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The Association for investment professionals in futures, hedge funds and other alternative investments.

COMMENT

June 30, 2000

Ms. Jean A. Webb, Secretary
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: Proposed Regulation 4.27 -- Public Reporting by Operators of Certain Large Commodity Pools

Dear Ms. Webb:

The Managed Funds Association ("MFA") appreciates this opportunity to present its comments concerning Proposed Rule 4.27 (the "Proposed Rule") of the Commodity Futures Trading Commission ("Commission") published for public comment in the Federal Register on April 17, 2000 (65 F.R. 20395).

MFA is a national trade association representing more than 700 participants in the hedge fund and managed funds industry. It has been an active participant in many of the numerous studies, congressional hearings and follow-up actions undertaken in response to the September 1998 events involving Long Term Capital Management ("LTCM") which the Commission's proposal seeks to address. Following the LTCM events, MFA prepared its own study of those events and their public policy implications, a copy of which is enclosed, and has testified on multiple occasions before Congress on that subject.

The post-LTCM record is one of concerted public and private sector assessment and action to respond to the issues raised by that event. Major initiatives have been undertaken by governmental and private sector groups to establish the causes of LTCM and minimize the potential for future LTCMs by correcting lax practices, articulating standards for sound industry practices and sharpening supervisory oversight of lending institutions. As the Report of the President's Working Group on Financial Markets ("PWG") concerning LTCM and other public and private sector analyses have concluded, the cause of the LTCM crisis -- and the means to

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prevent similar future crises -- lies in the level of discipline exercised by lenders in relation to their fund counterparties.

As discussed in detail in Section I.B. below, MFA believes that Proposed Rule 4.27 would not add value to the public and private sector efforts that have been undertaken in response to LTCM, and, in fact, it could prove to be counterproductive. At the same time, Proposed Rule 4.27 would impose significant costs -- upon the public as well as market participants. For the reasons discussed below, MFA believes that Proposed Rule 4.27 cannot achieve its stated objectives and that any theoretical benefits of the Proposed Rule are plainly outweighed by its likely costs. Moreover, MFA believes that any action by the CFTC at this juncture to establish a public reporting regime for hedge funds is highly premature, due both to the Congress's pending review and consideration of legislation on the same topic and the CFTC's own comprehensive, ongoing initiative to reinvent its regulatory framework toward more flexible, market-oriented approaches.

I. <u>The Illusory Benefits of Proposed Rule 4.27.</u>

A. <u>Market Discipline Will Not Be Advanced by the Public Disclosure Called for by Proposed Rule 4.27</u>

The information called for by Proposed Rule 4.27 would be stale and highly incomplete and would not allow market participants to assess their exposure to potential losses like those experienced in connection with LTCM. Proposed Rule 4.27 illustrates the fundamental incompatibility of a public disclosure system with the objective of enhancing market discipline, which demands timely, complete and context-specific data as a foundation for effective risk management in private transactions. In an effort to devise a regime of public dissemination of hedge fund data that does not jeopardize the proprietary information of reporting persons, the Commission has crafted a rule that would create no meaningful benefit but would impose real costs. This is not a circumstance in which the proverbial "half a loaf is better than none;" rather, stale and fragmentary data produced by disparate and opaque models may be as likely to mislead as to inform.

Even the proponents of public disclosure requirements such as those envisioned in Proposed Rule 4.27 have been obliged to recognize that quarterly "snapshot" disclosure cannot be relied upon to supply material data to lenders and counterparties. Congressman Baker, who introduced H.R. 2924, the Hedge Fund Disclosure Act, which would require public disclosure of information similar to that covered by Proposed Rule 4.27, has identified the unavoidable conflict between public disclosure of meaningful risk data and the need to protect proprietary information:

> As to the reporting requirement, it would seem to me anything that is timely released verges on the proprietary. Anything that is not timely

released and is retrospective in its view is of little value to a person trying to judge current day risk positions.[1]

The disclosures called for by Proposed Rule 4.27 do not merit reliance by the public, lenders or regulators in assessing market integrity or potential exposure to reporting entities, particularly under stressed market conditions, for several reasons. First, value-at-risk ("VAR") measures are subject to inherent limitations that undermine their utility for the purposes of such assessments. Like other measures of exposure to market risk, VAR is a statistical measure of the possible portfolio losses resulting from *normal* market movements. It does not measure the potential magnitude of losses resulting from *abnormal* market movements.[2] Required reporting of VAR, therefore, is not likely to predict the potential for losses due to abnormal market movements, such as those that created the LTCM crisis. In addition, VAR calculations are not designed to measure the additional losses that might arise when abnormal, adverse market movements exacerbate liquidity, credit and other non-price risks.

Second, the data called for by Proposed Rule 4.27 cannot provide a meaningful basis for analysis of the risks of reporting entities even in normal markets.[3] VAR measures (or alternative types of risk measures acceptable for purposes of reporting under the Proposed Rule) are generated by internal pricing models of individual hedge fund operators developed using methodologies and assumptions selected by the individual reporting entity. Such measures are therefore inherently not comparable across funds; they are defined and limited by the methods and assumptions used to produce them. In addition, VAR numbers "are merely estimates," and "the quality of these estimates will depend on the care given to the quality of the assumptions and the appropriateness of the approach used."[4] Further, VAR measures do not incorporate liquidity, credit, and other non-price risks.[5] As VAR calculations are not susceptible to

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1 Transcript of May 6, 1999 Hearing Before the U.S. House of Representatives, Committee on Banking and Financial Services at 64.

2 Linsmeier, T. and N. Pearson, "Value at Risk," Financial Analysts Journal, March/April 2000 (p. 48).

3 The Basle Committee on Banking Supervision ("BIS") has stressed the necessity for creditors to obtain data to create a comprehensive picture of the true risk profile of highly leveraged institutions, the absence of which was a key deficiency evident in the practices of lenders with respect to LTCM. "Banks' Interactions with Highly Leveraged Institutions" (Jan. 1999) at 16-17.

4 "Supplemental Examination Guidance: Risk Management of Financial Derivatives and Bank Trading Activities," Office of the Comptroller of the Currency (January 25, 1999) at 2 (hereinafter, "OCC").

5 Id.

meaningful analysis without a profound understanding of the risk model's approach and the parameters applied, banking supervisors have stressed that bank boards of directors and management must be provided sufficient information "to assess the strengths and limitations of bank price risk measurement systems."[6] The public who receive the data called for by the Proposed Rule, however, are not likely to have sufficient information to gain such an understanding.

Further, quarterly reporting of VAR and other financial data would yield stale information, lacking sufficient timeliness to capture the changing market risks in dynamic hedge fund portfolios. Timeliness of information is critical to effective credit risk analysis by counterparties and creditors. The Basle Committee on Banking Supervision ("BIS") in its January 1999 report on LTCM stressed that "[c]redit assessments of [highly leveraged institutions] are likely to have relatively short shelf-lives, owing primarily to the dynamic nature of their business activities."[7] Consequently, as the Federal Reserve Board's representative stated succinctly in recent testimony before Congress, "[g]iven the speed with which the risk profiles of hedge funds can change, quarterly public disclosure would not meet the needs of creditors and counterparties."[8]

The Commission itself recognizes a number of the substantial deficiencies inherent in the data called for by the Proposed Rule. As the Commission recognizes, VAR, even if prudently constructed, provides "only part of the information necessary to fully evaluate a firm's exposure to market risk." (65 FR 20399). It recognizes that VAR calculations are highly sensitive to parameters elected for the underlying data (confidence level and holding period), that there is "no widely accepted standard for either of these parameters" and that VAR information will not be directly comparable across firms. Consequently, VAR data cannot be assumed to satisfy any minimum standards of comparability, reliability or accuracy.

As a result, the data called for by Proposed Rule 4.27 are data which the Commission itself recognizes to be partial and insufficient to evaluate a reporting person's market risk, not comparable across funds and generated by risk management models not having any assured minimum level of accuracy or reliability. No reasonable lender or counterparty would rely upon such data and MFA submits that no member of the public should be encouraged to do so. Yet establishing a public reporting system of the nature proposed necessarily has the effect of highlighting the published data and inevitably invites reliance upon that data by the public.

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6 <u>Id.</u>

7 BIS at 19.

8 Testimony of Patrick Parkinson Before the Committee on Banking and Financial Services, U.S. House of Representatives, April 11, 2000.

MFA believes that the inherent lack of reliability, completeness, and comparability of the data called for by Proposed Rule 4.27 render the public dissemination of that data as likely to mislead as to inform. Reliance upon such data will not augment market discipline and cannot be viewed as a means of discouraging the types of lending practices that led to LTCM.

B. The Marketplace Has Responded to the Lessons of LTCM and Achieved the Objectives of Proposed Rule 4.27

In the nearly two years since LTCM, regulators and the marketplace have developed formal guidance and practical business responses to the LTCM events which have significantly reduced the likelihood of future similar events. These concerted public and private sector efforts to diagnose and remedy the causes of LTCM underscore the lack of need for Proposed Rule 4.27. As Commissioner Holum stated in dissenting from the Commission's issuance of Proposed Rule 4.27, market developments since LTCM "call into question whether a specific prescriptive rule, such as Proposed Rule 4.27, is the appropriate response at this time." 65 FR 20403.

The Commission's proposal and the recommendation of the PWG upon which it is based both derive from the PWG's view that enhanced disclosure can improve the effectiveness of market discipline. Banking supervisors, the lending community and the hedge fund industry have all taken action to rectify the deficient practices highlighted in LTCM and to establish a strong foundation for risk management to prevent future LTCMs. The banking supervisors have issued extensive and rigorous guidance concerning the sound practices that must be adhered to by banks in their lending to highly leveraged institutions.[9] Implementation of these supervisory standards by regulators should preclude future LTCMs.

Private sector initiatives have bolstered these regulatory efforts. The Counterparty Risk Management Policy Group ("CRMPG"), comprised of the twelve largest U.S. commercial and investment banks, published an exhaustive analysis of risk management practices and recommended improvements particularly directed to dealers and lenders.[10] Separately, a group of the largest hedge fund managers developed and published "Sound Practices for Hedge Fund Managers," a set of sound practices for risk management and internal controls on the part of hedge funds.

These initiatives established risk management standards that are more rigorous in their demands for and analysis of risk information than the Proposed Rule or any other

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9 See BIS, supra, note 2; OCC, supra, note 5; SR-99-3, "Supervisory Guidance Regarding Counterparty Credit Risk Management," Board of Governors of the Federal Reserve System (February 1, 1999).

10 Counterparty Risk Management Policy Group, "Improving Counterparty Risk Management Practices," June 1999 (hereinafter, "CRMPG Report").

conceivable public disclosure system. For example, the CRMPG Report recommends "robust" credit evaluations of trading counterparties, including obtaining, in initial credit evaluations, information concerning such matters as: material financing and counterparty relationships, specific trading and investment strategies and asset allocations, operating controls (including valuation procedures, processing and settlement, trade verification and collateral management procedures), and information on risk management controls and measurement methods.[11] Ongoing information requirements include capital condition, performance, market risk, asset liquidity risk and funding liquidity risk assessment and material events. The CRMPG Report, like other public and private guidance issued since LTCM, emphasizes that lending and counterparty relationships require close review of complex, individualized risk-related data -- more comprehensive and timely data than any public reporting system could or should be expected to produce.[12]

In recent months, several large hedge funds have suffered large losses and the market has absorbed those events without incident. These situations indicate that market discipline provided by creditors and counterparties has improved since the events surrounding LTCM's problems.

II. <u>The Substantial Costs of Proposed Rule 4.27</u>.

A. <u>Public Costs: The Illusion of Protection</u>.

As discussed above, a public reporting system that must be designed to avoid compromising proprietary information inherently lacks utility. However, the Proposed Rule does not simply fail to produce a benefit, it carries real costs for the public who would receive that disclosure, as well as direct costs for the market participants who would bear its reporting burdens. The information to be publicly disclosed under Proposed Rule 4.27 would have significant potential to mislead, while being disseminated under government auspices in a manner that inevitably creates an aura of legitimacy.

As noted above, the types of data called for by Proposed Rule 4.27 have substantial limitations but these limitations will not be transparent to the recipient of the data. In addition to the opacity of the data disseminated, which will obscure its import, a graver danger may lie in the illusion of protection likely to be created by the CFTC's dissemination of data pursuant to Proposed Rule 4.27. Disclosure of a typical VAR calculation, for example, that a reporting entity has a 5% chance of losing 10% of its assets within a given timeframe, is highly unlikely to aid the public in reaching an informed conclusion as to the risks facing the entity. To

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11 CRMPG Report at 4.

12 <u>See generally</u> Testimony of George E. Crapple, Vice-Chairman, Millburn Ridgefield Corporation, Chairman, Managed Funds Association, Transcript of May 6, 1999 Hearing Before the U.S. House of Representatives, Committee on Banking and Financial Services at 79-80.

the contrary, since VAR measures assume that price volatility will remain within historically normal ranges, these data may create a false sense of security.

The potential to mislead is magnified by the Commission's role in requiring and publishing such data. To the general public, a system of information dissemination operated by the federal government is likely to signify not only that the government deems such information to be meaningful but also that some federal oversight is operative to protect against hazards generated by the reporting entities. The creation of "moral hazard" not only may lead the public to repose undue confidence in data disseminated with a semblance of government oversight but may also adversely impact the very objective Proposed Rule 4.27 is designed to further -- the enhancement of market discipline.

B. Industry Costs.

Proposed Rule 4.27 will impose direct financial costs and administrative burdens upon the entities to which its reporting burdens apply. Producing quarterly reports such as those called for by the Proposed Rule would entail the commitment of substantial operational and system resources to generate, compile and review data. Proposed Rule 4.27 also calls for descriptive information concerning risk management practices in five areas, and on a voluntary basis, any other information that may usefully supplement reported risk information. The reporting called for is thus continuous and involves qualitative as well as quantitative input.[13]

In addition to these direct, immediate costs of compliance, Proposed Rule 4.27 would impose upon the affected registrants substantial litigation risks. Investors or creditors could seek to base claims against reporting persons upon alleged inaccuracies or deficiencies in the reported information. The information called for by Proposed Rule 4.27 is necessarily forward-looking and dependent upon qualitative judgments. The potential for costly litigation based upon such disclosures prompted the Securities and Exchange Commission to create a "safe harbor" provision in its derivatives disclosure rules to protect public issuers from the risk of such litigation.[14]

Further, Proposed Rule 4.27 would present complex reporting problems for the many commodity pools which operate as funds of funds. By definition, funds of funds are dependent for their reporting data on data provided them by each of the funds in which they invest. The filing of annual reports by funds of funds frequently requires requests to the Commission for extension of the reporting period due to the need to obtain information from

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13 We note that while Proposed Rule 4.27 and H.R. 2924, the Hedge Fund Disclosure Act, both call for public disclosure on a quarterly basis, Proposed Rule 4.27 goes far beyond H.R. 2924 in the scope of the data called for.

14 See Securities Act Release No. 33-7386; Exchange Act Release No. 37086, 62 FR 6044, 6051 (Feb. 10, 1997).

investee funds. Quarterly reporting by funds of funds pursuant to Proposed Rule 4.27 would entail substantial reporting difficulties for affected funds of funds.

In addition, if the Commission were to adopt Proposed Rule 4.27, the Rule could be argued to represent a Commission determination that the information required is material for purposes of disclosure by other registrants. Such a view could effectively result in the disclosure requirements of the Proposed Rule being applied to commodity pool operators managing substantially smaller amounts of capital. Adoption of the Proposed Rule thus could result in additional disclosure burdens and litigation exposure for a far broader class of registrants than would come within the literal scope of the Proposed Rule.

These costs would fall upon persons who are registered with the CFTC as CPOs, but not on investment managers generally, regardless of the size of the investment vehicle under management, and thus disadvantage CFTC registrants operating funds as compared to persons engaged in similar investment activities who are not so registered.

III. The Proposed Rulemaking Should be Deferred Pending the Commission's New Regulatory Framework and Congress's Disposition of the Issue.

A weighing of likely costs and benefits argues strongly against proceeding with Proposed Rule 4.27. Proceeding with the Proposed Rule would also be inappropriate at this juncture, in that the Commission would be approving a wholly new reporting system for certain Commission registrants at the same time that the Commission is undertaking a broad overhaul of its regulatory framework for these (and other) registrants and Congress is debating legislation calling for public disclosure by such entities. The Commission's comprehensive initiative to establish a new regulatory framework has the stated objective of fostering innovation and flexibility and eliminating rules that do not clearly serve important public purposes. The Commission has signaled in the regulatory initiatives released to date that it believes that "core principles" rather than "one-size-fits-all" prescriptive rules are appropriate to tailor regulation to a variety of market structures, commodities traded and sophistication of customers.[15] The Commission has not yet issued its regulatory proposals with respect to commodity pool operators and commodity trading advisors. MFA submits that the creation of a new set of disclosure requirements for certain CPOs, particularly those whose clientele is highly sophisticated, in advance of the Commission's completion of its proposals for revamping of the regulatory framework applicable to CPOs and CTAs is premature and should await consideration in the context of the Commission's new regulatory framework.

Proceeding to adoption of Proposed Rule 4.27 would be precipitous from a broader public policy view as well. Legislation to require public reporting by large hedge funds has been the focus of extensive Congressional review during the last eighteen months. The issues raised by these legislative proposals, many of which are equally relevant to Proposed Rule 4.27, remain under active consideration and debate. We are confident that for the reasons set

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15 See 65 FR 38985 (June 22, 2000).

forth above, Congress will not adopt a hedge fund reporting system. MFA believes that the Commission should defer action on Proposed Rule 4.27 to avoid pre-empting both its own comprehensive regulatory review process and the Congress's disposition of the issues.

<u>Conclusion</u>.

MFA appreciates the opportunity to submit these comments on Proposed Rule 4.27. MFA stands ready to assist the Commission in its further consideration of the Proposed Rule and would be pleased to respond to any questions on this subject that the Commission or its staff may have.

Sincerely,

John G. Gaine

cc: Honorable William J. Rainer
Honorable Barbara Pedersen Holum
Honorable David D. Spears
Honorable James E. Newsome
Honorable Thomas J. Erickson
C. Robert Paul, General Counsel

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HEDGE FUNDS:
ISSUES FOR PUBLIC POLICY MAKERS

Presented by

MANAGED FUNDS ASSOCIATION

April 1999

The Association for investment professionals in futures, hedge funds and other alternative investments

1200 19th Street, N.W. Suite 300 Washington, DC 20036-2422 Tel: 202.828.6040 Fax: 202.828.6041 Web site: www.mfainfo.org

Overview

Managed Funds Association ("MFA") is a national trade association of more than 700 members, representing the managed futures, hedge fund, and fund of funds industry. MFA membership consists principally of financial and commodity trading advisors, pool operators, and trading managers, who are responsible for management of the vast majority of the estimated $35 billion currently invested in managed futures, as well as significant amounts invested in hedge funds and other financial and commodity-linked investments.

MFA has prepared this review of public policy issues relevant to hedge funds to assist legislators, regulators, lending institutions and other interested parties as they review public policy issues relating to hedge funds. As policy makers consider these topics and the implications of 1998 events involving Long Term Capital Management ("LTCM"), MFA believes that several important considerations should be taken into account:

- **Benefits of Hedge Funds.** Hedge funds provide substantial benefits to investors and markets, benefits recognized in applicable federal regulatory frameworks which provide for reduced regulatory burdens for funds privately offered to sophisticated, financially accredited investors.

- **Commonality of Hedge Fund Strategies and Those of Other Larger Institutions.** Hedge funds are increasingly similar to and interconnected with other, larger institutional traders, such as commercial and investment banks, which tend to take positions that greatly exceed those of hedge funds.

- **Uniqueness of LTCM.** In assessing the need for new regulatory approaches, policy makers should avoid ascribing the dynamics of a single case to the broader hedge fund market. In size, leverage, degree of position concentration and access to credit, LTCM had few or no parallels in the universe of hedge funds. LTCM should be viewed as an instance of "pilot error," not as evidence of a structural defect in the hedge fund industry.

- **Risk Profiling and Other Best Practices Advances.** Lenders and bank supervisors have identified and taken steps to correct weaknesses in credit management practices evident in dealings with LTCM. Important public and private sector efforts are underway to enhance credit risk management practices. MFA believes that development and widespread implementation of a systematic concept of "risk profile" information to be obtained by counterparties in managing their transactions with significant trading institutions represents an important risk management advance. Industry groups are currently working to develop these and other enhanced counterparty risk arrangement practices and MFA fully supports these efforts.

- **Difficulty and Danger of Direct Regulation.** Regulators, as well as market participants, have properly counseled against efforts to increase the regulation of hedge funds. Such measures would require sophisticated analysis and monitoring to be targeted meaningfully, are unlikely to be effective in reducing risk and may in fact be counterproductive by creating static rules that do not adequately address dynamic market risks and will tend to encourage movement of hedge funds to offshore locations in which they may operate under significantly less regulatory scrutiny than in the U.S.

MFA stands ready to assist policy makers as they explore these topics and respectfully submits the following summary of relevant factual and policy considerations.

TABLE OF CONTENTS

Page

INTRODUCTION

The hedge fund marketplace is highly diverse, international and dynamic. Hedge funds provide an increasingly popular tool for investors seeking portfolio diversification and bring recognized liquidity benefits to the marketplace at large. Hedge funds offer investors a wealth of investment alternatives. Many hedge funds demonstrate a low correlation with the Standard and Poor's 500 Index and tend to outperform broad market benchmarks in periods of poor market returns. Further, by increasing market liquidity, hedge funds provide shock absorption in volatile markets, mitigate price swings and reduce bid/ask spreads. Increasingly, hedge fund strategies resemble those of large institutional traders, such as commercial banks and mutual funds, and such institutions are often large investors in hedge funds. Nonetheless, most hedge funds remain relatively small, and the amount invested in hedge funds is estimated at approximately $300 billion, about one-twentieth the size of the mutual fund industry.

In recent months, the difficulties of one exceptional hedge fund, Long Term Capital Management ("LTCM"), have drawn intense media and regulatory attention, fueled in part by the extraordinary size of LTCM's positions, the celebrity quality of the firm's founders and a highly publicized private sector "bailout" to which the New York Federal Reserve Bank lent its moral support and good offices. In fact, the LTCM "bail out" was not a government rescue but a privately funded and managed, "informal reorganization outside of bankruptcy," which helped to protect creditors of LTCM and others from the adverse effects of a wholesale liquidation of LTCM's positions.[1] Extensive post mortems of the LTCM crisis have revealed those events to be the result of an extremely low probability collision of a massive, highly concentrated and illiquid portfolio vulnerable to particular market risks and an unprecedented series of adverse market developments which brought those risks to fruition. These events demonstrated that "[c]onsistently inconsistent global economic complexities confounded sophisticated financial models."[2] Notably, neither LTCM's massive portfolio nor its near-default was replicated in the vast majority of hedge funds. The LTCM crisis might aptly be analogized to a case of "pilot error" -- a failure of individual controls which teaches cautionary lessons but is not reflective of the industry generally. In fact, during the third quarter of 1998, during which the LTCM crisis occurred, hedge funds as a group outperformed the Standard & Poor's 500 Index and most other major performance benchmarks.[3]

Thus, LTCM is a case study in exceptions -- extreme, undiversified portfolio exposures in extraordinary market conditions. Nonetheless, its experience can provide important insights into the efficacy of current market practices and safeguards and the causes of their apparent failure to anticipate and guard against such exceptional events. The regulatory community is properly reviewing the LTCM events to determine whether there exist shortcomings in market practices and/or government oversight that warrant corrective measures. The following discussion is designed to provide relevant background data and analysis to aid policy makers in considering these issues.

I. SALIENT CHARACTERISTICS OF HEDGE FUNDS.

Hedge funds are subject to considerable public misperceptions and confusion, often rendering them vulnerable to the stigma of epic events, such as the LTCM crisis, which may be inaccurately ascribed to hedge funds generally. As the following discussion explains, LTCM not only was not typical of hedge funds, it was in fact a highly atypical case. Only a small subset of hedge funds follow investment strategies resembling those of LTCM. Further, most hedge funds are a fraction of LTCM's size, do not make use of leverage to any comparable extent, and enjoyed relatively attractive performance, i.e., they outperformed the Standard & Poor's 500 Index, when LTCM was foundering. As a result, to extrapolate from LTCM to hedge funds generally would ill serve decisionmakers seeking meaningful measures to reduce systemic risk or investors who find in hedge funds an important investment alternative and portfolio diversification tool. The benefits produced by hedge funds for investors and markets are recognized and fostered by well-established, frequently revisited regulatory dispensations under which hedge funds have been permitted to develop and flourish as an important portfolio diversification asset class.

A. LTCM: An Exceptional Hedge Fund in an Exceptional Market.

In the extensive reports and congressional testimony on the LTCM events, LTCM has been widely and aptly recognized as a unique case, built of a number of unusual factors. As Federal Reserve Board ("FRB") Chairman Alan Greenspan has noted, since its founding in 1994, "LTCM has had a prominent position in the community of hedge funds, in part because of its assemblage of talent in pricing and trading financial instruments, as well as its large initial capital stake."[4] LTCM acquired a reputation for strong performance through successive years of above-average returns to investors. LTCM apparently generated these returns by using sophisticated mathematical models to assess interest rate spreads and the volatilities of market prices, identifying temporary market price anomalies based upon historical patterns. LTCM's trading generated profits in the process of closing such temporary price gaps. These positive returns were augmented by the use of securities repurchase contracts and derivatives to "leverage" its capital. However, as Chairman Greenspan's testimony stresses, "the very efficiencies that LTCM and its competitors brought to the overall financial system gradually reduced the opportunities for above-normal profits."[5] Faced with diminishing profit opportunities, LTCM apparently employed greater leverage and took on greater risk exposure, even as financial market uncertainty and investor risk aversion were rapidly increasing. By the end of August, the firm's capital base had declined by half and losses continued into September, when the privately funded "bailout" of LTCM occurred.

Neither LTCM's strategies nor the capital and "leverage" it used to pursue those strategies were typical of hedge funds. The many reports and studies of LTCM issued to date confirm that LTCM differed dramatically from the vast majority of hedge funds in multiple key respects -- including overall risk profile, size, degree of position concentrations and access to credit. According to Department of the Treasury congressional testimony on the subject, LTCM appears to have been "unique among hedge funds in terms of its combination of size and leverage."[6] At the close of 1997, LTCM had total assets of nearly $130 billion, including derivative contracts with a current market value of $3 billion, as compared to capital of approximately $4.7 billion, equating to a "gross" leverage ratio of about 28 to 1.[7] According to Treasury's testimony, these figures alone placed LTCM in a class by itself. In fact, most hedge funds filing with the Commodity Futures Trading Commission had total assets of under $100 million and leverage ratios of under 2 to 1.[8]

The wide span between LTCM and the great majority of hedge funds is not surprising, given that the term "hedge fund" sweeps broadly and has no precise definition. Generally, hedge funds are pooled investment vehicles that are privately organized and not generally available to the public. Estimates of the size of the hedge fund market range from 2500 to 3500 funds, with total assets of approximately $300 billion.[9] This market represents a "loosely defined universe" reflecting a wide range of investment styles and strategies.[10] Hedge funds generally are not constrained by regulatory or contractual limitations on their investment discretion and thus "enjoy almost unlimited freedom to invest across a wide array of asset classes and geographies, to use leverage and derivatives, and to short securities."[11] There are thus likely to be as many hedge fund investment approaches as there are hedge funds. As illustrated in Appendix I, data vendors have classified hedge fund strategies into twenty or more different categories.[12]

B. Hedge Funds -- A Subset of Institutional Traders.

Hedge funds are increasingly similar to, and inter-connected with, other larger institutional traders. The International Monetary Fund's ("IMF") 1998 hedge fund study recognizes that hedge funds "are only one part of the constellation of institutional investors active in international financial markets" and that any line between hedge funds and other institutional investors is "increasingly arbitrary."[13] In fact, within the large group of institutional traders that may assume positions comparable to those of hedge funds, hedge funds represent a relatively small asset class. The IMF report stresses that hedge fund positions "pale in comparison with the position-taking capacity of mutual funds, pension funds, insurance companies, and the proprietary trading desks of investment and commercial banks."[14] Further, as the IMF also notes, commercial banks are "leveraged" institutions whose total assets and liabilities are several times their capital.[15] Global banks have been estimated to receive as much as 20 to 30 percent of net revenues from trading activities.[16] In many cases, the connection between hedge funds and other institutional traders is more direct and substantial than resemblance of trading strategies and risk exposures. Mutual funds, insurance companies, and university endowments "are among the most important investors in hedge funds."[17] "Outsourcing" of proprietary trading activities is said to reflect multiple factors such as expertise, diversification of trading strategies and cost advantages attainable through hedge fund investments.

C. Existing Regulation of Hedge Funds.

Hedge funds operate under well established federal statutory and regulatory exemptive provisions which reflect a series of consistent, deliberate public policy choices about the costs and benefits of government regulation of hedge funds. Federal securities laws and, in many cases, futures regulatory requirements apply in some respects to hedge funds. These frameworks provide for limited regulation of investment vehicles, such as hedge funds, that are not offered to the public and are available only to financially accredited and sophisticated investors, but effectively constrain hedge fund activity by restrictions upon the availability of relevant regulatory exemptions. In order to operate free of Investment Company Act of 1940 restrictions, hedge funds may not be offered to the general public and may not have more than 100 "accredited" and an unlimited number of "super-accredited" investors. Federal antifraud prohibitions remain applicable to the offer and sale of hedge fund interests to investors. The SEC receives limited information concerning hedge funds which are large market participants.[18]

In addition, many hedge funds are subject to the futures regulatory framework administered by the Commodity Futures Trading Commission ("CFTC"). Futures contracts and commodity options are routinely used by hedge fund managers, like operators of mutual funds and pension funds, to manage the risks of their stock portfolios or other investments, to effect changes in investment strategies or portfolio mix, synthetically replicate bonds or other interests, modify portfolio duration, and many other purposes. Hedge funds that trade in the futures or commodity option markets and have U.S. investors or are operated from the U.S. become subject to the CFTC's regulatory framework for commodity pools. This regulatory structure requires registration by the fund's manager with the CFTC as a commodity pool operator, disclosure to prospective investors, periodic reporting to investors and maintenance of books and records subject to inspection by regulators. The CFTC's antifraud prohibitions apply to all activities of the pool. Hedge funds subject to CFTC commodity pool regulation may qualify for exemption from providing specified disclosures and reports to investors based upon such investors having high levels of financial resources or a regulated status that evidences substantial financial expertise. In addition, hedge funds that trade in U.S. futures markets, even if not subject to commodity pool regulation, may become subject to the CFTC's large trader reporting system, under which futures traders with positions that exceed specified reporting levels must provide certain information to the CFTC. All traders in U.S. futures markets also are subject to position accountability or speculative position limit rules, which are designed to protect against market disruptions.

In addition, hedge funds are subject to recordkeeping and reporting requirements adopted by the Department of the Treasury, which are applicable to entities that control large positions in certain recently-issued Treasury securities. These rules establish an "on demand" reporting system under which large position reports must be filed with the Federal Reserve Bank of New York in response to a notice identifying a particular Treasury security and specifying the dollar threshold, which must be at least $2 billion, for positions triggering the reporting requirement. Large position recordkeeping requirements also are imposed to ensure that each entity that is potentially subject to a call for large position reports maintains recordkeeping systems sufficient to generate such reports in the event the entity is required to submit one.

D. Hedge Fund Benefits to Investors and Markets.

The high growth rate of investments in hedge funds reflects strong investor demand based on an attractive performance record. During August and September 1998, some hedge fund categories outperformed major market benchmarks and only a handful of funds suffered serious financial difficulties.[19] Many hedge funds provide attractive mechanisms for portfolio diversification because they display a low correlation with the Standard & Poor's 500 Index and some hedge fund categories "tend to outperform the market during periods of poor market returns."[20] Public and private sector experts have recognized that hedge funds provide significant market as well as investor benefits. Hedge funds enhance market liquidity, helping to absorb shocks in volatile markets, reducing the severity of price fluctuations and fostering smaller bid-ask spreads and lower transaction costs.[21] Hedge funds provide an important and, in some markets, preeminent source of liquidity, for example, the mortgage derivatives, distressed securities and risk arbitrage markets, which depend upon access to sizeable pools of investment capital. Banking supervisors have acknowledged that hedge funds can provide systemic benefits to financial markets by increasing liquidity and efficiency, and fostering financial innovation and the allocation of financial risk;[22] in short, they may add "depth and liquidity to financial markets and can be stabilizing influences."[23]

E. A Highly International, Geographically Mobile Marketplace.

The hedge fund marketplace is a highly international, geographically mobile marketplace. Large and rapidly growing centers of hedge fund activity exist in many non-U.S. jurisdictions, including a number of significant financial centers. This global marketplace reflects the increased accessibility of diverse international investment opportunities and efforts by hedge funds to access global markets that will best serve the investment objectives of their investors. Hedge funds demonstrate a high degree of geographic mobility and, as FRB Chairman Greenspan has commented, given the ready electronic accessibility of global financial markets, "[i]t is questionable whether hedge funds can be effectively directly regulated in the United States alone."[24]

II. ISSUES FOR PUBLIC POLICY MAKERS.

A. Counterparty Risk Management Practices.

In the wake of the LTCM developments, banking supervisors and other informed observers have reached substantial consensus concerning apparent deficiencies in the credit analysis and risk management practices followed by LTCM's lenders. The Bank for International Settlement's ("BIS") January 1999 report, "Banks' Interactions with Highly Leveraged Institutions," issued in the wake of LTCM, found in that case a general "lack of balance between the key elements of the credit risk management process," marked by excessive reliance on collateralization of direct mark-to-market exposures and the compromise of other critical aspects of effective credit risk management, including "upfront due diligence."[25] The Board of Governors of the Federal Reserve System ("FRB") and the Comptroller of the Currency ("OCC") have recognized many of the same deficiencies as the BIS. Collectively, the banking regulators have found that the lending practices followed in the context of LTCM reflected significant weaknesses. Importantly, the bank supervisors' reviews of lending practices relevant to LTCM have not found these practices to have been limited to that case. Rather, the same weaknesses were found to be "evident, albeit to a lesser degree, in their dealings with other highly leveraged firms."[26] Their conclusions include the following:

- Failure to Obtain Comprehensive Risk Profile Data. LTCM's lenders apparently failed to adequately consider information about LTCM's entire investment portfolio in making credit decisions. For example, the BIS report notes that although LTCM did make available some information from which to assess balance-sheet leverage, "information about off-balance sheet positions tended to be provided only infrequently (i.e., annually), and it was presented in a relatively aggregated manner, making it difficult to assess [LTCM's] risk concentrations in products or markets."[27] In general, meaningful information was not received concerning leverage or the concentration of exposure in certain types of positions, risk factors, trading strategies and risk management capabilities, resulting in reliance largely on qualitative assessment of these risks. As a result, LTCM's risk profile, exceptional size and extensive concentration in certain illiquid markets were not adequately understood or factored into the credit risk management process. LTCM's counterparties appear to have relied primarily on LTCM's past performance and the reputation of its partners, at the expense of strict evaluation of the firm's risk profile, in making credit decisions.

- Inadequate Stress Testing. As FRB Chairman Greenspan testified, "[t]o an important degree, the creditors of LTCM were induced to infuse capital into the firm because they failed to stress test their counterparty exposures adequately and therefore underestimated the size of the uncollateralized exposure they could face in volatile and illiquid markets."[28]

- Overreliance on Inadequate Collateral Arrangements. LTCM's counterparties appear to have placed excessive reliance on collateral agreements with LTCM which did not reflect their full risk exposure. Even with the benefit of collateral arrangements, LTCM's lenders had significant unsecured exposures due to the potential costs associated with liquidating/replacing positions under adverse market conditions. LTCM's lenders appear to have significantly underestimated potential future exposures, failing to make adequate allowance for the exceptional volatility and illiquidity of financial markets in August and September 1998.

B. A Program for Improvement in Counterparty Risk Management.

Banking supervisors and lending institutions have already taken steps to respond to the weaknesses identified in credit risk management practices. With respect to U.S. banks, the FRB and OCC have made substantial progress in identifying sound practices for transactions with so-called "highly leveraged institutions" ("HLIs") and other counterparties.[29] The BIS report on bank lending practices with respect to HLIs also provides extensive guidance on effective credit and risk management practices.

1. Effective Credit Approval Procedures

Recent guidance issued by bank supervisors directs that significantly increased quantitative and risk profile data be obtained as part of the credit approval process. The credit review process should incorporate the following:

- Careful upfront analysis of counterparty credit quality based upon comprehensive financial information, covering both on and off-balance sheet positions, to comprehend the overall risk profile of the trading institution.
- A full understanding of the trading institution's procedures and operations for measuring and managing market, credit and liquidity risks, including back-office systems, accounting and valuation policies and procedures.
- Information about the trading institution's liquidity profile, including "the availability of liquid, unpledged assets to meet possible increases in margin calls under adverse market conditions."[30]

2. Exposure Measurement

In addition to obtaining more detailed and comprehensive information in making credit assessments, lenders have been advised to develop better measures of risk exposure and procedures for monitoring such exposures over time. As the OCC's recent guidance states, "[t]he technological advances in price risk measurement in recent years need to be coupled with the development of a strong and methodical program to stress test exposures."[31] The OCC notes that stress testing should ideally involve both the risk control unit and the trading desk and should take into account factors including: (1) vulnerability to historically worst case scenarios; (2) changes in market liquidity; (3) changes in correlations and basis, as historical relationships will change in stressed market conditions; and (4) market scenarios based on the unique characteristics of the portfolio.

The BIS report defines three categories of risk exposures faced by banks when dealing with HLIs: direct exposures (current replacement cost plus potential future exposure), secondary (close-out and liquidation) exposure and stressed-market exposures. The BIS report recognizes that there would be "a clear benefit in the banking industry devoting additional resources to developing more meaningful measures" of potential future exposure ("PFE"), which is a measure of how far a contract could move into the money over a defined horizon at some specified confidence interval.[32] With respect to direct exposures, the BIS noted that, "it is essential that banks have an effective measure for assessing whether the counterparty's financial capacity is sufficient to meet plausible levels of margin calls."[33] In dealing with LTCM and other HLIs, banks tended to rely exclusively on collateralization of mark-to-market values. With respect to secondary exposures, banks may have significant unsecured exposures arising from trading and derivatives activities with large trading institutions, despite maintaining effective collateral systems, due, for example, to delays and difficulty in liquidating collateral in distressed markets. The BIS report recognizes the need for the banking industry to develop better tools for "measuring and limiting the unsecured exposure inherent in collateralized derivatives positions."[34] The BIS also recommends that comprehensive stress testing or "scenario analysis" should be performed to address the combined effects of market events on liquidity, combined credit quality and other potential impacts, for example, the impact of large market moves, deteriorating credit spreads and diminished liquidity.

3. Monitoring of HLI Risk Profiles

The BIS report stresses that "[c]redit assessments of HLIs are likely to have relatively short shelf-lives, owing primarily to the dynamic nature of their business activities."[35] Lenders should obtain information on a sufficiently periodic basis that material changes in leverage, concentration of strategies and risk exposures may be assessed. An effective exposure monitoring system should include adoption of meaningful limits on the risk exposures an institution is willing to assume, continuous independent monitoring of exposures against such limits and "adequate controls to ensure that meaningful risk controlling action takes place when limits are exceeded."[36]

C. Comprehensive Risk Profiles, Not Leverage, Should be the Focus of Risk Management.

A paramount teaching of the LTCM crisis is that the complex of risks and exposures created by a portfolio, not any single factor, should be considered and monitored by counterparties. A comprehensive risk profile, not a "leverage" ratio or other static measure, should be the object of risk management efforts. Mistakenly, "excessive leverage" has become a shorthand term to describe the cause of LTCM's mounting losses in August and September, 1998. In fact, the degree of leverage employed by LTCM was significant but that factor alone does not account for LTCM's predicament. The LTCM crisis was caused by a combination of factors, including size, illiquidity, position concentrations and leverage, an interrelated set of risk factors which was not adequately factored into the credit risk management systems.

As the FRB has testified, although LTCM's creditors had received information from LTCM that indicated that its securities and derivatives positions were very large relative to its capital -- i.e., that the firm was highly leveraged -- "few, if any, seem to have really understood LTCM's risk profile, especially its very large positions in certain illiquid markets."[37] The LTCM crisis occurred because in September 1998 LTCM had accumulated extremely large positions in securities which, in the wake of the Russian default and devaluation, had become so illiquid that unwinding the positions would have caused "vast and ruinous price reductions."[38] The effect of the Russian default and devaluation was a flight to quality and liquidity which negatively affected LTCM's positions on a wholesale basis. Lack of diversification in LTCM's portfolios was such that most of its positions were vulnerable to the same unexpected factor, "which the LTCM models must have assumed was so unlikely it could be ignored."[39] Thus, focusing on one factor alone, such as leverage, would not have adequately apprised LTCM's creditors of LTCM's vulnerabilities, and regulators should not fall prey to the error of identifying leverage as the cause of, or limitations on leverage as the "cure" for, LTCM-type events. In fact, leverage can be risk-enhancing or risk-reducing, depending upon the manner in which it is used; no simple equation of leverage and risk is valid. For example, leverage can be used to diversify portfolios among markets and instruments and thereby reduce risk; conversely, leverage can increase the risk of concentrated positions.

D. Transparency/Disclosure.

Transparency and disclosure at both the lender and investor levels have been the subject of attention since the LTCM events. Banks and other suppliers of credit to highly leveraged institutions are reported to be requesting and receiving more detailed and comprehensive information relevant to the credit approval process. As noted above, banking supervisors have issued extensive guidance to banks concerning the necessity for obtaining comprehensive financial information in the context of HLIs, concerning both on- and off-balance sheet positions, in order to understand the overall risk profile of the institution. The BIS, for example, has stressed that banks should obtain information concerning the HLI's liquidity profile, and "the quality and integrity of the HLI's processes and operations for measuring, managing and controlling market, credit and liquidity risks, including back-office systems, accounting and valuation policies and methodologies."[40] Through their oversight of the lending process, bank supervisors have already taken important steps to reinforce the necessity of obtaining and incorporating into the risk management process financial data sufficient to create a meaningful "risk profile" for the borrowing institution. Such a profile would not consist simply of a portfolio inventory or collateral amount but would entail stress testing in a variety of adverse market conditions.

MFA believes that the hedge fund industry can provide critical assistance to bank supervisors in identifying data relevant to creation of meaningful "risk profiles" for borrowing institutions. In this connection, emphasis should be placed upon the key measures of risk, such as value-at-risk (VAR), sensitivity to relevant scenario analyses (stress testing), measures of funding or liquidity capabilities and other useful benchmarks of risk. Targeted measures of risk from which a meaningful profile of the borrower's material risk propensities can be framed, rather than its specific trading positions, are likely to produce the most useful tools for lenders and do not have the adverse effect of sacrificing the proprietary nature of hedge fund strategies and positions. MFA stands ready to assist regulators in defining data elements designed to achieve these objectives.

Under existing law and practice, investors have access to meaningful information concerning hedge fund investment strategies, leverage parameters and position concentrations and should carefully assess such information in making investment decisions. Hedge fund investors, due to the regulatory parameters under which hedge funds operate and voluntarily imposed minimum investment thresholds (often as high as $1 million or $5 million), tend to be both highly financially accredited and highly sophisticated investors. The current regulatory structure for hedge funds is in fact premised upon the significant degree of sophistication of hedge fund investors, their ability to identify and obtain information relevant to their investment decisions, and the consequent lack of need for prescriptive disclosure requirements. These regulatory approaches continue to be valid. Hedge fund investors demand high risk-adjusted returns on their investments, rigorous risk management and meaningful information from which they can determine that their investment objectives are being and will continue to be achieved. Consequently, to maintain existing investors and attract new ones, fund managers must not only be effective investment and risk managers, but also provide investors information they seek concerning all aspects of the fund's business.

Disclosures demanded by investors in the marketplace are likely to be far more meaningful to investors than disclosures dictated by regulators through standardized rules and formulas. The complexity of modern investment strategies, the fluidity of investments over time and the range of expertise and objectives among hedge fund investors may make specific disclosure standards difficult to fashion and implement. Snapshots of quantitative position data would not be likely to be useful in this context, given the complexity of portfolios and changes in positions over short timeframes. In the current marketplace, fund managers are voluntarily enhancing the quality of their disclosures to investors and respond readily to investors who seek a higher volume of information than is routinely provided. Antifraud remedies are available to hedge fund investors under the federal securities laws and, with respect to funds that are commodity pools, under the futures regulatory framework, in the unlikely event that any material information is not provided or is misstated.

III. DIRECT REGULATION IS UNWARRANTED AND LIKELY TO CARRY SIGNIFICANT NEGATIVE CONSEQUENCES.

Public policy makers are carefully considering the extent to which the LTCM events have systemic implications that should be addressed by new or different regulatory approaches. Even with the benefit of hindsight, however, the LTCM events do not appear to demonstrate a want of fundamental regulatory protections that would have prevented the crisis or suggest a regulatory solution that would ensure that future problems will not occur.[41] As discussed below, LTCM does not represent or support a conclusion favoring additional government regulation, and the assessment of a growing number of public and private sector experts is that additional direct regulation of hedge funds is not warranted or likely to be beneficial.

In its May 1998 Report, "Hedge Funds and Financial Markets: Implications for Policy," the IMF concluded that "[o]verall, the case for supervisory and regulatory initiatives directed specifically at hedge funds is not strong."[42] The LTCM events should not change that assessment. To date, a solid consensus has emerged that flawed risk management practices of LTCM's lenders facilitated the creation of LTCM's high risk exposures, and better risk management would have prevented or limited such exposures. A strong foundation of supervisory guidance and action to protect against such lapses in the future has been laid. There continues to be no clear logical or policy basis for additional or different regulation of hedge funds. A wide range of government officials and other experts have concluded that "indirect" measures, such as assuring more vigorous risk management procedures, are preferable to "direct" regulatory initiatives to create restrictions upon hedge funds trading strategies or investment operations, which are likely to be ineffective and hold the potential for significant negative effects that are inimical to the objective of reducing systemic risk.

A. LTCM is Not a Precedent for Federal Regulatory Intervention.

The LTCM "bailout," as noted above, was actually the equivalent of a privately managed reorganization outside of formal bankruptcy proceedings -- a Chapter 11 proceeding without the trappings of a legal proceeding. FRB Chairman Greenspan, New York Federal Reserve Bank President William McDonough and other government officials have stressed that only the conjunction of the extraordinarily fragile market of August-September 1998 and the prospect of a massive LTCM "firesale" caused banking supervisors to encourage a private sector rescue effort. No taxpayer funds were expended and no precedent for federal intervention in future situations has been established. In fact, during the LTCM timeframe, several smaller hedge funds following similar strategies suffered significant losses and were liquidated, without any form of federal or other governmental assistance.[43] The MFA does not believe that the federal government should have a policy of rescuing hedge funds or that LTCM should be viewed as an endorsement of such actions. Individual firm responsibility is the critical foundation for effective risk management and, in the words of former FRB Governor Phillips, "[r]eliance on regulatory protections can create the proverbial 'moral hazard' and ultimately end up being an ineffective way to protect the financial system."[44]

B. Efforts to Enhance Risk Management "Best Practices" are the Proper Focus of Remedial Action.

A wide range of regulators and financial market experts have concluded that the most prudent, practical and effective approach to addressing LTCM-type risks is not direct regulation of hedge funds but, rather, increased attention to risk management by lenders and counterparties of such entities. For example, FRB Chairman Greenspan has concluded that "[t]he best we can do in my judgment is what we do today: regulate [hedge funds] indirectly through the regulation of the sources of their funds."[45] Others have underscored the voluntary efforts of lenders and counterparties to tighten their own credit approval and risk management procedures and an important private sector initiative is underway to formalize this process. In January, 1999, a group of twelve globally active commercial and investment banks announced the formation of the "Counterparty Risk Management Policy Group," established to develop "flexible standards for strengthened risk management practices at banks, securities firms and other major players active in international financial markets."[46] The group's purpose is "to promote enhanced best practices in counterparty credit and market risk management, in part by compiling key information relative to such practices, and, where appropriate, reporting information to regulators and supervisors."[47]

In December 1998 testimony on hedge funds, former FRB Governor Susan M Phillips underscored the importance of reliance on the "sharp pencil" on the other side of the transaction" as the best protection possible for the integrity of the transaction.[48] This is true for several reasons, including the fact that "case-by-case risk analysis is likely to be more effective than arbitrary ratios or balance sheet limitations which can become dated very quickly or not take into account the firm's total portfolio."[49] Further, reliance upon counterparty vigilance avoids the problem of moral hazard which may arise from regulatory interventions.[50]

C. Hedge Funds Are Not the Problem or Their Regulation the Solution.

As discussed above, there does not appear to be a meaningful correspondence between LTCM and hedge funds generally; LTCM was a highly exceptional and, in many respects, unique fund with few or no parallels in the hedge fund universe generally. Further, concerns as to hedge fund positions or strategies must apply with even greater force to the extensive group of institutional traders that replicate hedge fund strategies and do so on a much larger scale. Consequently, to identify the LTCM "problem" with hedge funds would be to sweep far too broadly by capturing hedge funds having little or no resemblance to LTCM and far too narrowly by failing to address institutional trading that may pose equal or greater risks. Any effort to address hedge funds generically must confront the reality that hedge fund strategies and trading approaches are highly diverse, fluid and individualized. Consequently, as discussed in the following section, regulators, like counterparties, must recognize the diversity of trading institutions and the consequent difficulty and danger of relying upon generic formulae or ratios that unduly elevate one or more factors at the expense of comprehensive, case-by-case understanding of trading institutions' full risk profiles.

The BIS report identifies these issues of scope and definition as "critical obstacles" to the direct regulation of highly leveraged institutions. Although the BIS report focuses on "highly leveraged institutions," defined as large financial institutions that are subject to little or no regulatory oversight and disclosure requirements and that employ significant leverage, the BIS recognizes that "[i]n order to regulate such entities directly, however, a more workable definition will be required."[51] Further complicating direct regulatory approaches is the fact that the nature of an HLI's activities can change substantially within a short time, for example, leveraging might rapidly increase. It appears that no definition yet developed has the capability to meaningfully categorize institutions giving rise to systemic risks warranting regulatory concern and that any such approach would require an extensive, sophisticated monitoring and policing system. The BIS concluded that:

> While a definition that would place all potential HLI's under regulation would clearly be excessively burdensome, even if it could be made operational, limiting the regulation to those entities that actually engage in the type of activities that give rise to potential systemic risks requires a system of monitoring and policing that would also require considerable effort to maintain.[52]

Thus, prescriptive approaches that would define permissible trading strategies, endeavor to quantify and limit position size or risk exposure or otherwise constrain investment strategies are both difficult to target meaningfully and would require a significant governmental commitment of resources to implement. In addition to these practical difficulties, were such a system adopted, the moral hazard implications of such extensive government involvement should be carefully considered.

D. The Danger of Direct, Unilateral U.S. Regulation.

Legislators, regulators and other experts have recognized that the hedge fund marketplace does not exist only in the U.S. or, indeed, in any particular location with any significant degree of permanence. Consequently, the impact of a new United States regulatory framework for hedge funds or some subset thereof must be evaluated against the global accessibility of markets and the relatively small ties between hedge funds and any particular jurisdiction:

> It is questionable whether hedge funds can be effectively directly regulated in the United States alone. While their financial clout may be large, hedge funds' physical presence is small. Given the amazing communication capabilities available virtually around the globe, trades can be initiated from any location. Indeed, most hedge funds are only a short step from cyberspace.[53]

Thus, a parochial approach to hedge fund regulation has the potential for significant counterproductive effects. The IMF's 1998 hedge fund study underscores that "attempts to impose position limits or margin requirements will provide incentives for financial market participants to arrange transactions in unregulated or offshore jurisdictions, neutralizing efforts to constrain their activities.[54] As former FRB Governor Phillips has stated '[i]n view of the globalization of the markets and increasingly open avenues of international trade, care must be given to assure that a domestic regulatory structure does not simply chase the business off shore."[55] The current U.S. regulatory structure and the "best practices" enhancements recommended to date do not dictate investment strategies or require sacrifice of the proprietary nature of hedge fund strategies. Both the investment freedom of hedge funds and the confidentiality of their diverse strategies require careful consideration in order to avoid compromising the important U.S. role in the hedge fund marketplace.

In recent congressional testimony, the Treasury Department has summarized efforts to address issues raised by highly leveraged institutions underway at a variety of international groups, noting announced or completed initiatives by the G-7 Finance Ministers and Central Bank Governors, the Basle Committee on Banking Supervision and the International Organization of Securities Commissions (IOSCO) in this area. As Treasury's testimony stresses, "it will be important to continue to work closely with the various international organizations since, as Chairman Leach and others have pointed out, hedge funds can easily move from the United States to other jurisdictions, thus diluting some of the positive effects of any regulatory adjustments the U.S. might consider."[56] The specter of movement "offshore" to the already highly-popular offshore marketplace does not appear to be the idle threat of the regulation-averse but a critical factor in any assessment of the likely costs and benefits of additional regulation targeted at hedge funds.

Conclusion

The LTCM events have already elicited extensive corrective actions by regulators and by market participants. As has been widely acknowledged, the causes of LTCM's problems are evident in deficient lending practices, extraordinary position concentrations and extreme market conditions. Corrective actions have been taken both by regulators and market participants to rectify lax practices, fortify risk management mechanisms, and improve supervisory oversight to prevent replication of such a scenario. To the extent that new forms of regulation designed to limit trading strategies or hedge fund activities are considered to address the LTCM scenario, regulators have to date acknowledged both the difficulty of constructing meaningful restrictions in a marketplace which has widely embraced hedge funds strategies and the potentially counterproductive effects of restricting activity domestically that is readily transferable to offshore locations providing lower levels of transparency and regulation.

MFA believes that the efforts of public and private sector groups to develop more effective, sophisticated and rigorous risk management practices should be the central focus of regulators and the marketplace in seeking to reduce the potential for future market disruptions. Only through requiring market participants to bear the burdens of risk management, with the guidance and encouragement of public overseers, will the most enduring and effective "best practices" be widely and expeditiously put into effect. Absent a backbone of vigorous counterparty risk management practices, regulatory initiatives are unlikely to prove effective and, in the view of many, must be weighed against the ready availability of competing offshore jurisdictions. At the same time, banking supervisors and other interested parties can contribute both generalized guidance and accountability through the supervisory process to foster the adoption of sound credit risk management practices.

MFA appreciates the opportunity to submit its views and welcomes the opportunity to participate further in the efforts of policy makers and market participants to address these issues.

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APPENDIX I

*The following **Strategy Definitions** are reprinted from Hedge Fund Research Inc.'s web site,* http://www.hfr.com/definitions.html.

STRATEGY DEFINITIONS

Convertible Arbitrage involves purchasing a portfolio of convertible securities, generally convertible bonds, and hedging a portion of the equity risk by selling short the underlying common stock. Certain managers may also seek to hedge interest rate exposure under some circumstances. Most managers employ some degree of leverage, ranging from zero to 6:1. The equity hedge ratio may range from 30 to 100 percent. The average grade of bond in a typical portfolio is BB-, with individual ratings ranging from AA to CCC. However, as the default risk of the company is hedged by shorting the underlying common stock, the risk is considerably better than the rating of the unhedged bond indicates.

Distressed Securities strategies invest in, and may sell short, the securities of where the security's price has been, or is expected to be, affected by a distressed situation. This may involve reorganizations, bankruptcies, distressed sales and other corporate restructurings. Depending on the manager's style, investments may be made in bank debt, corporate debt, trade claims, common stock, preferred stock and warrants. Strategies may sub-categorized as "high-yield" or "orphan equities." Leverage may be used by some managers. Fund managers may run a market hedge using S&P put options or put options spreads.

Emerging Markets funds invest in securities of companies or the sovereign debt of developing or "emerging" countries. Investments are primarily long. "Emerging Markets" include in Latin America, Eastern Europe, the former Soviet Union, Africa and parts of Asia. Emerging Markets - Global funds will shift their weightings among these regions according to market conditions and manager perspectives. In addition, some managers invest solely in individual regions. Emerging Markets - Asia involves investing in the emerging markets of Asia. Emerging Markets - Eastern Europe/CIS funds concentrate their investment activities in the nations of Eastern Europe and the CIS (the former Soviet Union). Emerging Markets - Latin America is a strategy that entails investing throughout Central and South America.

Equity Hedge investing consists of a core holding of long equities hedged at all times withshort sales of stocks and/or stock index options. Some managers maintain a substantial portion of assets within a hedged structure and commonly employ leverage. Where short sales are used, hedged assets may be comprised of an equal dollar value of long and short stock positions. Other variations use short sales unrelated to long holdings and/or puts on the S&P 500 index and put spreads. Conservative funds mitigate market risk by maintaining market exposure from zero to 100 percent. Aggressive funds may magnify market risk by exceeding 100 percent exposure and, in some instances, maintain a short exposure. In addition to equities, some funds may have limited assets invested in other types of securities.

Equity Market Neutral investing seeks to profit by exploiting pricing inefficiencies between related equity securities, neutralizing exposure to market risk by combining long and short positions. Typically, the strategy is based on quantitative models for selecting specific stocks with equal dollar amounts comprising the long and short sides of the portfolio. One example of this strategy is to build portfolios made up of long positions in the strongest companies in several industries and taking corresponding short positions in those showing signs of weakness. Another variation is investing long stocks and selling short index futures.

Equity Non-Hedge funds are predominately long equities although they have the ability to hedge with short sales of stocks and/or stock index options. These funds are commonly known as "stock-pickers." Some funds employ leverage to enhance returns. When market conditions warrant, managers may implement a hedge in the portfolio. Funds may also opportunistically short individual stocks. The important distinction between equity non-hedge funds and equity hedge funds is equity non-hedge funds do not always have a hedge in place. In addition to equities, some funds may have limited assets invested in other types of securities.

Event-Driven is also known as "corporate life cycle" investing. This involves investing in opportunities created by significant transactional events, such as spin-offs, mergers and acquisitions, bankruptcy reorganizations, recapitalizations and share buybacks. The portfolio of some Event-Driven managers may shift in majority weighting between Risk Arbitrage and

Distressed Securities, while others may take a broader scope. Instruments include long and short common and preferred stocks, as well as debt securities and options. Leverage may be used by some managers. Fund managers may hedge against market risk by purchasing S&P put options or put option spreads.

Fixed Income: Arbitrage is a market neutral hedging strategy that seeks to profit by exploiting pricing inefficiencies between related fixed income securities while neutralizing exposure to interest rate risk. Fixed Income Arbitrage is a generic description of a variety of strategies involving investment in fixed income instruments, and weighted in an attempt to eliminate or reduce exposure to changes in the yield curve. Managers attempt to exploit relative mispricing between related sets of fixed income securities. The generic types of fixed income hedging trades include: yield-curve arbitrage, corporate versus Treasury yield spreads, municipal bond versus Treasury yield spreads and cash versus futures.

Fixed Income: Convertible Bonds funds are primarily long only convertible bonds. Convertible bonds have both fixed income and equity characteristics. If the underlying common stock appreciates, the convertible bond's value should rise to reflect this increased value. Downside protection is offered because if the underlying common stock declines, the convertible bond's value can decline only to the point where it behaves like a straight bond.

Fixed Income: Diversified funds may invest in a variety of fixed income strategies. While many invest in multiple strategies, others may focus on a single strategy less followed by most fixed income hedge funds. Areas of focus include municipal bonds, corporate bonds, and global fixed income securities.

Fixed Income: High-Yield managers invest in non-investment grade debt. Objectives may range from high current income to acquisition of undervalued instruments. Emphasis is placed on assessing credit risk of the issuer. Some of the available high-yield instruments include extendible/reset securities, increasing-rate notes, pay-in-kind securities, step-up coupon securities, split-coupon securities and usable bonds.

Fixed Income: Mortgage-Backed funds invest in mortgage-backed securities. Many funds focus solely on AAA-rated bonds. Instruments include: government agency, government-sponsored enterprise, private-label fixed- or adjustable-rate mortgage pass-through securities, fixed- or adjustable-rate collateralized mortgage obligations (CMOs), real estate mortgage investment conduits (REMICs) and stripped mortgage-backed securities (SMBSs). Funds may look to capitalize on security-specific mispricings. Hedging of prepayment risk and interest rate risk is common. Leverage may be used, as well as futures, short sales and options.

Funds of Funds invest with multiple managers through funds or managed accounts. The strategy designs a diversified portfolio of managers with the objective of significantly lowering the risk (volatility) of investing with an individual manager. The Fund of Funds manager has discretion in choosing which strategies to invest in for the portfolio. A manager may allocate funds to numerous managers within a single strategy, or with numerous managers in multiple strategies. The minimum investment in a Fund of Funds may be lower than an investment in an individual hedge fund or managed account. The investor has the advantage of diversification among managers and styles with significantly less capital than investing with separate managers.

Macro involves investing by making leveraged bets on anticipated price movements of stock markets, interest rates, foreign exchange and physical commodities. Macro managers employ a "top-down" global approach, and may invest in any markets using any instruments to participate in expected market movements. These movements may result from forecasted shifts in world economies, political fortunes or global supply and demand for resources, both physical and financial. Exchange-traded and over-the-counter derivatives are often used to magnify these price movements.

Market Timing involves allocating assets among investments by switching into investments that appear to be beginning an uptrend, and switching out of investments that appear to be starting a downtrend. This primarily consists of switching between mutual funds and money markets. Typically, technical trend-following indicators are used to determine the direction of a fund and identify buy and sell signals. In an up move "buy signal," money is transferred from a money market fund into a mutual fund in an attempt to capture a capital gain. In a down move "sell signal," the assets in the mutual fund are sold and moved back into the money market for safe keeping until the next up move. The goal is to avoid being invested in mutual funds during a market decline.

Merger (Risk) Arbitrage, sometimes called Risk Arbitrage, involves investment in event-driven situations such as leveraged buy-outs, mergers and hostile takeovers. Normally, the stock of an acquisition target appreciates while the acquiring company's stock decreases in value. These strategies generate returns by purchasing stock of the company being acquired, and in some instances, selling short the stock of the acquiring company. Managers may employ the use of equity options as a low-risk alternative to the outright purchase or sale of common stock. Most Merger Arbitrage funds hedge against market risk by purchasing S&P put options or put option spreads.

Relative Value Arbitrage attempts to take advantage of relative pricing discrepancies between instruments including equities, debt, options and futures. Managers may use mathematical, fundamental, or technical analysis to determine misvaluations. Securities may be mispriced relative to the underlying security, related securities, groups of securities, or the overall market. Many funds use leverage and seek opportunities globally. Arbitrage strategies include dividend arbitrage, pairs trading, options arbitrage and yield curve trading.

Short Selling involves the sale of a security not owned by the seller; a technique used to take advantage of an anticipated price decline. To effect a short sale, the seller borrows securities from a third party in order to make delivery to the purchaser. The seller returns the borrowed securities to the lender by purchasing the securities in the open market. If the seller can buy that stock back at a lower price, a profit results. If the price rises, however, a loss results. A short seller must generally pledge other securities or cash with the lender in an amount equal to the market price of the borrowed securities. This deposit may be increased or decreased in response to changes in the market price of the borrowed securities.

ENDNOTES

1 Remarks of George E. Crapple, Vice-Chairman and Co-Chief Executive Officer, Millburn Ridgefield Corporation, Commodity Futures Trading Commission Eighth Annual Training Seminar on Regulation of Derivative Products, (October 23, 1998) at 5 (hereinafter "Crapple.").

2 Glenn Yago, Lalita Ramesh, Noah E. Hochman, "Hedge Funds and Systemic Risk Demystified" (Milken Institute, December 1998) at 19 (hereinafter, "Yago").

3 Warburg Dillon Read, "The Reality of Hedge Funds" (October 30, 1998) at 24-25 (hereinafter "Warburg").

4 Statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System Before the House Comm. on Banking and Financial Services, 105th Cong., 2nd Sess. (page 2) (1998) (hereinafter "Greenspan testimony") (page citations are to typewritten prepared text).

5 Id.

6 Statement of Treasury Deputy Assistant Secretary (Government Financial Policy) Lee Sachs Before the Subcomm. on Capital Markets, Securities and Government-Sponsored Enterprises of the House Comm. on Banking and Financial Services, 106th Cong., 1st Sess. (page 1) (1999) (hereinafter, "Sachs testimony") (page citations are to electronic version at www.house.gov/banking/3399sach).

7 Id.

8 Id.

9 Id. at 1; Yago at 1; Warburg at 20.

10 Id.

11 Warburg at 8.

12 Appendix I provides the classifications used by one data vendor, Hedge Fund Research Inc. (1997). See also IMF at 42-54.

13 Barry Eichengreen, and Donalds Mathieson, "Hedge Funds and Financial Market Dynamics," International Monetary Fund Occasional Paper, (May 1998) at 4-5 (hereinafter "IMF").

14 IMF at 21. This assessment takes into account leverage.

15 IMF at 4-5.

16 Desmond MacRae, "Bank trading desks vs hedge funds," MAR/Hedge, Jan. 1999.

17 IMF at 5.

18 SEC filings are required of managers exercising investment discretion over accounts owning $100,000,000 in equity securities and, separately, when five percent or more of a class of security issued by a publicly traded company is acquired.

19 Warburg at 6.

20 Id. at 24.

21 Testimony of Leon M. Metzger, President, Paloma Partners Company, L.L.C. Before the Subcomm. on Capital Markets, Securities and Government-Sponsored Enterprises of the House Comm. on Banking and Financial Services, 106th Cong., 1st Sess. (page 1) (1999) (page citations are to electronic version at www.house.gov/banking/3399metz).

22 Sachs testimony.

23 Statement of John P. LaWare, Member, Board of Governors of the Federal Reserve System Before the House Comm. on Banking, Finance and Urban Affairs, 103rd Cong., 2nd Sess. 100 (1994).

24 Greenspan testimony at 9.

25 Basle Committee on Banking Supervision, "Banks' Interactions with Highly Leveraged Institutions" (January 1999) at 15 (hereinafter "BIS").

26 Statement by Patrick M. Parkinson, Associate Director, Division of Research and Statistics, Board of Governors of the Federal Reserve System Before the Senate Comm. on Agriculture, Nutrition and Forestry, 105th Cong., 2nd Sess. (page 3) (1998) (hereinafter "Parkinson testimony") (page citations are to typewritten prepared text).

27 Id.

28 Greenspan testimony at 8.

29 SR-99-3, "Supervisory Guidance Regarding Counterparty Credit Risk Management," Board of Governors of the Federal Reserve System, (February 1, 1999) (hereinafter "FRB"); "Supplemental Examination Guidance: Risk Management of Financial Derivatives and Bank Trading Activities," Office of the Comptroller of the Currency (January 25, 1999) (hereinafter "OCC").

30 BIS, "Sound Practices for Banks' Interactions with Highly Leveraged Institutions" (January 1999) at 6.

31 OCC at 3.

32 BIS at 20.

33 Id. at 21.

34 BIS at 21.

35 Id. at 19.

36 FRB at 10.

37 Parkinson testimony at 3.

38 Crapple at 5.

39 Crapple at 10.

40 BIS, "Sound Practices for Banks' Interactions with Highly Leveraged Institutions" at 6.

41 At recent congressional hearings, for example, Representative Richard Baker, Chairman of the Subcommittee on Capital Markets, Securities and Government-Sponsored Enterprises of the House Committee on Banking and Financial Services, expressed skepticism that either better risk management by banks or disclosure of data by hedge funds to regulators would have prevented the LTCM debacle. Given the rapidity of portfolio changes, "[t]he only thing we could know is how big is the train wreck. But we couldn't have avoided the wreck." Chairman Baker also expressed doubt that lenders could comprehend a hedge fund's complex strategies absent an extensive, onsite and impractical presence at the fund itself. Jaret Seiberg, "Regulators Say No Rules Needed As Hedge Fund Lenders Cut Back," American Banker, March 4, 1999 at 1.

42 IMF at 18.

43 See, e.g., Robert Clow, Hal Lux, "Mosler's moral: Just small enough to fail," Institutional Investor, November 3, 1998 at 7.

44 Testimony of Susan M. Phillips, Dean, School of Business and Public Management, The George Washington University Before the Senate Comm. on Agriculture, Nutrition and Forestry, 105th Cong., 2nd Sess. (page 7) (1998) (hereinafter "Phillips testimony") (page citations are to typewritten prepared text).

45 Greenspan testimony at 10.

46 Testimony by E. Gerald Corrigan, Co-Chairman, and Stephen G. Thieke, Co-Chairman, on behalf of Counterparty Risk Management Policy Group Before the Subcomm. on Capital Markets, Securities and Government-Sponsored Enterprises of the House Comm. on Banking and Financial Services, 106th Cong., 1st Sess. (page 2) (1999) (page citations are to electronic version at www.house.gov/banking/3399coth).

47 Id.

48 Phillips testimony at 6-7.

49 Id.

50 Thus, "[a]bsence of individual firm responsibility (i.e., capital) can lead to 'betting the bank' with little financial consequence." Phillips testimony at 7.

51 BIS at 29.

52 BIS at 29.

53 Greenspan testimony at 9-10.

54 IMF at 23.

55 Phillips testimony at 8.

56 Sachs testimony at 3.