Basel Committee
on Banking Supervision and
the International Organization
of Securities Commissions

# Review of issues relating to Highly Leveraged Institutions (HLIs)

March 2001

BANK FOR INTERNATIONAL SETTLEMENTS

# Highly Leveraged Institutions Working Group (HLIWG)

Co-chairpersons:

Stefan Walter, Federal Reserve Bank of New York (BCBS)

Paul Wright, Financial Services Authority, London (IOSCO)

| | |
|---|---|
| Bank of Japan | Hiroaki Kuwahara |
| Board of Governors of the Federal Reserve System | James Embersit |
| Bundesbank | Stefan Spamer |
| CFTC | Andrea Corcoran |
| CONSOB | Gianluigi Gugliotta |
| Federal Reserve Bank of New York | Frank Pistilli |
| Financial Services Authority (UK) | Adam Shapiro |
| De Nederlandsche Bank | Klaas Knot |
| Office of the Comptroller of the Currency | Kathy Dick |
| Ontario Securities Commission | Tanis Maclaren |
| Securities and Exchange Commission | Michael Macchioroli |
| Secretariat of the Basel Committee on Banking Supervision, Bank for International Settlements, Basel | Ralph Nash |

# Review of issues relating to Highly Leveraged Institutions

## Preface

In January 1999, the Basel Committee on Banking Supervision issued a report on Banks' Interactions with Highly Leveraged Institutions (HLIs).[1 2] This evaluated the quality of banks' risk management practices toward HLIs and the related supervisory and regulatory issues. The Basel Committee also published guidance on Sound Practices relating to banks' interactions with HLIs.[3] The Technical Committee of IOSCO has also produced a report on securities firms' interactions with HLIs in November 1999.[4] The nature of these interactions, the risks and the recommendations for sound practices in mitigating these were very similar to those identified for banks. During 1999, the Basel Committee, through its Working Group on Highly Leveraged Institutions, focused on monitoring the implementation of the Sound Practices paper and published a review of compliance with its Sound Practices in early 2000[5]. That paper outlined a series of issues relating to HLIs which required further attention from banks, supervisors, and international groups. It also proposed continued collaboration between bank and security firm regulators and ongoing dialogue with the financial industry, particularly in challenging technical areas such as measurement of potential future credit exposure and stress testing. The paper set out a proposed framework for such collaboration and dialogue.

As an outcome of that proposal, sub groups of the Basel Committee Risk Management Group and the IOSCO Task Force on HLIs met to establish common areas of interest in risk management practices of banks and securities firms with respect to their dealings with HLIs. It was proposed that the group should meet 2 to 3 times over a period of 12 to 18 months. Thereafter it would automatically be disbanded unless compelling reasons were found to continue its work.

Accordingly, a joint Basel/IOSCO Highly Leveraged Institutions' Working Group (HLIWG) was established in the spring of 2000, and met on two occasions, in May and November

---

1 *Banks' Interactions with Highly Leveraged Institutions*, Basel Committee on Banking Supervision, January 1999

2 In its previous work on HLIs the Basel Committee outlined the following characteristics of such institutions: (i) they are subject to very little or no direct regulatory oversight. In the case of HLIs, this limited regulatory oversight results from such entities being structured as limited partnerships, investors being either institutions or sophisticated high net worth individuals and the securities issued taking the form of private placements. Moreover, a significant proportion of HLIs operate through offshore financial centres. (ii) HLIs are generally subject to very limited disclosure requirements, compared with regulated financial institutions and/or publicly traded companies, and are not subject to rating by credit-rating agencies. (iii) such institutions often take on significant leverage, where leverage is the ratio between risk, expressed in some common denominator, and capital. IOSCO, for the purposes of its report used a similar classification. It was recognised at the time of those reports that 'highly leveraged institution' was not an ideal characterisation of all of the unregulated counterparties with which they were concerned. This remains the case but the term HLI has been retained in this report for continuity.

3 *Sound Practices for Banks' Interactions with Highly Leveraged Institutions*, Basel Committee on Banking Supervision, January 1999

4 *Hedge Funds and Other Highly Leveraged Institutions*, Report by the Technical Committee of IOSCO, November 1999

5 *Banks' Interactions with Highly Leveraged Institutions: Implementation of the Basel Committee's Sound Practices Paper*, Basel Committee on Banking Supervision, January 2000

2000. On both occasions it heard presentations from firms with exposures to HLIs. The HLIWG also undertook a survey during the summer of 2000. This survey, conducted through national supervisors, explored a number of topics, including: the nature of firms' involvement with HLIs, management reporting and governance structure, information gathering, due diligence and credit analysis, exposure measurement, credit terms and limit setting, and collateral, early termination and documentation issues.

## Overview

Since the market events of 1998, the HLI industry has undergone significant structural change. While in 1998, high levels of leverage were found at only a limited number of unregulated HLIs, it appears that such leverage has since been significantly reduced. HLIs have generally moved away from relative value and macro trading strategies to value-oriented trading strategies. Many HLIs appear to have improved their risk measurement and management capabilities and also seem to be keeping a closer watch on concentrations. Over the last two years, several large, prominent funds have closed or restructured their operations. There has been a proliferation of small start up funds. All these developments are widely believed to have lowered overall leverage and reduced the overall concentration of risk, previously in a few large institutions in the HLI sector.

Most banks and securities firms have made important strides in implementing the recommendations with respect to HLIs contained in the Basel and IOSCO reports. In particular, firms have improved the general standard of their due diligence and ongoing monitoring of HLIs and are measuring and managing the credit risk with respect to HLI counterparties more actively. More progress remains to be made towards the development of whole portfolio modelling and stress testing of collateral and liquidity. These have always been identified as difficult areas where progress is likely to be gradual. The market infrastructure areas where most additional progress is needed – for instance with regard to close-out netting and documentation - can best be tackled via industry associations. The HLIWG anticipates that the work of the Global Documentation Steering Committee will prove beneficial in moving the industry as a whole forward on a number of important topics, and also welcomes the efforts that a number of firms are making unilaterally to scrutinise and strengthen the documentation supporting transactions.

The willingness of HLIs to provide financial information to counterparties regarding their trading activities and risk exposures has improved but progress has been inconsistent. This is true even of some of the largest HLIs which, in principle, are most able to provide comprehensive risk information. Competitive pressures still inhibit HLIs from sharing information and some regulated firms remain too willing to accept a level of transparency which may be insufficient to enable them to make a full assessment of creditworthiness. Some regulated firms have attempted to address this situation by requiring more collateral where information flows are considered insufficient.

The Multidisciplinary Working Group on Enhanced Disclosure,[6] on which the Basel Committee and IOSCO are represented, has been considering a generic set of items which

[6] The Multi-disciplinary Working Group on Enhanced Disclosure (MWG) was established in June 1999 and consisted of representatives from the BCBS, CGFS, IAIS and IOSCO. The mandate of the MWG wss "to assess the feasibility and utility of enhanced disclosure by financial intermediaries." It did so by organising a study of disclosure by a range of financial firms representing various financial sectors (banking, insurance,

financial firms should disclose to permit shareholders, creditors and counterparties better to assess levels of risk and the adequacy of controls over this. These standards should form the baseline for information flows from HLIs to regulated firms. As noted in the earlier IOSCO report, a good case can be made for such disclosures to take place at a public level but, at the very minimum, they should be made bilaterally to market counterparties. Banks and securities firms should actively press for such information to be provided on a systematic and documented basis.

Despite the recent changes in the HLI market, the HLIWG is convinced that the Sound Practices outlined in recent years remain relevant in the new environment. However, relations with HLI counterparties are multi-faceted and even the most diligent firms will seldom be able to conform fully to all Sound Practices. This means that firms' risk management processes need to be considered in their entirety, as relative deficiencies in one area may be mitigated by controls in another. Assessment of the adequacy of risk management processes as a whole therefore will inevitably involve elements of judgement on the part of firms and their supervisors.

Finally, the HLI Sound Practices paper has properly focused firms' attention on improving their counterparty credit risk management in general. Most firms agree that many of the Sound Practices make good sense regardless of the nature of the counterparty and form part of a well founded credit assessment and management process. This is particularly important as competitive pressures continue to assert themselves and the lessons of the near collapse of LTCM recede.

## Review of issues

### I. Firms' involvement with HLIs

As changes have occurred in the HLI industry so has the nature of firms' involvement with HLIs. After a period of initial contraction in early 1999, several firms have reported controlled growth in HLI dealings - albeit with activity generally remaining below pre-1999 levels. Firms' return to a controlled growth strategy for HLI activity is due, at least in part, to the perceived reduction in the overall risk profile of the HLI industry. HLIs' willingness to provide more information about their trading strategies and risk management processes has also provided regulated firms with greater comfort with their exposure to the HLI sector. Growth in HLI dealings is also attributable to HLIs' greater activity in the equity markets. Firms are reporting an increase in prime brokerage and equity swap activity with HLIs and a decline in fixed income activity.

Another factor contributing to the growth in regulated firms' dealings with HLIs has been the latter's role in responding to non-traditional investors' (such as corporations, insurance companies, pension funds, and private banking clients) increased demand for alternative investments. This has led to a proliferation of start-up funds (estimated to be in the region of 20% a year[7]), including a significant number run by traditional asset managers, as existing HLIs are unable to meet current levels of demand from non-traditional sources. Whilst this

---

broker-dealers, mutual funds, leveraged investment funds, finance companies and pension funds). It reported to the four sponsoring Committees in February 2001.

[7] Growth in European-managed funds has outpaced the more developed US market in percentage terms in recent years.

has contributed to an increase in firms' aggregate dealings with HLIs, the diversification of their HLI dealings has generally improved.

Notwithstanding these changes in the HLI market, the HLIWG believes that the Sound Practices outlined in recent years remain relevant in the new environment. There are two main reasons for this: first, many of the Sound Practices are of general applicability and form part of a well founded credit assessment and management process with respect to a range of counterparties, not just HLIs. The second is that while the HLI sector does not currently appear to be a major source of systemic risk, there remains, in principle, a possibility that HLIs could revert to more aggressive strategies. The relevance of the Sound practices is underscored by the fact that a number of firms reported a 'gap-analysis' on compliance with the recommendations made by CRMPG, Basel and IOSCO and how they planned to implement the recommendations where they were non- or partially-compliant. This was presented to senior management along with estimates of the resource requirements necessary to achieve compliance. This is good practice and is commended to other firms.

## II. Corporate governance structure and management reporting

In general, firms are taking a more focused, consolidated approach to overseeing and reporting on HLI activities. Overall, there has been an increase in the quality and number of senior management reports covering HLI activities, and the involvement of senior management has also generally increased. Most firms have changed the way in which they report HLI exposures to management.

### *A. Corporate governance structure*

Many firms have explicitly established an overall appetite for risk exposure to the HLI sector which is set in broad terms by senior management and monitored by the risk management function. Some firms set specific quantitative exposure limits; others articulate risk tolerance in a qualitative way, relying on the judgement of risk management, to ensure adherence to the firm's overall risk appetite.

A number of firms have written policies to guide and control their involvement with HLIs. These vary but can include:

- Types of acceptable activities conducted with HLIs;
- Exposure limits;
- Net asset value (NAV) minimum;
- Credit processes and analysis criteria;
- Exposure measurements;
- Control and monitoring standards; and
- Documentation and collateral requirements.

While the HLIWG does not advocate the need for separate policies addressing HLI activities (indeed some would argue that separating HLI policies from other counterparty policies introduces more risk), counterparty policies should be comprehensive enough to address and control the risks in dealing with HLIs. It is also important that the senior management reporting described below be sufficient to allow assessment of compliance with the policy statement.

### *B. Management reporting*

#### *1. Senior management reporting*

In general, firms report enhanced and more frequent reports to senior management on HLI relationships. Most firms indicated that management reporting is an area to which they have devoted considerable attention since 1998. There are some firms, however, that have made no major changes to management reports as they believe existing systems had worked well during the market crisis of 1998 and continue to do so. HLI exposure and activity is generally incorporated into reports provided to firms' market and credit risk oversight committees, and the general sense is that management is better informed about exposures to the HLI sector than in 1998. Management is generally involved in both the approval of new exposures and monitoring of existing ones, although the precise nature of this involvement varies from firm to firm.

Reports to senior level management are usually generated on a monthly basis, summarising aggregate exposures to the sector, as well as a counterparty-by-counterparty breakdown. Reports typically list the mark-to-market exposures, potential future exposures and collateral protection, if any. VaR indicators, as well as rate of return and internal risk ratings, are also provided in some reports. Supporting information can include historic exposure information, critical event summaries and overviews of developments impacting the HLI sector. More frequent reports are made to business line and risk oversight managers. These can include daily reports of exceptions (see below) and client positions. These daily reports in turn often feed into the risk committee structure of the firm.

#### *2. Exception reporting*

Many firms have in place a system of policy exception reporting and approval. Most have formal arrangements to pre-approve exceptions to HLI policies and/or standard credit terms. To take one example, waiver of initial margin and haircut requirements (see section on credit terms below) normally requires specific management approval. Firms generally monitor exposure against limits through regular (often daily) exception reports. However, the level of management approval varies, so in some cases obtaining a comprehensive view of exceptions may prove difficult. The HLIWG takes the view that a more systematic and comprehensive approach to exception reporting would allow management to be better informed of the firm's compliance with its HLI policy. As such, the HLIWG recommends that firms review their procedures on an on-going basis.

## III. Information Gathering, Due Diligence and Credit Analysis

HLI counterparties present particular challenges to information gathering, due diligence and credit analysis and since 1998 many firms have increased the level of resources devoted to these areas. In addition, firms have taken steps to provide more training to their credit staff on capital markets instruments and market risk. A number of firms have also taken steps to integrate market and credit risk management in an effort to provide more effective management of the risks inherent in dealing with HLI (and other) counterparties. In addition to regular due diligence visits (usually on an annual or more frequent basis for major counterparties), many firms have increased the frequency of credit personnel's informal contact with HLIs by telephone.

Many firms have reviewed their methodologies for assigning internal credit ratings (ICR) to HLI counterparties. Ratings are assigned on the basis of a wide range of quantitative and qualitative factors, although limited information flows from some HLIs mean that qualitative assessments can often play a larger than ideal role in the final rating decision. In many firms the level of transparency itself can often play an important role in determining the ICR. Most firms assess the largest HLIs at just underneath investment grade equivalent. Many firms establish an effective ceiling on ratings, citing the callable nature of HLIs' 'capital' and the reliance on a leveraged portfolio of trading assets.

The HLIWG found that firms have responded to the events of 1998 and subsequent recommendations by making efforts to secure more meaningful information from HLI counterparties. Firms have developed or refined specific due diligence procedures that generally incorporate much of the information that the Basel Committee and IOSCO reports recommend should be received from HLIs. In particular, firms generally have more frequent contact with HLI counterparties and have developed an improved qualitative understanding of their HLI counterparties. HLIs are generally more willing and prepared to have meaningful qualitative discussions with regulated counterparties about their trading strategies, risk profiles and risk management processes. Some firms indicated that they found informal contact more useful than quantitative data flows because of the speed with which trading positions can change. However, the majority agreed that quantitative information flows remain essential to performing a thorough credit analysis of HLI counterparties.

Regulated firms have made some progress in assessing HLI liquidity and leverage, though conceptual issues remain to be worked out. In assessing leverage, some firms are using the ratio of VAR to NAV as well as traditional measures of NAV to assets. In assessing liquidity, firms use information on HLIs' concentrations and qualitative information regarding their trading strategies. Several firms indicated, however, that it is still difficult to make informed quantitative judgements regarding HLI liquidity and leverage. At present, the limitations of the type of information provided by the majority of HLIs means that such assessments are generally made predominantly on the basis of qualitative factors. While neither fund leverage nor liquidity is a straightforward concept to quantify, even with good information flows, firms believe that better information is necessary to enable them to make more accurate assessments in these areas.

Many HLIs have reviewed their practices for providing information to counterparties and have made improvements to the amount and quality of information they provide. While some HLIs now provide relatively comprehensive information, others limit information flows to a bare minimum (a brief balance sheet summary and the fund's NAV). In these cases, regulated firms often rely on compensating factors (e.g., lower limits, initial margin and collateral) to address inadequate information flows from HLIs

Most HLIs provide monthly disclosures, but often there is a considerable time lag. A small minority of HLIs makes disclosures only quarterly or semi-monthly. Several firms noted that, in general, HLIs still provide lower quality and less frequent financial information than regulated counterparties – especially when account is taken of the considerable public disclosures made by the majority of other participants in derivatives markets.

Some of the useful quantitative information shared by HLIs with their counterparties includes VaR, stress test results, liquidity data and concentration analysis. Sometimes insufficient detail is provided to allow an informed assessment of the risk methodologies employed by the HLI. This in turn makes it hard for a firm to assess the reliance they can put on a HLI's internal risk management and limit setting process. Some HLIs have started to provide more detailed information in annual presentations to counterparties, while still maintaining more limited monthly information flows. Several firms noted that their prime brokerage activity with HLIs provides a useful source of information on HLIs' risk profiles.

It is difficult to generalise about variations in information quality across different types of HLIs. It is widely agreed that the very smallest HLIs typically provide lower quality information – often as they do not have sophisticated risk management systems capable of generating better quality data. In such cases, however, the prime broker may have a good oversight of their positions. The largest HLIs are most likely to have sophisticated risk management systems but this does not always translate into a willingness to provide comprehensive information in all cases.

Concerns about confidentiality still limit information flows from some HLIs. This manifests itself not only in unwillingness to provide information but also in the practice of some HLIs of delaying the provision of quantitative financial information until it is several months out of date. While some firms and HLIs have negotiated confidentiality agreements, the practice is not widespread and few firms reported that they have received significantly better information as a result. In addition, some firms expressed concern about their potential legal liability under such agreements.

The HLIWG believes that the recommendations made in earlier reports with respect to information gathering, due diligence, and credit analysis remain valid. Regulated firms have made progress towards achieving many of these since 1998, especially in the qualitative assessment of HLI counterparties. Firms should strive for continued improvement in the quality, frequency and timeliness of quantitative information flows from HLIs. However, the HLIWG recognises that, in view of the competitive environment in which firms operate, there may be some cases where it is not possible to get all recommended information from some HLIs. The HLIWG believes that, in such cases, the potentially higher risk associated with HLIs that provide less information needs to be mitigated through additional controls such as lower exposure limits and additional collateral.

Finally, the HLIWG recognises that effective oversight of HLI activity requires a combination of quantitative and qualitative analysis. Information on trading positions and concentrations quickly becomes obsolete so it is critical that develop a qualitative understanding of HLIs' trading strategies and risk management processes and controls.

## IV. Exposure Measurement

### *Potential Future Exposure*

Over the past year, the surveyed firms have continued to make progress in strengthening their methodologies for assessing the potential future exposure arising from on- and off-balance sheet trading activities with HLI counterparties. In most cases, these improvements in methodologies covered not only exposures to the HLI sector, but also to trading and derivative exposures with regard to other types of counterparties.

Firms have focused their efforts at two levels: (1) making improvements to the measurement methodologies and (2) expanding the coverage of products captured under a given methodology.

*Improvements to methodologies*

A number of firms have recently introduced portfolio simulation models as the basis for quantifying potential credit exposures. Others are planning to do so in the near future. Simulation models are based either on historical simulation or Monte-Carlo methodologies. These methodologies provide a profit and loss distribution over a given liquidation horizon at a specified confidence interval (generally ranging from 95 to 99 percent). Simulation methodologies have replaced more static techniques such as relating add-ons to a percentage of the notional amount of the contract with only periodic updating of the add-on factors.

A number of firms that already had been using simulation engines to assess their PFE have made further enhancements to these methodologies. In these cases, firms have focused efforts on improving their ability to capture legal netting within and across products to a given counterparty where they believe they have robust legal documentation. In addition, some firms have devoted significant resources to strengthening the underlying legal documentation within the context of the current legal infrastructure for netting.

Firms also have made efforts to capture portfolio offsets across exposures to a given counterparty. Generally, firms have recognised offsets within product categories (FX, IRR, and Equities). However, recognition of correlations across products is not as common. Finally, some firms are making progress to link information from their collateral management systems with their exposure measurement methodologies to better reflect the impact of margining and collateral on the evolution of their PFEs.

A number of firms have begun to measure their PFE over a shorter time horizon than before. Such measures provide an approximation of the potential exposure over the time it could take to rebalance positions and liquidate collateral following the default of a counterparty or the failure to receive additional margin. Typically, such "liquidation exposures" are being measured over a fixed time horizon such as 10 days. However, surveyed firms were not employing PFE measures over multiple time horizons to reflect differing liquidity characteristics of products and markets. In addition, some firms are employing either a short-term liquidation measure or a peak life-time measure. While both measures provide important information, shorter-term liquidation exposure measures are essential for the effective management of the unsecured credit risks inherent in collateralised trading and derivatives exposures. It will be important for firms to continue their efforts to improve their measures of both life-time PFEs and shorter-horizon liquidation values.

*Improvements in Position and Product Coverage*

Many firms are devoting significant resources to expanding the products covered under their PFE methodologies (e.g. equities derivatives and credit derivatives). In addition, within product types, firms are working to integrate more exotic transactions into their exposure measurement methodologies. This requires experience and judgement when making adjustments to the standard assumptions of a given measurement methodology. In this regard, some firms have made efforts to strengthen the market risk expertise of their credit staff so that sensible judgements can be made when dealing with more exotic products. Other firms have strengthened the link between the market risk and credit risk management functions to deal with these issues.

### ***Stress Testing***

Surveyed firms have generally made limited progress implementing structured, formal stress testing programs for their counterparty credit exposures -- whether for HLIs or for other types of trading counterparties. In many cases, this slow progress is due to the significant resources that have been devoted to improving measures of potential exposure, as well as improving the capture of products and positions in measurement and reporting systems.

As a result, the stress tests that have been conducted so far are conducted largely on an ad-hoc basis, requiring significant manual intervention, even though many firms undertake such stress tests fairly frequently, often stressing for significant market movements. Many firms that conduct stress testing have tended to carry out relatively simple tests, shocking individual risk factors and assessing the impact on counterparty exposures though some have more sophisticated approaches. Others simply increase the confidence intervals of their current PFE estimates. Few firms have the capability to conduct correlated, multi-factor stress tests across portfolios of exposures, whether to a given counterparty or groups of counterparties. In addition, there was little evidence of formal assessments of the joint impact of large market moves on proprietary positions and counterparty exposures. Finally, few firms have developed stress tests that enable them to assess the combined effect of large market moves, counterparty exposures, and collateral values.

Those firms that conducted stress tests of counterparty credit exposure have tended to use the results to assess portfolio concentrations, primarily at the business line level. There was limited formal senior management reporting at surveyed firms of the results of stress tests. In addition, there was little evidence that the results of stress tests factored into the process of setting and approving credit limits to individual or groups of counterparties.

The HLIWG believes it will be important for firms to devote more resources to stress testing capabilities of trading counterparties such as HLIs. A number of surveyed firms indicated their intention to focus on stress testing over the coming year, and regulators should review their progress against industry and supervisory sound practice standards.

## V. Credit terms and limit setting

Firms have made progress in establishing credit terms and limits that are more risk sensitive. The primary determinant of credit terms and limits in most firms is the internal credit rating of the HLI counterparty. The way the ICR translates into credit terms and limits is broadly defined in HLI policies. However, as with all counterparties, firms exercise considerable judgement and these areas are subject to negotiation between credit and front office.

The CRMPG recommended that firms should employ four limits: Current Replacement Cost, Current Net of Collateral Exposure, Current Liquidation Exposure and Potential Exposure[8]. The most common limits were based on potential exposure, supplemented in some firms by limits on notional amounts and/or mark to market exposure (usually calculated as a percentage of the fund's NAV). Some other firms use current liquidation exposure limits while a few second-tier credit providers still only use gross and nominal amounts. In a number of firms notional limits remain in place for less frequently traded products that have not yet been incorporated into potential exposure measurement systems Many firms use several of these limits. While firms consider the results of stress testing in their overall risk management process, few, if any, incorporate the results of stress testing or scenario analysis into the limit setting process. As firms develop better exposure measurement methodologies it is essential that they incorporate them into the limit setting process.

The collateralisation of mark-to-market exposure, with daily variation margin calls continues to be the industry standard, though margining requirements vary considerably according to the size of the fund. Most firms have relaxed margin requirements to a certain extent over the last two years but margining criteria appear to remain generally tighter than they were in 1998. Small or lower credit quality HLIs generally continue to be required to post initial margin. In addition, initial margins tend to be required for more volatile or risky products. Large HLIs generally have been allowed to conduct vanilla, short-dated repos and swaps on a zero initial margin/zero haircut basis. Collecting initial margin or margining PFEs for the largest HLIs is often difficult, as they are more likely to demand 2-way margining. While firms generally prefer one way agreements, many are unable to require the larger HLIs to enter such agreements, or to set asymmetric thresholds. However, the HLIWG also recognises that two way margining requirements may make it more difficult for an HLI to manage it asset liquidity.

---

8 Improving Counterparty Risk Management Practices, p.6 para. 5b, *Counterparty Risk Management Policy Group,* June 1999

An additional change at some firms has been the move away from NAV triggers for termination to additional collateral requirements. All firms also set covenants, typically based on rolling NAV decline, absolute NAV decline and change of key management personnel. Recently, many firms have increased the risk sensitivity of NAV trigger by adopting monthly or quarterly NAV tests. Some firms have added adverse condition termination agreements. Some have also changed the covenants to allow HLIs to post additional collateral as an alternative to close-out. Firms do not, however, perceive that such covenants would always be effective in stressed market conditions. Market practice makes it difficult for firms to negotiate non-standard covenants.

The HLIWG believes that the changes in credit terms mentioned above have generally improved risk management processes for HLIs, but it remains concerned about the inability of many regulated firms to resist competitive market pressures. This poses a dilemma for firms and regulators alike. It is a basic principle of credit risk management that firms should have a clear understanding of the risks embodied in transactions, take all reasonable steps to control these and to price the risks correctly. These precepts should not be lost sight of by firms or their regulators, whatever market pressures may exist on firms. It is recognised that firms will sometimes be forced to compromise in some areas in order to secure business in competitive market conditions. This, however, should not be at the expense of the general principles outlined above and in such cases the firms should apply compensating methods of risk mitigation in the form of additional disclosure, lower limits or tighter covenants. Regulators need to take a broad view to determine that the ‘package’ of risk mitigation procedures being applied by the individual firm is commensurate with the risk of the business they are undertaking.

## VI. Collateral, Early Termination and Other Contractual Provisions

There are a number of developments that merit attention in the area of collateral management. Firms are maintaining a cautious approach to the types of collateral they accept (outside of prime brokerage relationships, where margin requirements are higher to compensate). Collateral is largely limited to Treasuries (short-term) and cash. In some cases G7 bonds may also be accepted. A number of firms have tightened unsecured thresholds, minimum call amounts and haircuts on collateral for some HLI counterparties. However, exceptions do exist with the largest HLIs. In the cases where other types of collateral are accepted, some firms have established specific credit criteria to ensure only high quality collateral is accepted. These may include: high credit rating, liquidity, exchange traded, no high risk correlation with the counterparty that provides the collateral, collateral ready for delivery by means of an automated system and the that collateral has a low intraday volatility.

Firms have been directing investment into their collateral management systems to increase automation of feeds from the various front office systems. In some firms new collateral systems have been rolled out. Credit/margining systems are becoming increasingly automated, whereby standard margin terms for a given counterparty will feed into the collateral system and often into counterparty documentation without manual intervention. In addition, firms are strengthening their sources of price data and margining systems will often report on an exception basis (i.e. a 10% price move in any individual security overnight). This reduction in manual involvement has led to efficiency gains and a lesser risk of inadvertent unsecured exposures.

At present, it is not common to stress test or model collateral as an input into the assessment of exposure. However, a number of firms currently do so and others reported plans to introduce this capability. One institution reports that with the implementation of a new collateral management system, the risk management function will receive daily reports showing collateral balances, outstanding calls, etc. Exposure calculations incorporating collateral will be enhanced with the implementation of the new risk management system, which will allow collateral to be dynamically modelled as part of the counterparty portfolio. It should be noted, however, that several firms suggested collateral management procedures are already viewed as being reasonably efficient and that such enhancements are seen as having a low priority. The area in which most firms feel that collateral management can be strengthened is that of documentation.

Overall, progress on documentation and close out netting has been limited because of the need to advance many issues at an industry-wide level. Some respondents already regard the quality of documentation as sufficient. Many, however, flag this as a key issue and some are striving to effect unilateral improvements in this area. Two strands of development may be noted: those by individual firms and those at the industry level.

Specific changes made by some individual firms include:

- tightened credit covenants, such as a decline in NAV being set in both percentage and absolute terms, and as a trigger for both collateral and wind up;
- cross documented, consistent default language, applying to all agreements of respective institutions;
- improved valuation techniques, including a move towards a ‘loss’ method, as opposed to a ‘market quotation’ method, for the valuation of termination prices. This allows the institution to use its actual loss amount, as opposed to a market valuation which may be unreliable in a thin market;
- enhanced due diligence on the legal competence of HLIs and the enforceability of collateral and netting in the event of insolvency;
- break clauses for multi-year transactions;
- reduction in time lags for document dispatch and receipt of signed masters and credit support annex documentation.

At the industry level, the forthcoming revised ISDA and BMA standard legal agreements are expected to address some of these issues. These include the use of a replacement value method (quasi loss) for close-out as an alternative to market quotation and shortening grace periods from 30 days in some areas to a standard 5 days. The adoption of the ISDA Credit Support Annex has also been a useful development. Where firms have tried to negotiate tighter provisions from counterparties than those in the standard documentation, they have met with resistance from some HLIs, especially from larger counterparties. This implies that further industry wide developments may be needed. The HLIWG welcomes the individual firms’ attempts to address documentation issues and encourages them to continue this progress. It believes, however, that this is an area where industry wide development will reap most benefits and looks forward to the results of the work of the GDSC.

On the issue of netting there was considerable common ground. A number of firms operate cross-product netting as a risk mitigant with the same counterparty, although some will not net ISDA-based with ISMA-based transactions. While there is a degree of comfort with the robustness of such practices, some firms warn that these have not been tested in stressed market conditions. Cross entity netting is not practised, as the legal uncertainties associated with this are considered prohibitive. This is regarded as an area where industry-wide progress is needed.

## VII. Conclusion

The HLIWG is encouraged by firms' continued progress in implementing the HLI Sound Practice recommendations made by the Basel Committee and IOSCO. Senior managements have strengthened their oversight of HLI activities through improved policies and a clearer definition of overall risk appetites. In addition, the frequency and quality of management reporting on HLI activities and risks have increased. Firms have also made efforts to improve information flows from HLIs, both quantitative and qualitative, and have made investments to strengthen credit due diligence and analysis of this sector. Firms have also made good progress in improving their exposure measurement methodologies, particularly in the area of potential future exposure, and have devoted significant resources to broadening the scope and complexity of products captured under these. Finally, a number of firms have taken steps to tighten covenants and other contractual provisions on exposures to HLIs.

Notwithstanding these advances, the HLIWG has identified a number of areas where additional progress by both individual firms and the industry as a whole is needed. It remains particularly important that firms continue to enhance their exposure measurement methodologies. These are central to the whole spectrum of risk measurement and control activities, including the definition of the risk appetite, the setting of meaningful limits, the pricing of risk and reporting to senior management. Progress on exposure measurement is important not only to dealings with HLIs but in other types of other trading and derivatives activities involving other counterparties as well. In this regard, while firms have made significant progress in strengthening their measures of potential future exposure, efforts to conduct regular and comprehensive stress testing have progressed more slowly. It is important that firms devote the necessary resources to deepening their stress testing capabilities for assessing the combined impact of large market moves, counterparty credit exposures and collateral values.

While the availability of information from HLI counterparties has improved over the last two years, concerns about confidentiality still limit the adequacy of the information that HLIs are willing to share with regulated firms. Similarly, firms have generally been able to strengthen contractual provisions with respect to the HLI sector but competitive pressures continue to affect firms' ability to insist on the full range of risk mitigants, including initial margin. In the face of these challenges it is important that each firm ensures that it applies an appropriate 'package' of risk monitoring and management measures. This needs to take account of the adequacy of the firm's internal exposure measurement and management reporting processes and to balance such factors as the adequacy of quantitative and qualitative information flows, the credit terms offered and the limits set on exposures to HLI counterparties. Supervisors should remain alert to the risks attaching to HLI counterparties, notwithstanding recent changes in that sector. In assessing the adequacy of firms' controls over business with HLIs, they need to exercise judgement about the way in which the elements of the package are combined to achieve an appropriate level of risk management.

The HLIWG believes that further progress in monitoring firms' progress in addressing the risks inherent in dealing with HLI counterparties should most appropriately be undertaken through national supervisors reporting to the sponsoring committees. Accordingly we believe that the HLIWG in its current form has served its purpose.