Hedge Funds and

Other Highly Leveraged

Institutions

Report of the Technical Committee
of the
International Organization of Securities Commissions

November 1999

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OTHER HIGHLY LEVERAGED INSTITUTIONS

REPORT BY THE TECHNICAL COMMITTEE
OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS
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EXECUTIVE SUMMARY

In response to the near collapse of Long-Term Capital Management, LP (“LTCM”), the Technical Committee of the International Organization of Securities Commissions (“IOSCO”) formed a special Task Force on Hedge Funds and Other Highly Leveraged Institutions (the “Task Force”) to address regulatory issues relating to the activities of highly leveraged institutions (“HLIs”). The Task Force was instructed to determine what measures might be advisable to reduce the systemic risk concerns raised by the activities of HLIs.

The Task Force carried out its work with the assistance of two of the Technical Committee’s working groups. The Working Group on the Regulation of Secondary Markets (“Working Group 2") studied the advisability and feasibility of imposing transparency requirements on HLIs. The Working Group on the Regulation of Market Intermediaries (“Working Group 3") addressed improvements to credit risk management and internal controls relating to dealings with HLIs, including the importance of obtaining adequate information from HLI counterparties.

This report makes recommendations regarding:

(a) strengthening risk management processes at securities firms that act as counterparties to HLIs;

(b) guidance to securities[1] regulators on the scrutiny which should be applied to regulated firms' dealings with HLIs and the means by which firms should be encouraged to adopt sound practices;

(c) improving information flows about HLI activities to regulated counterparties of HLIs, regulators, market authorities[2] and to the public more generally; and

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[1] For convenience, in this paper, the word "securities” is used, where the context permits, to include references to derivatives. The same applies to the terms "securities regulation", “securities firms” and “securities markets”. “Markets”, unless otherwise limited, includes securities markets and other regulated markets (such as exchanges), other organised markets and OTC markets at, or through which, either cash or derivatives products are traded.

(d) the advisability of further work by IOSCO in cooperation with other interested parties, including the Basel Committee and private sector groups.

Characteristics of HLIs. HLIs are, for the purposes of this paper, institutions which are significant traders for their own account in financial instruments and which display a combination of the following characteristics:

(i) they take on significant leverage;
(ii) they are subject to little or no direct prudential regulation;
(iii) they are subject to limited disclosure requirements as they are seldom public companies.

They are often organised in or operate from or through offshore jurisdictions that may be regulatory or tax havens.

While HLIs, like other large institutional investors, can provide benefits to global financial markets, the combination of characteristics typically associated with HLIs and the legal and other uncertainties arising out of extensive operations in offshore centres pose particular challenges which need to be managed carefully in order to avoid risks to the financial system.

Regulatory Concerns. HLIs do not generally raise significant investor protection concerns as their direct investors should be capable of protecting their own interests. However, the activities of some HLIs may raise issues in the area of systemic risk and market stability. The HLIs of concern are those where the size of the institution, its level of leverage or the size and concentrations of its positions in a particular market are sufficiently large to have a potentially destabilising effect on a regulated firm, a particular market or the global financial system.

The issues raised by HLIs become of greater importance as securities and derivatives markets are increasingly a vehicle for intermediating credit. This means market disruptions can be transmitted quickly to the real economy. They can also be transmitted rapidly between markets owing to increasing linkages via cross-border trading and the participation of large multinational financial institutions.

Enhanced Risk Management. The first line of defence against systemic risk in the market is strong and prudent risk management processes at the regulated firms with which the HLIs trade. Many of the concerns raised by HLI activities may be addressed by improvements in this area.

The broad principles of risk management[3] apply fully to securities firms' dealings with HLIs. However, given the characteristics of HLIs and the nature of the transactions they typically

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2 "Market authorities" means operators of regulated markets (such as securities or derivatives exchanges), self-regulatory organisations and/or clearing organisations.

3 These principles have been set out in a number of publications by international regulatory groups.

undertake, prudent counterparty risk management may require scrutiny to be particularly close and procedures to be tighter in the area of credit risks and legal risks. This report includes details of certain risk management tools and processes that may be particularly helpful in reducing the risks regulated firms may face when dealing with HLIs.

A key part of an effective risk management process is obtaining, understanding and verifying information on counterparties. Regulated firms that are HLI counterparties may need more information about HLI activities and positions than for other counterparties in order to meet prudent risk management standards. This information may also be used to set appropriate terms and conditions for dealing with these counterparties, such as pricing transactions to reflect risks more accurately, determining covenants and setting appropriate collateral levels.

The regulators of firms that have material exposures to HLIs have a role to play in reducing the risk that strengthened risk management processes are eroded by time, competitive pressures and other factors. Clear regulatory expectations, diligently enforced by appropriate oversight mechanisms, coupled with regulatory incentives to maintain or improve risk management may serve to lock in the improvements at the regulated firms. This report contains a menu of regulatory incentives that may be appropriate and effective to promote improvements in risk management processes at securities firms.

Transparency. More prudent practices by regulated firms that are universally applied across sectors and appropriately encouraged by diligent supervisors should have a significant effect on reducing systemic risks and the potential for market disruptions posed by HLIs. However, this is unlikely to be sufficient. Not all the information needed to monitor and mitigate systemic risk and market destabilisation is generated by the bilateral information flows between a regulated firm and its HLI counterparties.

Additional transparency regarding HLI activities should be required. Regulators have two possible methods of achieving this transparency, disclosure to the public and reporting to regulators and market authorities. These options are not mutually exclusive.

On balance, public disclosure of HLI activities is recommended. The examination of public disclosure is gaining momentum among the international regulatory community. Because this momentum exists, it is recommended that public disclosure by HLIs and their regulated counterparties be explored first. Rather than create a new group that would duplicate other efforts, the HLI transparency issues (what information should be disclosed and by whom) should be referred to the Fisher II Group[4] in which IOSCO is participating. The work product of both Working Group 2 and Working Group 3 will be made available to the Fisher II Group.

The most recent IOSCO report is *Risk Management and Control Guidance for Securities Firms and their Supervisors*, (May, 1998) (Risk Management and Control Guidance).

4 See the description of the Fisher II Group in paragraph 3 below.

Information about HLI activities obtained from regulated firms that are counterparties to HLIs is unlikely to be sufficient to provide adequate information as it will not provide a systematic, comprehensive overview of HLI activities. It is therefore likely to be necessary for HLIs to provide the information directly. At a minimum, voluntary provision of information should be encouraged, underpinned by market pressure and, if necessary, regulatory incentives.

IOSCO will continue to assess the progress of the on-going international initiatives on public disclosure by market participants. Once the probable outcomes of these projects are known, IOSCO will be in a position to assess if the achievable level of enhanced transparency will address the systemic risk and market destabilisation concerns associated with HLIs. IOSCO may then decide to revisit the need for direct imposition of regulatory reporting requirements on HLIs.

Areas for Collaboration. In addition to the follow-on work on transparency described above, there are a number of areas where collaborative work might be done with other international regulatory groups such as the Basel Committee. These include developing:

a. better ways to measure potential future exposures;
b. specialised risk management processes to address the particular challenges created by HLIs; and
c. regulatory incentives to enhance risk management processes at regulated firms that will not result in regulatory arbitrage.

It may also be appropriate to consult with industry representatives on several of these topics.

I. INTRODUCTION

1. The near collapse of LTCM in 1998 highlighted the potential risks to regulated institutions, markets and the financial system as a whole arising out of the activities of HLIs. The LTCM episode drew particular attention to the need for regulated firms to adopt high standards of vigilance in their dealings with HLIs. It also highlighted the need to address whether there are regulatory gaps relating to these entities.

2. In December 1998, the Technical Committee of IOSCO formed a special Task Force to address regulatory issues relating to the activities of HLIs. The Task Force was, *inter alia*, instructed to:

(a) examine the need for enhanced internal control standards and risk management (*e.g.*, concentration, liquidity, credit policies) for non-banking financial services firms;

(b) determine how to address the need for international regulatory consensus on issues relating to HLIs and how to deal with regulatory "haven" jurisdictions;

(c) analyse whether, and if so how, HLIs above a specified size should be subject to some form of direct regulation[5] such as the imposition of transparency, disclosure, reporting, record keeping, internal controls, capital or margin requirements; and

(d) determine whether other measures are necessary to reduce systemic risks related to potential defaults by non-banking financial institutions.

The members of the Task Force are listed in Appendix A.

3. A number of other international regulatory and industry initiatives have been undertaken to examine issues highlighted by the LTCM crisis.

The Basel Committee on Banking Supervision ("Basel Committee"), released two papers[6] in January 1999. The main paper outlines the results of the Basel Committee's review of the LTCM crisis and the deficiencies identified in the internal controls and risk management practices of the banks that were counterparties to LTCM. This paper identifies ways to reduce the risk of another crisis through improved risk management at the banks, which it describes as indirect regulation of HLIs. The second paper identifies some sound practices to improve credit risk management when dealing with HLIs as counterparties.

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5 The phrase "direct regulation" usually means the imposition of a range of regulatory requirements directly on a firm - including requirements to report to regulators on the firm's activities and financial affairs, and setting minimum capital requirements. This report distinguishes between imposing transparency requirements directly on HLIs and imposing a greater array of regulatory requirements on HLIs.

6 Basel Committee, *Banks' Interactions with Highly Leveraged Institutions* (the "Basel HLI Paper") and *Sound Practices for Banks' Interactions with Highly Leveraged Institutions*, (January, 1999).

On April 29, 1999, the President's Working Group on Financial Markets[7] released a report entitled *Hedge Funds, Leverage and the Lessons of Long-Term Capital Management* (the "President's Working Group Report"). This report recommends a number of measures designed to limit excessive leverage in the financial system and thereby reduce systemic risk, including public disclosure by both HLIs and public companies with exposures to HLIs. It also recommends that financial institutions should improve their counterparty risk management processes and that regulators should encourage these improvements and consider stronger incentives to promote compliance by offshore financial centres with international standards.

Twelve major international banks and securities firms established the Counterparty Risk Management Policy Group ("CRMPG") to develop standards to strengthen risk management practices for banks, securities firms and others that provide credit-based services to major counterparties (including HLIs) in the securities and derivatives markets. Their report, entitled *Improving Counterparty Risk Management Practices* (the "CRMPG Report"), was released in June 1999. It includes recommendations for enhanced information sharing between counterparties; an analytical framework for evaluating the effects of leverage on market liquidity and credit risk; improved credit risk estimation techniques; stronger internal limit setting; collateral, margin and other credit risk management practices; improved risk reporting to senior management and regulators; and stronger harmonised market conventions for key credit documentation. The Task Force has provided the Technical Committee with a brief assessment of this industry initiative, which is attached as Appendix B.

The Financial Stability Forum was established by the Finance Ministers of the Group of Seven ("G-7") to ensure that national and international bodies can more effectively co-operate to promote international financial stability, improve the functioning of the markets and reduce systemic risk. In April 1999, the Forum created three working groups, two of which are directly relevant to the work of the Task Force. One group is addressing HLI issues. The second group is charged with looking at issues raised by offshore financial centres.

The Basel Committee and the Technical Committee of IOSCO have jointly issued a paper entitled *Recommendations for Public Disclosure of Trading and Derivatives Activities of Banks and Securities Firms*. The two committees consider transparency of risks and activities of securities firms and banks to be a key element of an effectively supervised financial system. There are two main themes of the paper. First, institutions should provide financial statement users with a clear picture of

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7 The President's Working Group is comprised of the Secretary of the U.S. Department of the Treasury, and the Chairs of the U.S. Board of Governors of the Federal Reserve System, the Securities and Exchange Commission and the Commodity Futures Trading Commission.

their trading and derivatives activities, including qualitative and quantitative summary information on the scope and nature of their trading and derivatives activities, the major risks associated with these activities and their performance in managing these risks. Second, institutions should disclose information produced by their internal risk measurement and management systems on their risk exposures and actual performance in managing these exposures. The committees recommend that banks and securities firms implement the guidance provided in the paper and consider disclosure initiatives by other national and international bodies. They also suggest that the recommendations in the paper may be useful to other financial and non-financial bodies.

The Committee on the Global Financial System (the "CGFS")[8] created two sub-groups - the Working Group on Disclosure, chaired by Peter Fisher of the New York Federal Reserve Bank (the "Fisher Group") and the Working Group on Market Information, chaired by Jean-Pierre Patat of the Banque de France (the "Patat Group") - to address the need for additional information in the marketplace.

> The Fisher Group's mandate was to consider what information should be publicly disclosed by financial intermediaries to provide a clear view of their exposures to market and credit risks. In response to the Group's recommendations,[9] the Multidisciplinary Working Group on Enhanced Disclosure was formed. This group, made up of representatives of the Basel Committee, IOSCO, the International Association of Insurance Supervisors and the CGFS (the "Fisher II Group") is considering a model risk information disclosure template and intends to conduct a pilot study with market participants. The results of the study will be used to assess the feasibility of enhanced public disclosure standards in this area.
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> The mandate of the Patat Group is to explore how the provision of additional aggregate market information could improve the functioning and stability of markets by contributing to better risk management and more informed policy decisions. The initial work has focussed on improving information about foreign exchange markets.[10]

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8 The CGFS was formerly named the Euro-Currency Standing Committee. It is a committee of the central banks of the Group of Ten countries.

9 Fisher Group, Report on Enhancing Disclosure by Individual Institutions (March, 1999). Note: not publicly disseminated.

10 Patat Group, Enhancing the Transparency of Aggregate Information (Basel, June, 1999). Note: not publicly disseminated.

II. CHARACTERISTICS OF HIGHLY LEVERAGED INSTITUTIONS

4. This paper focuses on the general issues raised by the participation of HLIs in the financial markets, rather than on entities that happen to share the label "hedge funds". Seeking to define "hedge funds" is difficult and potentially misleading as such institutions vary widely in scope, size, and the amount of leverage they employ. The report provides guidance to both securities firms and regulators on the management of risks arising out of dealings with institutions displaying certain kinds of generic characteristics, rather than members of an imprecisely defined category.

5. HLIs are, for the purposes of this paper, institutions which are significant traders for their own account in financial instruments and which display some combination of the following characteristics:

- they take on significant leverage;
- they are subject to little or no direct prudential regulation; and
- they are subject to limited disclosure requirements as they are seldom public companies.[11]

This description is generally consistent with that used by the Basel Committee[12].

6. HLIs, like other large institutional investors, can provide benefits to global financial markets by increasing the efficiency of, and adding liquidity to, markets. HLIs also facilitate financial innovation and the allocation of risk among counterparties through their generally unrestricted ability to take positions in multiple markets.

7. HLIs are generally structured to minimise the effects of regulation and taxation on their chosen operating strategies. This does not mean that they necessarily operate offshore. However, in practice they often are organised in, or operate from or through, offshore jurisdictions that may be regulatory or tax havens. For example, LTCM was organised and based in the United States, while the hedge fund it operated (Long-Term Capital Portfolio, L.P.) was a Cayman Islands limited partnership.

8. The HLIs that raise particular regulatory concerns are those where the size of the institution, its level of leverage, or the size and concentrations of its positions in one or more particular markets are sufficiently large to threaten the solvency of its regulated

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11 The direct investors in HLIs are usually high net worth individuals and institutional investors. Direct investment in an HLI by retail investors is very rare. But see Note 16.

12 The Basel Committee concluded that, while it is virtually impossible to provide a precise definition of an HLI, it would focus on large financial institutions that (a) are subject to little or no direct regulatory oversight because a significant percentage operate through offshore financial centres, (b) are generally subject to very limited disclosure requirements and are not subject to rating by credit rating agencies, and (c) often take on significant leverage, where leverage is the ratio between risk, expressed in some common denominator, and capital. Basel HLI Paper, at p. 8.

counterparties, or have a potentially destabilising effect on a particular market or the global financial market during a market event or upon a default.[13]

9. Many of the concerns raised regarding HLIs and their activities are also relevant to other large market participants, including regulated securities firms, banks and insurance companies. However, HLIs raise these issues to a greater degree.

(a) Unlike regulated firms, HLIs are not subject to specified capital requirements that limit leverage or to direct supervision by competent regulators.

(b) HLIs tend to be significantly less diversified than regulated firms.

(c) HLI issues are aggravated by a lack of transparency of financial information from some HLIs to their regulated counterparties, regulators, market authorities and the public as a whole.

10. It is recognised that any action taken by regulated firms, regulators or market authorities in response to the concerns posed by HLIs requires some measurable concept of leverage and an understanding of the basis on which HLIs may pose a significant risk. The factors that should be considered are set out below. Each regulated firm, regulator and market authority will have to determine how best to weigh these factors in light of its particular circumstances.

11. In general, leverage[14] can be measured in a number of ways. The traditional measure is "balance sheet leverage," *i.e.,* the ratio of the HLI's balance sheet assets to equity. Balance sheet leverage has several weaknesses, however, including a failure to take into account market, credit, and liquidity risks in a portfolio, as well as the use of off-balance sheet products such as derivatives. "Economic leverage," is a measure of the degree of risk taken on by the HLI in relation to its ability to bear that risk, *i.e.*, the ratio of potential gains and losses to net worth. While this may produce a more meaningful measure of leverage in terms of risk, the measurement of leverage on this basis is far from straightforward. Because these measures of leverage each have strengths and weaknesses, both of them may be of use in assessing whether or not an entity is an HLI. Any measure of leverage should address the off-balance sheet relationship of market and credit risks.

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13 For example, an HLI with a position in a particular market may create concerns for regulators and market authorities if (i) the failure of the HLI will imperil its counterparties and such counterparties have large positions in that market or (ii) the market is relatively small or low volume and the HLIs' positions or activities in products or related products are large in relation to the market.

14 The CRMPG Report notes that leverage "is generally considered to exist when (a) an institution's financial assets exceed its capital; (b) an institution is exposed to the change in value of a position beyond the amount, if any, initially paid for the position; or (c) an institution owns a position with "embedded leverage", i.e. a position with a price volatility exceeding that of the underlying market factor." CRMPG Report, at p.16.

12. It should be kept in mind that the size of the firm and the level of leverage at which concerns arise may differ depending on the instruments in which the HLI is investing. For example, moderate leverage for many debt instruments may be considered high in equity markets. Also, the combined effect of the size of the institution, the concentration of its positions and its leverage needs to be considered. Some market participants may fall below a given threshold for leverage and still pose a concern, due to the concentration of their positions in a particular market.

III. SOURCE OF REGULATORY CONCERNS ABOUT HIGHLY LEVERAGED INSTITUTIONS

13. As articulated by IOSCO, the core objectives of securities regulation are:

- the protection of investors;
- ensuring that markets are fair, efficient and transparent; and
- the reduction of systemic risk.[15]

14. HLIs are generally structured so as not to trigger the disclosure requirements imposed on public companies. Their direct investors are usually high net worth individuals and institutions. These investors are viewed by most securities regulators as sophisticated enough to understand the risks of their investments without requiring regulatory involvement or mandated disclosure documents. As such, HLIs do not raise directly any significant traditional investor protection concerns.[16]

15. The mandate given to the Task Force focussed on the concerns posed by HLIs in the areas of systemic risk and market disruptions. The combination of attributes of HLIs poses particular risk management challenges for regulated firms, regulators and markets in their dealings with HLIs. Also, the current structural safeguards in the financial system may not address the risks that HLIs create.

16. The combination of size, leverage and ability to take very concentrated positions means that the trading activities of certain HLIs may have an effect on markets, even under normal market conditions.

17. In times of stress, the existence of significant leverage magnifies the risk inherent in dealings with HLIs. Unusual disturbances in markets, even if relatively small, may result

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[15] IOSCO, *Objectives and Principles of Securities Regulation,* (1998) (the "Core Principles").

[16] Retail investors may be indirectly exposed to HLIs in a number of ways. They may be investors in public companies or collective investment schemes that are institutional investors in HLIs, be investors in firms that are counterparties to HLIs or have interests in other institutional investors in HLIs, such as pension plans. As these indirect exposures increase, the resulting risks posed to retail investors may need to be addressed.

in significant swings in the value of an HLI's portfolio. A portfolio liquidation[17] can have a serious impact on markets. If a default does occur or there is a disorderly liquidation, the HLI's counterparties and other market participants may be exposed to further losses resulting from liquidation of collateral or rebalancing portfolios under adverse conditions. These potential losses are described by the Basel Committee as secondary exposures.[18]

18. Unlike regulated firms, most HLIs are not subject to regulatory oversight regarding the capital they hold in relation to the risk they assume, their degree of diversification, or the adequacy of their internal risk management systems. While regulatory oversight does not eliminate risk,[19] its absence introduces a dimension of potential risk, which is not present in financial dealings between regulated entities.

19. Because HLIs are seldom-public entities and rarely rated by credit rating agencies, there is no easily accessible public source of information about their operations. They generally provide financial information, sometimes limited, to counterparties. But, exposure values change with each movement in the markets and each transaction and the positions taken and strategies used may be complex. This complexity poses significant analytical challenges to their counterparties. These factors are particularly relevant for certain HLIs with large volumes and wide scope of trading activities, often with multiple counterparties.

20. The combination of leverage, the absence of regulation, the opacity typically associated with HLIs' operations and the legal and other uncertainties arising out of extensive operations in offshore centres pose particular challenges which need to be managed carefully in order to avoid risks to the financial system.

21. The consideration of the need for increased transparency on the activities of HLIs to address systemic risks raises issues related to the securities regulatory objective of ensuring that markets are fair, efficient and transparent. Competent market authorities have obligations to maintain fair, transparent and orderly markets and to ensure the integrity of the price formation process. Positions taken by HLIs may be relevant to the performance of these obligations.[20]

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17 The need for liquidation of portfolio positions will be determined by the HLI's degree of dependence on the continuing availability of the resources necessary to support its obligations in the market. Unlike many entities that use derivatives, HLIs usually are non-operating investment and trading entities whose assets generally consist only of their currently available cash, receivables arising from their trading activities, and the financial instruments that make up their trading book. In circumstances where credit lines are no longer available, an HLI may have no other immediate source of funding or liquidity, other than through an adjustment of its positions, if, due to negative price volatility in the markets, it finds itself in need of cash, *e.g.,* to meet margin calls.

18 Basel HLI Paper.

19 Regulation does not eliminate the risk that any given institution may fail. But the risk that the failure of one institution may lead to systemic failure may be mitigated as a result of regulation.

20 Some jurisdictions strongly believe that a beneficial side effect of increasing transparency of HLI

22. The exposure of organised markets to HLI activity may occur in a variety of ways. These include:

(a) where the HLI is a direct member of the market or is an affiliate of a market member;

(b) as a counterparty (or a customer) of market participants in an organised, OTC cash or other market in which the participants in an organised market have significant market risk or liquidity risk; or

(c) as a large holder of positions in an OTC cash or other market related to positions on, or priced off, contracts in an organised market where the management or liquidation of these positions may affect the price formation process of the organised market.

Additionally, as the result of linkages between counterparties, correlations between products, or securities lending practices, HLI activities may have a broader impact not confined to a particular organised market.

23. The overall risk exposures of market participants, such as HLIs, can adversely affect the ability of such participants to meet their obligations to their counterparties. If large enough, these risks may adversely affect the market itself.

24. The issues raised by HLIs become of greater importance as securities and derivatives markets are increasingly a vehicle for intermediating credit (i) through securitisation and commoditisation of products and (ii) as a consequence of new technologies that permit more direct and inexpensive access to trading. Because of the increasing role of these markets, market disruptions can be transmitted more quickly to the real economy. They can also be transmitted rapidly between markets that are becoming increasingly interlinked through related products, cross border trading and the participation of large multinational financial institutions, such as certain HLIs.[21]

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activities will be an improved ability to prevent abusive practices, such as manipulation. These practices may be facilitated by the use by HLIs of offshore locations, significant leverage, multiple counterparties and trades outside the jurisdiction of the affected market.

[21] In bond and money markets, interest rate swaps link short-term and long-term rates. By allowing for the creation of financial instruments in which the interest rate is set in the most favourable market, these instruments have reduced the substantial differentials that once existed between Eurodollar and domestic bond markets. Similarly, currency swaps link long-term and short-term dollar bond rates with those denominated in other currencies, while the recent rapid growth in equity-related swaps implies greater integration among stock markets.

IV. STRENGTHENING RISK MANAGEMENT AT SECURITIES FIRMS

25. The reports of the Basel Committee, President’s Working Group and CRMPG all call for improvements in counterparty risk management at regulated firms. IOSCO agrees with this view. The first line of defence against systemic risk and market disruptions is the maintenance of strong and prudent risk management processes at the regulated firms that provide credit to or act as counterparties to HLIs. To the extent risk management of relationships with HLIs is improved at individual firms, the probability of failure at the firm level should be reduced. This in turn may lessen systemic risk, as the likelihood of contagion of firm-level disturbances would be reduced correspondingly.

26. Controlling risk is the responsibility of firm management. It should begin with senior management specifying the overall risk appetite of the firm and the contribution which specific categories of business, including dealings with HLIs, should make to the risk/return profile. Timely and detailed management information is an essential part of this task, and will help ensure that the extent and balance of business undertaken is in line with management objectives, as well as help management assess whether these objectives remain valid.

27. The broad principles of risk management set out in IOSCO’s Risk Management and Control Guidance apply fully to dealings by securities firms with HLIs. The characteristics of HLIs are such, however, that there are two particular areas in which adequate counterparty risk management may require scrutiny to be particularly close and where procedures may need to be tighter than in dealings by securities firms with other types of entities. These are the areas of (a) credit risk[22] and (b) legal risk.

Credit Risk

28. Securities firms may interact with HLIs in a variety of ways, each of which gives rise to credit risk as:

(a) principal counterparty (*e.g.,* in OTC derivatives transactions);
(b) a short-term lender of funds or securities;
(c) a long-term lender or provider of capital (*e.g.,* as an equity investor);
(d) execution agent, responsible for buying or selling on an HLI’s behalf;
(e) an HLI’s clearing and settlement agent, including holding HLI assets in the settlement process; or
(f) a prime broker.[23]

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22 Including the risks associated with collateral management and reliance on collateral for risk reduction. A glossary of relevant terms is attached as Appendix C.

23 A prime broker is a registered broker-dealer that performs all (or much) of the custodial, record keeping, clearance, and financing services for a customer whose trades are executed by one or more other registered broker-dealers (executing brokers). In effect, the prime broker acts as a clearing facility, lender and accountant for all of the customer’s securities transactions wherever executed, as well as a central custodian for the customer’s securities and funds.

29. The credit risks embodied in derivatives transactions with HLIs (as with other counterparties) are typically managed by holding collateral against the current marked-to-market value of the transactions. Collateral of this kind generally will be subject to capital requirements in recognition of the potential for erosion in asset values.

30. The conventional distinction between credit risk and market risk is useful in dealings with HLIs as with other counterparties. The combination of leverage and concentration in particular markets which characterises some HLIs’ dealings, however, means that these two types of risk can be closely related, with significant implications for firms’ risk management processes.

31. Disruptions to an HLI’s operations, including disorderly liquidation, have the potential quickly to give rise to unexpected uncollateralised credit risks for its counterparties. This may occur as a result of changes in the value of underlying positions or of the collateral itself, and often will take place at a time when the creditworthiness of the HLI is uncertain. In extreme circumstances, markets may become stressed to the point at which liquidity disappears or prices gap, resulting in the emergence of significant risks (such as credit risk and asset liquidity risk) which cannot readily be offset through the use of collateral.[24]

Risk Management Processes

32. All of this highlights the need for well-developed processes for credit risk management in regulated firms, which have material dealings with HLIs. These processes should include (but are not limited to) the following:

(a) A specification of the firm’s risk appetite and desired balance of risk and return, translated into a clear statement of policy concerning the extent and nature of prescribed dealings with HLIs. The firm’s risk appetite and desired balance of risk and return, as well as specific credit risk management policies, should be set by the firm’s senior management, with the concurrence of the board of directors (or equivalent). Credit risk management policies should be implemented by the firm’s credit department, which should have the responsibility for day-to-day credit operations, including due diligence, credit approvals, credit ratings, and monitoring of credit overages. As part of this process, regulated firms should have effective counterparty credit risk rating systems. In addition, firms may wish to consider setting forth procedures for entering into new product lines that create credit risk.

(b) Procurement and maintenance of clear, accurate, and up-to-date information about each HLI counterparty. A detailed discussion of the types of information regulated firms may wish to obtain concerning HLI counterparties, both initially and on an ongoing basis, is set out below under the heading “Information Flows.”

[24] Appendix B of the CRMPG Report contains a detailed discussion of counterparty credit exposure and risk estimation.

(c) Adequate internal control structures, including a credit evaluation function, independent of the areas of the firm entering into transactions that give rise to credit risk, to perform credit analysis and oversee credit limits. These internal controls must be strong enough to prevent subversion through market pressures, the effects of conflicts of interest or as a result of other factors.

(d) The firm should have clearly articulated policies regarding investments in counterparty HLIs by any of the regulated firm, its officers, directors or significant shareholders. Any permitted investments should be disclosed and monitored.

(e) Credit limits set for each HLI counterparty based on an analysis of the information acquired. Credit limits should be in line with the overall risk policy articulated by senior management for dealings with HLIs. In addition, specific policies should be set by the credit risk management function regarding credit concentration or diversification by geographical area, industry, type of investment, type of collateral and credit rating, and should take into account both transaction size and maturity. Credit limits for a particular HLI may include an overall limit, as well as sub-limits relating to particular products. When enforceable netting arrangements are in place, a credit limit may be applied to the net exposure as well as the gross amount. In addition to counterparty level credit limits, a firm may wish to impose an aggregate credit limit for exposures to HLIs as a group.

(f) Procedures for requiring risk reduction instruments, such as collateral. Firms should have a clear and enforced collateralization policy.

(i) Regulated firms typically use collateral as a risk mitigation device when dealing with HLIs. Before entering into business with an HLI, a regulated firm needs to satisfy itself that it will be provided with adequate collateral. It should also have an understanding of the type of collateral to be offered (especially its quality, geographical spread and currency spread)[25] and the nature, value and concentration of collateral pledged to the HLI's other counterparties. In particular, firms should be aware of any correlations between its exposure to its HLI counterparty and the value of the collateral pledged.

(ii) Senior management of the regulated firm then needs to establish clear collateralization policies for its dealings with the HLI counterparty. This may involve:

[25] If collateral offered is confined to a relatively narrow spread of markets, countries or currencies, the regulated firm should seek information (*e.g.*, on the size and other attributes of the market for the collateral) to help it understand whether the value of that collateral may be impaired in the event of a crisis at the HLI. This may occur, for example, if the HLI holds such significant positions in a market, country or currency that difficulties at the HLI may have an adverse effect on the value of those positions.

(A) clearly documenting the policies and procedures relevant to the setting, monitoring and enforcing of rights against collateral;

(B) specifying the exposure basis on which collateral is to be sought, including a plausible measure of stressed potential future exposures;[26]

(C) setting policies for the margins to be applied to the collateral (which should take into account asset liquidity risk and price volatility);

(D) monitoring the value of the collateral on a regular (preferably real time) basis; and

(E) establishing procedures to quantify uncollateralised exposures and ensure that any agreed-upon margin can be called to cover such exposures on a timely basis.[27]

Other risk reduction instruments regulated firms may wish to consider using include letters of credit, guarantees, and credit derivatives.

(g) Exposure monitoring and stress testing. Regulated firms should monitor their exposures to HLIs on an ongoing basis. Credit positions should be reviewed daily (or more frequently, if appropriate). Such review may include monitoring both the HLI's financial condition and the status of the current exposure, and may be done through ongoing financial reporting requirements and daily mark-to-market valuation of exposures. Correlations between exposures to HLIs and proprietary positions held by the firm should be considered.[28] In addition, because of the close association between credit risk and market risk in dealing with HLIs, firms may wish to promote communication between credit risk and market risk management staff in this area (subject, of course, to following appropriate procedures to ensure confidential information about HLI counterparties is not transmitted to the firm's traders). Particular attention should be paid to future as well as current credit exposures.[29] In particular, there is a need to establish effective processes for assessing potential future exposures in circumstances of unusual but plausible market stress. Stress testing should be performed to determine the effect on the

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26 This, in turn, will affect the level of any initial margin sought from the HLI counterparty. Because uncollateralised exposures to HLIs can arise quickly in circumstances where it may be difficult to obtain additional collateral, there is a strong presumption that initial margin should be required when dealing with HLIs.

27 Regulated firms should be aware, however, that such margin calls can exacerbate liquidity problems at an HLI and even in the applicable market.

28 If this is not done, the firm potentially is exposed to further market risk on its own positions in addition to its credit risk to the HLI. Correlations between collateral held and exposures to counterparties should also be considered.

29 Methodologies exist for the calculation of potential future exposures. There is, however, scope for further development of these methodologies on a basis which commands industry-wide acceptance. *See* Appendix B of the CRMPG Report.

valuation of the collateral in the event of, *e.g.,* a liquidity squeeze or a change in the correlation between the collateral and the exposures being secured. The liquidity of collateral in a depressed market also should be evaluated. Value-at-Risk (VaR) and other models can play an important role in this process.[30]

(h) Contingency plans. Regulated firms should develop policies and procedures to be followed in the event of a dislocation of the operations of an HLI counterparty, such as a financial downturn, significant financial crisis, contractual default or bankruptcy (including disorderly liquidation). These policies and procedures may include, among other things, (i) refusal to undertake new business with the counterparty, (ii) modification of trading or credit limits, (iii) winding down of transactions or exposures, (iv) obtaining additional collateral or margin, (v) taking appropriate legal action to preserve rights (including rights against collateral) and (vi) the receipt of current and enhanced information regarding the financial conditions of the HLI and the firm's other counterparties that might be affected by the dislocation.

(i) Exceptions. The policies should clearly indicate the circumstances in which exceptions may be granted and the procedure to be followed.[31]

Information Flows

33. A key part of an effective risk management process is obtaining, understanding and verifying information about counterparties. The information obtained provides the basis for the due diligence undertaken by the firm. Regulated firms may need access to information about their HLI counterparties regularly, including (a) before commencing business relationships, (b) before entry into material new transactions, (c) in assessing ongoing creditworthiness, and (d) before contemplating any changes in limits or credit terms. The right to receive such information should be set out in the agreements between the regulated firm and the HLI.

34. As the operations of HLIs typically are opaque, the burden of obtaining, understanding and verifying information on an ongoing basis will be relatively higher with HLIs than for many other counterparties. Regulated firms that are counterparties to HLIs may need additional information about HLI activities and positions to meet prudent risk management standards and set appropriate terms and conditions, such as pricing transactions to reflect risks more accurately, determining covenants and setting appropriate collateral levels.

[30] The use of such models is outlined in the IOSCO papers *Risk Management and Control Guidance* and *Recognising a Firm's Internal Market Risk Model for the Purposes of Calculating Required Regulatory Capital: Guidance to Supervisors, (May, 1999).*

[31] For example, who must authorise an exception and what form the authorisation must take.

35. The financial condition of HLIs can change rapidly. Accordingly, information received, the due diligence applied and the exposures/credit risk numbers generated for HLI counterparties may have a short useful life. The ongoing review of this information and the incorporation of it into sound credit practices are likely to be a resource-intensive and costly process for the regulated firm.[32] However, these are necessary costs of carrying on business with HLIs.

36. Regulated firms should have an adequate understanding of all relevant aspects of HLI counterparties. Normally, information will be required in three broad areas:

(a) Organization, management and performance. Regulated firms ordinarily seek information on (i) the organization of the HLI counterparty, including a review of its partnership agreement or other organisational documents; (ii) investment authority; (iii) management (including their ability, reputation, commitment and incentive structure); (iv) key staff responsibilities; (v) investment strategies (including the HLI's risk/return profile); (vi) performance history (to assess competitive performance as well as help predict future strategies and practices); (vii) front and back office operations; (viii) risk management procedures; and (ix) other general background, that can be obtained from offering circulars or private placement memoranda. In addition to requiring documentation, regulated firms may deem it advisable to interview HLI personnel and visit the HLI's operations.

(b) Financial condition.[33] Relevant information about an HLI's financial condition generally includes (i) audited annual financial statements, including current and comparative balance sheets, statements of operations, cash flow statements, notes to the financial statements and a schedule of off-balance sheet positions; (ii) quarterly financial statements; and (iii) monthly net asset value statements. Because of the variability of an HLI's financial position and risk profile, regulated firms may wish to obtain supplemental information about capital (including size, growth and investor concentration), on- and off- balance sheet exposures, liquidity (including types of positions and rights of investors to withdraw capital), leverage (including on- and off-balance sheet leverage and fit with liquidity of positions), large or concentrated positions, results and methodology for VaR and balance sheet calculations (*e.g.,* the data sources used for market prices in VaR calculations, the holding period and confidence intervals, and the regime of back testing and stress-testing employed by the HLI), and other data required for an accurate assessment

32 Properly formulated covenants offer regulated firms considerable potential scope for securing and acting upon financial information from HLI counterparties. Covenants could, for example, stipulate the provision of independently audited data and provide a basis on which regulated firms can closely monitor key financial features of HLI counterparties and seek explanation or correction if these move outside prescribed limits.

33 In certain jurisdictions, some information about the financial condition of HLIs may be available from public record data, such as a central credit register.

of credit risk.[34] The regulated firm should have information on the HLI’s aggregate exposure to all other counterparties. Financial information needs to be timely and accurate, and the basis on which it is calculated clear to the regulated firm.

(c) Group relationships. Regulated firms should be able to assess the potential for risk concentration and contagion (through direct financial or reputational links) in dealings with HLI counterparties which may be connected, so that transactions with a given HLI or group do not unwittingly give rise to unacceptable large exposures or risk concentrations. Thus, regulated firms may wish to obtain information on HLI group relationships, including (i) the relative sizes and activities of HLI group members (including separate funds subject to common management), (ii) the role that the lead member plays in the group as a whole, and (iii) the nature and size of intragroup transactions involving the HLI.

37. It should be noted that the foregoing, while emphasising the importance of information gathering by regulated firms in their dealings with HLIs, simply suggests the general types of information regulated firms may wish to obtain. Firms should have the flexibility to tailor the specifics of their information requirements to their individual risk management practices and the attributes of the particular HLI. In addition, it is important to note that these suggestions supplement, but do not replace, regulated firms’ overarching obligations to have prudent risk management policies.

38. It is recognized that competitive concerns may pose a significant impediment to regulated firms’ obtaining an appropriate level of information about HLI counterparties. First, an HLI will want to keep its trading strategy confidential, especially from potential competitors such as regulated firms or their affiliates. The regulated firm may have to demonstrate to the HLI that it has mechanisms and procedures in place to ensure a clear separation between the risk management and trading functions, so that risk management information about the HLI will be used only for that purpose. Second, the HLI may have more bargaining power than the regulated firm, perhaps because the HLI is larger than the regulated firm or because the regulated firm wants to do business with the HLI (e.g., to gain insight into the trading strategies of the HLI). As a result, the regulated firm may consider compromising its risk management policies to get the HLI’s business. Despite this, refusal on the part of the HLI to provide necessary information is not an acceptable excuse for inadequate risk management on the part of the regulated firm.[35] Indeed, if

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[34] For example, in assessing the off-balance sheet exposures of HLIs, such as derivatives activities, regulated firms may wish to collect information on a periodic basis in the following areas: (i) aggregate risk and distribution of risk (*e.g.*, the gross notional and net amounts and market value, as well as potential future exposure); (ii) risk by maturity; (iii) total number of counterparties and credit quality of counterparty exposure; and (iv) liquidity concerns/credit losses (*e.g.*, information on past due receivables, as well as the existence of any liquidity facilities).

[35] It may be possible for a regulated firm to compensate for the risks created by not having complete information about an HLI by taking other steps, such as imposing additional contractual covenants or requiring more margin or collateral. Certain basic information, however, may be too crucial to do

regulated firms, as a group, adhere to prudent information gathering practices as discussed above, this could help them withstand these competitive pressures.

Use of Standardised Information Template by Regulated Firms

39. Where a regulated firm deals with a number of HLIs, it is likely to collect similar information from each HLI, the particulars of which will be determined by the firm's internal risk management processes. Across firms, there will be substantial common elements to the types of information that every regulated firm normally will seek from its HLI counterparties. Given this commonality, consideration was given to the question of whether it would be advisable to require regulated firms to collect such information in a mandated, standardised format.

40. The use of a standardised format by all regulated firms may, in principle, have several advantages. It can facilitate an HLI's efforts to prepare information for its various counterparties, which may be located in different jurisdictions. It may make it easier for regulators to determine whether firms are complying with prudent practices. Also, standardised formats may facilitate the use and sharing of information among international regulators in the event of an emergency.[36]

41. There are disadvantages, however, to requiring regulated firms to use a single, standardised template to obtain information from HLIs, which may outweigh the benefits. A template may gain specificity at the cost of comprehensiveness and utility. It could very well omit important information which, in specific circumstances or in the context of the firm's own risk management processes is relevant, and conversely, require the collection of irrelevant or non-useful information. It also could tempt regulated firms to follow the specified format blindly and fail to apply the skill and common sense that regulators expect of firms in their risk management processes.

42. The internal risk management systems at regulated firms vary and both the practices and technology used are in the process of developing rapidly. Further, international regulators are still assessing the kinds of information that may be relevant in addressing the concerns raised by HLIs. Therefore, it would not be appropriate to suggest at this time that regulated firms be required to collect information from HLIs in a standard format.

Legal Risk

43. The legal risks involved in dealings with HLIs are not unique to transactions with these types of counterparties. However, the fact that HLIs frequently are organised in, and deal from or through offshore centres, together with the untested nature of much of the legal infrastructure supporting the instruments in which they typically deal, mean that

without.

[36] See also the discussion at paragraphs 116 and 117.

regulated firms need to have a heightened awareness of the legal risks inherent in such dealings.

44. The legal issues surrounding dealings with HLIs fall into two broad categories: (a) those relating to the legal status of the HLI counterparty; and (b) those relating to the legal basis of the individual transactions in which the HLI engages.

45. In order to comprehend clearly the legal status of the HLI counterparty, regulated firms should have a full understanding of matters such as the following:

(a) the legal form of the HLI (whether, for example, it is an incorporated entity or partnership);
(b) which country's laws govern that entity;
(c) the legal capacity and authority of the HLI to enter into transactions;
(d) any legal limits on the way the HLI may deal, or other features which create potential risk for the regulated firm; and
(e) the legal relationship of the HLI to other members of the group (if any) of which it is a part.

46. In addition, the regulated firm should ensure that all legal documentation supporting transactions with HLI counterparties is clear and complete.[37] Of particular importance are the ability of each counterparty to enter into the transaction, the legal enforceability of the contractual provisions, and the legal remedies in the event of non-compliance. Where appropriate, signed master agreements (containing the default and other clauses used in the standard forms of industry documentation[38]) should be required prior to initiation of transactions with a particular counterparty.

47. Regulated firms need to be particularly mindful of the fact that the legal basis of documentation supporting many standard transactions has not been tested in some jurisdictions, that property rights may not be clearly delineated and that events of default may be imperfectly specified.[39] Particular attention should be paid to the legal basis for and enforceability of:

(a) netting terms and conditions (*e.g.*, the validity of netting within and between certain jurisdictions, cross-product netting, and cross-entity netting);
(b) collateral terms and conditions, including the perfection and priority of security interests, liens or charges on or against collateral and the powers to realise on or liquidate collateral;

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[37] Section III of the CRMPG report contains particularly helpful recommendations on improving documentation policies, practices and content.

[38] For example, the standard documentation developed by the International Swaps and Derivatives Association or The Bond Market Association.

[39] The contingency plans developed by a regulated firm to deal with a failure of an HLI should include strategies to address these particular legal risks.

(c) obligations of both parties at the end of the contract;
(d) events of default;
(e) provisions for close-out or early termination;
(f) covenants (whether in an existing master or other agreement or newly entered into for a particular transaction); and
(g) provisions regarding governing law and venue.

48. Regulated firms should realize that the multi-jurisdictional activities of many HLIs, coupled with their offshore operations, mean that any failure of an HLI may raise problematic bankruptcy issues, potentially complicating the orderly liquidation of positions. The bankruptcy of an HLI doing business in multiple jurisdictions would be likely to raise issues incapable of resolution by any one country's laws, so that any such proceeding might very well be drawn-out and expensive.

Risk Management Issues for Regulators and Market Authorities

49. Sound practices at regulated firms are vulnerable to erosion by competitive and other pressures. This is particularly true of dealings with HLIs, which may be seen as desirable and profitable counterparties and which have considerable bargaining power. Regulators and market authorities have a role to play in reducing the risk that such erosion takes place. While the following section describes actions that regulators may wish to consider, the recommendations also apply to market authorities in dealing with those firms that fall into their jurisdiction.

50. Regulators may wish to take steps to encourage the strengthening of risk management practices at securities firms which have material exposures to HLIs and to lock in the improvements that have been introduced since the market turmoil of 1998. The supervisory process may include:
(a) obtaining information on the exposures of regulated firms to HLIs in order to assess whether the exposures are material to the regulated firm;
(b) assessing the adequacy of and compliance with the risk management procedures of regulated firms with material HLI exposures; and
(c) determining the appropriate supervisory response for risk management shortcomings.

Obtaining Information

51. Regulators may wish to determine which firms have, or as part of their business objectives intend to have, material interactions with HLIs. Specific materiality thresholds should be determined by the individual regulated firm, subject to oversight by the regulators. Individual regulators also should determine whether HLI information can best be obtained through regular reporting by regulated firms involved with HLIs, or on a more flexible case-by-case basis.[40] (Certain regulators currently may have access to some of this information through public record data, such as a central credit register.)

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40 Care should be taken by regulators in the definition of HLI and the materiality threshold chosen. An unduly narrow definition may not capture all counterparties of concern, nor fully take into account the

Assessing Risk Management Procedures

52. Regulators that supervise firms with material interactions with HLIs may wish to assess the adequacy of these firms’ procedures for controlling the risks inherent in carrying on this business, either by measuring them against specified standards or on a more flexible case-by-case basis.

53. While specifying risk management standards has the advantage of apparent precision and can bolster regulators’ relationships with firms, there are risks in seeking to impose detailed standards on regulated firms in this area. It is the duty of each regulated firm to establish prudent risk management practices. However, if a regulator believes that competitive pressures are eroding risk management standards, it may wish to consider setting more specific minimum risk management standards for regulated firms.

54. Effective risk management involves a number of processes, from specification of risk appetite through information gathering and exposure monitoring. Regulators may wish to identify for their own purposes prudent levels for each of these activities, recognizing that there is some scope for trade-offs between them. For example, a shortfall in information gathering may be mitigated by the application of higher margin requirements to the counterparty concerned. The regulator may wish to examine each of the steps involved in the risk management process with the object of forming a view about whether the totality of the process delivers an appropriate level of risk management.

55. Direct examination may be a central element of a regulator’s assessment of the nature and extent of firms’ dealings with HLIs and the nature and effectiveness of their risk management processes. For regulatory examinations to be effective, regulated firms must maintain documentary evidence of adequate control processes and the firms’ adherence to them. Ongoing examinations may be necessary to ensure that regulated firms maintain sound practices in dealings with HLIs and to monitor progress in areas of relative weakness.

56. Direct examination may be supplemented or replaced by other forms of investigation, such as the commissioning of reports from third parties (*e.g.*, external auditors).

Regulatory Response

57. If, as a result of the assessment described above, a regulator has concerns about a firm’s risk management processes with respect to HLIs, it may elect to respond in a wide variety of ways. A regulator’s response in these circumstances will vary according to its

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responsibility of regulated firms to recognize and categorize counterparties that are likely to raise issues of concern. An unduly broad definition, on the other hand, may capture counterparties that do not raise the concerns discussed in this paper. The size of a market relative to a firm’s position also may be relevant in defining materiality.

general strategy and available tools. Certain possible regulatory responses are described below. These responses merely represent some of the options available to regulators to deal with risk management deficiencies. It is not anticipated that any one regulator necessarily would make use of most or all of these options. The precise nature of the regulatory response, if any, remains a matter of discretion for the individual regulator.

58. Requiring more frequent or detailed reporting from a regulated firm on its HLI activities is one possible regulatory response to risk management weaknesses. Obtaining additional relevant information from firms which, as a result of risk management shortcomings, are judged to be high-risk firms, may assist the regulator in avoiding potential problems. In addition, because the supplemental reporting requirements will entail costs for the regulated firm, they may represent an incentive to improve risk management practices in their own right.

59. Similarly, greater supervisory intensity, such as more frequent examinations or more in-depth examinations, might be used by a regulator to help address risks at firms with inadequate risk management practices. As with supplemental reporting, because additional inspections create costs for the regulated firm, they themselves may help induce improvements in risk management practices.

60. Regulatory concerns could be addressed by the regulator directing the firm to improve its risk management practices, either generally or in specified ways. Failure to do so would subject the firm to some specified penalty.

61. A regulator also may elect to deal with HLI risk management inadequacies by imposing higher capital requirements on the regulated firm. More capital will provide a prudential offset to the shortfall in risk management processes, while at the same time providing the firm with an incentive to improve. This incentive may be heightened if the regulator applies a greater intensity of supervision and stricter reporting requirements for as long as the shortfall persists.

62. Depending on the tools available to a regulator, it may wish to deal with risk management weaknesses by restricting the firm's interactions with HLIs. This could take the form of a limitation on the scope or nature of a regulated firm's business with HLIs to whatever level the regulator judges prudent. In cases of particular concern, the regulator might prohibit a firm from HLI dealings altogether.[41] Like the other possible regulatory responses, this is principally prudential in nature and would also serve as an incentive to improve practices.

[41] Clearly, however, the greater the difference in treatment between HLIs and other financial institutions, the more incentive there will be for entities to alter their behaviour to avoid the "HLI" label. This again highlights the need to define the term "HLI" with care.

63. Finally, a regulator may address risk management concerns through disciplinary action. In cases of serious risk management shortcomings, a regulator may choose to impose direct sanctions on the regulated firm, such as a fine or disciplinary order. At an extreme, the regulator may take action to shut down the firm.

Collaboration with Other Regulatory Groups and Industry

64. Risk management issues arising out of firms' dealings with HLIs are of interest to securities regulators, banking supervisors and the financial industry. Both the Basel Committee and CRMPG have reviewed these issues and identified the need for further work in certain areas of the management of the risks posed by counterparties such as HLIs. In particular, they identified the need for the development of more useful measures of potential future exposure to provide a meaningful calculation of a regulated firm's activity with a given counterparty.[42] Specialized risk management processes to address the particular challenges created by HLIs and enhancements in stress testing may also be areas where the cooperation and utilization of the expertise of the various groups would be helpful. It is appropriate that this work be pursued on a collaborative basis with Basel and industry participants.

65. Care should be taken in designing any regulatory incentive in this area to ensure that it does not result in regulatory arbitrage between sectors in the financial services industry or across borders. To reduce the risk of this happening, it is recommended that work in this area be done with other international regulatory groups.

V. TRANSPARENCY

66. More prudent practices by regulated firms that are universally applied across sectors and appropriately encouraged by diligent supervisors, should have a significant effect on reducing some elements of systemic risk. However, this is unlikely to be enough as not all the issues raised by the LTCM crisis are ascribable to poor risk management at regulated firms.

67. Even if all regulated firms were to adhere to the guidance on counterparty risk management outlined in this paper, including the receipt and processing of appropriate information on a bilateral basis, individual firms could still be exposed to potential risks in their dealing with HLIs which they would be unable accurately to assess. Bilateral information flows may give only a partial picture of the ability of HLI counterparties to create market disturbances or the extent to which a particular firm's own financial position may be damaged thereby.[43]

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[42] Basel Committee, *Sound Practices for Banks' Interactions with Highly Leveraged Institutions*, (January, 1999), at p.7 and the CRMPG report at Appendix B.

[43] At best, bilateral information flows between a regulated firm and its HLI counterparty will give the regulated firm an understanding of how that HLI's exposures may effect the market. It will not give

68. Application of effective risk management techniques at the level of the individual firms will mitigate these risks to some extent, even with incomplete information. However, as the recent report of the President’s Working Group observed, while the desire to protect the firm acts as a clear incentive for a regulated firm to obtain more information about its counterparties, no firm has an incentive to limit its risk taking in order to reduce the danger of contagion for other firms.[44] In addition, even if everything possible is done to manage risks at the regulated firms, the risk of contagion will still exist and consequently, other steps should be considered to mitigate systemic risks.

69. A crucial step in reducing systemic risk is the identification of the points of potential stress in the system. This requires accurate and up-to-date information about relevant activities to be in the hands of those who can act to mitigate the risk. It is clear from the literature on the LTCM crisis, and on HLIs more generally, that the overall level of information about HLIs is less than comprehensive. Few of LTCM’s counterparties, the regulators or the public had a clear view of the extent of LTCM’s activities or its exposures. The investigations that followed the LTCM crisis have shed some light on HLIs, but the level of information falls far short of what the market could use.

70. Access to information enhances market transparency, promotes the efficiency of the markets, and informs the individual decisions of market participants. This principle is recognised in IOSCO’s *Core Principles*.[45]

71. The operations of HLIs may be a potential source of market disruption when they are forced to unwind their large positions rapidly due to losses caused by adverse market

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the regulated firm any information about the effect of positions taken by HLIs that are not counterparties to the regulated firm. To use a simple illustration, Dealer A deals only with HLI 1 and Dealer B deals only with HLI 2. Even with the most diligent application of risk management processes, Dealer A may know nothing about the market positioning of HLI 2. This positioning may nevertheless have implications for the risk embodied in Dealer A’s dealings with HLI 1.

44 President’s Working Group Report, at p.31.

45 IOSCO noted in its Core Principles that “[i]nstability may result from events in another jurisdiction or occur across several jurisdictions, so regulators’ responses to market disruptions should seek to facilitate stability domestically and globally through cooperation and information sharing.” § 4.2.3, at p. 8.

IOSCO’s *Guidance on Information Sharing*, (November, 1998) (the “Information Guidance”), among other documents, indicates that information is critical to effective market surveillance. The Information Guidance also suggests that certain core information needs to be gathered, assessed and shared by market authorities and regulators, both routinely and upon the occurrence of a market event. The Core Principles indicate that regulators should: (i) establish qualitative or quantitative criteria appropriate to their markets as trigger levels for identifying large exposures and dangerous concentrations; (ii) continuously monitor the size of such positions on their markets; and (iii) carefully evaluate likely risks to the market should default occur.

conditions. While information on the positions of HLIs operating through organised exchanges are normally known to those exchanges and can be accessed by regulators or market authorities, information on the operations and exposures of such HLIs in other markets and in unregulated markets is not readily available. This lack of information may affect all market participants. The HLIs' positions may "overhang" open positions in an organised market. In addition, it has been argued that due to information asymmetry, the rapid unwinding of positions by HLIs may lead to reactive selling by both domestic and foreign investors which may eventually exacerbate its effect on the market.[46]

72. Lack of sufficient information about HLI activities prevents regulators, market authorities and market participants from appropriately assessing and managing perceived risks to the market and the resulting uncertainty may itself be a source of systemic risk. Additional information may reduce the instances of uninformed reactions by market participants to sudden market movements and thereby enhance stability. Further, the sudden disclosure of significant HLI positions, particularly in the context of a potential crisis such as that experienced in 1998 by LCTM, may shock market participants and result in disproportionate responses. Regular, timely disclosure about HLI positions may mitigate this risk.

73. It is therefore likely to be necessary for someone other than the counterparties of HLIs, such as regulators, market authorities or the public, to have information about HLIs' activities and exposures if the objectives of securities regulation are to be achieved.

74. The following sections discuss the relative advantages and disadvantages of reporting to regulators and market authorities, and public disclosure; who should provide the information; the types of information that might be disclosed or reported; and the way in which information might be provided.

To Whom Should Information about HLIs be Provided

75. The HLI information gap can, in principle, be addressed through greater public disclosure to permit market participants to assess HLI risks independently or reporting to

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46 Several reports have noted this concern:

"When leveraged investors are overwhelmed by market or liquidity shocks, the risks they have assumed will be discharged back into the market. Thus, HLIs have the potential to exacerbate instability in the market as a whole. The outcome may be direct losses inflicted on creditors and trading counterparties as well as an indirect impact on other market participants through price changes resulting from the disappearance of investors willing to bear higher risks. The indirect impact is potentially the more serious." US President's Working Group Report, at p. 23.

"…we were concerned that rapid unwinding of LTCM's positions would have a significant impact on UK financial markets, compounding volatility and illiquidity and inflicting losses on those with open positions in the markets affected…. As it turned out, our concern about market disruption was more significant than the concern about the scale of counterparty losses..." UK Financial Services Authority Paper presented at the Washington meeting of the IOSCO Hedge Fund Task Force (January 1999). See also comments in the Basel HLI Paper, at p.2.

regulators and market authorities who may be able to take some action to mitigate the systemic risk.

76. "Disclosure" refers to information to be provided to market participants and to the public. It enhances market discipline. There are several ways to achieve improved disclosure.

(a) The HLIs themselves could provide more information about their activities to the public.

(b) Regulated firms could increase their level of public disclosure about their exposures to HLIs.

(c) A central source of information could be created concerning regulated firms' exposures to HLIs and other counterparties.

It is worth noting that only the first could provide comprehensive information about the financial condition of a particular HLI or HLIs as a group.

77. Market participants might use additional information about HLIs for a number of purposes, including making better informed decisions with respect to the pricing of transactions and proper assessment of the risks and returns inherent in investment and trading decisions. In general, public disclosure of HLI activities would also reduce information asymmetries.

78. "Reporting" refers to information to be provided to regulators and market authorities. The information usually is used by regulators and market authorities for on-going monitoring of regulated firms and market surveillance. There are two sources from which regulators may gather information on HLI activities:

(a) from regulated firms, collected as part of their due diligence for risk management purposes; and

(b) directly from the HLIs themselves.

79. Regulators might collect information with a view to aggregating and processing it to identify areas where regulatory intervention might be appropriate to forestall sources of systemic risk. The appropriate information potentially may enable the regulator to form a view about whether the activities of HLIs generally, or a particular HLI, may adversely affect regulated firms that deal with HLIs or prejudice the stability or integrity of a market in which HLIs are important participants. Even information which in isolation may not seem significant could, in principle, when combined with other information, enable the regulator to understand developing trends which could call for some form of regulatory action.

Public Disclosure

80. There are some significant advantages to public disclosure of information regarding the activities of HLIs.

(a) Public disclosure allows all market participants to better assess the risks they are assuming when entering into market transactions (whether with an HLI directly or in a market where HLI activities may have an effect) in relation to the returns expected. This should result in better allocations of capital and risk in the markets. The President's Working Group noted that "improving transparency through enhanced disclosure to the public should help market participants make better, more informed judgements".[47] It is expected that any necessary market mechanisms to make use of the information for risk analysis and pricing of transactions will likely be developed quickly.

(b) Disclosure would reduce any false sense of security that may be based on the "name" or "credentials" of a particular counterparty (i.e. counteract the halo effect that may surround actions of certain HLIs.)

(c) Increased information may reduce panic or sudden withdrawals of capital in the event of a market disruption by reducing the uncertainty about the effect of the disruption on significant market participants. If a default does occur or there is a disorderly liquidation, fuller information would allow market participants to make a better assessment of their risk of secondary exposures.

(d) The requirement to disclose may strengthen the market discipline on risk taking, moderate risk-taking behaviour and reduce the likelihood that a market participant will build up excessively concentrated positions.

(e) Even if the disclosure were only available on a periodic basis, it may expose significant trends in the trading or liquidity patterns of an HLI or concentrations in the market.

(f) Public disclosure makes the information available to all interested parties (regulators, market authorities, market participants and others) and means that the resources of all parties can be engaged to identify negative trends that may be developing.

81. However, the feasibility of obtaining disclosure that would be useful to market participants may be affected by a number of factors.

(a) HLIs, in common with regulated firms, are unlikely to disclose any information that might reveal trading strategies or details about their full book to potential competitors without significant incentives. They may be less reluctant to disclose aggregate data and accounting data.

(b) Public disclosure is inevitably periodic disclosure, usually quarterly or annual, which may not be ideal for HLIs that trade actively, as their exposures and positions at any time would likely vary materially from those most recently disclosed.

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47 President's Working Group Report, at p.32.

(c) Data from different HLIs in different jurisdictions may not be easily combined or compared. This problem would be increased if different disclosure or timing requirements are imposed by different jurisdictions.

(d) It is not clear that the market presently has mechanisms in place to make use of the data that may be disclosed.

(e) Most existing disclosure regimes impose the requirements only on public companies. Most HLIs and many regulated entities are not public companies. Consequently, imposing public disclosure requirements on these private entities is a novel concept that will have to be explored thoroughly. This exploration is part of the work being undertaken by the Fisher II Group.

Reporting to Regulators and Market Authorities

82. The need for regulators and market authorities to have access to information and reporting regarding HLI exposures has been considered.

83. All information at a regulated firm should be accessible by its regulators (from the management of the regulated firm) as part of a periodic audit or examination of the firm and in situations of crisis. When crises occur, firms must stand ready to provide regulators with requested information promptly upon request. The internal risk management procedures of regulated firms should contain procedures to enable them to make such information accessible. The development of procedures regarding the accessibility of information by regulators will be enhanced by additional work on what information is relevant and useful. Any impediments to regulators obtaining such information from firms should be identified and eliminated to the extent possible.

84. Where regulators obtain HLI information that may be of interest to other regulators or to market authorities, ordinary principles and practices for information sharing (such as those promulgated by IOSCO) should apply.[48]

85. Further, both routine and event-driven reporting[49] should be considered.

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48 See IOSCO, Information Guidance, Core Principles, *Report on Cooperation between Market Authorities and Default Procedures,* (March, 1996); *Mechanisms to Enhance Open and Timely Communication Between Market Authorities of Related Cash and Derivative Markets During Periods of Market Disruption,* (October, 1993); *Principles for Memoranda of Understanding,* (September, 1991).

49 IOSCO's Information Guidance suggests that certain core information needs to be gathered, assessed and shared by market authorities and regulators, both routinely and upon the occurrence of a market event.

(a) The private sector has noted that certain HLI information should be reported to regulators and market authorities.[50]

(b) Periodic information, even if only provided quarterly or monthly, may expose abnormal trends and also may assist regulators and market authorities in determining what other information to request and in interpreting specific information obtained or developed.

(c) Such information could also be used to establish a "watch list" or thresholds (or triggers), such as the level of concentration in a specific contract or the amount of leverage or exposure above which further and more detailed reporting is required.

(d) An HLI may be less reluctant to report certain sensitive competitive information, such as its investment strategies, to a regulator or market authority than to a competitor or the public, so long as the regulator or market authority does not publicly release that information in a way that would allow for the identification of the HLI.

(e) Information may also permit market authorities or regulators to arrange work-outs, moderate responsive actions, or design or manage liquidations to mitigate the disruptive systemic or destabilising effect of unwinding positions.

86. However, requiring reporting to regulators and market authorities raises further issues.

(a) The ability of a regulator or market authority to compel reporting of HLI transactions will be limited by the scope of its jurisdiction.[51] The information produced is likely to be incomplete, given that many HLIs operate internationally. Where the

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[50] CRMPG has suggested that financial intermediaries with significant credit or market exposure should voluntarily provide their primary regulator with large counterparty exposure reports on a consolidated group basis listing the firm's ten largest exposures in four risk dimensions. CRMPG Report, at pp. 50-55. In certain jurisdictions, some information about the financial condition of HLIs may be available from public record data, such as a central credit register.

[51] If the exposure of the exchange or regulated market is not directly to an HLI, but instead to an HLI through clearing members who are counterparties of that HLI with large OTC (but few or no exchange) positions, then information for risk assessment purposes may not be easily obtainable from market members. At best, an exchange could ask if its members have OTC counterparties, but such information by itself is unlikely to be sufficiently clear to identify excessive OTC exposures and to permit risk management before a problem occurs. Existing exchange information collection mechanisms, which generally are triggered by "large exposures," would not be effective where there is an overhang of large OTC positions but few or no exchange positions. This is because the market authority or regulator is unlikely to know that there are such large OTC exposures relevant to its markets or its regulated intermediaries, based on positions or activities on the regulated market it oversees, until a problem occurs. In this case, direct reporting or disclosure by the HLI may be the only possible solution.

necessary information is spread across a number of regulators or market authorities, cooperation or coordination arrangements would be necessary to aggregate information for an HLI and its counterparties effectively. Regulators and market authorities would need to make full use of appropriate information-sharing agreements.

(b) Even if it were practically possible to collect information on this basis, the timely analysis of the information to identify trends would be extremely difficult and resource intensive.

(c) Unreasonable expectations regarding the role of the regulators and market authorities might be created which would weaken the incentives for regulated firms and other market participants to undertake their own analyses of risk.

(d) Where risks are successfully identified, the regulator or market authority may not have the necessary powers to address the issues effectively.[52] In addition, actions taken in response to an identified trend may require selective disclosure to firms.

87. For these reasons, IOSCO is of the view that it is important that regulators and market authorities have access to information about HLI activities and that regulatory reporting may be a significant source of certain information. However, regulatory reporting alone may not be sufficient to address the concerns raised by HLIs.

Conclusions

88. Additional transparency regarding HLI activities should be required. As discussed, there are two possible methods of achieving this transparency: public disclosure and additional regulatory reporting. These options are not mutually exclusive.

89. Public disclosure will give all market participants, regulators and market authorities access to the same information regarding HLI activities at the same time. Reporting only provides the information to the receiving regulator or market authority.

90. Disclosure of the types of information described in this report could involve a significant shift in the existing boundary between what is public information and what is proprietary information, significantly expanding the set of information which would be required to be publicly disclosed. On the other hand, relying only on reporting may create unrealistic expectations as to what regulators can or should do to protect against or contain future problems. These concerns should be balanced in developing an approach. The appropriate level of transparency should be determined by weighing the benefits of enhanced transparency against the increased costs associated with gathering,

[52] Market authorities ordinarily have responsibilities to promote orderly markets and may in some cases have more flexibility or direct and immediate powers to use information to manage risks to the clearing system or price formation process than regulators.

disseminating and processing the information.[53] On balance, some level of public disclosure of the activities of HLIs is necessary to materially reduce systemic risk.

91. The examination of public disclosure is gaining momentum. The G-7 countries have committed to take steps to improve transparency by all market participants. As noted above, IOSCO and Basel have jointly issued a paper advocating enhanced disclosure by regulated firms of information regarding their trading and derivatives activities, which includes increased information on risk management. The Basel Committee's proposed new capital framework[54] discusses using public disclosure to enhance market discipline. Further, the Fisher II Group has begun work directly on the risk disclosure issues of concern that were raised by the LTCM crisis. They have established a multi-disciplinary group of regulators, including IOSCO, to pursue this initiative along with industry participation.

92. Because this international regulatory momentum exists, it is recommended that public disclosure by HLIs and their regulated counterparties be explored first to see if this will be sufficient to reduce the risks of concern. Rather than create a new group that would duplicate other efforts, the HLI transparency issues (what information should be disclosed and by whom) should be referred to the Fisher II Group. IOSCO will monitor the progress of this project. If it is determined that it is impracticable to achieve a sufficient level of enhanced public disclosure to allay systemic risk and market destabilisation concerns raised by HLIs, it may be necessary to revisit the imposition of additional regulatory reporting requirements.[55]

93. As part of existing reporting requirements, some regulators and market authorities already receive or have access to information from regulated firms or their customers that may include information about HLIs. It is not suggested that these existing reporting requirements be abandoned. It is within the discretion of each regulator and market authority to determine the appropriate balance of disclosure and reporting within its jurisdiction.

Source of Information

94. The question then becomes: who should provide the additional transparency[56]: the regulated firms that act as HLI counterparties or the HLIs themselves? The decision on who should provide the information turns on an assessment of which participant can produce the necessary information most efficiently, while keeping in mind the practical and legal limitations on the authority of regulators and market authorities to compel such transparency.

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53 This cost/benefit equation is being explored by the Fisher II Group.

54 Basel Committee, *A New Capital Adequacy Framework, Consultative paper,* (June, 1999).

55 These would be additional reporting requirements, over and above those already in existence.

56 Except where noted, the advantages and disadvantages of obtaining the information directly from the

Indirectly Through Regulated Firms

95. Regulated firms, as part of their risk management processes, should have three kinds of information relating to HLIs: (i) information received directly from its HLI counterparties, (ii) the results of its due diligence and risk assessment processes on that HLI (i.e., internal credit ratings), and (iii) information on the regulated firm's exposures to HLIs (individually and collectively). An alternative way to increase transparency would be to require additional disclosure or reporting by these regulated firms of some or all of this information.

96. The chief advantages of getting information from regulated firms rather than from HLIs are that regulators, in general, have clearer authority to compel the provision of the information from regulated firms, and the incremental cost of providing the information may be lower for regulated firms that already have mechanisms in place to provide similar information.

97. There are, however, significant practical problems with gathering HLI information from regulated firms.

(a) In order to provide any meaningful overview of HLIs' activities, information provided would need to be (i) comparable, (ii) timely, and (iii) comprehensive. The provision of data on a comparable and timely basis would present major difficulties given the different bases on which regulated firms justifiably collect this information. The need for comprehensive coverage would mean that all regulators of firms with interactions with HLIs (banks and insurance companies as well as securities firms, wherever located) would need to set similar and synchronous reporting or disclosure standards. Even this would fail to capture information on HLI interactions with unregulated counterparties.

(b) Where HLIs do business with a large number of counterparties, it may be impracticable to combine the information to determine a particular HLI's aggregate positions and exposures.

(c) The available information from regulated firms may not be sufficient to permit an accurate analysis of the positions of, or risks undertaken by, HLI counterparties. The regulated firms may not have, or be able to obtain or verify, information regarding an HLI's overall exposure and risk to its counterparties.

(d) Requiring disclosure by regulated firms may subject the firm to significant potential liability regarding its assessment of the counterparty HLI. In some jurisdictions, local

HLI or indirectly through the regulated firms are the same whether public disclosure or regulatory reporting are being considered.

legislation (privacy, confidentiality or defamation laws) may prevent a regulated firm from freely passing information that it has received from a counterparty. Releasing information that would identify a particular counterparty also may be contrary to confidentiality agreements with HLI counterparties.

98. These formidable problems mean that there is little prospect that systematic disclosure or reporting of HLI information from regulated firms would achieve meaningful benefits. Instead, it is likely that options involving improved direct provision of information by HLIs would provide a more efficient and less arbitrary way of addressing systemic problems.

Direct from HLI

99. There may be distinct advantages to getting the appropriate information directly from the HLI.

(a) This may be the only way to obtain a complete and coherent view of an HLI's overall book. All the data should be in the hands of the HLI, regardless of the character (whether a regulated firm or otherwise) or jurisdiction of its counterparties. Also, the data is likely to be kept on the same basis, regardless of the jurisdiction of the transaction or counterparty.

(b) The information on the books of the HLI should be more reliable than data collected from multiple HLI counterparties.

(c) Information about a single HLI may be obtained in a more timely and efficient manner.

(d) An HLI providing information about its own activities will not be subject to the same liability concerns as would a counterparty providing the information about the HLI. It would be making a self-assessment, not an assessment of a third party or broader market risk.

100. These advantages have to be weighed against the not-insignificant problems of determining how to encourage the additional transparency and who would have jurisdiction to impose and enforce any new transparency standards.[57]

Conclusions

101. Information about HLI activities obtained indirectly from regulated firms is unlikely to be sufficient to provide adequate information as it will not provide a systematic, comprehensive overview of HLI activities. It is therefore likely to be necessary for HLIs to provide the information directly. At a minimum, voluntary disclosure should be encouraged, underpinned by market pressure and, if necessary, regulatory incentives.

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[57] See also the discussion of the feasibility of public disclosure set out in paragraph 81.

102. To the extent existing laws do not give a regulator sufficient authority to encourage direct disclosure by HLIs participating in the regulator’s market, it is recommended that appropriate actions should be taken to promote the removal of such impediments.

Which HLIs Should Provide Information

103. The degree of leverage and the size of positions held by an HLI relative to the market in which it participates, or to the liquidity of the product in which it is dealing, affect the potential and the scope for a material impact on securities and derivatives markets. Therefore, the threshold at which HLIs provide information may need to be scaled to the size of the respective markets in which HLIs are active. When establishing the threshold, consideration should be given to the reporting or disclosure requirements set by the relevant markets for their members (e.g., large position reporting requirements).

104. The threshold established will affect the number of HLIs that are covered and the feasibility of prompt analysis of any information received. The higher the threshold, the lower the number of affected HLIs and the less information that has to be analysed. The number of HLIs likely to be affected by disclosure or reporting requirements set above a specific threshold may be low.[58] Nonetheless, an empirical exercise identifying who would be affected at various reporting thresholds may be useful in determining the scope of any disclosure or reporting undertaken on either a voluntary or mandatory basis.

Haven Jurisdictions

105. One argument frequently raised against the imposition of requirements for HLIs’ to provide information directly is the contention that HLIs would move to unregulated “haven” jurisdictions. However, responsible regulators should seek ways to counteract such avoidance. Indeed, the G-7 Financial Ministers statement of October 1998 called for the development of means to encourage offshore centres to comply with internationally agreed standards.[59]

106. The Financial Stability Forum is also examining the impact of the use of offshore centres by market participants on global financial stability. IOSCO is represented on the working group formed to address these concerns. We are therefore confident that

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58 Examination by Commodity Futures Trading Commission (CFTC) staff of 129 large commodity pools (*i.e.,* those having a net asset value in excess of $100 million as of September 30, 1998) disclosed that only 14 had balance sheet leverage (*i.e.,* assets divided by net asset value) in excess of 10. Of course, these figures do not necessarily reflect entities with the highest level of off-balance sheet exposure and do not address the number of entities that would be affected if economic or other leverage measures were used. The Bundesbank has estimated that if the reporting threshold for a central credit register was set at US$100 million, approx. 10,000 individual positions would have to be reported. If the threshold were doubled, the number of reportable positions would drop by 60%. Deutsche Bundesbank, *Proposal to set up an international credit register to collate exposures to major borrowers,* (December, 1998).

59 *Declaration of the G7 Finance Ministers and Central Bank Governors,* (October 30, 1998).

IOSCO's position as representing a broad spectrum of jurisdictions and securities and derivatives regulators will be proffered to help develop a consensus and to provide technical assistance in connection with the implementation of relevant standards.

The Types of Information That Might Be Relevant for HLIs to Provide

107. The purpose of increasing the flow of information about HLI activities to regulators, market authorities and market participants is to give early warning of stresses within HLIs or concentrations that may affect regulated firms or markets. It would also permit evaluation of factors affecting markets and financial integrity within each market or product, market segment, and linked market. This should enhance the capacity to assess and manage risks to market and financial integrity on an ongoing basis or in a market event.[60]

108. Only data that will provide useful information about risk should be collected or disclosed. To be useful, information must be timely, relevant, complete, and reliable.[61] Different information may be needed to evaluate risk at a point in time, monitor risk on an ongoing basis if a particular threshold of risk is reached, identify "at risk" firms, or manage a market crisis.

109. In identifying the information that is desirable and sufficient to understand the potential risks to the market of large, concentrated, leveraged exposures, the potential impact of both:

(a) information regarding the combined exposures of all HLIs, affiliated entities, *and* their counterparties in particular contracts and related contracts or products, including the instruments underlying particular contracts ("Type I Information"), and

(b) the particular exposures of individual HLIs *or* counterparties to those individual HLIs ("Type II Information")

should be considered.[62]

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60 Moreover, an HLI, like any other market participant with market power, can abuse that power by manipulative or other abusive practices. Manipulative strategies can pose a threat to market integrity, which in turn may give rise to financial integrity concerns. These practices may be facilitated or exacerbated by the use by HLIs of offshore locations, significant leverage, multiple counterparties, and trading outside the jurisdictions of the affected market. There is ongoing work within IOSCO to articulate the approaches of various jurisdictions to manipulative practices.

61 The G-22 *Report on Transparency*, (October, 1998) states that to be useful, meaningful and understandable, private sector disclosures should address five broad elements: timeliness, completeness, consistency, risk management, and the audit and control processes.

62 As quantitative information can provide a picture of an HLI at a point in time only, the usefulness of the information provided would be enhanced by the addition of qualitative information. Qualitative information would include information on major risks, including credit risk, market risk, liquidity risk, operational risk, legal risk and reputational risk and risk management practices. Qualitative information can be used to explain quantitative results. Qualitative information should, however, be consistent with the quantitative information provided. A determination regarding the extent to which

Type I Information

110. Type I Information[63] on exposures of HLIs in particular products may permit better assessment of risk, such as asset and funding liquidity risks in particular markets or the risk that multiple firms may experience adverse consequences in a market event.

111. Type I Information could be used:

(a) on an on-going basis to:
  (i) permit assessment of the size of positions of an HLI and its counterparties in a contract, related contracts, and their underlying instruments relative to the size of the market and the daily volume; and
  (ii) identify abnormal trends, concentrations or conditions; and

(b) in a market event, or when abnormal trends or conditions are identified, to:
  (i) permit an estimate of the price and market impact of a swift liquidation on the market; and
  (ii) determine the need for more detailed information or for other responsive actions.

Type II Information

112. Type II Information[64] will provide more information on interlinkages and also on credit and liquidity resources in a market event or upon a default, permitting better management and explanation of the event.

113. Type II Information could be used:

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and to whom qualitative information should be disclosed or reported would require further discussion.

63 IOSCO's Technical Committee, in September, 1998, reported that the Tokyo Communiqué Guidance is relevant to financial markets, but deferred its application to OTC markets. *See* IOSCO, *Application of the Tokyo Communiqué to Exchange-Traded Financial Derivatives Contracts*, (1998).The *Tokyo Communiqué* expands on the need for exposure information relative to the size of the market. Such guidance may be useful whether or not there is a limited supply of the traded product, and whether or not the OTC position uses the price of a regulated market product as a reference price. S*ee also,* the *Declaration on Cooperation and Supervision of International Futures Markets and Clearing Organizations,* (March 1996) for some sample triggers for information sharing.

64 Most reports on disclosure of information on individual institutions recommend information on: financial performance, financial position (including capital, solvency and liquidity), risk management strategies and practices, risk exposure (including credit risk, market risk, liquidity risk and operational, legal and other risks) accounting policies, and basic business, management and corporate governance information. *See e.g.*, Basle Committee and IOSCO Technical Committee, *Supervisory Information Framework for Derivatives and Trading Activities,* (September, 1998) and Derivatives Policy Group, *Framework for Voluntary Oversight*, (March, 1995).

(a) in connection with routine market surveillance, to identify "at risk" market participants, and

(b) in a market event or, in connection with routine market surveillance (to particularize or quantify risks if a problematic trend is disclosed or reported in other data), to permit (with respect to an HLI or an HLI counterparty) an assessment of:
 (i) the degree of concentration of risk (credit or market) at an HLI and in the market;
 (ii) the relationship among counterparties in a particular market (interlinkages of credit and product concentrations);
 (iii) whether lack of funding may force an HLI to unwind positions in exchange traded products[65] in order to permit it to raise cash or to balance a dynamic risk;
 (iv) adverse changes of financial condition;
 (v) the adequacy of capital, security (collateral), and credit facilities to support and manage an individual HLI's positions;
 (vi) the likely potential or future exposure of the HLIs' positions (as market risk can generate potential credit risk);
 (vii) the need for more detailed information; and
 (viii) the need for other responsive actions.[66]

Type II Information is much more detailed and may contain information that an HLI would resist having to disclose publicly. It may be more likely to be available in reports to regulators or market authorities, rather than in a public disclosure regime.

114. Details on the two types of information and the uses to which this information could be put are set out in Appendix D.

115. HLIs, at a minimum, should provide timely and meaningful measures of market risk that would allow more informed risk assessments of dealing with HLIs, their creditworthiness, and their potential impact on the markets. Each jurisdiction should determine how best to implement this recommendation.

Form of Provision of Information

116. Where disclosure is made to counterparties, counterparties may wish it to be formatted to address their proprietary risk management needs or systems. In fact, as noted in paragraphs 39 to 42, there may be some significant disadvantages to mandating

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65 In a case of market stress, liquidity may diminish more rapidly in the OTC market than in a regulated or organized market, especially to the extent a firm experiencing financial distress needs to return to its counterparty to reverse a transaction. Therefore, to raise cash quickly, HLIs may seek first to liquidate the positions they hold in exchange traded instruments.

66 The actions that may be taken by regulators or market authorities depend on what powers they possess. Potential responsive actions could range from preliminary informal discussions with an HLI or its counterparty to a request to increase security or reduce positions.

a standard template for disclosure of information from an HLI to its regulated counterparties.

117. There are stronger arguments in favour of greater standardisation of format and content where the information is to be provided to regulators, market authorities or market participants. In many jurisdictions the precise contents of reports filed with regulators and market authorities by regulated firms are set. Also the form and content of public disclosure requirements frequently are quite detailed. The use of a common format eases comparisons between different firms and simplifies use by the recipients.[67]

118. A number of reports address issues relating to transparency in connection with the activities of HLIs specifically, or the activities of banks, securities firms, or other investors active in the trading of securities and derivatives more generally. In the course of its work, IOSCO's Working Group 2 compared these reports along various parameters, including their purposes and objectives, the mechanisms recommended to achieve these and the types of information that were deemed useful or relevant for such purposes. The Working Party also assembled an information template that sets out information, all or a portion of, which could be provided by HLIs.

119. The material prepared by Working Group 2 will be useful for the project being undertaken by the Fisher II Group. IOSCO will forward the sample information template and the comparison to the Fisher II Group to assist it in its work.

Further Work

120. Given the related work being carried out by the Fisher II Group pilot study, the Patat Group and the Financial Stability Forum, and the fact that the issues of transparency regarding HLI activities cross the full range of jurisdictions and types of market participants, it is our view that further work on transparency be done on a consultative basis as part of these established initiatives, in particular with the Fisher II Group.

121. We expect that this group would consider in more detail:

(a) the core information that should be made available[68] to permit the risk assessments described in this report; and

(b) what information should and can feasibly be provided to the public.

122. In the course of this project, it is expected that any impediments to the desired level or means of transparency would be identified.[69] The availability of regulatory mechanisms

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67 Also, it can reduce the costs of compliance by facilitating transparency across jurisdictions. Standardised formats may make it easier to use and share information among international regulators in the event of an emergency. Such standardisation could accommodate reporting or disclosure of risks based on the internal programs and systems of the reporting entity provided that certain minimum parameters, such as holding periods and the confidence interval, are set.

68 *See e.g.*, IOSCO, Information Guidance, Addendum A - Core Information.

in each jurisdiction will affect a regulator's ability to implement a transparency requirement or will determine how such requirements could be imposed. It is anticipated that existing mechanisms will generally support obtaining information through regulated firms. However, there may be flexibility to obtain information directly from HLIs in some cases.

123. IOSCO will continue to assess the progress of the on-going international initiatives on public disclosure by market participants. Once the probable outcomes of these projects are known, IOSCO will be in a position to assess if the achievable level of enhanced transparency is sufficient to address the systemic risk and market destabilisation concerns associated with HLIs. IOSCO may then decide to revisit the need for direct imposition of regulatory reporting requirements on HLIs.

VI. DIRECT REGULATION OF HLIs

124. The Financial Stability Forum is considering the issues relating to regulating HLIs directly. Also, the President′s Working Group Report considered the imposition of capital requirements and other indicia of direct regulation on HLIs as premature. At the present time, IOSCO is not recommending that HLIs be subject to direct regulation through licensing or the imposition of capital and margin requirements, concentration limits or other regulatory restraints.

VII. CONCLUSIONS

125. More prudent practices by regulated firms that are universally applied across sectors and appropriately encouraged by diligent supervisors should have a significant effect on reducing some elements of systemic risk raised by the activities of HLIs.

126. However, this is unlikely to be enough as bilateral information flows may give only a partial picture of the ability of HLIs to create market disturbances or the extent to which a particular firm's own financial position may be damaged if an HLI failed. Also, the best efforts of individual regulated firms and the incentives provided by regulators to encourage prudent risk management practices will not be sufficient to reduce the systemic risks of concern. Therefore, additional measures beyond enhanced risk management at regulated firms should be considered.

127. Further reduction of systemic risk and the potential for destabilisation requires accurate and up-to-date information about relevant activities of HLIs to be in the hands of

69 In some jurisdictions, the regulator or market authority may not have the power to obtain information directly from HLIs. Nonetheless, market authorities may have access to customer information through member firms.

those who can act to mitigate those risks. Therefore, additional transparency regarding HLI activities should be required.

128. Regulators should take full account of the work underway to promote greater public disclosure by financial institutions, including HLIs. In particular, the in-depth work being conducted by the Fisher II Group is relevant to determining precisely what information should be disclosed and by whom.

129. Information at regulated firms about HLIs should be always be available to regulators. But HLIs themselves are the a more reliable source of systematic and timely information about HLI activities.

130. Exploring greater public disclosure by HLIs (and institutions with dealings with HLIs) is the most promising immediate avenue to address the potential systemic risk and market destabilisation concerns raised by HLIs. It may, however, be necessary to revisit the imposition of reporting requirements on HLIs directly if a sufficient level of enhanced public disclosure of information to address these concerns proves not to be achievable.

APPENDIX A - MEMBERS OF THE TASK FORCE

Chair: David Brown - Ontario Securities Commission, Canada

Rose Webb - Australian Securities and Investments Commission

Eduardo Manhaes - Brazilian Securities Commission

Alain Gélinas - Commission des Valeurs Mobilieres du Quebec, Canada

Tanis MacLaren - Ontario Securities Commission, Canada

François Champarnaud - Commission des Operations De Bourse, France

Horst Nottmeier - Bundesaufsichtsamt für den Wertpapierhandel, Germany

Keith Lui - Securities and Futures Commission, Hong Kong

Giovanni Sabatini - Commissione Nazionale per le Societa e la Borsa, Italy

Takuji Yamada - Financial Services Agency, Japan

Ranjit Singh Ajit Singh - Securities Commission, Malaysia

Antonio Mas and David Vives - Comision Nacional del Mercado de Valores, Spain

John Barrass and Gay Wisbey - Financial Services Authority, UK

Belinda Blaine and Marisa Lago - Securities and Exchange Commission, USA

Andrea Corcoran and I. Michael Greenberger - Commodity Futures Trading Commission, USA

Chair of TC WG2: Masayuki Tamagawa - Ministry of Finance, Japan

Chair of TC WG3: Paul Wright - Financial Services Authority, UK

APPENDIX B - ASSESSMENT OF CRMPG REPORT

Private sector initiatives, such as the CRMPG Report, can serve as an important element in the broad-based effort to improve risk management practices at regulated firms. In general, the Task Force believes the recommendations in the CRMPG Report offer valuable advice to securities firms with exposures to HLIs. The CRMPG Report takes a cautious approach, however, and gaps exist in its recommendations, some of which are discussed below. It therefore should be viewed as one piece of a larger body of advice that should be taken into account by securities firms, and as a useful supplement to the guidance offered in this and other papers.

The first section of the CRMPG Report focuses on transparency and counterparty risk assessment, and contains specific recommendations that encourage (a) information sharing between counterparties, subject to appropriate confidentiality arrangements, as well as (b) an understanding of the interplay between leverage, market risk and liquidity, and their impact on a counterparty's creditworthiness. Although the information sharing discussion is rather limited and should be read together with the discussion of information flows contained in this paper, the Task Force believe the recommendations in this section generally are helpful. Annex A of the CRMPG Report contains a particularly useful analysis of the complexities in defining and measuring leverage, market risk and liquidity risk.

The second section of the CRMPG Report sets forth recommendations for improving a firm's internal risk management tools. For example, with respect to counterparty exposure and risk estimation, the report recommends supplementing mark-to-market replacement values with liquidation-based replacement values. Firms also should conduct both market and credit risk stress testing, and potential liquidation cost estimates should be taken into account in setting limits and collateral standards. In addition, efforts should be made to give risk managers an incentive to manage counterparty credit risk proactively, including using more precise valuation techniques, and information flows between risk managers and senior management should be improved. All of this is good advice for securities firms, and much of it has been touched upon elsewhere in this paper.

The third section of the CRMPG Report contains a number of suggestions for improving documentation practices and content. The improved documentation practices focus primarily on ensuring that the terms of a transaction are promptly reduced to writing. The suggestions with respect to documentation content focus on improving and standardising close-out and valuation procedures, risk reduction arrangements (including netting), and contract termination provisions. The Task Force believes these recommendations also are helpful, and some of them are discussed in the section of this paper dealing with legal risk. Although the Task Force recognizes that several of the suggestions, particularly those relating to document standardization, cannot be implemented by firms unilaterally, the Task Force encourages relevant industry groups to consider them seriously, in consultation with end-users.

The final section of the CRMPG Report contains recommendations for improving regulatory reporting. It suggests that firms be prepared to meet informally with a small number of senior officials from their "primary regulator" to discuss their principal risks, as well as market conditions and trends with potential market disruption or systemic effects. In addition, at the request of their primarily regulator, firms should voluntarily provide reports detailing certain large exposure information on a consolidated basis. While recommendations such as these may be helpful, as discussed in this paper, regulators may wish to implement more rigorous, mandatory methods of obtaining relevant exposure and risk management information from regulated firms.[70] Further, the Task Force notes that limitations in the CRMPG Report that provide for reporting only to the "primary regulator" and for meetings only with "senior officials" appear unnecessarily restrictive. Firms should stand ready to cooperate with all relevant regulators and their personnel.

In addition, the final section of the CRMPG Report questions the utility of additional public disclosure requirements. Specifically, the report expresses concerns with the public disclosure recommendations in the President's Working Group report, namely that (a) public companies disclose a summary of direct material exposures to HLIs and (b) HLIs report and publicly disclose quarterly financial information, including meaningful and comprehensive measures of market risk (*e.g.*, VAR or stress test results).[71] Although public disclosure of HLI information raises a number of practical concerns, the Task force believes that the benefits justify such disclosure. Moreover, requiring public companies, which are already subject to the discipline of public disclosure, to disclose additional information about their direct exposures to HLIs should merely supplement good business practices. The CRMPG Report suggests, and the Task Force agrees, that regulators should work informally with market participants on these complex issues.

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70 In addition, the Task Force notes that the President's Working Group report recommends that financial regulators be given expanded risk assessment authority over material unregulated affiliates of regulated firms, including the power to require reporting of credit risk information by counterparty, non-aggregated position information, and additional data on concentrations (based on financial instrument, region, and industry sector), trading strategies, and risk models. These reporting recommendations appear to go well beyond those in the CRMPG Report

71 This recommendation applies both to those HLIs that currently are registered in the U.S. as commodity pool operators and those that are not.

APPENDIX C - GLOSSARY

Asset Liquidity Risk is the risk that the liquidation value of assets may differ significantly from their current mark to market value.[72]

Credit Risk. Credit risk involves the possibility that one of the parties to the contract will not perform on its obligations. Credit risk comprises risk of loss resulting from counterparty default on loans, swaps, options, and during settlement. Securities firms are faced with credit risk whenever they enter into a loan agreement, an OTC contract, or extend credit. Credit risk can be minimized by risk management and controls and procedures that require counterparties to maintain adequate collateral, make margin payments, and have contractual provisions for netting.[73]

Funding Liquidity Risk is the risk that the entity has insufficient cash flows to meet its obligations (payments, delivery of collateral, etc.) when due.[74]

Legal Risk. Legal risk arises from the possibility that an entity may not be able to enforce a contract against another party. Legal risk arises from possible risk of loss due to an unenforceable contract or an "ultra vires" act of a counterparty. Legal risk involves the potential illegality of the contract, as well as the possibility that the other party entered into the contract without proper authority.[75]

Liquidity Risk. Liquidity risk is the risk that a party to a securities instrument may not be able to sell or transfer that instrument quickly and at a reasonable price, and as a result, incur a loss. Liquidity risk includes the risk that a firm will not be able to unwind or hedge a position.[76]

Market Risk. The market risk inherent in any investment is the risk that the investment will not be as profitable as the investor expected because of fluctuations in the market. Market risk involves the risk that prices or rates will adversely change due to economic forces. Such risks include adverse effects of movements in equity and interest rate markets, currency exchange rates, and commodity prices. Market risk can also include the risks associated with the cost of borrowing securities, dividend risk, and correlation risk.[77]

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72 CRMPG Report, Appendix A at p. A-2.

73 IOSCO, Risk Management and Control Guidance, p.5.

74 CRMPG Report, Appendix A at p. A-1.

75 IOSCO, Risk Management and Control Guidance, p.6.

76 IOSCO, Risk Management and Control Guidance, p.5.

77 IOSCO, Risk Management and Control Guidance, p.4.

Systemic Risk. Systemic risk refers to:

(1) the scenario that a disruption at a firm, in a market segment, or to a settlement system could cause a "domino effect" throughout the financial markets toppling one financial institution after another; or

(2) a "crisis of confidence" among investors, creating illiquid conditions in the marketplace. Systemic risk encompasses the risk that failure in one firm or one segment of the market would trigger failure in segments of or throughout the entire financial markets.[78]

[78] IOSCO, Risk Management and Control Guidance, p.7.

APPENDIX D - POTENTIALLY RELEVANT INFORMATION

Type I Information

Type I Information is information regarding the combined exposures of all HLIs, affiliated entities, *and* their counterparties in particular contracts and related contracts or products, including the instruments underlying particular contracts.

Type I Information that may be relevant is information on:

Information:	**Used to assess:**
Large or concentrated positions (including gross positions, net positions and related daily turnover) in the market's products and related products	Liquidity risk and so-called overhang
Exposure by type of contract (*e.g.,* forex, equity, interest rate, commodity, and exotic, such as weather, bankruptcy, or credit derivative contracts) or by specific contract	Market risk, concentration and interlinkages
Replacement cost, stressed to take into account liquidation costs or a variety of assumptions about market conditions or correlations	Market risk, potential credit exposure and asset liquidity risk assessment

Type II Information

Type II Information is the particular exposures of individual HLIs *or* counterparties to those individual HLIs. Type II Information on HLIs and/or HLI counterparties that may be relevant follows.

Information:	**Used to assess:**
Notional exposure (cash, futures, OTC and on exchange)	Market risk and to compare with risk model information
Identity of the largest counterparties (by country, by currency, by overall risk, and by credit quality)	Credit risk concentration and interlinkages
Exposure by type of contract (*e.g.,* forex, equity, interest rate, commodity, and exotic, such as weather, bankruptcy, or credit derivative contracts) or by specific contract	Market risk, concentration and interlinkages
Replacement cost, stressed to take into account liquidation costs or market conditions or correlations inconsistent with current prevailing market conditions or assumptions	Market risk, potential credit exposure and asset liquidity risk
Collateral, guarantee arrangements, liquidity facilities, risk management and funding capability	Potential credit exposure and funding liquidity risk
Information on financial condition, including information on arrears, maturity mismatches, profits and losses and unusual changes	Financial condition and funding liquidity risk
Balance sheet leverage and estimate of overall leverage	Potential credit exposure and speed of transmission of risk