Operating Committee

Working Group 2: Hidden Risks in the Securities Services Industry – A Sampling of Consequences to Custodians, Clearers and (I)CSDs

June 2012

Abstract

This document highlights a sampling of less obvious risks that are encountered in post-trade processing and recordkeeping of securities accounts and positions, and it provides background information and commentary as to how the various servicing entities have created or continue to work toward best practices to mitigate or ring-fence these risks.

Addressees of this Document

This paper is addressed to market intermediaries such as custodian banks, brokers, asset managers, issuers, industry associations/groups, market infrastructures and regulators.

Acknowledgements

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Chapter Three, in particular, draws portions of its ideas and text from the commentary and analysis set out in papers developed by industry organizations and individual firms in the context of addressing AIFMD proposals. With respect to those issues, ISSA wishes to note the leadership work done and the commentary produced by the Association of Global Custodians.

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1. Executive Summary

1.1 Report Scope and Objectives

This Report highlights a sampling of less obvious risks that are encountered in post-trade processing and recordkeeping of securities accounts and positions, and it provides background information and commentary as to how the various servicing entities (custodians, clearers and central depositories) have created best practices to mitigate or ring-fence these risks. The Chapters in this Report are structured to sensitize readers to the nature of these often less visible, and sometimes overlooked, risks and to demonstrate how rapid evolution of the industry does or could affect these risks and established risk-management controls or control paradigms.

The working group hopes this Report will help industry participants and investors gain a better understanding of the risks and risk management implications discussed herein as well as the ways in which change -– whether introduced by new regulation or created by adjustments in practice conventions – can disrupt, or challenge, assumptions about how particular risks are managed or how they are allocated among servicers or as between investors and servicers. Finally, the Report outlines suggested steps that can be taken by investors and their advisers -- and by the inter-related participants in the chain of securities service providers -- to help mitigate risks where feasible or make them more transparent where they are not easily overcome.

The Report contains a cautionary lesson that hidden risks affect both primary parties and secondary parties. Readers should note that the discussion here addresses only a sampling of the many risks that arise in investing activity and in investment servicing activity. The working group selected six of these risks for review on the basis that they arise commonly and seem likely to represent significant exposure for financial intermediaries and financial market infrastructures. Ideally, the Report provides a generalized framework for many types of risks and risk contexts. That is, a hidden risk directly affects one or more types of entities in the chain but indirectly can be of risk-management interest or concern to other sectors, depending among other things on how successfully the risk is managed by those in the direct line of fire.

1.2 Report Chapters

The body of this Report contains six distinct Chapters, each discussing a particular type or types of risk in various lines of investment service activity.

In Chapter 2, the nuances of hedge fund custody and administration are described, and the need for transparency between funds and fund servicers is discussed with suggested best practices to promote healthy relationships between funds of funds and/or master feeder fund relationships. Due diligence and contractual stipulations are key mitigants. For example, given the typical absence of a custodian's right directly to audit or examine books and records of underlying or related fund(s) in a complex fund structure such as a hedge fund or fund of funds, custodians must understand and examine the related fund vehicles to ensure they are appropriately registered, administered and documented.

Chapter 3 examines the traditional, current standard of care required of global custodians (and fund depositaries) in their contractual and operating relationships with local market sub-custodians and central depositories. It also discusses various anticipated consequences of changing the standard of care to make custodians more strictly liable for a wide range of losses, as is under discussion in some regulatory circles. The objectives of this Chapter are to highlight the valuable work done over decades to establish and define the current standard of care, where investors largely -- and appropriately -- bear risks associated with investment choices and decisions, and to describe how attempts to create a different protective model, perhaps one comparable to insurance, would re-allocate risk in ways that might introduce more challenges than benefits.

In Chapter 4, disclosures of risks in securities lending and exchange of collateral on loans are discussed, and best practices are outlined. As part of that discussion, the Chapter reviews factors and considerations important to investors' choice of approach to structuring securities loans and making collateral decisions, such as use of cash collateral or securities.

Chapter 5 outlines the complications and pitfalls involved in providing values for complex financial instruments and suggests some approaches to identifying and managing the challenges of valuation in that context.

Chapter 6 highlights concerns many custodians have with the proliferation of non-standard investment assets such as over-the-counter (OTC) derivatives, interests in syndicated bank loans, time deposits, and so on. These products, which are "held" outside of standard custody networks, present safekeeping and settlement risks above and beyond normal processes used in safekeeping traditional securities. Notably, the custodian does not control registrations and title transfers involving non-standard assets and must rely on information flows and records maintained by unrelated third parties to provide recordkeeping services for investor-clients. The Chapter points out the resulting risks and describes some best practices to mitigate or disclose information regarding those risks.

Chapter 7 reviews the risks and impacts of custodian and central securities depository (CSD) reliance on third party entities to provide complementary services necessary to enable delivery of full services to clients (or to custodians in the case of CSDs). Third party servicers typically cannot be chosen by the investor-client or its custodian. For the readers' benefit, an Annex B sets out a comprehensive compendium, with discussion, of the types of third party sub-servicers on which custodians and CSDs must depend. As an overall objective, the Chapter sets out best practice techniques to recognize and analyze third party reliance risks, including controls that may reduce or at least document the exposure to these unavoidable third parties.

2. Administrative Risks Related to Hedge Funds, Funds of Funds, and Complex Master Feeder Arrangements

2.1 Introduction

General Background

Global custodians (or "depositaries" in the case of fund clients) or, in the case of hedge funds, administrators are asset-servicing providers that perform three primary functions on behalf of their institutional investor clients:

- holding investment assets entrusted to them either physically or in book-entry form via a network of sub-custodians and clearing and settlement systems administered by securities intermediaries and infrastructure entities;

- facilitating settlements of client portfolio transactions and entitlements upon client instructions; and

- servicing client assets pursuant to contractual arrangements with the various local market custodians.

Hedge funds, funds of funds and complex master/feeder structures have a global reach across a wide variety of market instruments through systems that expose their fund servicing providers, including their depositaries, to a wide spectrum of risks, most of which are not plainly visible. In view of such funds' complexity and their special product characteristics summarized in this Chapter, it is critical that hedge funds, funds of funds, and complex master feeders increase the transparency of their relationships with their various service providers, notably through disclosure and investor/provider due diligence.

Hedge funds are private investment funds typically open only to a limited number of investors meeting certain financial and market sophistication criteria. Hedge funds are not usually publicly-offered and historically have been largely unregulated. Additionally, hedge funds are often organized in jurisdictions that permit opaque ownership structures. For example, investors are normally not identified for commercial and contractual reasons (such as confidentiality agreements).

The foregoing characteristics of hedge funds mean that the types of products and services provided to the hedge fund and the reputation of the entity and individuals responsible for managing the hedge fund are critical to effectively assess the risk associated with servicing any hedge fund client. Among other issues, prudent service providers must be satisfied that "know your client" (KYC) obligations are performed on the hedge fund's investors to an acceptable standard.

The rapid evolution of the alternative funds industry has triggered some notorious examples of outright fraud and some less egregious examples of investors being misled. This uneven evolution has had a profound impact on the approach taken by agents providing custody and administrative services to fund complexes, and the uneven experience is driving rigorous regulatory and legislative initiatives. The European Alternative Investment Fund Manager Directive (AIFMD), most notably, lays down principles applicable to three core service areas of a depositary to an alternative investment fund (AIF): cash flow monitoring, asset safe keeping, and asset oversight. Asset safekeeping duties under the AIFMD include among other things, an obligation that the depositary verify the ownership of all assets of the fund that cannot be held in custody and for which the service provider must maintain up-to-date records. In the context of servicing a fund of hedge funds and master-feeder structures fulfilling those obligations can be challenging.

In addition, various regulatory initiatives are intensifying the attention paid to master-feeder agreements, with the objective of solidifying their use in facilitating cross border investment. Master-feeder arrangements create efficiencies in regulatory administration and often tax processing as well as reducing overall administrative costs and providing better returns to investors. The industry is now servicing an increasingly interrelated series of vehicles; increased due diligence is required to allow an informed, holistic view of interrelated master-feeders funds.

Due Diligence Around AIFs has Increased to Date at Both Investor and Servicer Levels

Prudent service providers have spent considerable time and effort reflecting on the direct and ancillary risks associated with servicing hedge funds, funds of funds, and relationships in master/feeder funds. They have established and evolved various procedures and processes to mitigate the operational and reputational risks that continue to arise.

However, regardless of increased due diligence or other mitigating actions employed by service providers, it is ultimately the investor's responsibility to perform its own careful and complete due diligence review of the structure, management and investment guidelines of any investment vehicle before making an investment decision. Understanding the procedures employed by service providers to an investment vehicle is an important part of that process, but it is no substitute for the investor's full due diligence. In this respect, we note that the Madoff scandal and other crises have led investors to demand greater transparency from hedge fund managers. As part of that demand, investors put deeper scrutiny on the segregation of functional responsibilities -- the use of market-recognized third parties segregated from the fund manager. In Europe, the AIFMD prohibits the AIF manager from holding fund assets and requires them to appoint an approved third-party "depositary" which is typically a bank custodian but may also be a prime broker or other institution recognized as subject to prudential regulation.

It thus seems imperative, in view of the rapid evolution of fund structures and the progression of relationships between fund vehicles into funds of funds and master-feeder relationships, that the due diligence process must re-scale accordingly in ways that ensure an understanding of an investment vehicle not only on its own but also in juxtaposition to the vehicles it relates to via cross investment.

Emerging Risks/Risk Considerations Relating to Fund Structuring

Beginning with the most notorious risk -- that some or all of the holdings of a fund are fraudulent -- agent exposures are heightened under specific structures or in specific circumstances, including:

- The fund appoints a prime broker or custodian that is an affiliated/controlled entity or is not a recognized market participant;

- The fund utilizes counterparties that are affiliated/controlled entities or are not recognized market participants; or

- The agent is reliant on fund holding valuations provided by the client, by an affiliated/controlled entity or by an unrecognized market participant. As noted in Chapter 5 of this report, in Europe AIFMD will require alternative fund managers to use an external appraiser that is independent of the fund manager to conduct valuations or, where the fund manager itself performs the function, it will need to be by a unit that is independent of portfolio management.

Such risks can often be mitigated through a combination of protective actions, including (i) transparency between funds and servicer providers, and (ii) due diligence. Agent responsibilities, disclaimers and disclosures in client servicing agreements, offering memorandums and investor statements are important for promoting investor *and* servicer protection. In the balance of this Chapter, we identify a variety of supplemental or enhanced due diligence steps, including some that are particularly applicable to special circumstances.

2.2 Enhanced Due Diligence on AIF Clients and Appointed Service Providers

Basic Enhanced Due Diligence

The purpose of performing due diligence, in addition to meeting KYC regulatory requirements, is to assess the quality and nature of the risks associated with the fund-appointed parties or those parties that must interact with the fund custodian. The assessment should include complete due diligence on each of the following parties:

- Investment manager
  - Review of investment manager's risk and control framework
    - Do they have an independent risk and compliance program?
    - To what extent do they carry out due diligence on the prime broker, custodian and/or counterparties and other appointed parties?
    - Does the fund have a pricing committee to review the pricing of assets held in the fund?
    - The due diligence review should take the form of a questionnaire included in the existing KYC document and requiring a description of the above processes.
- Prime broker and trading counterparty
  - Are they affiliated to or controlled by the fund and/or investment manager?
  - Perform and review credit assessment(s).
- Fund bankers
  - Many service providers insist that the Demand Deposit Account associated with the Fund is maintained at the service providers institution.
- Fund auditors and fund attorneys
  - Confirm name and location.

- Validate they are a top tier firm.

<u>Particular Risks Affecting Custodians/Fund Administrators Relating to the Amalgamation of the Custody Function and the Fund Administration</u>

When providing custody and/or administration services to a fund of hedge funds, a prudent provider checks the existence of the fund holdings and sources valuations for the fund holdings independently of the fund manager. The provider is wholly reliant on data provided by the underlying hedge fund administrator/manager (and is solely reliant on the underlying hedge fund manager if the underlying hedge fund is self-administered) to complete these tasks. In addition, the current absence of a regulated marketplace for hedge funds, coupled with the varying levels of regulation of investment managers and administrators, exposes the provider to heightened risk of fraudulent holdings in hedge funds or fund of hedge funds. As a result, any lack of transparency or absence of independence affecting service providers that interact with a fund of hedge funds requires additional diligence. A servicer's exposure is further heightened where administration and investment management are performed by the same or related entity, i.e.:

- where a fund of hedge funds invests in its own, self-administered funds; and

- where a fund of hedge funds invests in third party self-administered funds.

<u>Disclosure and Due Diligence Requirements as Mitigation</u>

The above risks can be mitigated through a combination of client selection criteria; clear articulation of the provider's responsibilities, liabilities, disclaimers and disclosures in the client contract; offering memorandums, investor statements and client statements; and due diligence on client and appointed service providers and, to a limited degree, the underlying hedge fund(s). For example:

- Prudent providers will only service funds that certify that the fund does not and will not invest in its own self-administered funds.

- Service Agreements should specify that: the provider is dependent on the underlying fund administrator/manager to provide evidence of, and a valuation for, the fund holdings; the provider is not responsible for verification of the data; and in the event of a loss accruing to the service provider from inaccurate or incomplete data provided by these parties, the fund will indemnify the service provider.

- The client will provide the service provider a copy of the offering memorandum (and all subsequent updates) for each holding in an underlying hedge fund.

Note that additional protective provisions in client agreements will not necessarily limit reputational risk from the point of view of an investor or prevent the service provider from being included in an investor lawsuit against the fund/manager.

Supplemental to the above, investor statements issued by prudent service providers for a fund of hedge funds should include a disclosure statement that clarifies:

- The information contained in the statement has not been audited and therefore remains subject to change;

- Prices of fund holdings are provided by sources that are generally believed to be reliable but are not guaranteed to be accurate; certain holdings may be priced using models; and the provider is not responsible for the reliability or suitability of any model used or for any defect in any model;

- Where the fund invests in shares of other funds, the provider relies solely on information provided by the managers or administrators of those funds or portfolios and has not independently verified or tested such information; and

- Prices of interests in other investment vehicles in which the fund invests are provided by the other investment vehicle or third parties. Holdings for which prices are not readily available may be priced by the fund's management. The provider is not responsible for reviewing the reliability of prices or other information received from these sources.

In the case of custody statements, providers should consider the following purpose declaration:

"This statement is provided only to the Manager or service providers to the Fund and is not provided for the benefit of third parties nor should any third party rely on the information contained therein. In preparing this statement, the provider has relied solely on information provided by the managers or administrators of underlying funds or portfolios and has not independently verified or tested such information. The provider is not responsible for reviewing the reliability of the description or prices of these holdings."

2.3 Additional Enhanced Due Diligence Requirements Relative to a Fund of Hedge Funds to Encompass the Various Additional Layers of Funds and Providers

In the context of complex AIFs such as funds of hedge funds, the need to ensure the validity of assets and the organization of the layers between the investors and the ultimate investments is paramount. The introduction of additional structural layers and their inherent tendency to reduce transparency presents new risks special to the complex AIFs. The most notorious industry fraud has involved relationships between master investment and loosely organized pools of assets. The structure of these relationships should have been a red-flag warning.

Accordingly, the following are due diligence questions that should be asked to the various additional layers of funds and Providers:

- Investment manager
  - Review of investment manager's risk and control framework
    - Do they have an independent risk and compliance program?
    - To what extent do they, as investor, carry out due diligence on the target fund and appointed parties (both investment and administrative)?
    - Where the fund invests in third party self-administered funds, what extra due diligence is performed on the target fund administrator?

        - Is part of the review of fund of hedge fund investment strategy an assessment of the risk impact of the number of underlying fund holdings in each fund of hedge funds?

- Administrator (when not the provider)
    - Verify the name and location of the agent
    - Is the fund self-administered?
    - Is the administrator part of a regulated bank?
    - Is the administrator a regulated entity? If so in what jurisdiction?
- Custodian (when not the provider)
    - Verify the name and location of the agent
    - Is there an external rating of the custodian?
    - Is the custodian a regulated entity? If so, in what jurisdiction?
- Verification of the underlying hedge fund
    - Examine the Offering Memorandum (provided by the client)
    - Verify the administrator, bankers and fund auditors appointed to service the fund
    - Contact the underlying administrator to check authenticity of the offering memorandum
    - Consider a credit check of the fund, if data is available
    - Identify the bank where the fund holds their account, and verify the name of the account

2.4 Due Diligence of a Portion of a Master/Feeder or other Complex Arrangement that Leverages Special Purpose Vehicles Must Involve Assessment of the Complete Chain of Related Entities

The following are further due diligence items that need to be addressed to due diligence a master-feeder or other complex arrangement that leverages special purpose vehicles. Such due diligence must involve assessment of the complete chain of related entities:

- A feeder fund must be a legally organized investment vehicle that has its own fund registration and administrative arrangements.
- Due diligence needs to include a review of the legal structure of the fund and its servicing arrangements – comparable to the scope and focus of reviews discussed above.

- Providers to a feeder fund should be comfortable that the master fund is duly and responsibly organized and that it has engaged trusted third party service providers.

As AIF arrangements become more complex and include different types of special purpose vehicles and perhaps multiple layers, the broad due diligence regime remains the same. Due diligence must be performed to understand each successive layer between beneficial investors and the ultimate investment. However, while the theory behind that regime remains the same, the execution of due diligence across multiple layers of vehicles in fact becomes more complex is challenging for a provider that is not engaged directly by any vehicle or layer in a relationship to get full transparency of that entity (layer) as a third party.

2.5 Concluding Notes

In summary, a service provider to a hedge fund or structured arrangement of funds must structure and conduct a *tailored due diligence* that takes into account the structure of the fund and all interrelated funds or vehicles. The diligence must include a clear articulation of responsibilities and liabilities and a full disclosure of terms, disclaimers and limitations or specifications concerning the investments as well as participants across all levels of the structure. Custodians for a hedge fund must understand and examine related fund vehicles to ensure that they are appropriately registered, administered and documented in lieu of a right to directly audit or examine the books and records of the related fund.

3. Hidden Risks of Disruptive Change Due to Regulatory Evolution or Shifts in Servicing Conventions: The Global Custodian Liability Example

3.1 Introduction

This Chapter serves as a case study of the hidden risks of disruptive changes in the level or extent of liability (and thus the range of potential losses) a market participant is exposed to at any given link in the securities servicing chain. Disruptive changes can be introduced by new regulation or by shifts in practice conventions in the servicing industry.

The case study in point here involves the implications and dynamics of changes in custodians' standards of care and liability. Those implications are of direct interest and concern primarily to global custodians (and fund depositaries) but they also should be of concern, even if secondarily, to other types of entities in the securities custody and servicing chain. This is true because today's markets operate across an elaborate set of institutions. All of those institutions are remarkably interdependent, and all of those institutions customarily operate within their own range of controls that are designed with reference to established or expected allocations of risks.

Significantly, the implications of change and the array of risks associated with change can be hidden from traditional risk management models and paradigms. That reality complicates risk management planning not just for those directly affected by the change, but also for those who may be indirectly exposed to the consequences of an increased range or different types of potential losses. Thoughtful recalibration or restructuring of risk management tools and methodologies -- at any potentially affected industry level -- depends on recognizing the types of implications reviewed in this case study.

3.2 Background on Custodian Liability and Standards of Care

Global custodians perform three primary functions on behalf of their institutional investor clients: they hold assets entrusted to them, either physically or through book-entry systems administered by securities intermediaries in various markets; they take steps to facilitate the settlement of transactions involving client assets, on client instructions; and they service client assets through, for example, the collection of income (such as dividend or interest payments) and the coordination of corporate actions. Global custodians occupy a unique market position. Through contractual arrangements with domestic local-market custodians, they enable investors to hold a wide range of assets in almost every market. Global custodians' investments in operations allow them to provide a central point of contact, consistent record-keeping and information reporting, oversight of settlements, and typically a range of banking services that makes it easier and more efficient for global investors to participate in global markets.

Global custodians are generally regulated as banks in the jurisdictions in which they are established and offer their services. When they are providing services to certain clients, such as investment funds qualifying as UCITS in the European Union or ERISA funds in the United States, they may also be required to undertake specific tasks which go beyond the three primary functions described above.

The performance/liability standards they must meet in carrying out their functions are prescribed by national laws regulating their services, or are agreed contractually with their clients. In most cases, a global custodian has a responsibility to perform its duties properly, exercising due care in accordance with recognized commercial standards and best practices customary to securities intermediaries holding assets for the benefit of a client.[1] *Under those principles, a global custodian typically bears liability for its own negligence or for misappropriating customers' assets. In addition, a global custodian must exercise due care in the selection of local market sub-custodians and in monitoring such sub-custodians to see that they perform their safekeeping and settlement services in accordance with standards prevailing in their markets.*

Global custodians are generally recognized, however, as *not being liable for actions or events occurring in local markets, including inherent local market conditions or risks, where those actions or events are outside the reasonable control of the global custodian.* Such events are often referred to as "force majeure" events, and typically include things such as wars, riots, natural disasters, general infrastructure failures, expropriation, changes in law or governmental actions (such as nationalization), or actions and defaults of third parties such as agents of issuers or central securities depositories.

As this background summary suggests, global custodians understandably establish their risk management regimen and arrangements with reference to the types of risks and potential losses that follow from their experience with a reasonable care standard and their know-how concerning the operations and performance of sub-custodians and central depositories. Assumptions and projections, including those relating to the nature and extent of oversight of sub-custodians, selection of servicers, capital reserves, and so on, are all dependent on the global custodian's experience of acting in the interest of clients consistent with reasonable care (due commercial care). A fundamental corollary of that standard is not bearing liability or responsibility for events, actions and losses beyond their reasonable control.

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[1] The legal nature of global custody relationships will be described differently in different legal systems. However, in most jurisdictions they are treated as a type of agent. In most jurisdictions, the specific standards of care and scope of liability applicable to a custodian typically are mixed matters of private contract, commercial law, banking law and securities regulation.

In the United States, for example, Article 8 of the Uniform Commercial Code obliges a securities intermediary to act with due care in accordance with reasonable commercial standards, but Article 8 also permits intermediaries to "act as agreed upon" with the intermediary's customer. These basic due care performance standards are echoed in U.S. federal law and regulation, notably Securities and Exchange Commission rules under the Investment Company Act. Under Rule 17f-5, for example, *an investment company must act in coordination with its primary custodian and pursuant to detailed agreements to ensure the exercise of reasonable care, prudence and diligence in the selection, appointment, and monitoring of the global network of local market agents and sub-custodians.*

Similarly, in Europe, generally comparable depositary level of care standards are in effect under the European Union's legislation applicable to investment funds, the UCITS Directive. Under that directive, a global custodian acting as fund "depositary" is liable for an "unjustifiable failure to perform its obligations or its improper performance" of them. The language by which this standard is implemented in different EU member states varies, but is commonly understood to require due care. Under more recent EU legislation for non-UCITS funds, commonly known as the AIFMD, *depositaries are liable for the "negligent or intentional failure to properly perform" their custodial and other prescribed tasks.* Interpretive development of that basic Level 1 principle is continuing at present in drafting Level 2 regulation; the final provisions and their import are not yet known.

3.3 Today's Challenges; New Risks

Global custodians cannot feasibly or economically operate directly in every jurisdiction around the globe, but instead must work with many remote third parties in order to provide global services to cross-border investors. The relations between global custodians and local sub-custodians are regulated largely by contract, and those contracts are based on assumptions and conventions flowing out of use of a due care standard and practical experience with the limited range of influences a global custodian can exercise over the performance of local sub-custodians.

In addition, as a general matter a global custodian cannot control the actions of, or events affecting, a range of third parties that play roles in local markets or specific transactions, such as: counterparties to client transactions or their settlement agents; brokers; transfer agents, registrars, and third parties that are market utilities, such as central securities depositories or clearing and settlement systems; and public authorities, such as tax agencies or central banks. Indeed, global custodians are no more able to prevent losses caused by governmental actions or insolvencies of third parties than can an investor that directly engages local custodians in the markets they select for investment. As a result, such "third-party" risks are an inherent feature of investing in diverse markets for those who benefit from the investment process -- namely the underlying investors.

With the advent of the 2008 global financial crisis, however, political forces have emerged to promote the introduction of strict global custodian liability -- liability that is not necessarily based on a global custodian's fault or matters within the custodian's control. This potential change in principles has included a proposal to impose responsibility on custodians for a wide variety of types of "losses" of assets, and a remedial duty to promptly replace, or provide compensatory funds to replace, "lost" assets -- regardless of the source or nature of the loss, the type of investment asset involved, or the delay inherent in retrieval of assets (this duty is sometimes captioned "restitution").[2] The final regulatory provisions flowing out of the legislation around fund custodian liability/standard of care is not yet determined. This Chapter discusses some of the proposed legislative provisions to illustrate potential changes in allocation of risk.

These political forces began to surface initially in 2009 in the wake of the Lehman Brothers failure as well as the Madoff scandal in the United States, which impacted investors around the world and were part of a crisis in the financial sector that threatened to become more generalized. A consensus formed at the G20 that steps needed to be taken to "limit the build-up of systemic risk" in the financial services sector, and that goal remains an imperative of financial services regulation in the public interest, including in relation to global custodians.

A second set of forces is reportedly surfacing in the context of institutional investor custody services requests for proposals (RFPs). In these RFPs, some institutional investors request commitments from global custodians to underwrite, or provide guarantees that will cover, the investor's losses due to various traditionally "*force majeure*" events. Such events could include third party insolvencies, CSD insolvencies, governmental emergency actions, and in some cases, other events and

[2] This approach was actually applied in France by the financial markets regulator, the AMF, using powers given to it under French administrative law prevailing at the time to address some of the consequences of the insolvency of Lehman Brothers. As a result, some global custodians acting as depositaries for hedge funds in France found themselves liable for losses arising from the insolvency of the independent prime broker to the hedge funds, although there was nothing the depositaries could have done in practice to prevent such losses occurring.

actions that a global custodian cannot reasonably be expected to control -- even after taking actions beyond what would normally be considered appropriate care.

Significantly, these institutional investor requests *effectively call for a level of global custodian commitment that could produce the same standard of strict liability for even "force majeure" related losses and that could generate the same types of market-disruptive, systemic risks as those presented by the initial AIFMD proposals and discussed below.* If the early AIFMD draft proposals are accepted, they will effectively and dramatically transfer what are essentially traditional investment risks to the global custodian; and *in effect, cause global custodians to stand as insurers against investment risks, even where traditional insurers would perhaps not venture to assume the risks at a commercially acceptable price.*[3]

3.4 Types of Potential "Covered" Losses and Consequential Systemic Risks that Would Flow from a Shift to Stricter Standards of Care and Broader Scope of Liability

The following section sets out examples of the types of losses that would likely arise from events beyond the reasonable control of a global custodian. The examples also note the systemic risks that could flow beyond the custodian sector as a result of the imposition or assumption of strict custodian liability for a broad range of losses. This section then outlines the consequences to markets, other intermediaries and investors that would accompany either a strict legislative mandate or arise from a strict set of private contractual guarantees.

Losses Beyond the Reasonable Control of a Custodian

The examples below involve instances of *"loss" due to events or circumstances beyond the traditional and reasonable control of a global custodian when acting as custodian or depositary for a fund*. Types of events leading to losses in this category include: sub-custodian or third party insolvency; sub-custodian fraud that is not detected by the global custodian through the industry's well-established reasonable standards and mechanisms for supervision; failure of a central securities depository; failure of counterparties to settle transactions; and losses caused by third parties appointed by an investment fund or its manager that are not delegates of the global custodian, such as brokers. Most of these types of events leading to losses are discussed below; others are summarized in Annex A.

Market Infrastructure Deficiencies

The sophistication, stability and reliability of market infrastructure vary significantly across financial markets. Even in highly developed markets, there may be instances where market infrastructure will fail, albeit temporarily, causing settlement delays and resultant losses to its participants and their clients. In less sophisticated financial markets, a lack of developed financial infrastructure together with inadequate regulation may significantly impair the functioning of the settlement system and the integrity of title to securities.

Although the services global custodians may agree to provide to customers relative to such markets reflect the available infrastructure in such markets, infrastructure services are typically accessed through use of third party sub-custodians;

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[3] Certain "*force majeure*" events (including, for example, insolvency and governmental actions) are often a basis for insurers to exclude insurance coverage, rather than cover the loss events. Given that history, it could prove difficult for depositaries that assume broad responsibility to obtain insurance to protect their own positions.

and actions and decisions and events occurring at infrastructure entities are not within a global custodian's control. The decision to invest and thereby "take risk" in these markets – or any market -- historically has been assumed by the investor, directly or through the agency of a professional investment manager, typically based in part on information and analyses about the peculiarities and understood risks of the market and its infrastructure. Accordingly, traditionally risk of loss due to events and actions of market infrastructure entities is commercially agreed to be assumed by the investor.

Substandard Sub-custodians Engaged at Investor Request

In most markets, a global custodian, for reasons of economics within globally-networked relationships, must use a local market sub-custodian to hold and service local assets, as well as to settle locally-executed transactions, which customarily takes place through localized access to the market's central depository or central bank. In a very small number of markets, all available sub-custodians may fail to meet generally recognized minimum standards. An institutional cross-border investor, however, may nonetheless choose to invest there.

In such cases, a global custodian is typically prepared to provide services in the market only if the investor acknowledges and accepts the risks specific to the market, including the selection of a sub-custodian. Where losses are caused by the actions of, or local events affecting, such sub-custodian, requiring a global custodian to bear strict liability and immediately replace any lost financial instruments (or to restore the value of assets detained as a result of such sub-custodian's failure) would fundamentally disrupt the customary allocation of risks between the global custodian and the investor.

Sub-custodian Fraud

Global custodians must meet certain well-defined duties of supervision in respect of a sub-custodian or other delegate they choose to appoint. That is both fair and appropriate given the nature of the service and the relationships involved. These supervision duties typically include certain periodic reviews and reconciliations of accounts designed to discourage and detect fraud, whether committed within or against a local sub-custodian.

Global custodians, of course, cannot ensure that *all fraud* will be prevented no more than investors who contract directly with local custodians can, since fraud involves criminal deception. The standard supervisory review, even if conducted directly by the global custodian's client, cannot guarantee adherence to anti-fraud controls and procedures (this is the role of the auditor) and such controls and procedures may in any event prove ineffective in preventing determined individuals intent on criminal deception.

Confusion about the Classification of Fund-appointed Entities as Sub-custodians

The collapse of Lehman Brothers' International Europe (LBIE) illustrates the types of losses that may be suffered by an investment fund as a result of the fund appointing its preferred prime broker as a counterparty to whom the fund depositary is instructed to transfer certain assets. The prime broker is normally unrelated to the depositary, is not subject to contractual appointment agreements with the depositary, and is not subject to its customary sub-custodian oversight regime. Typically, in these cases, the transferred assets will be rehypothecated either in full or in part by the prime broker. If the prime broker's records are inadequate, the fund could be deprived of the assets for a period of time until it is determined whether such assets have been rehypothecated and whether they will be returned. If, in this circumstance, the depositary was required to "restitute" all assets immediately (even before they are determined to be rehypothecated properly or recoverable), such liability would represent a shift in the traditional allocation of risk -

- away from the fund and its investors (which selected and authorized the prime broker) to depositaries.

Sub-custodian Insolvency and Delays in Return of Assets

Under a strict and broad liability regime, if a sub-custodian were to become insolvent and local regulation or conditions do not permit prompt resolution of the sub-custodian's insolvency, strict liability for the global custodian could mean the global custodian must buy replacements of the securities held at the sub-custodian or pay their full value to the fund in advance of the date the global custodian is in a position to secure access to the sub-custodied securities. In that event, the global custodian would have to bear the market risk or financing costs of the portfolio securities until they are retrieved, and would have to absorb the risk that the securities may be improperly expropriated or distributed during the insolvency proceedings. Further, to meet its obligations in certain cases, the global custodian may need to sell its residual interest in the securities – likely at a price that is materially discounted from their current market value.

This risk transfer would effectively make any global custodian in this position financially responsible for the efficient functioning of the insolvency or administrative laws of third countries. Global custodians perform due diligence in local markets, including by obtaining legal opinions, to understand what steps are required to properly segregate client assets at local sub-custodians; and when they have faithfully required such steps to be taken, it would be unreasonable to require global custodians to achieve what local insolvency rules cannot.

Moreover, from a disruptive change standpoint, whenever a global custodian having strict liability would be required to transact in market securities as part of interim "restitution," the market and financial impact would be aggravated if the particular market is affected by severe economic difficulties. Such market deterioration could destabilize local financial institutions and market infrastructure, particularly if such entities are government-owned. Such instability, in turn, would transfer the risk of loss events in disorderly financial markets functioning in extreme circumstances from investors onto the banking system, amplifying systemic risks exponentially and exposing bank depositors (as creditors of banks) and potentially taxpayers to the risks of bank failure. These results -- directly contrary to the goals of the policy consensus established at the G-20 -- would generate broadly unwelcome consequences.

Consequential Spread of Systemic Risks to Global Markets that would Flow from Expanded Custodian Liability

As the foregoing illustrations imply, stricter custodian liability for a broad range of "losses" would likely generate spreading systemic risks to markets, intermediaries and investors. These consequences would be of particular public policy concern during a widespread market crisis, in a key sub-custodian insolvency, or during a governmental emergency freeze or collapse.

Systemic risks could include the following: liquidity stress that can make restitution infeasible; the impact of custodian capital depletion or services impairment on bank customers, including depositors and third parties in the custody infrastructure that deal with the affected global custodians; the impact of an increased need for custodian capital to support expanded custodian obligations, including increased industry concentration (and related changes in service costs/economics) and a reduced global custodian tolerance for servicing less stable markets; and market instability and disruption as institutions abandon troubled relationships, market sectors or jurisdictions. Greater detail concerning these risks and consequences follows.

Impacts on Markets and Investors from Concentration of Risk in Global Custodians

In a legal regime or contractual arrangement that transfers third party default risks to global custodians, the financial strength of the global custodian could be threatened by the scale of its restitution obligations in proportion to the value of the assets under custody. For example, in the event a central securities depository, a sub-custodian, or other entity involved in the chain of custody (or acting as essential market infrastructure) fails, the size of the relevant global custodian's contingent obligation to make restitution could be substantial. If a global custodian is strictly required to deliver substitute financial instruments or pay the cash equivalent while the instruments are detained due to insolvency proceedings affecting a sub-custodian or other intermediary, this could strain the depositary's financial capacity. Failure of one or more global custodians in any material market would in turn almost certainly impair the smooth operation of the regional interconnected markets and funds industry, including their ability to conduct normal, day to day operations.

Increased custodian liability of the sort described in this Chapter could directly or indirectly lead to systemic complications well beyond the banking sector immediately affected. For example:

- A global custodian that is strictly liable for events beyond its control in a local market may well feel pressed to abandon a market or local sub-custodian at the first sign of market or sub-custodian instability, which could trigger further instability and a "rush to the exit."

- Global custodians that are perceived by the market as having significant exposure to emerging markets might in times of crises find they have difficulties obtaining short term funding.

- Impairment of the operation of one regional fund industry could adversely affect the liquidity of the securities held by cross-border investors located worldwide.

Obviously, these effects would be more pronounced whenever the universe of securities subject to an expanded liability regime is increased. Such expansions would extend the new principles of liability to a much larger set of securities or funds. Moreover, such expansions would likely surprise the typical risk contingency planning of entities -- beyond custodians -- at numerous levels of the industry.

One illustrative event in 2011 highlights the spreading of risk that can arise from investing in diverse markets:

- In the Ivory Coast, political and military action impacted the *Bourse Regionale des Valeurs Mobilieres* (BRVM), the regional stock exchange for eight West African markets. According to *Africa Fund Manager*, the exchange:

  "was kept artificially open but was dysfunctional due to lack of liquidity. Daily trades were less than $100,000 on a good day, according to Investec, and soon the banking system had shut down and all the major custodians … … had vacated the country, making trading virtually impossible.

  "In March, banks with custody activities attempted to reopen in Dakar, following the relocation of the BRVM to Bamako in Mali. This move proved unsuccessful, due to a lack of money supply in the Senegalese banking

> system. However, with the resolution of the conflict, activity resumed on the BRVM early in May."

Global custodians are in no better position to control such risks than are investors appointing a local sub-custodian directly; but investors always have the choice, whether they are using a global custodian or not, to take steps to leave a market if the risks exceed their appetite. If investor action is not taken before a crisis disrupts local markets, there may be no practical way to ensure that it can be taken once the crisis has unfolded. Requiring global custodians to take responsibility for the financial consequences of third party default in such circumstances would tend to remove the incentive of investors to guard their own interests, introducing moral hazard and potentially exposing widespread ruptures in risk controls at various industry levels that were built with reference to traditional allocations of risk.

Global Banks Capable of Providing Global Custody Services are Necessarily Sizable Institutions; Increased Industry Concentration over Time Could Well Distort the Services Market and Market Expectations

Assuming or being obliged to accept responsibility for all default risks associated with any sizeable investment company or substantial market would reflect a shift in liability that cannot be predictably ring-fenced. Such new obligations would need to be backed by significant capital reserves and adequate liquidity, which could further consolidate the global custody business. The nature and extent of global custodian insurance to cover a suitable range of new risks -- if any is available -- cannot be predicted; and other sources of support capital may not exist.

Fewer global custodians would make the marketplace less diverse, leading to concentration risk as institutional investors seek to use the biggest banks only, calculating that, in the event losses ensue that can be attached to depositaries, mid-tier and smaller banks would be less able to discharge restitutionary obligations or to pay for losses. Certainly, geographic markets with less developed market infrastructure for holding and recording securities -- i.e., certain emerging markets -- would be disproportionately impacted, and investors would perhaps be unable to obtain global custody or fund servicers for such markets at an economic or any price.

New entry to the highly competitive global custody business could be dissuaded by the need for entrants to make investments in risk management and to absorb possible losses that are disproportionate to the revenues available. It is in no one's interest to erect barriers that make new entry to the global custody market infeasible.

It goes without saying that the systemic risk described above would spread geographically as the number of global custodians subject to any new liability regime or arrangements increased.

Increased Contingent Liabilities and Effect on Risk Management

In any arrangement under which a global custodian is subject to or assumes a high level of liability for loss of assets held by third parties in circumstances where the liability does not arise due to the fault of the global custodian, the custodian is effectively providing a guarantee or form of insurance in respect of the relevant assets. In many such loss circumstances, this would create a very large contingent liability on the custodian's balance sheet, affecting its management of operational risk (the risk of loss resulting from inadequate or failed internal processes or from external events) as well as liquidity risk (the risk of inability to realize investments and other assets in order to settle financial obligations when they mature). The extent of the contingency would be difficult to anticipate, as any obligation to replace "lost" assets with "identical" assets would depend on available markets and supply. Such availability cannot be predicted in advance of crisis.

Nor can the particular impacts of the disruptive risks beyond the custodian sector be predicted in advance. What can be predicted is that radical change to financial services conventions, particularly change that affects fundamental business arrangements and risk allocation assumptions, will pose disruptive impact, and that consequence -- when change is on the horizon -- merits general industry risk management review.

3.5 Concluding Notes

The current standard of care observed by Global Custodians and fund depositaries -- reasonable care, with liability based on faulty performance of particular custodian duties -- has evolved over a long period of time, including with the input and participation of institutional investor clients. Changing the standard of care to increase custodian liability significantly by imposing liability for events and actions beyond the custodian's reasonable control -- however much that change might seem to advance investor protection – will inevitably produce unintended consequences, potentially leading to unpredictable, possibly dramatic ripple effects.

Investing is a trade off between risk and return, and this trade off is particularly acute with respect to emerging markets, where higher returns are sought from less-developed market systems and economies. Compelling processing agents at one level of the servicing chain to take on liability for actions or events beyond their control impacts the equilibrium of risk and return for the investor and reallocates risk in ways that may be difficult to ring-fence. Those impacts potentially produce systemic consequences that flow beyond single markets and single providers to industry actors at other levels in the chain and to global markets.

4. Disclosure Risks in Securities Lending

4.1 Introduction

An interesting debate within the securities lending industry and press is revolving around how best to increase transparency for clients. No clear consensus has emerged across the spectrum of players, though many agent lenders operating on behalf of beneficial owners agree that transparency is generally a good thing and that in this service context, principal lenders should be made well aware of the potential risks and the types of collateral options available as part of using a securities lending agent.

It is the lending agent's obligation to clearly describe the associated risks to the lender and at the same time ensure that clients receive adequate and up to date information for all aspects of the securities lending and collateral management activity. This section briefly describes the risks associated with securities lending and focuses in more detail on the collateral options for lenders and the lending strategies applied by clients in the current market environment. Collateral choices perform a major function in enabling clients to mitigate potential counterpart risks and any cash re-investment risk. At the same time, the cost of different types of collateral is increasing, driven both by regulatory changes and new and pending bank regulation.

Broadly, the risks can be grouped into the following segments:

- Counterpart and credit risk;
- Operational risk;
- Legal, tax and regulatory risk; and
- Cash collateral investment risk.

Counterpart risk is the risk that the borrower (counterpart) will not perform its contractual obligations -- i.e., to provide collateral, meet collateral calls and return borrowed securities to the principal lender, who in turn may use a securities lending agent to act on its behalf. These obligations are outlined in the borrower agreement used by the respective lending agent and should, in turn, be reflected in the client agreement. Included in the client agreement should be information on approved borrowers used in the programme, any borrower limits, collateral types and the respective margins. Many agents offer indemnifications against the potential risk of losses due to a borrower insolvency, which should be outlined as part of the client agreement. Margin shortfall indemnifications can provide lenders with an important protection against counterpart risk but it is important for the lender principal to understand the scope and any limitations prescribed by the lending agents (examples include the type of collateral involved and any upside limitations on the amount the agent is able to protect, which often can arise with non-bank providers).

Operational risk mainly consists of the risk of a borrower not returning the security on loan to the lender in time for settlement of an underlying sale. Again, the timing of sales notifications should be defined in the client agreement and the lender should be informed about the notification and recall process of the lender. Moreover, the lender should be informed about the delivery mechanism and handling processes around both the securities and any collateral as well as mark-to-market procedures of the lending agent.

Legal, tax and regulatory risk includes a fairly broad range of risks in lending securities. The most important element in mitigating this risk is defining the types of actions the lending agent can take in the event of a borrower insolvency in the borrower agreement. These actions in turn should be reflected in the client agreement.

The reinvestment risk refers to the interest rate, liquidity and credit risk associated with investing any cash collateral received from the borrower. These items should be clearly outlined and defined in the client agreement between the principal lender and the lending agent. The use of cash collateral has triggered much debate in recent years because of the losses some clients faced when operating wide investment guidelines in in-lending programmes.

Below this Chapter reviews and discusses the pros and cons of using different collateral options.

4.2 Securities Collateral versus Cash Collateral

In recent years, industry discussion has expanded around collateral types and collateral management protocols in the context of securities lending activities. Broadly, collateral in the securities lending markets takes the form of either cash or securities, which are posted by borrowers to the lender. In general, the type of collateral used depends largely on the:

(i) type of underlying securities on loan – i.e., bonds or equities; and

(ii) the market convention and requirements in the respective jurisdiction.

For example, the most prevalent form of collateral in the US market has historically been cash, whereas in Europe and Asia, the primary form of collateral has been non-cash (i.e., securities) but this is now changing. Despite these market conventions, the lender (i.e., beneficial owner) always has a direct choice to specify exactly what type of collateral they are willing to accept, though this choice can impact the amount of securities a lender is able to get out on-loan.

Recent changes in market and bank regulation as well as market events have increased the cost of certain collateral types. Those cost increases to a larger degree impact the economics of lending transactions. Also, as demand for high quality government bonds has increased, the cost involved in posting these securities as collateral has risen, making borrowers move to cheaper forms of collateral where possible. Thus, the use of cash and equity securities as collateral has expanded across a wider range of lending transactions.

A lender's collateral requirements are typically defined in the bilateral securities lending agreement between the client and its respective securities lending agent. Because this agreement establishes collateral guidelines, the lending agent needs to be able to describe the full range of collateral options available and to explain the practical implications for each collateral type and any restriction the client wishes to impose. For example, a lender may "demand" a haircut (a margin requirement) of 110% on all fixed income loans, but such a requirement will mean that few securities go out on loan as such a haircut is well above the market standard.

To illustrate, in one typical transaction involving a loan of international equities, the securities are transferred to the borrower mainly in the form of a *securities lending transaction* (e.g., under an Overseas Securities Lending Agreement, "OSLA") against a defined set of eligible securities as collateral (e.g., G10 government bonds or a basket of equities). In contrast, fixed income securities -- at least in Europe -- are typically transferred to the counterpart in the form of a *repurchase agreement* (e.g., a Global Master Repurchase Agreement, or "GMRA") in which the owner of the securities agrees to a sale and simultaneous repurchase of the securities at a date in the future with the same counterpart. Under this transaction, securities are delivered to the counterpart (or "buyer") against cash as proceeds (i.e., collateral) for the duration of the transaction. While both forms of securities lending transactions are marked-to-market by the lending agent, repos are always settled against cash, whereas securities lending transactions can be settled either against (i) other securities *or* (ii) cash as collateral.

Significantly, lenders need to understand the nuances of equity and fixed income lending such that sound decisions can be reached with respect to transacting under both securities loan and repurchase agreements. For most clients, the decision is simple and straightforward, but some clients may be unable to engage in repos (e.g., for regulatory reasons), which means all fixed income securities need to be lent via a lending agreement instead. It is therefore important that the lending agent be prepared to accommodate these options and make the client aware of any impacts from choosing between the options. Transparency and disclosure is key.

In addition, regional differences in market conventions exist. In the UK for example, equities tend to be lent primarily against non-cash collateral while an increasing amount of international equities are now starting to be lent against cash as collateral. Likewise in the UK fixed income markets, Gilts tend to be lent on a delivery by value (or "dbv") basis against cash or non-cash collateral. In the US, in contrast, lenders tend to use a *lending* agreement, such as the Bond Market Association Repo Agreement, and receive either cash (or non-cash collateral from one major lending agent) when lending, for example, US Treasuries and corporate bonds in the US domestic market.

Apart from the differences in settlement mechanisms – "free" in the case of receiving securities as collateral and "delivery versus payment (dvp)" in the case of cash -- a number of other factors are important to consider when determining what type of collateral should be used. Overall, both benefits as well as risks need to be considered when deciding on the form and scope of collateral and the best approach to managing the collateral.

Finally, with respect to settlement timing, the lender requires non-cash collateral to be received from the counterpart *prior* to the delivery of the underlying securities going out on loan to the same counterpart. While this works in favor of the lender, the borrower assumes an intra-day settlement risk that the lender potentially may not deliver the securities, which creates additional exposure for the borrower. Actual cases of uncollateralized loans tend to be rare, but receiving cash against delivery of the securities on loan completely mitigates this intra-day risk as both deliveries are conditional on each other. In effect, receiving cash collateral is safer from a settlement perspective for both parties as it helps avoid any potential intraday risk of the borrower against the lender.

4.3 The Cases For and Against Cash Collateral; Related Factors and Considerations

Acceptance and use of cash as a form of collateral does not in itself create any additional risk for the lender compared to taking non-cash collateral. The crucial issue is instead *how* the cash collateral is invested by either the lender or in many cases by its designated lending agent. This issue is commonly confused when the topic is debated in the marketplace, and this confusion in some cases leads beneficial owners to disregard cash collateral as a viable and safe opportunity and causes them to give up additional return without actually decreasing the risk profile. Lenders should carefully consider the full breadth of collateral options available before deciding how best to achieve the required risk-reward profile.

The crucial difference between taking cash and securities as collateral is that cash needs to be re-invested in order to generate an interest return. Practice dictates that, when taking cash as collateral, the lender agrees to pay the counterpart a rate of return (or rebate rate) on the cash received. The rate will vary depending on the value of the security in the securities lending market (its intrinsic value), which is often expressed as a basis point spread below the prevailing overnight market rate. In order to generate a positive spread (e.g., revenue), the cash collateral needs to be invested at a rate higher than the rebate rate. Significantly, in the current low-interest rate environment, obtaining a rate of return higher than the rebate rate can mean greater risk for the lender but to a large degree depends on the investment instrument used.

In contrast, when taking securities as collateral, the intrinsic value of the security on loan is simply agreed as a fee between the two counterparts and paid by the borrower to the lender at the end of the transaction. In both transaction models, the spread is determined by the value of the underlying security (intrinsic value) as well as the *type* of collateral required. As a general matter, by choosing a narrow set of eligible securities as collateral (such as AAA rated or G5 government bonds), those securities become more expensive for the borrower to source and that complication will be reflected in a lower spread to the lender.

Additionally, the choice of re-investment vehicles and instruments are crucial to enabling the lender to meet its particular risk and return requirements. The choice concerning investment programs differs between the US context and the European context.

In the US, the preferred route has often been to invest cash in commingled money market funds operated by the lending agent and/or by select asset management companies offering a range of liquidity funds. These funds are described as commingled (or pooled) investment vehicles with a large number of investors and employ a range of different investment strategies. Another strategy used for outright investments in the US involves segregated accounts. In this structure, each client has distinct investments belonging to the lender only, which enables lenders to choose their own distinct guidelines and potential exit strategies. This structure contrasts with pooled investments where any profit/ losses are mutualised across all investors in the pool. In a time of financial stress and in order to mitigate losses, a staggered unwind of assets in a pooled investment has been required in many cases. This unwind approach enables only a gradual withdrawal of the securities lending activity, thereby reducing the sudden impact of a quick exit.

In Europe, the pooled strategy is used less and instead, cash has traditionally been invested via segregated accounts with a clearly-defined set of approved investment instruments such as money market instruments, bank deposits and reverse repos as an example. Unfortunately, the recent credit crisis affected some clients' chosen cash reinvestment strategies and led some lenders to suspend or curtail their lending activities. In hindsight, many lenders should have used greater transparency, more frequent and transparent reporting, and more communication with their providers with regards to how the cash was reinvested. These lessons learned, many lenders have now returned to the market, but with more conservative and refined cash investment guidelines.

Accordingly, when selecting or building a program a lender should focus on how to best realize the intrinsic value of their bond and equity portfolios while ensuring an efficient and transparent collateral management strategy and platform.

It is a common misconception that the safest form of lending is a program that is limited to securities collateral only. Based on what happened to some lenders post–Lehman, this may appear to be the safest option. However, a well structured collateral management policy with cash re-investment can be equally safe.

One preferred strategy involves the re-investment of cash collateral in reverse repos. This approach leaves the lender with securities as collateral while giving the lender the benefits of diversification of the counterpart risk across more than one counterpart at the same time. This structure enables lenders to realize the full value of the underlying securities with one counterpart while at the same time benefiting from demand for cash collateral from another counterpart which often can be quite different. This approach produces a safe settlement, using delivery versus payment (DVP), while also diversifying the counterparty exposure, taking advantage of demand across different counterparts, and crucially offering the potential for a wider spread without additional risk.

Another advantage of using reverse repos is the ability to choose from a wide range of collateral sets which often get used in connection with a tri-party service provider such as Euroclear or Clearstream. In this structure, the repo service agent independently ensures the following: that only eligible securities can be delivered as collateral; up-to-date pricing is used; that settlement is secure since it happens directly between the lender's and borrower's collateral accounts; and daily reporting of all securities received as collateral, which creates transparency. Note that some tri-party service agents are still in the process of making this information readily available.

One general consideration of importance to lenders is to ensure that collateral be clearly segregated from the lending agent's own accounts and positions. It is recommended that all collateral be held in clearly-designated client accounts separate from any proprietary positions of the lending agent and that detailed reporting of all securities received as collateral takes place on a regular basis.

Guiding Questions for Lender Planning

In summary, interest in the topic of "collateral in securities lending" has increased in importance from both a risk management perspective and from the perspective of optimizing lending returns for clients. While not exhaustive, the following series of questions should be considered by lenders to achieve the most efficient collateral management. Answers will be specific to each lender and their stated objectives:

1. What are the benefits/risks for using different types of collateral?

2. Which types of collateral are suitable for the underlying asset class/portfolio being lent?

3. What type of securities should be included in a collateral set and what haircuts applied?

4. What happens to the collateral in case of the insolvency of the borrower or lending agent?

5. In what type of money market instruments should any cash collateral be invested?

6. What is the best vehicle for managing any cash collateral -- using a fund or using a segregated account with explicit guidelines?

7. Who is best suited to invest cash collateral -- an in-house team of the lender, the lending agent, or a third party asset manager?

8. How often will the collateral be priced as compared to the frequency of pricing for the rest of the assets?

9. What type and frequency of reporting is required for cash and non-cash collateral?

4.4 Intrinsic Value Lending Versus General Collateral Lending – Pros and Cons

Securities lending parlance sometimes refers to the terms *intrinsic value* and *general collateral* (GC). *Intrinsic value* relates to the inherent value of a specific security in the securities lending and repo markets. The value of the security is referenced as a spread and is expressed in basis points that borrowers are willing to pay to lenders for borrowing a specific security. This spread is either stated in absolute numbers (in case of non-cash collateral) or as a spread below the relevant benchmark rate in the specific market (i.e., for cash collateral). This benchmark rate tends to be the overnight benchmark rate, which in Europe is EONIA and in the United States, Fed Funds.

General collateral, on the other hand, relates to an entire asset class and security market, and includes a wide number of different securities in each category. In market terms the term is mainly used in fixed income markets and predominantly for government bonds. In contrast to specials lending, GC transactions enable the lender to substitute any of the securities on loan with other securities within the same asset class. Substitution may be necessary due to a loaned sale.[4]

The GC option serves the demand of borrowers who, for example, have a need to borrow an asset class which they require for another transaction and are flexible as to which specific security is delivered within the asset class. For example, some broker-dealers need to source G10 government bonds to post as collateral for the borrowing of equities or for derivatives transactions.

These two terms made headlines during the financial crisis as some clients experienced liquidity problems in their securities lending programs. Problems arose for lenders who had very wide investment guidelines for cash collateral, taking advantage of the increased investment return on the cash collateral and some cases against assets with lower credit ratings. This enabled clients to lend a larger part of their GC securities as the cash collateral was invested at higher rates. In some instances, the longer term and higher-yielding investments were funded by lending general collateral against cash (raised, e.g., at EONIA/Fed Funds), thereby increasing the overall lending volume in the portfolio and of course the overall portfolio return.

As some lenders experienced losses during the financial crisis on the re-investment of cash collateral in, for example, money market funds, they were required to leave a portion of their securities on loan in order to support the cash collateral investment that had fallen below the value of the loan in order not to realize a loss. Facing those complications, some programs in the US were forced to gate client's investment vehicles as the value of the cash collateral fell and the investments became illiquid.

Partly as a result of such problems experienced during the credit crisis, the focus of many lenders and lending agents has to a large degree shifted to intrinsic value lending as cash investment guidelines have been modified to include a more limited set of instruments. This has produced a fall in the overall lending volume – as specials typically make up a much smaller part of a client's lendable portfolio, and a lower

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[4] Returns on GC where cash is taken as collateral are by definition limited to the excess return of the re-investment over the benchmark rate. This excess return will depend on the type and credit rating of the instruments bought outright and the average maturity of the investments.

amount of GC type securities can be lent at a spread. These changes mean more focused lending activity with a clearly-defined and better-understood risk-reward profile for realizing the inherent value of securities in the investment portfolio and a more refined collateral management strategy to better reflect the underlying securities on loan.

In addition, regulatory changes coupled with the recent governmental debt crisis in the Eurozone have increased the demand for high quality securities such as core Euro government bonds as an asset class. As the government bond markets in Europe diverged to unprecedented levels since the introduction of the Euro, the demand for particular high-grade government bonds in the repo market increased sharply with widening spreads across a whole asset class. This is a relatively recent phenomenon, however as most European government bonds historically traded within a relatively narrow spread in the repo markets.

Market and regulatory changes now require collateral to be posted for more transaction types, and this has further increased the demand for high grade collateral in the repo and securities lending markets. A significant related development is the requirement for most derivatives clearing to move to a Central Counterpart Structure (CCP), which requires specific types of collateral as initial and variation margin and, in turn, increases the demand for high grade collateral further.

Against this backdrop of change, lenders are set to continue benefiting from both intrinsic value lending as well as the continued strong demand for GC such as high quality government bonds. These benefits lead to increased overall portfolio return while keeping collateral risk low.

4.5 Concluding Notes

The particular collateral accepted by any party lending securities has significant implications for the party's ability to lend securities, for the risks presented by the particular lending agreement and arrangement, and for the return(s) associated with the lending. Post crisis, significant attention is being paid to increasing the transparency around decisions regarding collateral, and the cost of collateral itself is evolving as more business transactions require collateralization and compete for the highest quality (lowest risk) instruments.

The need to understand the mechanics and risk considerations around different collateral options, particularly cash, is less obvious, but likely more important than even considerations regarding the securities borrower. This Chapter should promote increased awareness of the implications of different types of collateral requirements, and that should help increase the level of transparency and ensure that lenders act with complete understanding of their available options. Lending Agents are encouraged to guide lenders toward efficient collateral management by leveraging tools like the lender planning questions in section 4.3.

5. Hidden Risks for Fund Administrators and Custodians in Complex Instrument Valuation

5.1 Introduction

A fund's asset valuation is critical to ensuring investor protection. Although the assessment of asset valuation methodologies and integrity is under the ultimate responsibility of the vehicle's governing body, typically, the NAV calculation is delegated to the fund administrator who in turn will rely on various data feeders and valuers, depending on the asset class. In the event of valuation inaccuracy, the fund administrator may incur liability. Therefore, it is vital for a fund administrator to ensure proper monitoring of the assets' valuation methods and procedures, and compliance with regulatory requirements and industry best practices.

Since fund administrators, custodians, and trustees (hereafter collectively referred to as "fund administrators") must implement appropriate measures to value such instruments and account for them, the fund administrator must give specific attention to the complications involved in valuation of complex instruments. Such instruments include OTC derivatives or exotic assets (fine art), real estate assets, or private equity assets where the knowledge of experts or the fund manager itself is the sole reliable source. OTC derivatives, for example, cannot be valued on the basis of usual pricing sources such as IDC and Telekurs. In many cases, the underlying assets may be such that data is very difficult to obtain and manager valuations must be accepted. Indeed, often financial models are used to value these instruments.

Two broad types of investment structures hold complex instruments: funds such as hedge funds, real estate funds and mutual funds; and segregated portfolios such as pension plans and investment companies.

This Chapter reviews various product features and valuation techniques that make complex instruments complicated, and it outlines special risks and protective actions that relevant servicers should pursue.

5.2 Asset Valuation: Governance and Accounting/Regulatory Requirements

Governance

For complex instruments, funds administrators may rely partially on the pricing models used by the fund managers themselves. To preserve independence and second layer monitoring procedures, funds should have a "valuation policy document" that is agreed upon and approved by the fund's governing body. This document should outline the role of the independent valuation service provider and the level of involvement of the fund manager in the valuation process.

Accounting/Regulatory Requirements

US and European standards with respect to the valuation of difficult to price instruments have dovetailed in recent years.

(i) US: In the US, ASC 829, where ASC stands for Accounting Standards Codification formerly US FAS 157, which became effective November 2007, governs valuation standards. ASC 829 classifies pricing sources at three "levels," which should be employed in a descending order of priority:

Level 1 - Publicly available (e.g., exchange traded equities, derivatives, etc.). Regulators are pushing to convert, whenever practical, derivatives now traded OTC to exchange traded instruments, i.e., contracts that are "standardized." Where this occurs, exchange prices should be used for valuation.

Level 2 - Model prices based on verifiable inputs (e.g. interest rate curves obtained from reliable third parties).

Level 3 - Manager prices.

Fund administrators should agree to the pricing hierarchy in cascading order as above.

(ii) Europe: The collapse of Lehman in 2008 was a turning point for European lawmakers, who came to the conclusion that the usage of counterparty valuations for OTC derivatives was a contributing factor to losses realized. Under Article 51 of the UCITS IV directive, a fund "shall employ a process for accurate and independent assessment of the value of OTC derivatives."

Similarly, Article 19 of the AIFMD of 8 June 2011, requires AIF managers to either use an external appraiser independent from the fund manager, or if the fund manager itself performs the valuation, the valuation must be done by a unit that is independent from portfolio management.

5.3 Third Party Valuations

With respect to non-exchange traded derivatives, if a security can be valued by an expert third party service (e.g., Markit) the fund manager should agree to use such valuations as the primary pricing source. Fund managers may, instead, wish to value such securities themselves for several reasons, including that they believe their valuation models are more accurate or they want to avoid the cost of a third party valuation. *Fund manager requests to perform their own valuations should be resisted.*

Third party valuation services require trade details, typically reported on a template. Normally, fund administrators complete these templates based on deal term sheets. Fund administrators should review their procedures, including their valuation process and templates, with fund clients. When they make errors in completing the templates in violation of their procedures, they may incur liability. To minimize this risk, it is prudent to automate the process as far as possible, provide automated feeds to the valuation agent, and input pricing updates from this agent into the core accounting system.

5.4 Secondary Pricing Sources

The best practice with respect to secondary pricing is that, wherever possible, a secondary pricing source should be identified and should be used as a check on the primary source price. A secondary source may include valuation of the instrument by the counterparty. If the counterparty's valuation is not available, it is prudent to check key inputs into the pricing vendor's valuation model such as rate curves.

5.5 Verification of Positions with Trade Repositories/Exchanges-Clearing Houses/Brokers' Data

The introduction of trade repositories opens up to the industry a valuable third party source to capture all trades outstanding with a fund and to incorporate any late changes to contract terms. Fund administrators can access trade repositories if authorized by their client, and it is best practice to verify contract details with trade repositories wherever possible.

Where instruments are centrally cleared, it is best practice to verify details with the relevant central counterparty. Similarly, it is a good practice to see that the fund administrator receives trade confirmations directly from the prime broker or the relevant trade broker-dealers. Typically, the use of Straight Through Processing (STP) will ensure that comprehensive data on executed daily trades made by the fund manager are reported directly to the fund administrator by the relevant broker-dealers or the prime broker.

5.6 Other Considerations

Where there is no alternative available to accepting counterparty valuations (typically, the situation with private equities and private placements), the fund administrator must be vigilant that valuations are produced under consistent methodology over time and that the manager has the expert resources to complete such valuations.

Funds are commingled structures. As such, the risk to fund investors is higher with vehicles (e.g., hedge funds) that allow for redemptions (often annually) at net asset value than for structures that do not allow for such redemptions, such as private equity. Private equity funds may employ capital calls from investors and report performance on an internal rate of return (IRR) basis. As a result, for private equity funds there may be little practical alternative to relying on manager valuations. This is so because the assets in such circumstances are not valued by third party vendors and detailed knowledge, which typically only the manager has, is required of the underlying investments.

5.7 Contracts and Disclosures

The offering document of a fund will include details regarding the protocols that are to be used with respect to instrument valuations. Those details should include periods during which there are market disruptions and decision points such as a decision to suspend fund subscriptions and redemptions. Fund investors should be encouraged to take the time to read this disclosure before deciding to invest.

5.8 Concluding Notes

The search for return on investment that has driven institutional investors beyond traditional asset classes also heightens the risks inherent in pricing complex instruments and striking fund valuations. This chapter highlights the complications and pitfalls of obtaining prices from various sources, and recommends above all that fund administrators and funds carefully document procedures and that investors understand the protocols used with respect to instrument valuations, notably through careful review of offering materials.

6. Hidden Risks in Servicing Non-Standard ("Out-of-Network") Assets

6.1 Introduction

Non-standard assets or "out-of-network" assets are instruments and investment assets that can only be overseen through position recordkeeping actions, as opposed to financial instruments that are "held in safekeeping custody" by custodians, either directly or indirectly through their network of sub-custodians and central securities depositories and for which ownership interests are recorded in book-entry securities accounts at each level of the custody chain. Non-standard assets typically take the form of contract rights, such as interests in derivatives, securities reflected on books or registers maintained on behalf of issuers outside the custody chain, such as money market instruments and shares not available for trading on regulated markets, and specialized assets, such as real estate properties, where title to ownership relies on records maintained by public authorities.

Ownership title to non-standard assets relies on reporting from third parties appointed by fund managers or from the client itself; title and title changes are thus beyond the control of the custodian. Also described as assets "held away" or "held elsewhere," non-standard assets involve use of custodians merely to perform position keeping and information monitoring and reporting tasks – typically with limited supervisory responsibilities. Given the nature of these assets, custodian services for clients holding these assets cannot involve full "custody-safekeeping" responsibilities.

In general, non-standard assets have the following features raising hidden risks:

- Custodians do not have effective control over these asset types;
- Evidence of interest and title is controlled by third parties; and
- Settlement or post-settlement of those type of assets raise materially higher risks as compared settlements involving transferable securities.

6.2 Objectives of this Chapter

This Chapter is intended to alert industry organizations to the complications involved, and the limited and specialized tasks involved, in servicing these asset classes; it also attempts to set out a few best practice guidelines to mitigate those risks. This Chapter therefore identifies and briefly describes various non-standard assets and discusses certain special risks to custodians, and by extension investors, presented by these asset classes. In particular, the Chapter underscores that, in providing the more limited "oversight" functions characteristic of custodians in respect of these assets, custodians necessarily depend on receipt of accurate and timely asset-related information from a variety of third parties. Accordingly, to promote the development of increased controls around these investment products, this Chapter encourages market participants (notably, fund managers) to work toward use of neutral and expert market infrastructure facilities for handling efficiency and correlated risk mitigation.

6.3 Factors and Considerations Relating to Particular Non-standard Asset Types

<u>Assets which can be disposed of or transferred (or acquired) without the authorization and direct intervention of the custodian or depository or its contractually appointed agents.</u>

Third party time deposits (or certificates of deposit, "CDs"), bank loans and private equity holdings fall into this category. Such assets are usually registered directly in the name of the investor, e.g., a fund. As a consequence, the issuer/transfer agents will receive transfer or ownership change instructions directly from the fund, its manager or agent.

In addition, the custodian is often informed *ex post* by the investment manager of changes in title or account transfers respecting such assets. Indeed, some assets may be disrupted or impaired without the custodian being duly informed.

The fund's custodian thus has no control over those assets or the ownership records, which makes "safe-keeping" (in this context, record keeping and asset monitoring) operationally not traditional and to that extent less predictable.

A principal mitigant of the obvious risks involved in servicing these assets is careful and thorough drafting of the services agreement, including suitable liability limitations and prescribed standards of care. Additionally, notations in custodial records that the holdings are "held elsewhere" with footnote references to contractually agreed liability limitations are advisable.

Assets whose safekeeping and/or settlement stage involves significant counterparty or other credit risks – either starting from the pre-settlement stage or from settlement onwards – and which cannot be mitigated without changes to practices or infrastructures.

Contract rights vis-à-vis OTC derivatives counterparties in swaps, forwards or FX contracts fall into this category. Such instruments typically require the posting of collateral (either cash or securities and other instruments) to secure the performance of the contract obligations entered into. In addition, most fund counterparties like prime brokers enjoy a re-use right over the assets posted as collateral. These product characteristics make monitoring more complex and less readily controlled, particularly where the assets are reused without proper asset protection rights such as segregation and client money protection, etc.

As a consequence, once such assets are transferred out of the (sub)custody account, they are beyond the control of the custodian and may be subject to the custodian's monitoring only to the extent the third party having the assets actively cooperates.

To mitigate such risks, essential steps are to: cover worst case scenarios through contractual liability provisions, work to ensure that adequate information exchange procedures are duly in place, set out reporting rights clearly, and place escalation processes in the hands and under the control of the custodian.

As a general protective tactic, custodians should encourage clients and players to use multilateral contractual arrangements and clearing center facilities.

Real estate/Private equity assets

Real estate assets (including properties, land, and infrastructure assets) or private equity shareholdings are customarily held by a fund client through one or several interposed special purpose vehicles which *per se* tends to make asset-monitoring more difficult than would be the case were the assets dematerialized through a security and settlement system and held in securities accounts with a CSD. Ownership rights in real estate can be complex in any case -- varying sharply depending on the jurisdiction of the property's location, with ownership chain verification requiring expertise not typically kept in-house at a custodian bank. Local legal experts and administrative authorities are thus the most common expert resources at hand.

Real estate can also be complex due to differences between beneficial interests and ownership titles, co-ownership arrangements, or the existence of various mortgage rights. Such complexities can trigger unexpected or undetected events of default that deprive a client fund of assets. In addition, interests in real property are subject to the vicissitudes of many local factors (change in legal environment, political events, local environmental events), and local legal processes can make certainty regarding the ownership chain a matter of judgment (as opposed to fact). Given those complexities, a recordkeeping custodian of such assets may well have to rely largely on paper-based documentation, such as interest registers, legal opinions of local advisers confirming ownership rights, etc.

To properly monitor such assets, the custodian should, when possible, request direct access to verify that the transfer of ownership interests is correctly recorded with intermediaries and authorities. The custodian should request electronic access to all relevant share/interest registers. In addition, the custodian should request minutes of board meetings that might affect the ownership chain.

<u>Fine art – exotic assets</u>

Following the financial crisis, some asset managers have shifted holdings toward investments in non-market specialty assets such as artwork, wine, and antiques.

Physical custody of such assets obviously raises serious operational challenges that lead a custodian or the fund manager to seek the often remote custody services of specialized experts in appropriate repositories. Those repositories, while perhaps appropriately expert in their fields, do not operate within typical financial industry facilities models. Accordingly, where a client seeks recordkeeping custodial services in respect of assets so stored, the custodian should include in its contractual arrangements a provision that each chosen warehouses must be pre-approved by the custodian and subject to in-site visits. A fund client in this circumstance usually is required to certify that the selected warehouses are suitable for storage, reception, inspection and handling (including appropriate insurance coverage, including during the times assets are in transit). The custodian should also request receipt of updated inventory reports at least on a semi-annual basis.

6.4 Concluding Notes

The relentless search for Alpha has driven institutional investors beyond traditional asset classes into products such as interests in derivatives, bank loans and real estate that do not lend themselves to established securities safekeeping techniques. This Chapter should remind investors that these non-standard assets have features that make them riskier and more expensive to include in a portfolio with traditional equity and fixed income products. The Chapter also calls the industry in general to arms, encouraging collective steps to mitigate risks where possible (e.g. by leveraging clearing center facilities and carefully drafting and regularly noting liability arrangements) or to ring fence certain asset classes where challenges cannot be readily addressed.

7. Hidden Risks Involved in Relying on Third Parties

7.1 Introduction

The phrase "hidden risks" in the context of securities services implies a lack of visibility/transparency and therefore, likely, the absence of a clear understanding of the business process details that are the source of the risk(s) in question. One obvious location for hidden risks for any organization are the external entities on which the organization relies for services of one form or another. Such external providers are by definition not under direct oversight, which makes it difficult to be steadily aware of process or handling risks. The degree of visibility into the management of operational risk within third party entities is considerably less than within the organization's own operation. This risk paradigm applies equally to custodian banks and CSDs.

This Chapter describes the major relationships custodians and CSDs have with third party service providers (such relationships, "third party reliances") and what organizations can do to identify, assess and manage the risks that are being assumed either explicitly or implicitly in such relationships. Although most industry organizations have focused on operational risks associated with outsourcing to third parties, the sections that follow look at other relationship and service areas where evaluating reliance on third parties is comparably critical to an overall assessment of operational and financial risk.

Included in Annex B is a detailed listing of the types of third party service providers, each of which entails dependencies, to custodian banks and to CSDs. The list includes discussion of each third party relationship and relevant risks.

7.2 Key Types of Third Party Reliances

For most organizations, the external third party entities that are of material importance fall into the following categories:

1. Entities to which the organization has outsourced critical services[5]

2. Entities on which the organization relies for timely and accurate information

3. Entities that provide complementary functions that are inherent in or an extension of the regular operation of the organization

4. Entities that are allowed to perform critical functions on their own behalf within the organization's systems

Reliance on third parties for timely and accurate information requires transparency, for example, between funds and servicer providers, i.e. clear articulation of agent responsibilities, liabilities, disclaimers and disclosures in the client contract, offering memorandum, investor statements and client statements. In addition to a

[5] Operational risks and mitigating controls associated with outsourcing of critical services have been well documented elsewhere and are not addressed in this Chapter.

stated standard of care setting out the agent's liability and the circumstances considered *force majeure*, agent agreements will often clarify and limit liability with respect to:

- having relied upon the authority, accuracy, truth or completeness of information, including information supplied to the administrator by the fund or by the investment manager or any third party not a sub-contractor of the administrator, including information in relation to trades in respect of the fund or expenses of the fund;
- having relied upon the authority, accuracy, truth and completeness of information furnished to the administrator by the fund's prime broker, other broker, any provider of pricing services, data services, or other market information or other information concerning securities held by the fund; and
- any error in data that is transitioned to the administrator from a third party at the time it begins to provide the services with respect the fund.

7.3 Controls Around Third-Party Reliances

A series of discrete steps should be taken to effectively manage third-party reliances. These steps are as follows:

1. Identification/recognition of the reliance that generates the risk
2. Risk analysis
3. Relationship definition
4. Direct controls
5. Indirect controls

Identification/Recognition

The first step in reliance control is to explicitly identify where third party reliances exist. This Chapter has identified four different types of third party reliances (i.e., outsourcing, data vendors, complementary services and self-services). Other labels or categorizations may work better for particular organizations. What is important is that a review is undertaken of all external relationships with an eye to identifying the relationships and determining the materiality of each to the smooth and secure functioning of the custodian bank or CSD. A risk analysis follows that review and basic assessment.

Principle 17 of the report "Principles for financial market infrastructures", issued in April 2012 by CPSS/IOSCO, addresses operational risk and among other considerations, requires financial market infrastructures (FMIs) to identify, monitor and manage the risks associated with key participants, other FMIs and service and utility providers. In the case of outsourcing data processing to third parties, it requires the same standards be met as if the function was performed internally. In the event that operations are outsourced to a third party, it requires disclosure of the arrangement to participants. Overall, it requires the FMIs to take appropriate actions to manage third party dependencies/reliances through appropriate contractual and organizational arrangements.

Risk Analysis

Once the various third party reliances have been identified, they need to be analyzed in terms of the operational risk or financial exposure they could bring to the organization. By applying a risk analysis methodology to the list of identified third parties, it should be possible to identify those reliances that are in a low/acceptable risk range, and those that require more detailed examination. This approach ensures that resources are prioritized to first address the third party reliances that represent the greatest risks.

For each material third party reliance that has been identified, the following approach is recommended for the risk analyses:

- Assign a value representing the probability of a disruption in service resulting from the third party reliance not performing as expected or required (after accounting for any mitigants that may be in place).

- Assign a value representing the nature, range and estimated impact on the organization of a disruption in service (taking into account any mitigants that may be in place).

- Combine the two values (probability and impact) to determine a residual risk rating.

Relationship Definition

For those third party reliances that carry a high risk profile (i.e., as determined by the risk analysis when viewed through the organization's established risk tolerances), the legal relationship that governs the interaction between the organization and the third party, including applicable provisions of service agreements and implicit expectations, must be reviewed in detail. That review should be structured to ensure that the level of risk that has been ascribed to the relationship is appropriately governed from a legal perspective (i.e., from the perspective of the rights and obligations that each party has towards the other).

Direct Controls

Industry organizations should have in place "direct controls" vis-à-vis their critical third party reliances. Direct controls can be categorized as follows:

1. Preventive controls

2. Detective controls

3. Corrective controls

Preventive Controls

Included in this category of controls are activity limits that govern the degree of risk that the organization is prepared to accept from the third party. Also included are change management controls, including extensive regression testing, that ensure that no changes are made to the foundation of the reliances between the organization and the third party without adequate testing to ensure the change will not trigger adverse consequences.

Detective Controls

Included in this category of controls are reconciliation processes and the provision of audit rights to review and test the workings and processes internal to the third party's operation.

Corrective Controls

Corrective controls allow the organization to take whatever action is considered necessary, within the terms of the legal agreement that governs the relationship, to redirect or cure any deviation from what is considered to be normal operating practice or procedure.

<u>Indirect Controls</u>

Indirect controls include the use of third party audits (e.g., SAS 70 audits) or reference to publicly available information or data such as that included in questionnaire responses (e.g., global custodian questionnaire to CSDs and/or sub-custodians).

7.4 Concluding Notes

This chapter, together with the subsequent "Illustrations" Annex, remind the reader that there are third party providers relevant to -- and embedded in -- securities settlements undertaken by a contractually-bound provider. These parties effectively provide "embedded" support services that are critical to achieving the full services subject to agreement between investor and custodian, although often neither custodian nor investor has a choice in designating or leveraging the provider. Understanding these 3rd party relationships, the role and services these parties perform, and the incidental risks they impose on the process is an essential component of a complete investment due diligence exercise.

Annex A to Chapter 2
Supplemental Types of "Loss" Circumstances that Involve Events Beyond a Global Custodian's Reasonable Control and Change in the Industry's Anticipated and Established Allocations of Risk

Telecommunications System

Global custodians typically rely on the global messaging network SWIFT in order to receive and send instructions and other information to and from their clients, other financial institutions and market infrastructures. If SWIFT facilities become unavailable, this might delay or prevent settlement or the processing of corporate actions, or delay the making of payments or the disposition of securities, and could lead to losses, either of financial instruments outright, or of their market value as a result of price movements and market volatility. Such events cannot reasonably be attributed to a global custodian, and no general liability framework should hold a global custodian liable to investors for a SWIFT facilities failure.

Market Volatility

One of the risks inherent in any investment is a change in the price at which the investment can be bought and sold. By way of example, an investment fund may have a large exposure to a particular jurisdiction's government bonds, the price of which is known to be volatile. The choice of the time and price at which to sell the bonds is entirely a question for the fund's investment manager. If the investment manager elects to hold the bonds and events prevent them from later disposing of them in accordance with normal arrangements (such as the closure of markets, stock market controls, currency restrictions, etc.), the price may move against the position while the manager is temporarily unable to effect the sale.

The fund depositary, or custodian, has no mandate to overrule the judgment of the investment manager and has no right to order the sale of the bonds in this example, even if it becomes concerned about conditions in the relevant market. Holding the depositary liable for market price moves while there is a temporary restriction on the ability to transact in them would be an extreme change in predictable market outcomes.

Securities Market Closure

The imposition in the past of emergency measures by governments in times of economic crisis, civil unrest or war has sometimes led to the loss of financial instruments or interrupted the ability of investors to trade such assets. Examples of such a turn of events include the economic policies adopted by a number of Southeast Asian governments during the Asian Financial Crisis of 1997-99, effectively closing their markets. Such governmental measures or actions cannot be considered to be subject to a global custodian's reasonable control.

Investment Decisions of the Fund

Investment funds are generally free to choose to invest in a wide variety of asset classes and markets. Although depositaries play a role in verifying that asset purchase and sale transactions are carried out in accordance with defined rules, they are not traditionally considered responsible for flaws in asset title, errors in settlement systems, or the nature or validity of the assets themselves. Risks of loss due to such flaws follow from the fund's investment decisions and should therefore be borne by the fund itself, representing the fund investors, or by the fund's agents where investment decisions were not made in accordance with the fund's requirements. Various examples noted in the Report are similarly based on investment decisions, or on the choice of investing in assets in countries with infrastructure or regulatory standards which fall short of international standards, or on the choice of counterparties in transactions that lead to the loss of assets. Losses in those instances are not failures of the depositary in carrying out its functions, but rather failures in investment decision-making.

Illustrative List of Complementary Service Providers to Custodian Banks and to CSD's: Identification and Discussion

<u>Custodian Banks</u>

For a custodian bank to provide a complete range of services to its clients, various third party reliances are typically unavoidable. Clients look to custodian banks to ensure the integrity of agreements and operations around these reliances. The following entities are typical examples of complementary service providers to custodians that cannot usually be avoided and must be managed:

1. Central securities depositories (CSDs)
2. Local-market sub-custodians, notably service providers located in jurisdictions not home to the global custodian or service providers for unique assets
3. Matching utilities
4. Communication providers from and to clients and infrastructures
5. Tri-party collateral managers
6. Other trustees and tax withholding agents
7. Banker(s)

CSDs

Ultimately, Custody of security positions is generally the responsibility of one or more CSDs. Custodian banks rely on CSDs in a variety of ways including accurate record keeping, general custody, segregated custody, handling of entitlement processing and corporate actions, tax withholding and the proper functioning of business processes made available through the depository (e.g., securities borrowing and lending, pledging, etc.).

Domestic Sub-custodians

To the extent that a client has positions in multiple jurisdictions, reliances by a global custodian on one or more domestic sub-custodians in these jurisdictions is necessary, as is reliance on the CSD in the same jurisdiction as a further domestic service provider. Reliances on the domestic sub-custodians include accurate record keeping for security and cash balances, general custody, segregated custody, handling of entitlement processing and corporate actions, tax withholding, and the proper functioning of business processes related to securities handling available in the domestic jurisdiction.

Matching Utilities

A matching utility is responsible for creating compared trades between the client of the custodian bank and the broker/dealer acting as trade execution agent and/or clearing agent for the same client. If the custodian pre-agrees (and is coded at the CSD to this effect) to settle all of a client's compared trades reported by the matching utility, the CSD will automatically settle such a compared trade without further intervention.

Although this may be the most efficient approach, it will automatically create an obligation for the custodian to deliver/receive securities or funds on behalf of its client. The custodian will therefore need to pre-assure itself of the continuing solvency of its client and have contractual remedies in place to address matters involving client insolvency. The Custodian will also have to ensure that settlement can be stopped in sufficient time, if the custodian's client is unable to settle.

Communication Providers

Custodian banks have often automated their systems to accept transaction inputs from external telecommunications providers, , but also via clients and other third parties. While input edits are applied to these transactions, assumptions are sometimes made concerning the legitimacy of transaction origin, format and content integrity.

Tri-party Collateral Managers

In providing collateral management services to their clients, custodian banks often rely on tri-party collateral managers who are responsible for holding the collateral that has been pledged to secure an obligation.

Other Trustees, Agents and Tax Withholding Services

In addition to tri-party collateral managers, custodian banks may also have dealings with other trustees and/or agents (e.g., as bond issuing and paying agents). Tax withholding may be another specialized service provided to clients.

Banker(s)

In situations where a custodian does not also have a banking license, although this is rare, there is a need to effect banking instructions through a third party. Timely and accurate reconciliations are essential to the smooth and secure functioning of this type of relationship. The question of banker risk and the organization's capacity and tolerance for this type of risk needs to be understood and appropriately managed.

Central Securities Depositories

CSDs have a similar range of third party reliances to those just described for custodian banks. The following entities are typical examples of complementary service providers to CSDs that cannot usually be avoided and must be managed:

1. Stock exchanges and other organized markets and/or their clearing CCPs
2. Matching utilities
3. Banker(s), including the central bank
4. External custodians including other CSDs
5. Transfer agents, particularly where no physical securities are issued
6. Tri-party collateral managers
7. Trustees and other services, e.g., tax withholding services

With respect to third party reliances as they apply to CSDs, consideration must be given to the life cycle of the business processes that are generally relevant to all CSDs, i.e., the primary offering or secondary market trading, clearing, settlement and depository/custody, including asset servicing and entitlements.

Stock Exchanges and other Organized Markets

Stock exchanges and other organized markets, or their related entities, create confirmed trades that are sent to the CSD for clearing and then settlement. Although central counterparty clearing organizations (CCPs) are increasingly established to risk-manage and net secondary market trades, some markets still have no intervening CCP. In such cases, a matched trade can be reported directly by the exchange or one or both of the counterparties to the CSD. These trades often settle without further intervention, thereby creating an obligation to deliver/receive securities or funds on behalf of a CSD participant. Given the volume of processing and the speed with which processing needs to occur, there is a fundamental reliance on the accuracy and integrity of the trade details delivered by the exchange or market or its CCP or to the counterparties directly, and each participant will further rely on the creditworthiness of the settlement counterparty. Examples of difficulties that have occurred include exchanges that have encountered recordkeeping issues when their records of buyers and sellers are out of balance and processing issues whereby the activity of the day cannot be reported on schedule, requiring either an extension of the CCP trade capture deadlines or the processing of activity the following day after the interruption is resolved.

Matching Utilities

Beyond the market-side trades executed at a stock exchange or other organized market, a matching utility is responsible for comparing trade obligations between various underlying parties, including the investment manager, who places an order (and if it is a block order, the manager must later allocate shares or bonds to a particular client), the broker who buys and sells in the market, and the custodian who represents the client in settlement and ongoing asset servicing. If the custodian has agreed (and is so-coded at the CSD) to settle all of a client's confirmed trades reported by the matching utility, the CSD will often automatically settle a confirmed trade without further intervention, thereby creating for the broker and custodian respective obligations to deliver/receive securities or funds. Examples of difficulties with matching utilities include delays in processing or temporary system outages, which if prolonged in duration require trade counterparties to resort to alternative matching procedures which may be heavily manual in nature.

Banker(s), Including the Central Banks

Many CSDs, whether themselves moving funds related to trade settlements or entitlements intraday or on a periodic net basis one or more times per day, actually rely on the real time gross settlement (RTGS) payment systems provided by their central banks. Other CSDs rely on commercial banks to similarly effect money transfers among the CSDs' participants. Each form of money settlement has its own associated risks, including banker risk, that needs to be addressed by the CSD. The question of banker risk is one that has figured prominently since the 2008 credit crisis. As a best practice, CSD's should continually evaluate their banker participants from a risk management perspective to ensure that there are appropriate resources in place, such as guarantee funds, loss sharing provisions, etc. to ensure orderly settlement in the event of a banker insolvency.

External Custodians Including Other CSDs

Whereas CSDs present a third party reliance risk to custodian banks, the CSDs themselves have custody risk with external entities. In situations where there are physical certificates supporting the electronic position held in the depository, and these physical certificates are held with a third party (i.e., not under the direct control of the CSD), the CSD must rely on these external custodians.

Even in situations where there are no physical certificates involved, a CSD may still have to rely on an external entity. For example, in situations where two CSDs have an interface arrangement, one CSD can often become a custody location for the other CSD and vice-versa.

Transfer Agents, Registrars, Paying and Entitlement Depositary Agents

In jurisdictions where issuers appoint transfer agents or registrars separate and apart from the CSD, and particularly where the nominee approach is used for recordkeeping, those agents may be holding the primary record of the CSD's custody positions held on behalf of its participants. Further adding to the importance of the agent role vis-à-vis the CSD, the agent will usually be the paying and/or depositary agent for entitlement events and will only act on these entitlement events based on its own records and not those of the CSD. Essential to the integrity of issues involved, equilibrium between the registry balance and other records held by the transfer agents and those of the CSDs must be ensured, as well as pre-defined reconciliation procedures for promptly resolving any differences. The timely interaction between CSDs and transfer agents/depositary agents with respect to voluntary corporate actions is particularly crucial. Proximity between the parties can even be an issue where physical delivery of certificates/documents is required. In the case of global issues where there is a global stock registrar and national sub-registrars, the coordination of CSDs and transfer agents is critical. To facilitate cross border trading and position realignment between countries, a CSD may hold part of its position with the local transfer agent and another part of the position in a foreign CSD thereby requiring a coordinated approach to the processing of dividend entitlements and corporate actions to include cut-off times for voluntary corporate actions.

Tri-party Collateral Managers

A CSD can often act in the role of a tri-party collateral manager within its own environment. Alternatively, a third party can perform this role using depository functionality provided by the CSD. In this latter arrangement, a symbiotic relationship exists between the CSD that provides the tri-party collateral management functionality and custody services and the recordkeeping and other responsibilities of the tri-party collateral manager.

Trustees

Other trustee roles can be created within the confines of the depository functionality within a CSD -- roles that are played by third parties and not the CSD itself. For example, security creation and issuance can be performed by a third party acting as the trustee or perhaps a lead underwriter representing the issuer of the security.

Self-Service Participants

In addition to the risks posed by the complementary service providers, custodian banks and CSDs must also be aware of the risks posed by "self-service" participants (similar to the trustees described above) and who are given access to functionality or resources (usually financial) by the custodian bank or CSD to create products and/or services for themselves. Very often, the products and/or services created bring significant liabilities and/or risk to the custodian bank or CSD.

Major examples of self-service participants include:

1. Hedge funds
2. High-frequency traders
3. Security originators

Hedge Funds

Prime brokerage services offered by some custodian banks to their hedge fund clients usually represent an integrated package of financing, trade execution, clearing, settlement and custody services. Given the degree of sophistication of many hedge fund operators, the services offered through a prime brokerage arrangement can be complex and require levels of oversight and control..

High-Frequency Traders (HFTs)

The usual trading strategy of HFTs is to execute aggressive and opportunistic trading and arbitrage intraday but to be flat at the end of the trading day. However, there is equally a need to promptly clear and net all of the matched trades that are executed by the high-frequency traders in order to calculate and settle the price differentials. HFTs often require that the prime broker provide them with delegated direct market access (DMA) to the relevant stock exchange(s) or other organized market(s). As an additional part of prime brokerage services, the HFT is often provided with DMA under the auspices/guarantee of the provider of the prime brokerage services.

Security Originators

Issuing agents, both inside the CSD and sometimes outside, are often given the ability to create issues for particular financing, indexing or cross border purposes on behalf of corporate and local, state or other governmental clients (e.g., money market instruments, repurchase agreements, stock loans, and to some extent, depositary receipts and exchange traded funds). These securities, once created, are then sold to dealers for their own, often temporary, benefit and the benefit of their respective investor clients. The integrity of the instruments created and efficient procedures for issuance and reversal/retirement of these instruments is fundamentally important to the proper functioning of this market segment. In the case of certificated issues outside the CSD environment, a security issuer may also be providing its own custody for the underlying security, with other market participants relying on the issuer’s safety and soundness.

Annex C
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