Hedge funds and financial stability

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Much has been achieved to date in containing the financial stability risks that hedge funds could pose, while avoiding unnecessary restrictions that would distort market forces and prevent hedge funds from continuing to play their role in today's markets. But in a continuously changing financial market environment, sustained attention is required by market participants and supervisory authorities to assess ongoing market developments and address any weaknesses in counterparty risk management practices and market discipline at an early stage.

Dealers in the aggregate appear to be fairly well protected at present against the direct counterparty credit risks from hedge fund defaults, but the robustness of margining practices to a major deterioration in market conditions and liquidity needs to be examined further. The broader financial effects, via a deterioration in market liquidity and prices, from a market shock affecting hedge funds and other leveraged institutions remain difficult to gauge. This highlights the importance of improved stress testing and scenario analysis practices. A critical challenge in this regard will be to ensure improved assessment and mitigation of tail risks by all key participants in the system, so that unrealistic expectations that risks can be transferred to others do not lead to moral hazard and wider risks to the financial system.

The financial stability issues posed by hedge funds and by highly leveraged institutions (HLIs) more generally have been of close interest to the Financial Stability Forum (FSF) ever since the FSF was created in 1999, in the wake of the LTCM and Asian crises. This interest has reflected the growing and constantly evolving role of hedge funds in the international financial system, which has kept them very relevant to the FSF's mandate to assess vulnerabilities, identify and oversee action needed to address them, and improve co-ordination and information exchange among the various authorities responsible for financial stability.

Indeed, the rapid growth of the hedge fund industry has been one of the most striking features of the changes in financial markets in recent years. Their numbers have doubled since 1999, and their funds under management have tripled. Although still small when compared to the asset holdings of traditional institutional investors, hedge funds as a class punch well above their weight. Reflecting their agility, their use of leverage, and their extremely active trading styles, hedge funds today account for a significant –and in some areas dominant– share of turnover in key financial markets.

Hedge funds provide liquidity and price discovery in many markets, and represent further avenues for the distribution of risk within the system. They have fostered innovation in market practice, and in so doing, helped usher along the development of the risk transfer markets that are central features of modern financial systems. Reflecting this, a growing share of the earnings of the traditional core intermediaries in the financial system –the major commercial banks and investment banks– now derives from servicing hedge funds, and the business model whereby these firms increasingly package and transfer risk for others to bear could hardly have developed so rapidly without hedge funds as active takers and traders of those risks.

The recent rapid growth of the hedge fund sector has occurred during a period of unusually benign macroeconomic and financial conditions. The sector may well have contributed to this environment as active absorbers of risk. But there are understandable questions about the risks that the growth of hedge funds and new instruments may pose if economic and market conditions were to become significantly less benign. One issue is the extent of direct risk that the leverage run by hedge funds could pose to lenders. Another relates to the impact of a financial shock on market liquidity and asset prices more generally. Here, an important question is whether more sophisticated risk management practices and the explosion in the trading of structured products have led participants to take on greater risk exposures than they might otherwise have, on the assumption that tail-event risks will be borne by, or can be transferred to, others in the event of market difficulties. If so, such "moral hazard risks" could impose significant externalities on other market participants.

This article briefly reviews the stability concerns associated with hedge funds and highly leveraged institutions over the years and the progress that has been made in addressing them.

1| The FSF's 2000 report on HLIs

One of the FSF's first projects following its creation in 1999, in the wake of the LTCM and Asian crises, was to assess the challenges posed by HLIs to financial stability and to achieve consensus on the supervisory and regulatory actions which would minimise their destabilising potential. Those challenges, as seen at the time, reflected two financial stability concerns brought to the fore by the near-collapse of LTCM and the Asian financial crisis. The first, associated with the LTCM episode, was how best to address the systemic risks arising from excessive leverage and the potential impact on markets and regulated firms of a sudden collapse of an unregulated HLI. The second was related to market dynamics issues associated with the potential for large concentrated positions seriously to amplify market pressures in small and medium-sized open economies.

This work, carried out by a Working Group on HLIs under Sir Howard Davies, the head of the UK FSA, resulted in the publication in 2000 of a report[1] which made 10 recommendations listed in the Appendix to this article. These recommendations brought together and complemented the recommendations and initiatives by a number of other organisations

1 http://www.fsforum.org/publications/publication_21_25.html

at around that time.[2] Although many changes have taken place in the hedge fund sector since then, the broad principles behind the recommendations in the FSF's 2000 report remain relevant and are therefore worth recalling.

The FSF's view was that the challenges to stability from hedge fund activity were best addressed though an approach that bolstered market discipline, including to avoid a build-up of leverage that could cause strains for counterparties and markets. To this end, many of the recommendations in 2000 aimed at improving counterparty risk management practices and the provision of information between market participants.

Among the recommendations, stronger risk management was called for both at hedge funds and at their counterparties. Naturally, improving risk management at the hedge funds' key counterparties –the major investment banks and commercial banks– is not a question of addressing their hedge fund exposures in isolation. It is inherently part of a wider programme of improving groupwide risk management and controls. At the same time, effective counterparty risk management practices by regulated institutions are a fundamental means of containing excessive hedge fund leverage. Effective risk management depends on reliable information. While the information that matters for counterparty risk management can and should be obtained in large part bilaterally, the report also recommended enhanced public disclosure of risk profiles, both by HLIs and more generally, so as to further strengthen market discipline and the stability of the overall system.

A lesson of past market cycles and crises is that risk management practices might be vulnerable to erosion by competitive pressures. The 2000 report therefore recommended sustained enhanced regulatory and supervisory oversight of HLI credit providers to monitor their adherence to newly established sound risk management procedures and to encourage the conduct of meaningful stress tests. The report also supported the proposal of the Basel Committee to develop a more risk-sensitive approach to capital adequacy regulation, and called for enhanced national market surveillance, to help to provide useful early warning signals about rising leverage and about speculative pressures and market responses to uncertainty about fundamentals.

The FSF followed up the implementation of the above recommendations in progress reports in 2001 and 2002. By the time of those reports, progress in strengthening counterparty risk management and regulatory oversight of HLI credit providers was found to have contributed to a reduction of leverage in the system. However, competitive pressures on credit standards remained a concern. The Forum encouraged further work on the measurement of credit providers' potential future exposures and in the conduct of comprehensive stress tests. It also called for further sharing of information internationally among supervisory and regulatory authorities on counterparty risk management practices in the HLI industry. Improvements – albeit inconsistent – had been made in the disclosure of information by HLIs to credit providers, with little progress on public disclosure. The FSF encouraged adoption of the recommendations of the Multidisciplinary Working Group on Enhanced Disclosure, which aimed at improved and more comparable risk-based public disclosure by all types of financial institutions, including hedge funds.[3]

One area where notable progress had been made was in prompting leading market participants to agree Good Practice Guidelines for Foreign Exchange Trading to help address concerns that large and concentrated HLI positions could have the potential to influence materially market dynamics in small and medium-sized open economies. Since the Asian financial crisis, concerns about the building of large, concentrated positions in small or medium-sized open economies have abated significantly.

2| MARKET CHANGES AND EVOLVING CONCERNS

In the period since the 2002 progress report, the hedge fund sector has expanded greatly and hedge funds have become an increasingly important source of diversification for investors and liquidity for markets. The increasing institutionalisation of their

2 *Including the US President's Working Group (1999), the Basel Committee on Banking Supervision (1999), the International Organisation of Securities Commissions (1999), and the Counterparty Risk Management Policy Group (1999).*
3 *See* http://www.fsforum.org/publications/publication_20_64.html.

investor base and sophistication of risk management and controls at the largest hedge funds have in some respects incorporated them more into the mainstream of financial markets. But hedge funds remain very diverse in their size, sophistication and strategies, and there are few generalisations that can be made about funds as a whole. Many improvements in market and supervisory practices have been made that help address stability concerns, but the increasing complexity of products and markets pose fresh challenges. Policymakers and the private sector therefore continue to face a variety of issues concerning this rapidly growing and innovative sector and, where appropriate, have taken initiatives to address them.

In particular, in recent years national supervisors have intensified their monitoring of counterparty relationships with hedge funds. Perhaps one of the most prominent examples of ongoing monitoring is the UK FSA's six-monthly survey of prime brokers to assess their exposure to hedge funds and gauge broader market risk profiles. The UK FSA also uses this information to identify the need for more direct dialogue with and surveillance of managers of the "higher impact" hedge funds in the UK market.

National supervisors in the major financial centres –working through the Joint Forum– have also reviewed stress testing practices at key financial institutions, including the nature and management of exposures to hedge funds and private equity funds. While risk management and stress testing practices have strengthened over recent years, the rapidly changing financial environment, the entrance of new market participants, and firms' changing business activities have highlighted the need for continued improvements. Supervisors have pointed to weaknesses in firm-wide aggregation of risk exposures, assessing the interaction of correlated risk factors under stress, and assessing market liquidity dynamics under stressful conditions.

In 2005, the Counterparty Risk Management Policy Group II (CRMPGII) issued a comprehensive update of its 1999 study of counterparty risk management recommendations. The report focused principally on risk management, risk monitoring and enhanced transparency, but it also covered recommendations to strengthen the infrastructure of the financial system. In addition, it addressed the operational and reputational challenges faced by market participants with regard to the management of complex financial instruments, notably credit derivatives.

Heightened market sensitivity to the latter issues proved helpful when in 2005 the Federal Reserve Bank of New York and the UK Financial Services Authority encouraged major firms and their counterparties to take concerted action to address confirmation backlogs in the credit derivatives markets and to end the assignment of trades without the consent of all parties. Good progress by major financial firms, together with other supervisors and regulators, has since been made in improving these and other aspects of the trading and settlement infrastructure for credit derivatives. The good cooperation between the private and public sectors provides a model for future work in other areas.

The increasing complexity of financial products, which in some cases can be highly structured and illiquid with valuations that need to be marked to model rather than directly observed from market prices, has also led to a greater focus on the quality of hedge fund measurement and disclosure of balance sheet valuations and risks. This has prompted IOSCO to develop for consultation with the industry principles for hedge fund managers in relation to areas such as valuations, risk management and operations.

Most recently, the US President's Working Group (PWG) released a set of principles and guidelines regarding private pools of capital. These aim to enhance market discipline and oversight, given the changes in the industry since the PWG's 1999 hedge funds report, by providing guidance to private pools of capital (including hedge funds), investors, counterparties, creditors, regulators and supervisors.

3| A LOOK AHEAD

Much has been achieved to date in containing the financial stability risks that hedge funds could pose, while avoiding unnecessary restrictions that would distort market forces and prevent hedge funds from continuing to play their valuable role in today's markets. But in a continuously changing financial market environment, sustained attention is required by market participants and supervisory authorities internationally to understand ongoing market developments and potential implications for stability, and to address any identified weaknesses at an early stage. Going forward, financial authorities will therefore be continuing to take a close interest in this area, and to coordinate action internationally to promote financial stability, improve the functioning of markets, and reduce systemic risk.[4]

Systemic risk is the potential for financial distress to spread across financial institutions with possible effects on the real economy; it can be propagated either through defaults in interlocking counterparty credit exposures that affect core financial intermediaries, or through a steep decline in asset liquidity and asset prices. Being able to assess the degree of systemic risk that might arise from hedge funds therefore requires that supervisors have good information on major dealer firms' direct exposures (as prime brokers or otherwise) to hedge funds. It also involves evaluating the risk that hedge fund actions (perhaps through sudden changes in risk perceptions or forced liquidations of positions) might cause a sharp deterioration in market liquidity and prices.

The evidence from the work of supervisors in the key financial centres suggests that, after taking account of the use of collateral and margin, the current exposures of major dealers to hedge funds, as well as their potential future exposures as measured by risk models, are in aggregate modest. Dealers in the aggregate thus appear to be fairly well protected at present against the direct credit risks from hedge fund defaults. Nevertheless, competitive pressures for hedge fund business appear to have led to some cases of weakening in initial margining practices. The robustness of margining practices to a major deterioration in market conditions and liquidity –and the relationship between margin, other credit terms and the amount of capital allocated by dealers to hedge fund counterparties– needs to be examined further. Supervisors are working to better understand the remaining uncertainties in these areas.

Meanwhile, the broader financial effects, via a deterioration in market liquidity and prices, from a market shock affecting hedge funds and other leveraged institutions remain difficult to gauge. This is because the new products and markets that have developed in the benign market conditions of recent years remain untested and, more fundamentally, because it is very difficult to predict how market participants will react in any extremely stressful environment. This highlights the importance of improved stress testing and scenario analysis practices by market participants that provide a portfolio-wide measure of counterparty risk sensitivities under severe stress scenarios and that incorporate interactions between counterparty sensitivities and proprietary risk positions. And, as noted in the introduction, a critical challenge in this regard will be to ensure improved assessment and mitigation of tail risks by all key participants in the system, so that unrealistic expectations that risks can be transferred to others do not lead to moral hazard and wider risks to the financial system.

4 *The FSF is working on an update of its 2000 report, as requested by the G7 in February 2007.*

APPENDIX

Recommendations of the FSF Working Group on Highly Leveraged Institutions
5 April 2000

The Working Group recommended a package of responses, which it considered to be consistent, complementary and commensurate to the problems identified. A strong theme uniting most of these measures was the critical importance of promoting and sustaining adjustments in firm behaviour and enhancing market discipline. The first eight recommendations set forth below relate predominantly to systemic risk issues, while the last two have particular relevance to market dynamics issues.

• ***Stronger counterparty risk management***. Improved counterparty risk management is critical to addressing concerns about the accumulation of excessive leverage in the financial system. All financial institutions acting as counterparties to HLIs should review their counterparty risk management arrangements against the recommendations promulgated by the Basel Committee, IOSCO and Counterparty Risk Management Policy Group (CRMPG). These cover: firms' overall risk management framework; systems for counterparty credit assessment and on-going risk monitoring; exposure measurement methodologies; limit setting procedures; collateral, documentation and valuation policies and procedures; legal risks; and systems for reporting to senior management. Where those arrangements are inadequate, firms should not operate in highly risky and volatile instruments and markets, or with counterparties offering positions in such markets. Regulators and supervisors should reinforce this message.

• ***Stronger risk management by hedge funds***. Some hedge funds have prepared sound practices for risk management, internal controls, disclosure/transparency and documentation and have promoted increased informal dialogue with market authorities. That is encouraging. It is crucial that such practices permeate throughout the hedge fund community.

• ***Enhanced regulatory oversight of HLI credit providers***. Enhanced regulatory and supervisory oversight of credit providers is needed to ensure that sound practices are pursued and recent improvements in practices are locked in. Supervisors and regulators in all countries should take appropriate steps to determine the extent of institutions' compliance with the Sound Practices promulgated by the Basel Committee and IOSCO (in conjunction with the recommendations of the CRMPG) and take action where they identify deficiencies. That may involve: greater intensity of supervisory and regulatory oversight of regulated institutions which fall short of sound practices; requiring regulated institutions to provide periodic affirmations of their compliance with sound practices; greater use of the supervisory review process following 'Pillar II' of the Basel proposals[5] and restricting the ability of firms to carry on business with HLIs where they consider that firm's counterparty risk management practices to be deficient.

• ***Greater risk sensitivity in bank capital adequacy regulation***. The Working Group supports the objective of the Basel Committee consultative document to revise the Capital Accord. This should increase the degree of risk sensitivity in bank capital adequacy regulations.

5 *"A new capital adequacy framework". Consultative paper by the Basel Committee (June 1999).*

- ***Sustaining industry progress.*** There are important areas of counterparty risk management where further work is required, both at the industry level and in individual firms. These include refining measurements of potential future exposure, developing better stress testing, the development of liquidity risk measures, collateral management techniques and use of external valuation. The Working Group has encouraged the formation of a small group consisting of representatives of the Basel Committee and IOSCO to assess industry progress in these areas.

- ***Building a firmer market infrastructure***. The Working Group strongly commends further steps to improve documentation harmonisation across different products, collateral practices and valuation practices. National authorities should work to ensure that their bankruptcy laws allow certainty to market participants that positions can be closed and collateral realised in such an eventuality.

- ***Enhanced public disclosure by HLIs***. The Working Group firmly supports the objective of enhancing public disclosure by HLIs and endorses US efforts to achieve this through both regulation and legislation. It calls on all jurisdictions to consider the adequacy of their own disclosure requirements and introduce, where necessary, appropriate changes to legislation or regulations to ensure that major funds located in their jurisdictions are subject to complementary disclosure requirements. This recommendation should also apply to offshore centres, particularly those which currently host large unregulated hedge funds.

- ***Enhanced public disclosure practices generally***. The Multidisciplinary Working Group on Enhanced Disclosure endorsed by the Financial Stability Forum (FSF) provides an important opportunity for movement towards improved and more comparable risk-based public disclosure among all types of financial institutions, including hedge funds. The Working Group urges firms taking part in the study to take full advantage of the opportunity to engage in a forward-looking and practical discussion of how disclosure practices should be improved.

- ***Enhanced national surveillance of financial market activity***. Authorities should consider strengthening market surveillance at the national level with a view to identifying rising leverage and concerns relating to market dynamics and, where necessary, taking appropriate preventive measures. There are also improvements to market transparency which might be of value to market participants and the official sector alike. Particular areas that could be explored include enhancing existing foreign exchange and over-the-counter (OTC) derivatives markets data, for example by broadening currency breakdowns.

- ***Good practice guidelines for foreign exchange trading***. Leading foreign exchange market participants should review and, as necessary, revise existing market codes and guidelines and take the responsibility of articulating model guidelines of good trading practices in the light of concerns expressed about trading behaviour in foreign exchange and related markets. These could serve as a starting point for local adaptation in individual emerging market economies.