rulemaking.

In addition, insurers will have to comply with Solvency II capital charges, establishing the framework for risk-based capital assessment.

The European industry, under the scrutiny of competent European authorities and institutions, is also finalizing the development of industry-wide standards and of a conduct-of-business regulation. Such a development would set out best practices to build investment guidelines and regulations to encourage issuance and investment, with the ultimate goal of supporting the real economy. AFME/ESF and the European Financial Services Round Table, working together, have been leading the process to deliver such a scheme in the form of Prime Collateralised Securities (PCS). This market-led initiative defines best market practices and creates the incentives to enforce best practices through a label granted and maintained by an independent third party. The PCS label is intended to be available later this year for European securitization transactions that meet industry best practices in terms of quality, simplicity, standardization, and transparency.

Conclusion

This case study illustrates that the aim and practice of securitization can and has differed widely across jurisdictions, sectors and financial institutions. There are significant variations (i) in the form of securitization whether or not it involves maturity transformation; (ii) in the degree of bank support attached to it—and consequently in the extent of the credit risk transfer; (iii) in the underwriting standards of the underlying loans; and (iv) in the extent of the disclosure and transparency. All of these will have an impact on whether systemic risk will be created.

37 See www.afme.eu for this report.

As the OECD has acknowledged, in Europe, securitization is a legitimate funding tool as well as an efficient means of intermediation between investors and borrowers, provided there is appropriate engagement by underwriters and robust underwriting standards – much of which was historically a feature of securizations in Europe. It is notable that, notwithstanding the severity of the economic crisis, default rates in the European RMBS market amounted to only 0.07% of all issues. What this suggests is that, with proper risk mitigation, risk retention, disclosure, and other safeguards in place, securitization can be carried out safely in a way that benefits investors, borrowers, and the wider economy.

Securitization acquired a bad reputation, especially in Europe, as a result of devastatingly experience with securitization of certain asset classes, primarily U.S. subprime mortgages. Poor underwriting including reliance on the continued appreciation of underlying asset values; willingness of rating agencies to assign high ratings to complex structures; investment decisions based solely on ratings; and short-term financing of such structures all led to appropriate calls for reform. Reform has come about by the market's unwillingness to accept transactions of the more aggressive pre-crisis types, and extensive regulatory change, mandated by international standards set by the G20, are now in the course of finalization in the U.S. and EU, to the extent not already implemented.

The problem now is the failure to recognize the continuing creditworthiness of the more classic types of securitization, and the lack of full implementation of regulatory reforms appears to contribute to, at best, a sluggish revival of the securitization market. Further industry reforms such as the work on prime collateralised securities, should strengthen this revival.

Given the considerable recent regulatory reforms–mandated by the G20 and carried out in Europe through CRD III and CRD IV, policy makers must give a chance for these post-crisis reforms to take effect while being attentive to new risks and developments. They also need to continue impact assessment of the reforms on the ability of the securitization markets to generate credit for the economy and to consider ways to foster responsible growth of the market, especially in Europe, where bank deleveraging appears likely to continue for several years.

CASE STUDY 3. REPO MARKETS

Question 1. Nature of the activity

A repurchase agreement, or a repo, is the sale of securities with a commitment to buy them back from the purchaser for an agreed upon price on a designated future date. Economically, the agreement represents a collateralized loan whereby the securities purchased by the buyer constitute collateral to protect them against the seller failing to meet its repayment obligation. A wide range of fixed income and equity collateral may be used to secure a repo. These are generally liquid in nature so they can be easily liquidated by the buyer in the event of a default by the seller or can be obtained by the seller in the open market in the event of a default by the buyer.

Examples of collateral types may be a Treasury security or sovereign bond; money market instrument; federal agency security; mortgage–backed security; or stocks, preferred shares, convertible bonds, or American Depository Receipts. Legal title to the security passes from the seller to the buyer on the initial purchase date, with the seller then repurchasing the security from the buyer at the end of the loan term, and title transferring back to the seller at that time.

Repo markets are vital to the financing needs of a range of financial institutions, including banks, broker–dealers, insurance firms, and asset management firms. For investors such as MMFs, hedge funds, insurance companies, and pension funds, repos provide an opportunity to invest cash for a customized period of time on a secured basis. In the United States, the Federal Reserve, through the Federal Open Market Committee, transacts in repos to either add to or withdraw from reserves to stabilize interest rates.

Question 2. Generic characteristics of the activity

Repo maturities may be overnight, term, or open. An overnight repo refers to a one–day maturity, whereas a term repo has a specified end–date that may range in duration from 2 days to multiple years. An open repo does not have a specified end–date and is therefore ongoing until either party decides to terminate the agreement, at which point it becomes a one–day maturity.

A repo may occur in the form of specified delivery, tri–party, or hold–in–custody. Specified delivery, also known as delivery versus payment, requires the delivery of a specific bond at the onset and maturity of the contractual period. In a tri-party repo, a custodian bank or clearing organization acts as an intermediary between the buyer and seller and maintains control of the securities that are subject to the agreement. It also processes payments from the seller to the buyer. The tri–party agent is responsible for the administration of the transaction, including collateral allocation, marking to market, and substitution of collateral. Tri–party arrangements help to improve the efficiency of the collateral management process but do not, in themselves, reduce credit risk for the buyer or seller.

As the FSB has pointed out, "Repo allows banks as well as non–banks—such as securities broker–dealers, pension funds, and (to a greater extent before the crisis) conduits and investment vehicles."[38]

Nevertheless, what this suggests is that the maturity transformation may come from the use of repo rather than inherently from the activity itself. It would be perfectly possible to have repo with very little maturity transformation.

Question 3. Scale of the activity

In its report on securities lending and repos, the FSB has estimated that the total volume of outstanding repos and reverse repos were US$ 2.1–2.6 trillion in the United States, US$8.3 trillion in Europe, and US$2.5 trillion in Japan. The European and Japanese figures are overestimates because they do not take account of double counting (i.e., a repo and a reverse repo constitute only one transaction).[39] However, the European number does not cover all repo users.

More granular data on the repo market is provided by the Federal Reserve for (tri–party) repo in the U.S. and by the International Capital Market Association (ICMA) for repo in Europe. Data on the composition of collateral for these respective markets are provided in Tables 3.1 and 3.2.

The size of the U.S. Tri–party repo market was $1.7 trillion as of March 2012.

The total value of the outstanding repos, among market participants according to the ICMA in December 2011, was 6.204 trillion euros, of which 32% is subject to central clearing and tri–party repo at 11.4%.

Nevertheless, as Question 7 notes, despite the wide range of statistics available, market data sources are disparate and often inconsistent.

38 Financial Stability Board, Securities Lending and Repos: Market Overview and Financial Stability Issues, Interim Report of the FSB Workstream on Securities Lending and Repos (April 2012).
39 Financial Stability Board, Securities Lending and Repos: Market Overview and Financial Stability Issues (27 April, 2012).

Table 3.1 Tri-Party Repo Statistics, as of March 2012

Composition of Tri-Party Repo Collateral

ASSET GROUP	COLLATERAL VALUE (BILLIONS)	SHARE OF TOTAL
Asset-backed securities (Investment & non-investment grade)	$31.92	1.8%
Agency collateralized mortgage obligations	$130.05	7.4%
Agency debentures & strips	$119.23	6.8%
Agency mortgage back securities	$657.27	37.4%
Collateralized mortgage obligations private label (investment & non-investment grade)	$37.46	2.1%
Corporate investment grade	$54.23	3.1%
Corporate non-investment grade	$23.79	1.4%
Equities	$79.24	4.5%
Money market	$25.58	1.5%
US Treasuries strips	$43.27	2.5%
US Treasuries excluding strips	$535.42	30.4%
Other*	$21.53	1.2%
Total	$1,758.98	

* Other includes collateralized debt obligations, international securities, municipality debt, and whole loans.

Source: Federal Reserve

Table 3.2 Tri-Party Repo Collateral In Europe Analyzed By Type Of Collateral

	DECEMBER 2011	JUNE 2011	DECEMBER 2010
Government Securities	45.2%	37.8%	40.6%
Public agencies / Sub-national agencies	7.2%	5.6%	3.4%
Supranational agencies	2.8%	2.2%	1.8%
Corporate bonds	18.3%	23.3%	25.5%
Covered bonds	9.7%	9.1%	6.5%
Residential mortgage-backed securities	1.4%	0.3%	0.4%
Commercial mortgage-backed securities	0.2%	0.3%	0.2%
Other asset-backed securities	1.0%	0.6%	0.8%
Collateralized debt obligations, collateralized loan obligations, credit linked notes, etc.	0.5%	0.7%	0.6%
Convertible bonds	0.2%	0.1%	0.0%
Equities	12.8%	19.2%	19.0%
Other	0.8%	0.9%	1.1%

Source: ICMA Survey of the European Repo Markets (December 2011).

Question 4. Risks posed by the activity

The use of collateral is designed to mitigate the risks from repo. These risks can be thought of in terms of risks to the seller and risks to the buyer.

For the seller, a significant risk is from buyer failure to deliver securities back, where the buyer fails to redeliver equivalent purchased securities (and any additional margin transferred to the buyer during the term of the repo) upon the relevant termination date. This risk is mitigated by the event of default and closeout provisions of the relevant repo agreement, which should enable the seller to purchase equivalent securities in the market should the buyer default (and apply that repurchase price against its own repayment obligation). It is also mitigated by the daily marking to market of the parties respective obligations, so that the buyer is required to transfer margin to the seller if, for example, the value of purchased securities increases during the term of the trade.

There is, though, a further liquidity risk. Sellers relying on funding through overnight, short–term, or open repo transactions are subject to the risk that the funding may become unavailable if the transaction is not renewed or if the buyer terminates on notice. To mitigate this "rollover risk," financial institutions transact in repos for longer term against agreed securities portfolios. Additionally, a focus on counterparty diversification and a staggered maturity profile is taken to manage the reinvestment risk associated with a concentrated investor base and short–term liquidity.

A key risk to the buyer is seller default: The risk that the seller will not fulfill its obligation to purchase securities on the agreed repurchase date (economically,

to repay the borrowed money) is a fundamental risk of repo transactions.

This risk is mitigated by the ability of the buyer to sell collateral following a default event and apply the proceeds of the sale to the seller's outstanding repayment obligations. Typically, a "haircut" is applied on a repo transaction, so that the buyer will be sold purchased securities with a market value slightly greater than the purchase price, and this haircut is maintained through the term of the transaction. Also, the buyer may apply concentration criteria in respect of purchased securities and margin, so that, for example, only a certain proportion of securities in any one market, or issued by a single issuer, can constitute part of the aggregate purchased securities. This mitigates the related risk of liquidity delays and collateral market price fluctuations post–default.

Note, however, that haircuts are not used for the majority of interdealer refinancing activities against government bonds (OECD), an activity largely replacing the unsecured interbank funding used pre–Basel 2. An example of this shift can be found in the ECB 2011 Annual Report, while 80% of interbank funding is now on a secured basis, the trend for unsecured funding is still decreasing.

Nevertheless, as Question 6 below examines, there is a risk that adjustments to collateral requirements and haircuts, designed to mitigate risk, may actually create pro–cyclical effects.

Question 5. Risks from entities undertaking the activity

In its recent report, the FSB argued that insufficient rigor in collateral valuation and management practices caused major disruption in financial markets:

> When the prices of mortgage-backed-securities (MBS) fell during the early stage of the financial crisis, a number of financial institutions did not mark-to-market their holdings of MBS or based decisions on prices generated by overly-optimistic models, and later suffered significant losses when they eventually had to do so. Arguably, the decline in the prices of MBS would have caused less of a major disruption in financial markets should such price changes have been reflected in financial institutions' balance sheets earlier and more gradually through continuous marking-to-market. [40]

This is a very fair point. Market practice is not as good in this area as it should be. It may be addressable through small but effective measures like improving marking and margining. Such margining is preferable to haircuts; margins reflect daily price changes, whereas haircuts build in potential future exposure over a holding period and so change much more.

Question 6. Risks posed by linkages with the rest of the financial system

The real potential risk though from repo does not come from the activity itself or from its combination with other activities but instead from its interconnectedness with the rest of the financial system and the way that it is used.

There is a significant degree of interconnectedness with the rest of the financial system, given the breadth of institutions that engage in repo across multiple jurisdictions and product types. Repo is a global instrument with global investors who wish to gain exposure to various products. The repo market provides an alternative source of financing to unsecured credit, bank deposits, and central bank funding. As the FSB notes in its report, "liquid securities financing markets are therefore critical to the functioning of underlying cash, bond, securitization and derivatives markets."

The interconnectedness of this market was observed during the financial crisis as liquidity was constrained for many financial institutions that relied on short–term repo as a main source of funding. Repo market liquidity is a key source of financing for financial institutions. However, to avoid disruptions to liquidity, it is advisable to enhance the durability of secured financing by ensuring that the maturities of repo transactions are diverse and not exclusively very short term.

The FSB has argued that the risks from this interconnectedness were aggravated by a lack of transparency both in the market and among firms.

The ICMA European Repo Council acknowledges this issue, but noted that "the problem is that market data sources are disparate and often inconsistent."

In addition, the FSB suggested that, prior to crisis, many prime brokers did not provide sufficient disclosure on re–hypothecation activities, which creates counterparty risk and cash collateral reinvestment risk, to their hedge fund clients.

As the ICMA European Repo Council report admitted,

> The problem is that some accounting regimes do not indicate clearly which assets on the seller's balance sheet are out on repo. All that may be shown is a footnote giving a netted repo total. However, the accounting treatment of repo under IFRS is much clearer.

40 Financial Stability Board, ibid.

Nevertheless, as that report pointed out,

In normal market conditions, given that the seller will receive cash, which is a risk-free asset, there are no real grounds for concern. ... However, when a counterparty visibly gets into difficulties, and in a crisis, lenders will tighten their collateral eligibility criteria and high-quality collateral could rapidly drain away. Unfortunately, given the speed of events versus the periodicity of the publication of balance sheets and other returns, it seems doubtful whether greater transparency would be that useful in practice. But this is not an issue specific to repo. Rather, it is about general balance sheet transparency.

Building on work by U.S. academics Gary B. Gorton and Andrew Metrick, who argued that changes in haircuts were the main cause of the crisis[41], the FSB has argued that the far greater problem is one of procyclicality:

Sudden shifts, ... can cause market participants to exclude entire classes of collateral from their transactions, creating a vicious circle as contraction in the securities financing markets damage underlying cash market liquidity, reducing the availability of reliable prices for collateral valuation.

In its joint response with International Swaps and Derivatives Association to the paper by the Committee on the Global Financial System, The role of margin requirements and haircuts in procyclicality ('CGFS 36'), the IIF acknowledged that margins and collateral had some procyclical characteristics.

However, it pointed out that,

this procyclicality should be seen in perspective, and one should not overstate the role that margins and haircuts played in the crisis as a whole. Liquidity constraints and creditworthiness concerns led banks to actively manage down exposures. The increase in haircuts and margins in SFTs [structured finance transactions] could be argued to be an "after the fact" effect, rather than the primary driver of liquidity crisis and the subsequent capital crisis.

Indeed, the analysis of the procyclicality of repo markets hugely overstates the impact that it had on the crisis and the extent of the risks that it presents. The data used by Gary B. Gorton and Andrew Metrick were only for collateral in the form of structured securities such as collateralized debt obligations (CDOs) and collateralized loan obligations (CLOs) and only for bilateral U.S. repo, whereas the vast bulk of collateral in the U.S. repo market is Treasuries and/or public sector debt (agencies). Further, most transactions are not bilateral, but triparty (where collateral management is delegated to third-party custodians). A study on repo investment by U.S. money market mutual funds and securities lenders indicated that 15%–20% of their investments were in repos, mainly triparty, of which, just 14%–19% were against structured securities. The study also found that there was no increase in the haircuts on Treasuries and agencies, and haircuts on non-government collateral rose only modestly. This last point was confirmed by the Federal Reserve Board's Taskforce on Triparty Repo Market Infrastructure.

For Europe, using a survey of haircuts in 2007 and 2009 by the CGFS, weighted by data on the European repo market from the semi-annual surveys of ICMA, changes in haircuts explain less than 3 percentage points of the 28% deleveraging of the repo market. The CGFS also reports that haircuts did not increase much in aggregate over the period.

The FSB has also argued that there are risks from collateral fire sales:

If markets are already under stress, further selling would put downward pressure on the already stressed price of the collateral assets, with contagion to other financial institutions that have used those securities as collateral or hold them in trading portfolios.

However, once again, this seems to exaggerate the issue. Illiquid collateral is a special case, whereas repo markets primarily use liquid collateral. It is therefore unreasonable to extrapolate from a specialized market sector to the whole market.

Question 7. Disclosure and Transparency

There are currently no official requirements for financial institutions that engage in repo to publicly disclose the details of such transactions.

In the United States, regulated financial institutions report the volume of this activity as well as general product level information on their balance sheets on a quarterly basis. However, more granular details such as counterparty, term, and product specifics are not generally made available. In Europe, ICMA publishes the results of its bi-annual survey of repo market participants publicly, which provide several key data points on the overall size of the market, as well analysis of trends and changes.[42]

There is clearly scope for the provision of more data to illuminate the scale and nature of the repo market. More data could be provided to regulators, particularly the various bodies that monitor systemic risk globally, including the FSB, the Federal Reserve, and the European Systemic Risk Board (ERSB). This would assist greatly in the monitoring of the repo market on a global basis. There would also be merit in more complete and

41 Gary Gorton, & Andrew Metrick, Securitized Banking and the Run on Repo (2010).

42 See www.icma-group.org

consistent public reporting on the aggregate volumes outstanding in repo markets. This would serve to increase general understanding of the important role that repo plays in financial markets.

Nevertheless, as with procyclicality, this should not be overstated. While there were particular concerns with Lehman Brothers' Repo 105 and MF Global's Repo to Maturity, both cases were unusual transactions that exploited loopholes in the U.S. accounting regime allowing repo to be removed from the balance sheet of the seller. The accounting treatment under IFRS is much clearer and would have prevented these problems.

Question 8. Regulation and other risk mitigation

Participants in repo markets are, generally, regulated entities and therefore are subject to prudential regulatory standards, notably including capital, liquidity, and counterparty management requirements. Several potential areas of regulatory intervention have been suggested in the debate on the repo market, which are discussed below.

- The motivation behind a global minimum haircut on repo assets is understandable (i.e., to avoid a procyclical rise in haircut levels during stressed market conditions). However, certain implications would flow from this approach, which need to be carefully considered. A minimum haircut would not be sensitive to the creditworthiness of the counterparty, meaning that each participant would potentially be treated in the same manner as the least creditworthy counterparty. Hence, there is a danger of imposing inappropriately high haircuts on sound counterparties. Moreover, where one repo counterparty (i.e., the one accepting the collateral) defaults, the other counterparty (i.e., the one that has provided securities as collateral) would suffer a loss at least equal to the haircut imposed. Hence, an inappropriate haircut would artificially increase losses, potentially aggravating stressed market conditions.
- The increased use of tri-party repo mechanisms certainly has benefits in terms of better operational efficiency around the management of collateral. Because it manages a range of collateral centrally, the triparty repo administrator (a custodian bank or clearing house) can provide a range of services (e.g., collateral management and valuation) in a more cost-effective way than can be achieved bilaterally. Nevertheless, it is important not to confuse tri-party with central clearing, because credit risk is not materially reduced through tri-party mechanisms.
- The use of central clearing mechanisms is increasingly prevalent in the repo markets, particularly between dealers. Central clearing reduces counterparty credit risk by interposing a CCP between the repo counterparties, such that each counterparty's obligations switch to the CCP rather than the other counterparty. In this way, the counterparties are no longer exposed to each other's credit risk, but rather to that of the CCP, which (in principle) should be negligible. While central clearing certainly brings key systemic benefits to the market, not all transactions will be suitable for clearing, as has been recognized in the debate on derivatives clearing in the U.S. and Europe. Certain types of collateral may not be sufficiently liquid to be suitable for clearing, because they lack the pricing data to permit accurate valuation. Regulators should not force increased use of central clearing for transactions that are not suitable for it.
- There is likely to be a degree of scope for increased transparency, both in terms of data submission to regulators (described earlier) and between the counterparties to the repo transaction themselves. A greater understanding among market participants of key determinants such as the frequency of valuation, the nature of the underlying collateral, and margining practices is likely to improve confidence in the repo market and thereby its soundness.

Conclusion

The current policy discussion on the use of repo should not lose sight of the fact that the activity is not only beneficial to financial markets and the wider economy; it is also vital to its functioning.

Nevertheless, the crisis showed that there are risks connected to the repo market. The use of collateral, while highly desirable, complicates these risks. The issue, though, is how to manage these risks and the special features of the repo market.

Further, regulators need to be much more precise about the nature and scale of those risks. The evidence does not justify the idea that there was a run on repo during the crisis and in fact suggests that the effects of changes in haircuts and margins were much smaller and that the role of repo in the crisis as a whole has been overstated.

The big problem both with analyzing the repo market and with ensuring that risks are mitigated is that there is not enough centrally collected and consistent data. In addressing this, as Section 3 argues, it is essential that regulators think carefully about what data would be useful and do not collect excessive data,

which may cloud analysis. Data collection will also change market behavior, so regulators would be better asking for simple data.

There is also more that could be done on transparency and disclosure. Once again, regulators should not overstate the extent of the problem here. Loopholes need to be closed, but the basic accounting framework is sound.

Even where specific risks have been identified and quantified, there needs to be a lot of consideration about coming up with solutions that really address those risks and do not create serious unintended consequences. IIF will respond on haircuts but has some skepticism about its viability.

CASE STUDY 4. SECURITIES LENDING

Question 1. Nature of the activity

Figure 4.1. Participants in securities lending

Bank of England

Securities lending involves a transfer of securities (e.g., shares or bonds) to a third party (the borrower), who will give the lender collateral in the form of shares, bonds, or cash. The borrower pays the lender a fee each month for the loan and is contractually obliged to return the securities on demand within the standard market settlement period (e.g., 3 days for U.K. equities). The borrower will also pass over to the lender any dividends, interest payments, and corporate actions that may arise.

In essence, the lender will retain the key rights it would have had if it had not lent the securities, except it will need to make special arrangements if it wants to vote on the shares.

There are two key differences between a securities loan and a repo:

I. The purpose of the transaction. Securities loans are usually motivated by an institution's demand to borrow a security for purposes such as short–selling or trade settlement. Repo is sometimes used to borrow or lend securities, but generally the motivation is to borrow or lend cash.

II. Transaction structure. In a repo transaction there is an outright sale of the securities accompanied by a specific price and date at which the securities will be bought back. Securities loans are often open–ended, which makes them more flexible for lenders and borrowers and there is no transfer of beneficial ownership.

The securities–lending market has four key players. **Institutional asset managers** are the source of supply for securities lending and the **custodian agents** who act on their behalf. The demand for the loans comes mostly from **hedge funds,** who sell short. They rely on their **prime brokers** (generally global investment banks) to source the loans from the custodian agents.

Lenders are typically large scale investors, such as pension funds, insurance companies, collective investment schemes and sovereign wealth funds (see Figure 4.1). These investors would normally employ an agent (e.g., a custodian) to arrange, manage and report on the lending activity.

Borrowers are typically large financial institutions, such as investment banks, market makers, and broker dealers. Hedge funds are among the largest borrowers of securities, but they will borrow through investment banks or broker dealers rather than directly from the investors.

Institutions borrow securities for a variety of reasons, including

I. To facilitate the buying and selling of securities. This activity is commonly known as "market–making." Market–makers stand ready to buy and sell securities on a regular and continuous basis. In order to meet customer demand to buy securities, they hold an inventory of securities and also borrow securities.

II. To facilitate trade settlement. Settlement failure occurs when a seller fails to deliver a security, such as an equity, to a buyer on an agreed

date. This may happen due to incorrect settlement instructions being exchanged between parties. In some cases, the institution that is waiting to receive the equity has already agreed to sell it on. In order to avoid the costs and penalties that can arise from failing to deliver the equity, it can borrow an equivalent equity in order to complete the transaction. Once the equity is received from the original seller, this can be delivered to the securities lender in order to terminate the securities loan.

III. To access high-quality and liquid collateral. Institutions, usually banks, may borrow high-quality and liquid securities, such as government bonds, against which they pledge relatively lower quality and less liquid securities, such as corporate bonds or asset-backed securities (ABS), as collateral. These transactions are often referred to as collateral upgrade trades. The borrowed securities can then be used to raise cash in the repo market or as collateral for swap and derivative transactions.

IV. For trading strategies. An institution may borrow securities to sell them—so-called short-selling, which is used in several trading strategies. For example, an investor may think that an equity is overvalued and expects its price to fall. The investor borrows and then sells the equity, with a view to buying it back later at a lower price, in order to make a profit from the price difference.

Lenders of securities are commonly referred to as beneficial owners, which are typically investors such as pension funds and insurance companies. They lend out securities to generate additional income on their asset portfolios. This income can help offset expenses associated with maintaining a portfolio of assets, such as paying a custodian to safeguard and administer the assets.

According to Data Explorers, revenue from securities lending peaked at $14.3 billion in 2008, falling to $6.5 billion in 2010.

This represents a small proportion of beneficial owners' total returns, but for some beneficial owners, such as exchange-traded funds, their securities lending activities can represent a significant proportion of their revenue.

Beneficial owners usually use an agent lender, such as a custodian or third-party specialist, to manage their securities lending programs. Agent lenders sometimes offer the beneficial owner protection against losses on their lending activity. Some large beneficial owners manage their own securities lending programs.

Benefits of securities lending:

- Market liquidity. Securities lending can improve market liquidity, potentially reducing the cost of trading and increasing market efficiency. This enables better price discovery and can reduce price volatility, which can facilitate financial institutions and non-financial companies in raising funding and capital and also helps investors to buy and sell securities.

  By creating access to securities already outstanding in a market, securities lending has the effect of increasing the total supply of securities available to support activities such as market-making and trade settlement. Market makers stand ready to buy and sell securities on a regular and continuous basis, which can enhance market liquidity. Being able to borrow securities helps market makers meet customer demand for securities.

  Securities lending improves the reliability of the trade settlement process as institutions' ability to borrow securities helps to reduce settlement failures. This can enhance market liquidity indirectly as it contributes to efficient settlement and investor confidence when trading.

- Funding for banks. Banks hold securities in order to make a return and because they act as market makers for clients who want to buy and sell securities. They sometimes fund these securities by pledging them as collateral in the repo market. But for some securities, such as ABS, this may be difficult as providers of funding, such as MMFs, may have restrictions on the type of collateral they accept. Instead, banks can undertake collateral upgrade trades that allow them to swap these securities for higher quality and more liquid securities, such as government bonds, that can be used to access funding in the repo market.

  There are two potential funding advantages to banks from these types of transactions. First, provided the combined cost of the repo interest rate and the securities lending fee is less than other types of funding, the bank can obtain cheaper funding. Second, this represents an additional funding source for a bank, allowing them to diversify their funding. The wider the range of funding sources a bank can access, the lower the impact from a shock to one of these funding sources. Also, repo markets for high-quality securities are typically more robust than markets for repo of low-quality securities.

The key steps in a securities lending transaction are:

I. The loan is initiated and terms are agreed between the lender and the borrower. The agent lender usually negotiates the terms on behalf of the beneficial owner. Terms may include the duration of the loan, borrowing fees, eligible collateral and collateral margins.

II. The lender delivers the securities to the borrower and the borrower delivers the collateral to the lender.

III. During the life of the loan, the collateral required from the borrower may vary as the values of the collateral and of the securities lent change.

IV. When the loan is terminated, securities are returned to the lender and the collateral is returned to the borrower.

Question 2. Generic characteristics of the activity

Securities lending activity does not use leverage. There is a margin requirement, depending on type of securities borrower. In the U.S., the margin is 2%; outside the U.S. it is 5%.

Credit lines are extended for all lending/borrowing activity, subject to the usual counterparty credit risk assessments by the lenders.

When acting as a borrower of securities, a broker–dealer would pledge collateral (cash or securities) to the lender. Where cash is pledged, it will be reinvested. Since the crisis, beneficial owners have put in place more stringent agreements with agent lenders on their parameters for cash reinvestment (ie, to limit maturity and liquidity risk). If lending is undertaken on behalf of a pension fund, there are guidelines regarding use of collateral in order to protect the pension fund from loss caused by collateral re–hypothecation. Where securities are pledged as collateral, this usually done by a third party in tri–party situations, the custodian bank would oversee the risk of collateral re–hypothecation.

In the U.S., cash typically gets reinvested. If a lending institution is involved, they could re–hypothecate but generally do not. If they are pledging securities to another broker–dealer, they will re–hypothecate. For margin debit in the context of prime brokerage activities, there is re–hypothecation.

Securities lending transactions are generally against payment; non–U.S. transactions would be pre–paid and collateralized in advance of the stock borrow. If a stock borrow failed to settle, the lender would still have the collateral. Institutional lenders have an inventory and do not typically lend if the inventory is not there.

Question 3. Scale of the activity

This market is global, with over $800 billion worth of equities on loan spread across over 3 million transactions. Institutional asset managers, with over 20,000 portfolios, make over $6.5 trillion worth of global equities available to borrow.

At over US$300 billion a year, the U.S. equity lending market dwarfs that of other markets and represents almost half of the global securities–lending industry.

Sources: Data Explorers and Bank calculations

(a) Data are based on market value of securities.
(b) Chart uses daily data that are converted to a ten–day moving average.
(c) Securities available for loan are all securities that beneficial owners have specified they are willing to lend subject to specific transaction terms.
(d) Lehman Brothers announced bankruptcy on 15 September 2008.

Question 4. Risks posed by the activity

Non–delivery of securities would characterize a securities lending failure. There are monitoring and remediation procedures in most countries, but these vary. Different countries have varying rules regarding their tolerance for securities lending failures. Spain has an automatic buy–in. The U.S. has Regulation SHO, Rule 204 controlling a set time period for delivery, absent which there is a mandatory buy–in, and mandating a penalty list to help control and disclose failures.

It is rare for a lending institution to fail on a securities loan; it is more common when the loan is recalled that there is a failure. A client could have instructed transfer of securities from one broker to another and could have used the securities. These

failures have reduced to a fractional level of what they were a few years ago, due to regulation across the globe, because mediation procedures have been enhanced post–Lehman Brothers.

There is usually a chain, so it is not one counterparty failing to another. There can be knock on effects if the same security is re–lent onward, but this does not mean that any given party is at more risk. The answer to Question 6 looks at this in more detail.

Types of risk for securities lending activity include

- Borrower risk: The risk that the borrower defaults on the loan (e.g., the borrower becomes insolvent and is unable to return the securities).
- Collateral risk: The risk that the value of the collateral falls below the replacement cost of the securities that are lent.
- Cash collateral risk: The risk that the lender suffers a loss on the re–investment of the cash collateral.
- Intraday settlement risk: The risk that the securities being lent are delivered to the borrower before the collateral is received.
- Operational risk: This covers day–to–day operational risk matters, such as
  - What happens if shares that are sold are recalled late?
  - What happens if the lender or its agent fails to claim for a dividend or other entitlement?

As the answer to Question 7 suggests, there can be risks from inadequate transparency, inconsistent pricing methodologies, and a failure of market participants to assess and understand the risks. The real risk from securities lending though may come from its use by others and its connections with the financial system. The answer to Question 6 examines this.

Question 5. Risks from entities undertaking the activity

As for most securities–trading activities, counterparty credit risk is a factor. Lenders' credit departments review a schedule of who they are lending to and regularly restrict accepting borrows from (e.g., agents and underlying parties). There have been many counterparty defaults, as well as the events of 1998 and 2009 which tested the securities lending market. Sound operational, credit and risk management mitigated many of the potential losses, with minimal impact on the financial markets.

Other significant losses in 2008 derived from reinvestment of customer cash by agent lendings. These losses stemmed from basic diversification and asset liability management failures, only slightly related to securities lending.

As with repo in Case Study 3 above, the FSB has argued that insufficient rigor in collateral valuation and management practices caused major disruption in financial markets. However, exactly as with repo, while market practice in this area is not as good as it could be, it may be addressable through small but effective measures such as improving marking and margining.

Question 6. Risks from linkages with the rest of the financial system

Financial transactions that result in chains of counterparty exposures increase interconnections within the financial system. Securities lending creates additional interconnections between various types of financial institutions.

In 2008, the reduction in securities available for loan—alongside capital pressures on banks acting as market makers to reduce their balance sheets and inventories of securities—led to a reduction in market–making activity. Losses for some securities lending participants led to more widespread counterparty concerns in the securities lending market. This prompted some participants to reduce their activity in the market, some entirely, which contributed to the significant fall in securities lending activity by late 2008. This situation contributed to impaired market liquidity for certain types of securities and exacerbated funding issues for banks and non–financial companies. However, losses at individual players upon liquidating posed no real threat to the system or to their counterparties.

During episodes of stress, interconnectedness can cause contagion when problems at one or few institutions are transmitted across networks, impacting counterparties and their customers. Lehman Brothers, for example, was a large borrower in the securities lending market and often borrowed securities on behalf of clients, such as hedge funds. When Lehman Brothers failed, most beneficial owners were able to liquidate their collateral and replace their lost securities. But a few beneficial owners struggled to liquidate their collateral and made losses. Hedge funds that had borrowed securities via Lehman Brothers found it difficult to reclaim the collateral that they had pledged to Lehman Brothers in order to borrow securities. This was partly due to re–hypothecation of collateral by Lehman Brothers, a practice that involves using collateral posted by its clients as collateral for other purposes.

In addition, in its report on securities lending and repo[43], the FSB has recently expressed concerns about the use of collateral. In particular, it has argued that securities lending and other forms of securities financing

> may allow financial institutions (including some non-banks) to obtain leverage in a way that is sensitive to the value of the collateral as well as their own creditworthiness. As a result, these markets can influence the leverage and level of risk-taking within the financial system in a procyclical and potentially destabilising way.

> Sudden shifts [in collateral values] however have tended to follow unexpected common shocks to a large section of the collateral pool, such as the deterioration in the U.S. housing market affecting ABS markets, and doubts about the creditworthiness of some European government issuers affecting government bond. These can cause market participants to exclude entire classes of collateral from their transactions, creating a vicious circle. ... Changes in the market value of lent securities (e.g. equities) feed directly into changes in the value of cash collateral required against securities lending and then reinvested in the money market. This creates a procyclical link between securities market valuations and the availability of funding in the money markets.

As noted in Case Study 3, in its joint response with ISDA to the paper by the Committee on the Global Financial System The Role Of Margin Requirements And Haircuts In Procyclicality ('CGFS 36'), while noting that some element of procyclicality in normal economic circumstances is inevitable and indeed desirable in the financial system, the IIF and ISDA acknowledged that margins and collateral had some procyclical characteristics.

However, as with repo,

> this procyclicality should be seen in perspective, and one should not overstate the role that margins and haircuts played in the crisis as a whole. Liquidity constraints and creditworthiness concerns led banks to actively manage down exposures. The increase in haircuts and margins in SFTs could be argued to be an "after the fact" effect, rather than the primary driver of liquidity crisis and the subsequent capital crisis.

During the crisis losses in the securities lending market as a result of the failure of two major dealers were minimal and in fact many counterparties were drawn to the stock loan market for re–investment as it was considered a safe haven. Equity collateral was mostly liquid and a clear price was readily available. No equity securities lending lines were terminated and haircuts held up at normal levels. As such some argue the securities lending product did not add to the disruption.

As with repo, the FSB has also argued that re–hypothecation and collateral velocity, or the length of collateral re–use chains, can be procyclical. Nevertheless, it noted that the length of "re–pledging chains" has shortened significantly since the crisis and that many lenders will accept only high–quality government bonds as collateral or cash collateral that they will reinvest at short maturities in high–quality government bond repo, Treasury bills and/or in MMFs.

For their part, most Prime Brokers either post most of their collateral directly with funding counterparts that safe keep the assets or they house them in tri–party. Re–pledging such assets is not a feasible practice in the equity securities lending market. In that sense the securities lending chain is very short. The major dealers do not lend to each other. Where real money funds or securities lending counterparties take the assets versus cash or stock loans – the asset remains with that fund.

Question 7. Disclosure and transparency

There are currently no ongoing requirements to file securities lending transaction records with regulators. Regulators regularly request securities borrow/loan records, particularly in the event of several fails in the market place. There are private data service providers that track securities lending–related data and provide access to such data to subscribers for a fee.

Transactions are usually conducted bilaterally rather than through a centralized exchange, which leads to limited transparency on the fees paid for borrowing securities. However, the majority of market participants use data from companies that collect and distribute data on the securities lending market. Their data includes information on fees and volumes of certain types of securities.

Some have raised concerns that a lack of easily available data on pricing can lead to inconsistent pricing methodologies being adopted and can lead to uncertainty. In turn, that can potentially lower volumes, particularly during periods of high volatility. Others, including the Risk Management Association in the U.S., refute the general point about a lack of transparency. Indeed, detailed securities lending information is more readily available to the market than is the case with repos. It is not clear that more information would have helped in the Lehman Brothers case.

Another concern is that securities lending may also

43 FSB, Securities Lending and Repos: Market Overview and Financial Stability Issues, Interim Report of the FSB Workstream on Securities Lending and Repos (April 2012).

create opacity in risk exposures when the institutions involved, as well as other market participants, such as their clients and counterparties, do not fully understand the risks to which they are exposed as a result of these transactions. This issue is more generally accepted although may result not from a lack of information but from a lack of expertise in analyzing the available information.

Market participants, such as investors in investment funds and banks' counterparties, may also find it difficult to understand the risk exposure of institutions due to securities lending. Many institutions do not publish data on the size of their securities lending exposures. This might make it more difficult for participants to assess the risk of these institutions.

In the case of banks, for example, that are large borrowers of securities, securities lending can lead to a significant amount of assets being pledged as collateral. This means that a portion of their assets are encumbered– another party has legal claim over them. The proportion of a bank's balance sheet that is encumbered in this way may be unknown to other market participants.

Encumbrance can be an issue for unsecured creditors of a bank as it means they have fewer assets to lay claim to if the bank fails. So, in a stressed situation, depositors and creditors may be more uncertain about being repaid, potentially leading them to withdraw their funding pre-emptively.

Question 8. Regulation and other risk mitigation

Securities lenders are regulated financial institutions. Securities borrowing and lending activities are subject to EU regulation under the general regulatory requirements of the Markets in Financial Instruments Directive (MiFID 2004/39/EC). Firms incorporated and authorized in one Member State may conduct stock-borrowing and lending activities in other member states under the passport arrangements.

Any person who conducts securities borrowing or lending business in the United Kingdom would generally be carrying on a regulated activity in terms of the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 and therefore would have to be authorized and supervised under that act unless an exclusion were applicable. Individuals involved in securities borrowing and lending may be subject to the FSA's approved-persons regime. The securities borrowers or lenders would, as authorized persons, be subject to the provisions of the FSA Handbook, and they would also have to have regard to the market abuse provisions of the Financial Services and Markets Act 2000, the Market Abuse Regulations, and the related Code of Market Conduct issued by the FSA. The Conduct of Business Sourcebook may require a beneficial owner's consent to stock lending on its account. The FSA Handbook contains rules, guidance, and other provisions relevant to the conduct of the firm concerned in meeting the FSA's High Level Standards.

Providers of electronic trading platforms, used by some participants in the securities borrowing and lending market, may be regulated as the operators of Multilateral Trading Facilities, which have a dedicated regulatory regime in the United Kingdom set out in section MAR5 of the FSA Handbook

The Bank of England's Securities Lending Code of Guidance 2009 governs market participant's conduct for this activity. There is also a Securities Lending Agent Disclosure Code of Conduct, drawn up by the Securities Lending and Repo Committee, a group of market practitioners chaired by the Bank of England.

Securities lending transactions are specifically exempt from several of Basel III's new rules, but there remain potential impacts on indemnification and the use of central credit counterparties across a variety of product types.

The securities lending market in the U.S. is highly regulated and has been for many years. Among the regulations that directly relate to securities lending are Regulation T of the Board of Governors of the Federal Reserve System (specifies the conditions under which a U.S. broker-dealer may engage in securities lending transactions.); Rule 15c3-3 under the Securities Exchange Act of 1934 (requirements for how a U.S. broker-dealer documents and collateralizes securities borrows from customers, including the types of acceptable collateral and the amount of collateral that must be provided, setting a minimum of 100%); Exchange Act Rule 15c3-1, which has provisions that relate to how a U.S. broker-dealer must adjust the minimum net capital it is required to maintain based on its securities borrowing and lending activities; and indirect regulations, including Rule 204 and the other rules under Regulation SHO, primarily having a direct effect on the demand side of the market.

On the borrowing side, there are also regulations, such as the Investment Company Act of 1940 and the Employee Retirement Income Security Act, which directly impact the supply side by setting conditions on securities lending for investment fiduciaries.

In the U.S., the SEC has authority over securities lending as noted in Section 984 of Dodd-Frank.

However, a year after the signing of the Act, the SEC has given no clear indication of how it intends to adapt the regulation of securities lending or what data must be provided to ensure supervision. Ultimately, the SEC is expected to provide new reporting and transparency requirements for securities lending in U.S. markets.

Securities lending activities are also generally governed by standard form industry contracts, notably the Global Master Standard Lending Agreement.

Conclusion

Securities lending is already a regulated activity in many respects. Securities lending activity is short in duration, fully collateralized, is marked to market daily, does not use leverage, is for the most part very liquid, is largely conducted between prudentially–regulated (banks and broker–dealers) or soon to be prudentially–regulated entities (hedge funds); and in these respects, it does not trigger systemic risk concerns.

Securities lending is a well–established investment technique generating important incremental revenues for long–term institutional investors. The activity is driven by investor demand to hold safe, liquid assets, and in this regard is an extremely important contributor to financial stability. Collateralized lending of securities has helped to enable financial globalization, as it enables global counterparties to transact with each other on the basis of secured collateral rather than a direct counterparty relationship. A globalized/globalizing economy has large liquidity needs, which can be met only by a collateral–based financial system. There is a delicate and dynamic relationship between money demand and the funding liquidity of assets in economies where collateral is central.

Securities lending improves the reliability of the trade settlement process as institutions' ability to borrow securities helps to reduce settlement failures. This can enhance market liquidity indirectly as it contributes to efficient settlement and investor confidence when trading. By supporting trading strategies such as covered short selling, securities lending further increases market liquidity.

Liquid and safe collateral is the main form of money for large firms, asset managers, and financial institutions. Unsecured bank deposits can never play this role. The efficiency advantages of a collateral–based financial system include its adaptability and reduced need for costly relationship–based lending, which is also limited in times of stress by counterparty credit risk concerns.

In these regards, securities lending should continue to play a key role in reducing Europe's reliance on traditional relationship–based bank lending and increasing the use of capital markets–based financing.

Nevertheless, as with repo, the financial crisis showed several risks and weaknesses in the functioning of the securities lending market, particularly in regard to disclosure and transparency and particularly from the interconnectedness of the system. As is noted above, in 2008, losses for some securities lending participants led to more widespread counterparty concerns in the securities lending market. This prompted some participants to reduce their activity in the market—some entirely—which contributed to the significant fall in securities lending activity by late 2008. This situation contributed to impaired market liquidity for certain types of securities and exacerbated funding issues for banks and non–financial companies. Although, most beneficial owners were able to liquidate their collateral and replace their lost securities following Lehman Brothers' failure, a few beneficial owners struggled to liquidate their collateral and made losses. Hedge funds that had borrowed securities via Lehman Brothers found it difficult to reclaim the collateral that they had pledged to Lehman in order to borrow securities.

A lack of transparency in risk exposures and a failure by beneficial owners to appreciate the counterparty and liquidity risks involved in their securities lending programmes before the financial crisis also increased the level of risk. A full review by beneficial owners of counterparty creditworthiness combined with basic parameters of diversification, concentration, liquidity and asset–liability management could significantly reduce the probability of a significant loss.

Greater disclosure and transparency to the regulators of securities lending transactions is a key initial step, and this might usefully be accomplished via a trade data repository; however, as in the derivatives arena, establishing multiple trade data repositories is to be avoided, if possible. As with repo, however, regulators should not overstate the extent of the problem here and should consider targeted and effective responses.

CASE STUDY 5. CHINESE TRUST COMPANIES

Questions 1 and 2. Nature and generic characteristics of the activity

China trust companies raise funds from cash-rich companies and High Net Worth Individuals seeking higher returns and investment alternatives to bank deposits, as official deposit rates are subject to an administrative ceiling. Rather than invest the funds in a wide range of investments, trust companies invest them in specific areas such as infrastructure or real estate (see below). Trust companies are leveraged and have typically shorter term liabilities than assets.

Trust products can be categorized by structure and investor profile into property management trusts and capital trusts (single-and combined-unit trusts).

A property management trust manages non-monetary assets, and it can be either an investment product or a service. For example, this type of trust can be structured around investing in the income rights to toll roads, or it can offer a service of managing refinancing risk over leases for an auto finance company. A single-unit trust is a product offered to a single investor. In general, single-unit trusts generate lower fee and commission income, as the client, typically a large institutional investor, determines the products. These can range from low fee-paying bank-trust cooperation products[44] and entrusted loans[45] to higher fee-paying products in which clients lay out specific investment criteria. Combined-unit trusts are products that are sold to multiple investors.

The range of investments can be quite wide:

- Real estate trusts, finance investment in real estate. For most developers, trust loans make up less than 10% of their loans. Debt maturity is a few months to a year, and the interest rate ranges from 10% to 30%.
- Infrastructure trusts (government-trust cooperation products) finance public works projects. The majority focus on second-tier and third-tier city construction by local governments because many of them are unable to secure sufficient financing for their infrastructure enterprises.
- Security investment trusts invest in products such as structured securities, privately managed equity funds "Sunshine Funds", and other securities listed on both the primary and secondary markets.
- Private equity investment trusts lends to small and medium enterprises (SMEs) with debt-equity hybrids.
- Qualified domestic institutional investor (QDII) products invest abroad. The application criteria for a QDII license are extremely rigorous, and there are currently 5 trusts that have QDII license. The first QDII product was launched in 2010, and it invested in stocks and bonds listed in Hong Kong.

Traditionally, trust companies raise funds from investors directly. However, in some cases, commercial banks act as a broker between investors and trust companies in exchange for a fee.

Trust Loans[46]

Trust loans refer to credit extended through a specific type of trust product created jointly with banks and whose underlying assets consist solely of loans, which are generally short-term and typically mature within a year. Trust loans are sold by banks to their retail depositors or small investors after securitizing them through a trust mechanism. There is no legal obligation on the bank once the loan has been sold, and accordingly the bank does not take credit risk. However, in reality, it is quite possible that the bank as well as the trust company (that facilitated the securitization) come under pressure to make up for the loss in case of a default.

Issuance of these products has fallen amid stricter regulation. However, many market participants have incorrectly extrapolated this to mean that all trust activity has waned when, in fact, issuance of other trust products remains robust.

Trust companies have also started to engage in an increasing array of activities that have usually fallen to more conventional intermediaries including

- Underwriting bonds;
- Acting as trustees for ABS issuances;
- Acting as asset managers;
- Acting as custodians;
- Providing Real Estate Investment Trusts;
- Providing arbitrage security trusts (i.e., arbitraging

44 A bank takes a selection of high quality loans from its loan portfolio, or a trust company grants new and low-risk loans at the behest of a bank, and repackages them into a wealth management product.

45 A bank acts as an agent of entrusted funds from the "Principal" (government departments, enterprises/public institutions or individuals). The entrusted funds are administered by the bank according to target borrowers, purpose, amount, term and rate. The bank collects handling charges and will not undertake any loan risk.

46 Whereas Entrusted loans represent tri-party loans in which entities not legally permitted to extend loans (e.g., corporate to corporate) do so by entrusting the money to a bank or finance company, which then on lends the money to the designated borrower. Banks act merely as transfer (paying) agents in such transactions, and take on no direct credit risk. The use of banks as paying agents allows CBRC to track this sector.

price differences between similar financial instruments, such as short term bonds and MMFs in different markets, exchange–traded funds; and individual stocks, warrants and convertibles.)

Trust companies have also recently developed alternative products to raise new funds:

- Property project trusts: These trusts invest in equities of project companies set up by property developers. The trust pays a fixed yield to the investor until the equities are bought back based on a repurchase agreement.
- Interbank trust: Banks package discounted bills into trust products or attract trust funds as "negotiated deposits."
- Equity linked trust: Issuers receive funding by pledging equity stakes or selling the capital gains of stocks to trust, with a guaranteed minimum yield.
- Trust of trust (TOT): A product invests in trust products issued by other major trust companies (annual yield of 7.5% compared to average trust yield of 10%).

Thus, trust companies are constantly evolving, offering new products and carrying out new activities to raise funds or increase profits. As the case study shows below, part of this is in response to regulatory changes.

Question 3. Scale of the activity

Since its peak in late 1990s, the number of trust companies has fallen from more than 1,000 to about 65, largely in the face of regulation following a meltdown of the sector (see below). According to the China Trustee Association, there were 65 registered trust companies at the end of 2011. Total assets under management (AUM) were CNY4.81 trillion (US$764 billion), up 58% from the end of 2010. Single–unit trusts accounted for 68% of total assets.

Total capital trusts (single– and combined–unit trusts) were CNY4.6 trillion (US$737 billion) by the end of 2011 (whereas bank lending was US$6.8 trillion), compared to CNY2.9 trillion (US$459 billion) in 2010. In terms of forms of funds application, loans accounted for 37%. In terms of the target sector, 22% went into infrastructure and 15% into real estate.

In terms of AUM by product composition, bank–trust cooperation products reached CNY1.65 trillion (US$265 billion, 35% of AUM), and government–trust cooperation products accounted for 5.3% of AUM.

In addition to the China Trustee Association, Use–Trust Studio and Wind Information Co. also collect data.

Chart 5.1.

Trust Assets Under Management (AUM)

Source: China Trustee Association

Chart 5.2.

Trust Assets by Type: 2011

Source: China Trustee Association

Question 4. Risks posed by the activity

In a sense, the systemic risk posed by the "failure" of trust companies has already crystallized.

From 1979 to 2000, trust companies were growing massively while regulatory constraint was placed on other players in the financial sector. By the end of 1992, the number of trust companies reached 1,000. Government entities used these trust companies to invest in key areas of economic development. The most common function of these trust companies was lending to government entities' construction subsidiaries in which trust companies would play the dual role of both the overseas and domestic partner.

Several notable bankruptcies occurred during this period because of poor credit assessment and structure of the trusts. For example, Hainan ITIC defaulted on US$370 million worth of Samurai bonds that were owed to Japanese creditors. In 2010, the IMF estimated total debt of TICs reached between US$12 billion and US$20 billion.

In 2000, the Peoples' Bank of China, the regulator of the trust industry then, ordered all trust companies to cease businesses and resubmit certification applications. The establishment of the Trust Law in October 2001 significantly reduced the business scope of trust companies (i.e., companies were not allowed to borrow from overseas, to guarantee minimum returns, or to take deposits).

At the moment, there are some risks to commercial banks and other informal lending sectors, as well as to investors.

As banks' direct involvement in trust lending is low – acting solely as "brokers," banks would bear perhaps some reputation risks (i.e., accusations of mis-selling) if trust loans became non-performing, as they are sold to the bank's own clients.

Given that wealthy individuals generally do not borrow to invest in wealth management products, trust loans have limited direct credit exposures to the commercial banks. Defaults by trust loan borrowers would not directly add to the non-performing loans (NPLs) of banks.

However, there might be some second-order effects that would increase NPLs at banks. For example, since 2010 Chinese regulators have implemented numerous macro-economic policies to cool down the property sector, making credit risk a prominent issue for loan-type single- and combined-unit trust products. Property developers already borrow on a very large scale from banks (accounting for 8% of total bank credit). If property developers faced demands for redemption from investors, their repayment ability would be affected. If they defaulted and trust companies' own capital was insufficient to cover the loss, this could cause liquidity risk. However, trust companies could ask for help from their shareholders (which are mostly large state-owned enterprises, local government financing vehicles, insurers, and banks). Given that trust licenses are limited and that the CBRC may suspend the license in case of default, shareholders have strong incentive to step in by granting loans to the issuers. The same is true for SMEs, where loans from banks account for about 22% of total outstanding loans. There could also be a domino effect in other parts of China's informal and formal lending system. This risk is highlighted by Fitch (2011).

Given that individual investors have little knowledge of the financial conditions of the projects in which the trusts have invested, partly because of lack of disclosure, isolated cases of default could possibly lead to a widespread redemption, which could cause liquidity stress to the trust companies. If this redemption occurred, the amount of trust lending would likely decline in the short-term, with money flowing back to the banking system in the form of deposits, benefitting banks with a flight to quality.

In the immediate future though, these are all unlikely to represent systemic financial risks.

Question 5. Risks from entities undertaking the activity

As noted in Questions 1 and 2, trust companies are leveraged and have typically shorter term liabilities than assets. In this sense, they are subject to the same risks of insolvency and of a "run" on liabilities as are many funds (and banks), especially when a sudden change in policy favoring the formal sector in attracting deposits is introduced, which potentially creates sudden liquidity shortages in trust companies. However, these risks are mitigated by the existing prudential regulatory framework (see Questions 7 and 8).

Question 6. Risks from interlinkages with the rest of the financial system

We do not see potential systemic risks from interlinkages with the rest of the financial system for now—based on the scale of trust company activity vis à vis banking. However, if there were a sharp correction of property/asset prices, (and/or) accompanied by a hard landing of the economy, trust company balance sheets would deteriorate quickly, and the financial risks may impact bank balance sheets, for example, via the forced

sale of assets diminishing asset prices. While there is an impact, this is an simultaneous effect that everybody else suffers from the same root cause, and we do not see this as posing material systemic risk considering the scale of the activity.

At a non–systemic level, if in the light of an economic shock, trust companies stopped providing liquidity to SMEs, SMEs might borrow from other informal lending channels that charge a much higher interest rate, reducing their access to credit and exacerbating any economic downturn.

Questions 7 and 8. Disclosure, transparency, and regulation

Prudential regulation

In September 2010, the CBRC published the Measure for the Administration of Net Capital of Trust Companies. Trust companies need to report on, and apply certain risk weightings to AUM in their 2011 financial statements. This regulation ensures that each trust fund is sufficiently supported by capital and discourages channel–type products (i.e., bank–trust cooperation products) that lack direct input or risk oversight from the trust company. Specifically, trust companies are subject to a form of prudential regulation, where a calculation of net capital (net assets minus prescribed deductions) cannot exceed a calculation of risk capital (a type of standardized approach to risk weighted assets).

Conduct-of-business regulations

Over the past decade trust companies have constantly evolved, the CBRC has issued a series of circumstantial regulations, [chasing trust company activities, rather than being based on general principles].

- In 2001, the issuance of Trust Law established the legal basis for the trust companies. In 2002, the PBOC released the Provisional Rules on Entrusted Funds Management of Trust and Investment Companies. These were aimed at improving regulatory oversight and establishing a penalising mechanism for companies operating outside of the law. As a result, trust companies' business scope was sharply reduced. However, the companies quickly rebounded.
- In 2003, the CBRC took over oversight and launched investigations into the trust sectors and discovered three scandals in 2004. The CBRC thus required trust companies issue annual financial statements, and the number of players dropped dramatically by 2005.
- In 2007, the CBRC instituted a series of new regulations to restructure the trust sector. Trust companies needed to be compliant with new regulations and risk management guidelines within 3 years in order to be certified. As a result, 10 trust companies underwent restructuring and have been successfully relicensed.
  - The Measures for the Administrative of Trust Companies set guidelines to restructure the trust sector as an investment vehicle for institutional investors.
  - The Measures for the Administration of Collective Funds Trust Schemes of Trust Companies define qualified investors, set restrictions on the promotion of trust products, and create requirements for the custodians of trust assets.
  - The Trust Company Governance Guidelines require trust companies to establish corporate governance structures in line with banks (i.e., create a board that includes independent directors, internal audit and risk management committees). As a result, the corporate governance of trust companies improved significantly.
  - The Measures for the Administration of Trust Companies' Overseas Financial Management Business permitted trust companies to apply for QDII licenses. The application criteria are particularly rigorous; trust companies are required to have no less than CNY1 billion in registered capital. The companies must have generated a profit and received good ratings by the CBRC over the previous 2 years. The CBRC also has high standards for corporate governance and risk management processes.
- In 2008, the CBRC issued the Guidance for Trust Companies to Operate Trust Private Equity Investment Business, detailing the key operational guidelines for management of PE investment trust products.
- In August 2009, the CBRC released Risk Alert on Trust Company Equity Trading Accounts to prohibit trust companies from opening new share–trading accounts without first closing another existing account.
- Between 2009 and 2010, the trust sector once again grew dramatically. The CBRC was concerned about the sustainability of the risk management processes and aimed at transforming trust companies into well–managed third–party wealth management institutions. It published guidelines regarding higher risk trust investments in private equity, security, infrastructure, real estate, and bank–trust cooperation products.

- In 2009, the CBRC announced a new revision that characterized investors with investments equal to, or in excess of, CNY3mn (US$476,190) as institutional investors, thus exempting them from the cap of 50 individual investors per product. These regulations also limited the number of loans a trust company can make by weighing outstanding loans against the trust's AUM balance (loans cannot exceed 30% of the AUM without CBRC approval).
- In November 2009, the CBRC published the Guidance Forbidding Public Fund Raising with Local Government Guarantees to address concerns about those funds supported by implicit (especially municipal) government guarantees.
- In February 2010, the CBRC issued the Notice to Trust Companies to Strengthen the Supervision of Real Estate Trusts, which required trust companies to pay greater attention to management of real estate project-related risks. Real estate developers must meet the "Four Pass" test and can seek trust financing for only up to 65% of the total project cost.
- However, this notice did not slow down the growth of real estate trust products. In December 2010, the CBRC swiftly issued Risk Alerts on Trust Company Real Estate Trust. As a result, trust companies began to use risk mitigation measures, including the following:
  - Increasing collateralization above the 100% mark;
  - Pledging the equity of unlisted companies;
  - Adding credit enhancements, such as credit guarantees; and
  - Using specialised structures to reduce risk.
- The CBRC also issued the Guidance on Supervisory Ratings and Classified Regulation of Trust Companies. The ratings are developed based on evaluations that focus on corporate governance structures, risk controls, regulatory compliance, asset management capabilities, and profitability of trust companies. Regulators give scores on a scale of 1 to 6 (with 6 being the worst score). (This information is not publicly available.)
- In January 2011, the CBRC issued the Notice on Further Regulating the Wealth Management Cooperation Between Banks and Trust:
  - First, the commercial banks must transfer the off-balance-sheet assets concerning bank trust wealth management cooperation into their balance sheets by the end of 2011. Detailed transfer plans had to be submitted to the CBRC headquarters or its provincial offices before January 31, 2011. In principle, the bank trust cooperation loan balances should be reduced by at least 25% quarterly.
  - Second, trust companies should draw 10.5% of the remaining off-balance-sheet bank trust loans as risk-based capital.
  - Third, trust companies should not draw dividends if the trust compensation reserves fall below 150% of the non-performing bank trust loans or 2.5% of the total balance of bank trust loans.
- In mid-January 2012, the CBRC imposed a nation-wide ban on the sale of trust products that invest in commercial paper, which had become a popular way for China's SMEs to secure funding.

After all these regulations, the scale of the trust industry has shrunk significantly even after its recent revival, compared to the late 1990s. However, it should be considered whether this has just pushed the money out of trust industry into unregulated areas.

Conclusion

At the moment, the China trust sector does not pose systemic risk for the following reasons:

- Its relatively moderate size of a total AUM of US$764 billion at the end of 2011 (compared to bank lending of US$6.8 trillion);
- Recent conduct-of-business regulations that narrowed trust companies' business scope significantly and improved their corporate governance, risk management and compliance among others and prudential regulations that require sufficient capital; and
- Limited spill-over effect if borrowers default and trust companies' own capital is insufficient to cover the loss because shareholders have strong incentives to step in by granting loans to the issuers.

However, the case of China trust companies illustrates how systemically important their activities can be and how nimbly they can change their business models. It also suggests that regulators should monitor their development and regularly review whether any factors in this assessment have changed.

Further Reading

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2. Mainland China Trust Survey, KPMG, 2011.
3. China's Trust Sector: A New Chapter, KPMG, 2008.

4. Chinese Banks: Growth of Leverage Still Outpacing GDP Growth, Fitch Ratings (July 2011).

5. Trust Market: Innovation, Innovation And Innovation, Bank of America Merrill Lynch (February 2012).

6. China Trustee Association (http://www.trustee.org.cn).

CASE STUDY 6: SOFOLES IN MEXICO

Questions 1 and 2. Nature and generic characteristics of the activity

Mexican "Sofoles" are predominantly small financial institutions specialized in mortgage intermediation. Their main activity is providing mortgage lending to lower–middle income households – primarily in the informal sector – who are unable to benefit from government support programs or broader financing alternatives. However, they also provide homebuilders with short–term financing.

Sofoles do not take deposits and until 2008, relied on the issuance of mortgage–backed securities (MBS) to finance the loans. Mexican authorities supported the development of this market in the 2000s, recognizing the difficulties of the regulated mortgage market.

Those involved with Sofoles are borrowers (homebuyers and homebuilders), institutional and private investors; the Mexican federal government—acting as lender of last resort and backing their debt issuance—and credit–rating agencies.

Prior to the financial crisis, Sofoles were unregulated and unsupervised, mainly because they did not receive deposits directly. They benefited from a stop loss guarantee (SLG) provided by the federal government on their issuances. (In this regard, they are akin to a private sector version of U.S. government sponsored entities Fannie Mae and Freddie Mac.) Credit rating agencies used this as a sufficient criterion to give their MBS a AAA rating. These entities applied looser lending standards (higher loan–to–value ratios and lower income requirements than those of banks) for subprime borrowers and applied lower standards in the design and structure of their MBS.

Because Sofoles used short–term funding for longer term assets, the maturity mismatch between loans and liabilities was crucial to the Sofoles' distressed condition during the financial crises of 2008 and 2009. Securitization helped finance mortgage loans, but they also were active in homebuilding financing, which required short–term financing. Their average term of short–term liabilities halved during the financial crisis, from approximately 130 days in mid–2008 to around 60 days in early 2009. Even more, the interest rates of that short–term funding increased by up to 400 basis points over the same period. Not surprisingly, the interest expenses, as a share of their gross total income, increased in 2008 from 60% to over 70% in a matter of months.

Credit risk was transferred by Sofoles to investors through securitization, because they were not required to retain part of the collateral on their balance sheets. However, investors were unaware of the possible outcomes associated with their lending practices or the quality of the collateral in the MBS issuance, partly as a result of their relative opacity.

Question 3. Scale of the activity

Figure 6.1. MBS issuances

(Bn Pesos 2011 prices)

Source: BBVA Research with Infonavit, Fovissste, and SHF data

Figure 6.2. MBS issuance: 2003-2011

(Bn Pesos, cumulative amount, 2011 prices and % share)

Source: BBVA Research with Infonavit, Fovissste, and SHF data

The roll–out of MBS in Mexico began with Sofoles issuances in 2003. From then until 2008, these institutions issued a total of 35 MBS for an amount of 44 billion pesos (at constant prices, equivalent to around 4 US$ billion[47]). This represented nearly 75% of their total portfolio of 59 billion (5.4 US$ billion). In sharp contrast, issuances by banks amounted to 33 billion (3 US$ billion), roughly 9% of their 360 billion (32.7 US$ billion) portfolio.

The importance of Sofoles can also be measured by comparison with public sector housing institutes that are the most important mortgage generators in the country. The amount issued by Sofoles represented over a third of issuances from public institutions between 2004 and 2011. Taken together, they total 126 billion pesos (11.5 US$ billion).

The Comisión Nacional Bancaria y de Valores (CNBV), the government agency responsible for financial institutions' regulation and supervision in Mexico, is currently collecting data from the Sofoles. Before the crisis, the CNBV did not collect adequate data to assess the risks, but since then they have been improving data collection in terms of both lending and MBS issuance (see Question 7).

Question 4. Risks posed by the activity

Because Sofoles were focused on lower–middle income households with inadequate risk assessment, partly because of the implicit subsidy element and thus the weak incentives for sound origination and underwriting, their MBS had extremely high non–performing rates. For example, their latest issuances, in 2007 and 2008, started to show non–performing rates of up to 10%, as early as 3 months after the issuance.

During the financial crisis, Sofoles were hit hard, which increased delinquency rates of the underlying loans. Although Sofoles had Stop Loss Guarantees, they covered only a part of the loss. By the end of 2011, the three biggest Sofoles, which provided over 80% of issuances made by these types of institutions, saw non–performing levels in the 30%–45% range, much higher than those of banks, which had better origination and underwriting (see Figure 6.3).

However, when the global financial crisis hit, the development of Sofoles was still at an early phase, so the impact was more limited than it might have been. Had the Sofoles market been bigger, their MBS issuances would probably have been higher. Had they defaulted, the impact on the Mexican financial system – and the perception of risk in the system – could have been significant.

47 Using the average Forex rate over the period 2003–2008.

If such defaults were to happen now, however, losses from Sofoles would have only a small impact on the private sector, because the government guarantee covers up to 35% of total issuance, and the federal government is the biggest investor. (In that sense, it can be said that the moral hazard created by the implicit government support has made Sofoles non-systemic.) The government and the second largest investor, pension funds, have 80% of the total outstanding titles. The remaining 20% is in the hands of insurance companies, private investors (domestic and foreign), and commercial banks. The total stock of MBS issued by Sofoles currently amounts to nearly 44 billion pesos. Some estimates point to a nearly 50% recovery rate in the event of foreclosures. So, roughly speaking, potential losses can be estimated in the range of 20–25 billion pesos. In absolute terms therefore, there potential losses to either society or investors from a default are rather small.

Non-performing MBS portfolio: Banks vs. Sofoles %

Source: BBVA Research with SHF data

Question 5. Risk posed by entities undertaking the activity

Even beyond these risks, there were mismanagement practices in some of the most important Sofoles, leading in some cases to fraud charges against their chief executive officers, who were at the same time the owners. Conditions would have been different if the institutions had had a more professional board of directors and had been subject to more rigorous regulatory requirements. There were also moral hazard problems because the risk assumed by Sofoles was taken on by others, with the government ultimately forced to act as lender of last resort.

Question 6. Risk posed by linkages with the rest of the financial system

As the main players in the MBS market at the time of the financial crisis, the collapse of Sofoles was arguably a factor in the freezing of issuing activity for other players, in particular banks. During the crisis, the access of Sofoles to funding in financial markets was shut down. Investors became wary of MBS as a whole and suddenly tightened conditions of underlying assets, required higher yields and collateralization.

As a result, MBS by Sofoles became unprofitable to the private sector, and since mid-2009 public institutes are the only ones currently issuing MBS. For example, on average, public institutions' MBS yields exceed that of banks and Sofoles by more than 150 basis points, with an inflation adjusted bond value and an overcollateralization rate of around 25% (while that of Sofoles never exceeded 5%, and the maximum for banks was 10%, in 2009). Thus, the mortgage market has become dominated by public sector agents. It can be said that Sofoles were partially responsible for increasing the cost of financing for the whole industry.

Moreover, the turmoil caused by Sofoles has heightened investors' perception of risk in the Mexican financial sector as a whole and has had a dampening effect on funding of other originators and perhaps even the Mexican financial sector as a whole.

Sofoles' last MBS issuance was in mid-2008. Since 2009, their only source of finance has been a credit line from the federal government to provide them with liquidity to restructure short-term liabilities.

In addition, the absence of more participants in the bond issuance market has caused investors their own problems in terms of portfolio diversification, for example. Pension funds are currently covering only less than 20% of what they are allowed to in this kind of instruments. Potential investment just from this source is estimated to be around 230 billion pesos (18.3 US$ billion).

Thus, the crisis effectively shut down the activity of Sofoles, with a negative spill-over effect on wider financial areas. However, if the crisis had not "intervened," Sofoles would likely have kept on growing with their opaque and low-quality structuring practices and have become systemically risky. The impact on the Mexican financial system could have been significant.

Question 7. Disclosure and transparency

While initial standards of disclosure and transparency were weak, the market and the government have learned from the Sofoles experience. The government

has now placed much greater emphasis on improving transparency by requiring mortgage lenders to present detailed and standardized information on the credit terms and conditions, as well as reporting on a monthly basis to the regulatory authorities on their portfolio performance, which includes expected losses. Sofoles are now reporting their lending activities using the same formats as banks do, and on their past MBS issuances, they are required to present their collection and payment distribution reports regularly. Because the level of detail on these reports vary according to the terms of each contract[48], an additional standardized report will be requested (as of late 2012 or early 2013) with detailed information on their loan portfolio.

For MBS issuances, a "price calculator" is now compulsory for all institutions that have or plan to issue MBS. Regulations ensuring standardized and fully comparable information on the structuring process are in the course of being implemented, probably effective from 2013. As a result of the crisis, there are thus better tools for the federal government to assess the risks associated with this activity.

Question 8. Regulation and other risk mitigation

The crisis has also led to tighter requirements in terms of reserves, collateral, and capital held by issuers. Measures were also adopted to clarify the functions of different intermediaries involved in the securitization process, as well as the regulation applicable to each of them.

For a start, Sofoles are required to have capital requirements at the same level as that of commercial banks. Also, when delinquency rates for Sofoles exceed 10%, they are required to cover 60% of their loan portfolio with reserves, as a condition to maintain access to public funding sources from Sociedad Hipotecaria Federal.

They are also required to comply with stock market disclosure and reporting standards. A specific regulation for the Sofoles, already approved and becoming effective in 2013, requires them to either convert themselves into a bank (or merge with one) or, as long as they seek funding in the financial market, to meet the same disclosure requirements (both in terms of detail and regulating authorities) as those of commercial banks.

Conclusion

Sofoles were part of well–intentioned policies aimed at improving financial inclusion. However, their design and implementation were deficient, including lax regulation, poor incentives for sound underwriting, and insufficient transparency, which in some cases allowed for mismanagement practices. All these, compounded by the stigmatization of securitization in global financial markets after the crisis, led to widespread solvency and liquidity problems in the sector, whose liabilities (and potential losses) were absorbed by public sector entities.

The Sofoles case illustrates the types of problems that non–bank financial activities may create in emerging markets. Namely, that without the proper incentives, regulation, and transparency, even small institutions could generate major losses for the financial system and society. Regulation efforts have been important and are heading in the right direction, especially as they have resulted from consultations with other market participants. Sofoles themselves are no longer important market participants but those that survived are being more closely supervised. However, the real measure of success should be full normalization of the MBS issuance market, something that is still to be seen. Furthermore, regulators will need to monitor the effects of the new disclosure standards and regulation.

48 At the moment, the collection and payment distribution reports vary considerably because they vary according to the terms set in the contract.

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May 21, 2012

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Public Comment on Suitability Requirements with respect to the Distribution of Complex Financial Products

Dear Sir,

On behalf of the Institute of International Finance, the International Banking Federation, and the Joint Associations Committee on Retail Structured Products, (the JAC)[1] together 'the Associations', we welcome the opportunity to comment on the consultation report *"Suitability Requirements with respect to the Distribution of Complex Financial Products"* – henceforth "the draft Principles" - prepared by the Technical Committee of the International Organization of Securities Commissions (IOSCO) and issued for comment in February 2012.

On March 11th, 2011, the Associations wrote to IOSCO, welcoming the then-ongoing work on international principles on suitability requirements, and suggesting a number of principles. We argued that "*It is of absolute importance that investors of all levels of sophistication and capability be treated fairly, honestly, efficiently and professionally, and appropriate standards on suitability analysis are essential to the pursuit of those goals. […] We would argue however that there is a further public policy interest in addressing this issue: that of mitigating any potential damage to investor protection from different or divergent national or regional approaches on these issues. Indeed, the Associations would very much encourage further work on convergence in these areas, which will become increasingly important in the years to come as markets continue to globalize and investors of all levels of sophistication and capability seek investment opportunities both in their home jurisdictions and beyond.*"

We therefore welcome the efforts in this direction and are broadly supportive of the direction of the principles as currently drafted. The industry has long taken an interest in these

[1] The JAC is sponsored by multiple associations with an interest in structured products: the International Swaps and Derivatives Association (ISDA), the International Capital Markets Association (ICMA), and the Association for Financial Markets in Europe (AFME). In the first instance, queries on the JAC may be addressed to rmetcalfe@isda.org.

issues and was active before the financial crisis, notably through the publication by the Joint Associations Committee of principles for managing the provider-distributor relationship (PD Principles) in retail structured products and principles for managing the distributor-individual investor relationship (DI Principles), in July 2007 and July 2008 respectively.

Nevertheless, as we argued then, we believe that a focus on "complex" financial products rather than all financial products would be difficult to implement and administer for regulatory authorities, firms and customers and would ultimately lead to worse outcomes. For example, complexity does not always mean additional risk and conversely, some non-complex products may be higher risk. We strongly suggest that in adopting final principles, IOSCO adopt an approach that is applicable to all securities, collective investment schemes and related derivatives instruments and the balance of risk and reward associated with them and that the references to "complex" financial products be largely dropped from the principles and guidance. A further benefit of this would be that it would underline the fact that all customers deserve these standards of care and consistent, high standards of protection, rather than only those customers buying complex products, a sentiment with which you surely agree. We hope therefore that you will give this detailed consideration.

General Comments on the Draft Principles

In the annex attached to this letter, we have provided comments on the individual draft principles and guidance. Nevertheless, we felt that it would be beneficial to make a number of more general comments.

As noted above, with the exception of the word "complex", we are broadly supportive of the direction of the principles as currently drafted. Nevertheless, if you do not decide to go down this route, we think that the definition of "complex products" on page 10 should be completely revised and made far more detailed and specific. As drafted, it is extremely vague and confusing. Who for instance is "an average retail customer"? It is difficult to imagine that the current definition would lead to a common approach across IOSCO members.

Indeed, we have a number of problems with the definitions used. The definition of 'suitability' in particular is extremely widely defined. This has practical problems in the text, where a wide definition would create confusion, for instance in the application of Principle 5. We also find the definition of "distribution" far too widely drawn.

We recognize the difficulty of coming up with precise definitions and would be very happy to work with IOSCO and with other industry stakeholders on more precise and narrow definitions.

It is also unclear as to exactly which products the draft Principles would be applied to. We believe that the guidance should make it clear that it will only apply to investment products.

There is also confusion in the use of "customers", "investors" and "clients" throughout the text. We would suggest a consistent use of the term "customer".

In finalizing the principles and guidance and deciding on the appropriate level of convergence and detail though, we believe that it is essential to be clear on the ultimate objective of the principles and their future use.

We suggest that the principles and guidance be drafted at a level of detail and convergence that would be a step along the road to mutual recognition or "substituted compliance" between IOSCO members. The 'litmus test' for whether draft principles or guidance would fully do this would be that if a national regulator or supervisor were to implement them in full and ensure that their intermediaries were in compliance with them, a host country regulator would feel comfortable in recognizing that other regulator's oversight as providing 'equivalent' or 'comparable' protections to customers for such products.

On the content of the draft principles and guidance, we support a general classification of customers, but within the retail category in particular as we argued last year, IOSCO should "*take account of the gradations in sophistication or capability of investors*". Individual retail investors will vary greatly in their level of understanding of markets, and there will be similar variations between individual non-retail investors. Some retail investors will in fact have a high degree of sophistication, experience, knowledge and capability, whereas others will have a much lower degree. Both market intermediaries and regulators should be attentive to this.

Investors of a similar level of actual sophistication or capability should be afforded a similar, appropriate minimum level of protection in taking on an investment exposure of a given sort regardless of the number and relative roles of the firms involved in the process by which an exposure (having been put into a investment form) is provided to the investor. However, this principle needs to be qualified by reference to the services a particular investor selects – in particular, the fact that some investors will not want investment advice or, where they do, will not seek to establish an ongoing relationship.

The guidance should also contain a firm statement to the effect that irrespective of the classification of the customer, nothing in the guidance should be read as detracting from the responsibility of all investors once they have received suitable advice and appropriate disclosures from an intermediary or have chosen not to seek advice, to evaluate any information provided to them, educate themselves about the products they undertake and ultimately take responsibility for the risks of their choices. Investors as well as intermediaries – and product providers – have responsibilities.

We also feel that the principles as drafted lose sight of the fact that the relationship between intermediaries and investors goes beyond the provision of advice at a fixed point of time. In our 2011 letter, we suggested that there were three basic phases for the distribution process: pre-sale (marketing, disclosure, information gathering on the investor); point of sale (advice, execution of orders); and post-sale/ongoing duties both with regard to the sale of an individual product and arising from an account relationship. There are also requirements or duties that should operate at all stages in the process. The principles would be stronger if more account was taken of these phases.

We fully agree that intermediaries should ensure that any financial products they intend to distribute are suitable for the type of customer they intend to solicit. However, we strongly feel that, there should be no regulatory obligation or limit to the sale of a product to particular categories of

clients. Nevertheless, intermediaries should be able to justify their decisions to the supervisor and show that it did not amount to misselling."

Whilst we agree that comprehensive and regularly updated Know Your Customer (KYC) requirements are necessary, we feel that ultimately the best way to protect consumers is to ensure that the advice and sale process is adequate.

We very much welcome though the 'business model-neutral' approach adopted in the guidance and hope that it will be maintained. It is important that customers understand the remuneration and incentives for intermediaries, rather than favoring one form over another.

We also welcome the recognition of the role of product providers and would support work on international principles for these and for their relationship with intermediaries. We note here that the Joint Associations Committee last year reaffirmed the set of principles for managing the provider-distributor relationship (PD Principles) in retail structured products and the principles for managing the distributor-individual investor relationship (DI Principles), originally published in July 2007 and July 2008 respectively and believe that the PD Principles could be a good starting point for this work.

Whilst the Associations recognize that the immediate focus is and should be on suitability requirements, as we argued last year, we believe that it will be important to proceed to develop common global standards on client categorization in relation to offering restrictions, conduct of business rules and licensing requirements. In this regard, the Associations recall that the IIF and the Securities Industry and Financial Markets Association (SIFMA) wrote to the then Chairman of the IOSCO Technical Committee, Michel Prada, in October 2007 calling, *inter alia*, for convergence of investor categorization regimes and believe that the arguments in that letter are still valid. This would also be very much in line with the G-20 mandate to IOSCO on business conduct standards.

One major omission though, which we hope will be addressed, is on the topic of product governance. Whilst we recognise that the principles are intended to apply to intermediaries there is an important inter-relationship between the product origination, structuring and governance process and the selection and delivery process; indeed the PD Principles and DI Principles reflect this connectivity and the JAC has undertaken some work in this area already through its response to the UK FSA consultation on this topic. We believe that the guidance should make clear, for example, that intermediaries should satisfy themselves that the product provider has in place effective procedures to ensure strong governance of the product and to avoid conflicts of interest; in framing these suitability requirements IOSCO should have due regard for the overall chain of relationships involved, ensure that each component is calibrated to the respective roles performed and, critically, informed by the connections between each of them rather than considered in isolation of each other.

The Associations would welcome the opportunity to engage further with IOSCO on this area."

Conclusion

The Associations welcome the chance to comment on the draft Principles and guidance and support IOSCO's engagement in this area. Global standards both here and on the linked issue of

client categorization would be in the interests of investor protection and financial market integrity. Such standards will be far more meaningful and effective though if they apply to all securities, collective investment schemes and related derivatives instruments, so we urge you to reconsider the focus on "complex" products.

If you have any questions do not hesitate to contact Crispin Waymouth – cwaymouth@iif.com.

Yours faithfully,

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Annexes

1. Detailed Comments on Principles
2. Joint Associations Letter and Principles of March 2011
3. JAC Principles

Response to IOSCO Consultation Report: "*Suitability Requirements with respect to the Distribution of Complex Financial Products*": Detailed Comments on Principles

Principle 1

Intermediaries should be required to adopt and apply appropriate policies and procedures to distinguish between retail and non-retail customers when distributing complex financial products. The classification of customers should be based on a reasonable assessment of the customer concerned, taking into account the complexity and riskiness of different products and services. The regulator should consider providing guidance to intermediaries in relation to customer classification.

We agree with the distinction between retail and non-retail customers, which reflects policy and existing regulation in a large number of jurisdictions. This principle though should operate irrespective of the complexity and riskiness of the products. What counts is the assessment of the sophistication and ability of the customer.

We would therefore recommend amending this principle to read:

"Intermediaries should be required to adopt and apply appropriate policies and procedures to distinguish between retail and non-retail customers when distributing ~~complex~~ financial products. The classification of customers should be based on a reasonable assessment of the customer concerned~~, taking into account the complexity and riskiness of different products and services~~. The regulator should consider providing guidance to intermediaries in relation to customer classification.

While we do not favor going into the details of the classification, there should at least be a sufficient level of commonality that retail customers in one jurisdiction can feel confident in their treatment as retail customers in another jurisdiction. This will be important in future moves to mutual recognition/ substituted compliance. As such, we would suggest dropping the word "Possible" from the second paragraph of the guidance on this principle.

Once this distinction between these two broad categories of customers has been made though, regulators should acknowledge and the guidance should reflect that even within these categories there will be variations in the sophistication and capability of customers, particularly retail customers. Individual retail customers will vary greatly in their level of understanding of markets.

On the one hand, as the fourth paragraph of the guidance on this principle states "*Intermediaries should be required to make their own assessments on the level of expertise and knowledge of the customer*". On the other, just because a customer is classified as retail, it does not detract from their responsibilities in the conduct of their own investment. The more sophisticated and capable a retail customer is, the more that they should be expected to carry out their own sufficient due diligence or as the IOSCO guidance says "*assess independently, or through a disinterested advisor, the value and risks of the transactions.*"

We therefore recommend that a further paragraph be added at the end of the guidance:

"Irrespective of the classification of the customer, nothing in this guidance should be read as detracting from the responsibilities of all customers once they have received suitable advice and appropriate disclosures from an

intermediary or have chosen not to seek advice, to evaluate any information provided to them, educate themselves about the products they undertake and ultimately take responsibility for the risks of their choices."

This would seem to us to be a more practical way of dealing with the kinds of issues with public entities explored in the third paragraph of the guidance than automatically including them as retail customers or extending additional protections. We therefore think that the guidance should be amended here.

We welcome the guidance that where the classification of customers is not determined by statute or regulation, the customer should be informed by the intermediary at the outset, which is very much in line with what we suggested.

Whilst we agree with paragraph 6 that jurisdictions may allow customers who qualify as non-retail customers to be treated as a retail customer, we feel that the guidance should be amended to include the following:

Customers treated as retail, or wishing to be treated as retail, should recognize: (i) that it may have cost implications; (ii) that the customer may need to provide more information to the intermediary; and (iii) that it may mean that the range of investments available to the customer is more restricted.

At the start of the final sentence of paragraph 6, the following should be added for clarification:

"*Depending on the nature of the service and what has been agreed with the customer*"

Unless agreed otherwise, the onus will be on the customer to alert the intermediary to any changes that might affect their treatment.

Principle 2

Irrespective of the classification of a customer as retail or non-retail, intermediaries should be required to act honestly, fairly and professionally and take reasonable steps to manage conflicts of interest that arise in the distribution of complex financial products, including through disclosure, where appropriate.

We agree strongly with this principle and with the guidance as drafted. It is of fundamental importance that market intermediaries act honestly, fairly and professionally irrespective of the level of sophistication and capability of the customer.

Principle 3

Investors should receive or have access to material information to evaluate the nature, costs and specific risks of the complex financial product. Any information communicated by intermediaries to their customers regarding a complex financial product should be communicated in a fair, comprehensible and balanced manner.

We agree strongly with this principle and with most of the guidance as drafted subject to the replacement of the word "Investors" with "Customers" and the deletion of the word "complex" throughout. It would though be useful for the guidance to clarify whose responsibility it is to provide customers with information, as there will be cases where the responsibility is with the product provider to produce the information and where the role of the intermediary is to disseminate it.

In the Associations' Principles, we called for the intermediary to "*make adequate disclosure of relevant material information in its dealings with its customers. All communications should be clear, fair and not misleading.*"[1] Further, we called for intermediaries to "*take all reasonable steps to satisfy themselves that the customer has sufficient information on the investment in a form the customer is reasonably likely to understand so that the customer has had an adequate opportunity to understand the risk/reward profile and other material characteristics of the relevant investment before making any decision whether to enter into the relevant transaction.*"

In particular, we very much support the third and sixth paragraphs of the draft guidance on the need for special care to be given to assist customers in making an informed investment decision, and the need for proper disclosure to include any compensation and/or fee that the intermediary may earn. We are happy to see that the draft Principles do not create any presumption in favor of a particular model of compensation, provided that this compensation is properly disclosed.

Whilst we support the broad approach of the fourth paragraph, we think that the guidance should refer to a "*description of the risk characteristics of the product*" rather than a "*description of the different components of the product and how these components interact.*" It is the risk characteristics that will be important to the customer rather than the different components *per se*.

However, in line with our general comments on the draft Principles, we think that making a distinction between complex and non-complex products would be an artificial one and not one that would help the investor. In the second paragraph, the draft guidance states that "*Complex financial products may have features and pose investment risks that are difficult for many customers, even non-retail customers, to appreciate fully.*" This is misleading: all financial products may have features that are difficult to understand. The duty of the intermediary is to explain those features, and as the guidance suggests, to present a "*fair, comprehensible and balanced picture regarding both the risks and potential benefits*". We would therefore suggest dropping the word "Complex" at the start of this paragraph.

In the same vein, we disagree with the argument in the fifth paragraph that "*Stricter disclosure requirements should apply whenever the intermediary advises or otherwise recommends the purchase of a complex financial product to retail customers.*" If the intermediary has provided a fair, comprehensible and balanced picture to the customer and if they have carried out a proper analysis of the suitability of such a product to the investor, such disclosure should already have been carried out. There would be no need for a further standard, and once again, it runs the risk of creating incentives against the use of more complex products even when they may be more suitable and less risky for the retail customer. We therefore recommend that you drop this paragraph.

[1] Associations' Principles, Principle 3

We have two further comments on the wording of the draft guidance:

- Paragraph seven states that "*Consumers should have reasonable access to information that fosters their ability to track costs and charges*". We agree with this, but think that it would be useful to define "*reasonable*" with as much clarity as possible. The phrase "*if practical and feasible, on an unbundled basis*" is also confusing and should be clarified.

- Paragraph eight argues that "*Moreover, where practical and feasible, intermediaries should seek to provide customers with comparative information.*" Whilst we think that the phrase "*where practical and feasible*" is essential, it would be helpful if there could be more narrative in the guidance on how this should be understood. In particular, the guidance could usefully make it clear that in some cases, there may not be a comparable product. Equally, the guidance could make it clear that intermediaries would not be expected to know about all the products and options viable in the marketplace, but to make a reasonable assessment of whether there are similar structured products based on reference securities that possess substantially similar volatility characteristics, but which offer materially different rates of return.

Principle 4

Even when an intermediary sells to a customer a complex financial product on an unsolicited basis (no management, advice or recommendation), the regulatory system should provide for adequate means to protect customers from associated risks.

The underlying idea of this draft principle appears to be that intermediaries should not attempt to evade their duties to customers by claiming that they were not giving them advice. We would agree with this idea, as simple and as obvious as it is. It is vital that if non-advice services are offered, customers should still benefit from protection and should not be exposed to misleading conduct.

However, as drafted, both the principle and guidance are ambiguous and would not promote a sufficiently common international approach.

We would therefore recommend that the principle and guidance be extensively revised so that, to the extent practicable, jurisdictions take similar approaches here. The principle and guidance should also consider the nature of the responsibilities of the intermediary in the case of a request for execution on an unsolicited basis, rather than automatically seeking recourse to regulatory safeguards.

In particular, what the guidance appears to miss is that even before an intermediary and customer reach the stage where a customer might buy a product on an unsolicited basis, they should already have reached a clear understanding of the nature of the services that the intermediary should provide. In the Associations' Principles, we suggested two Principles that should apply at the pre-service stage before an investment is recommended or sold:

"Principle 6. *An intermediary should disclose clearly and in sufficient detail for the customer to make an informed decision about whether to proceed:*

(a) the nature of the services it will provide, particularly whether it is restricted to executing an investment transaction or will include the provision of personal investment recommendations or discretionary investment management services;

(b) the nature of the investments covered by the service and whether or not the service will be provided by reference to substantially the whole of the market for investments of that sort; and

(c) the basis of its remuneration.

Principle 7. *An intermediary should consider whether it is appropriate to tell customers that do not seek investment advice (including via discretionary management) that it may be in their interests to do so."*

Whilst there is some overlap between (c) in Associations' Principle 6 and draft IOSCO Principle 3, we hope that you will consider making this distinction between the phases of the service and adopting these principles at least in the guidance. In addition, in Associations Principle 15, we covered the case of purchase on an unsolicited basis:

Principle 15. *Where a customer asks an intermediary to undertake a transaction in relation to an investment other than on the personal recommendation of the intermediary, the intermediary should consider whether, from what it knows of the customer, there is anything that clearly suggests the customer does not have a sufficient level of knowledge or experience to assess the merits of that transaction for the customer. However, if the customer still decides to proceed, having been given sufficient time to consider the issue properly, the intermediary can execute the transaction and is not under a duty to prevent it.*

Means for Implementation:

Where the intermediary reasonably believes that the customer may not have a sufficient level of knowledge or experience it should (but is not obliged to) consider whether to notify the customer that it would be prudent for the customer to take professional investment advice.

We think that this would provide more clarity than the existing text and would actually provide greater consumer protection, so would encourage you to adopt it or similar wording in the text.

Furthermore the guidance does not get across the point that when a client delegates its asset management through a discretionary mandate, it is vital that the service be understood and the risk/reward profile respected. This does not mean per se that more complex strategies or riskier products cannot be used in reasonable proportion (i.e. limiting risk or hedging). We think that wording clarifying should be integrated into the text.

Principle 5

Whenever an intermediary recommends to a customer that it purchase a particular complex financial product, including where the intermediary advises or otherwise exercises investment management discretion, the intermediary should be required to take reasonable steps to ensure that recommendations, advice or decisions to trade on behalf of such customer are based upon a reasonable assessment that the structure and risk-reward profile of the financial product is consistent with such customer's experience, knowledge, investment objectives, risk appetite and capacity for loss.

We support this principle as currently drafted. It very much echoes Associations' Principles 10 and 11:

Principle 10. *An intermediary must take reasonable steps to ensure that a personal recommendation or decision in the exercise of investment management discretion to trade on behalf of a customer is suitable for its customer.*

Means for Implementation:

An exchange of trading views between a firm and another participant in the market which can be treated as an equal should not be regarded as a personal recommendation.

Principle 11. *In determining whether a particular investment is suitable under Principle 10, the intermediary should satisfy itself on the basis of the information obtained from the client under Principle 9, that:*

(a) The relevant investment transaction is consistent with the customer's investment objective;

(b) The relevant investment transaction will not expose the customer to a loss that is greater than the customer is able to bear consistent with the customer's financial situation and the customer's investment objective; and

(c) The customer has the knowledge and experience to understand the features, characteristics and risks of the particular investment.

The intermediary should not make a personal recommendation of an investment transaction to a customer or enter a transaction in the exercise of its discretion unless it reasonably believes that (a)-(c) above will be satisfied.

Nevertheless, in line with our general comments, we think that the term "suitability" has been insufficiently defined. This creates problems for the guidance on this principle as it is unclear for instance in the second paragraph of the guidance as to what the term "suitability" would mean.

There should also be greater clarity on how the distinction is made between "advice" and "investment management" vis-à-vis the client. The wording of the Principle is rather vague here.

Further, there are a few sentences in the guidance which we found difficult to understand.

The first paragraph of the guidance: "*In light of the greater reliance of customers on the recommendations and advice provided, or on the exercise investment discretion by the intermediary, the provision of such advisory or discretionary services calls for stricter protections.*" is difficult to understand. The sentence is confusing and unnecessary and we would recommend that you drop it.

Whilst we believe that we understand the underlying motivation behind the final sentence of the second paragraph: "*Moreover, if an intermediary's behavior amounts to making a recommendation to a customer, it cannot avoid its suitability obligations by claiming that it has not made any recommendations to such customer*", we think that "amounts" is potentially ambiguous and should be further defined or clarified.

The seventh paragraph "*Suitability obligations should apply to both the intermediary and the employees working within the firm*" is also ambiguous. Whilst we agree that the intermediary is not the only person in the firm with a duty towards the investor, the wording could be read as implying that the full panoply of suitability regulations would apply to all employees irrespective of their roles. We think that this wording could usefully revised to the effect that any employee whose actions will impact materially on either the quality of the investment product, the investment decisions, or on that of the advice to the investor should meet the highest standards of integrity and professional conduct. Given the overlap with Principle 7 below, though, we would recommend that any wording in this area be inserted into the guidance on that draft principle.

As with our comments throughout, we recommend that you drop the word "*complex*" throughout the guidance.

Further, while we agree that intermediaries should develop a thorough understanding of the features of the relevant financial product and that this would normally mean carrying out their own analysis, there will be cases where the product provider has already carried out that analysis and has provided it to the intermediary. In such cases, the intermediary would reasonably be expected to verify the analysis rather than to repeat it.

Principle 6

An intermediary should have sufficient information in order to have a reasonable basis for any recommendation, advice or exercise of investment discretion made to a customer in connection with the distribution of a complex financial product.

We support the principle and the basic thrust of the guidance. In the Associations' Principles, in addition to Principles 10 and 11 quoted in the discussion of Principle 5 above, we also had Principle 9:

Principle 9. *Unless operating on an exclusively execution-only basis and likely to be understood as such, an intermediary should seek from its customers information about their financial situation, investment experience and investment objectives relevant to the services to be provided.*

Means for Implementation:

When entering into a relationship which will involve the provision of personal investment recommendations or the exercise of investment discretion, intermediaries should make reasonable efforts to understand the needs and circumstances of their customer and to obtain information on, for example, the investor's financial situation and needs, investment objectives, investment experience, investment time horizon, liquidity needs, risk tolerance, and any other information the intermediary considers to be necessary to enable it to advise unless the intermediary can reasonably satisfy itself that the customer is capable of evaluating risks independently, and doing so in practice.

We therefore agree that "*The goal is to reduce inducements to purchase a financial product where the customer neither understands the product, nor is capable of assuming the financial risks.*"

However we have significant concerns with a number of aspects of the drafting of the guidance:

i. As with all the principles, we believe that it should apply in relation to all financial products rather than solely complex ones. We therefore recommend deleting the word "complex" throughout.

ii. Given the overlap with Principle 5, we think that you should consider merging the two principles.

iii. We agree with the underlying philosophy of the second paragraph of the guidance that there will be cases where the intermediary has insufficient information to make a reasonably based recommendation. However we think that after "*should be required to consider whether it has sufficient information to make a reasonably based recommendation*", the words "*and should have the flexibility to decide whether or not to proceed.*" This would clarify the meaning rather than change it.

iv. Whilst we sincerely welcome the attempt to clarify "*in the best interests of the customer*" through the footnote applied to paragraph 3 of the guidance and completely agree that the intermediary should always provide advice that is suitable for the customer, we still have concerns with the phrase itself. Despite the guidance, it would be very difficult to implement as it would mean very different things in different jurisdictions. The footnote helpfully suggests that it need not amount to a fiduciary standard but does not provide sufficient detail on what it should mean instead. We believe that a better approach that would avoid this confusion would be to amend the first sentence of the third paragraph of the guidance to read "*In either case, the intermediary should provide advice that is reasonable and relevant in the circumstances*". The second sentence would be retained.

v. Whilst we recognize that in certain cases, the regulator may be given the power to, and choose to prohibit or restrict automatically the recommendations of certain categories of products, we believe that paragraph 4 as drafted is both too vague and is likely to lead to an expansive interpretation. We remain concerned that restrictions on the availability of a range of investment products could adversely affect investor

choice if such discretion is exercised with broad bans rather than by defining clearly the segment for which the prohibition is aimed. For example, as noted above, some retail investors, such as certain high net worth individuals, may have far higher levels of financial knowledge, experience and resources than other retail investors and may, therefore, be interested in and find more sophisticated products of great value to their investment planning. Restricting a recommendation to retail customers broadly may thus be too blunt a tool. We would therefore recommend redrafting it to read as follows:

"*In certain limited cases, where the regulator judges that that the recommendation of a particular financial product or group of products is inherently likely to lead to a situation where customers of a particular level of experience, knowledge, investment objectives, risk appetite and capacity for loss would neither understand the product, nor be capable of assuming the financial risks, the regulator may be given the power and choose to prohibit or restrict the recommendation to customers with a given set of characteristics.*"

Principle 7

Intermediaries should establish a compliance function and develop appropriate internal policies and procedures that support compliance with suitability obligations, including when developing or selecting new complex financial products for customers.

We very much support this principle and the basic thrust of the accompanying guidance, subject of course to the deletion of the word "complex" throughout. Indeed, should IOSCO still want to retain specific references in the Principles and guidance to complex products rather than taking the more general approach to all financial products that we have suggested, the wording in paragraph 2 of the guidance "*including in the distribution of complex products*" could be used in other principles and guidance.

If anything, we would actually support the guidance going further. In the Associations' Principles,

Principle 4. An intermediary should:

a) foster a culture in which its staff are likely to act in accordance with these Principles;

b) have and employ effectively the resources and procedures which are needed for the proper performance of its business activities.

Means for Implementation:

An intermediary should take reasonable steps:

(a) to put in place (i) training that is appropriate to the role of the staff concerned; and (ii) an independent compliance function. In each case, these should support a culture consistent with these Principles rather than just a "compliance culture"; and

(b) to ensure that its management receive sufficient information as to any activities it undertakes of a sort covered by these Principles to enable them to assess whether the intermediary has acted in a manner consistent with the Principles.

We suggest that you consider adopting some of this wording, particularly on the duties of management to receive sufficient information and on the need for a compliance culture.

As we have suggested in our response to draft Principle 5, this might be a more appropriate place to address the issue of the duties of employees in the firm as a whole.

One major omission though, which we hope will be addressed, is on product governance. The design of the product is touched on in the fifth paragraph but there is no reference to its ongoing governance. Whilst we recognise that the principles are intended to apply to intermediaries there is an important inter-relationship between the product origination, structuring and governance process and the selection and delivery process; indeed the Joint Associations Committee (JAC) principles for managing the provider-distributor relationship (PD Principles) in retail structured products and principles for managing the distributor-individual investor relationship (DI Principles), reflect this connectivity and the JAC has undertaken some work in this area already through its response to the UK FSA consultation on this topic. We believe that the guidance should make clear, for example, that intermediaries should satisfy themselves that the product provider has in place effective procedures to ensure strong governance of the product and to avoid conflicts of interest; in framing these suitability requirements IOSCO should have due regard for the overall chain of relationships involved, ensure that each component is calibrated to the respective roles performed and, critically, informed by the connections between each of them rather than considered in isolation of each other.

Principle 8

Intermediaries should be required to develop and apply proper policies that seek to eliminate any incentives for staff to recommend unsuitable complex financial products.

We agree with this principle as drafted, subject to the dropping of the word "*complex*". We also strongly agree with the second paragraph of the guidance, once again subject to the dropping of "*complex*". Nevertheless, we feel that the first sentence of the first paragraph is very subjective and is not based on facts. We therefore suggest dropping it, and the word "*Moreover*" at the start of the next sentence.

Principle 9

Regulators and self-regulatory organizations should supervise and examine intermediaries on a regular and ongoing basis to help ensure firm compliance with suitability and other customer protection requirements relating to the distribution of complex financial products. Enforcement actions should be taken by the competent

authority, as appropriate. Regulators should consider the value of making enforcement actions public in order to protect investors and enhance market integrity.

We agree with this principle and guidance as drafted, subject to the dropping of the word "*complex*".