STATEMENT BY LEON M. METZGER[1]

BEFORE THE

COMMITTEE ON FINANCIAL SERVICES

UNITED STATES HOUSE OF REPRESENTATIVES

JANUARY 5, 2009

Mr. Chairman, Mr. Ranking Member, and Distinguished Members:

Thank you for inviting me to speak. I commend you for conducting a meeting on regulatory reform of the financial services industry, and hope that my remarks will contribute to that reform. In these remarks, I wish to stress two things: first, the need for top-notch internal controls, and second, that operational risk is the great unspoken-about danger. In this statement, I offer ten recommendations, none of which is mutually exclusive, for you to consider.

With the Chairman's permission, I would like to submit my written statement for the record and summarize my principal observations in oral remarks.

Introduction

A trader, who ran both the front and back offices of a financial services entity, was thought to be exploiting price differences in the same security on different exchanges. Although the investors did not really understand the trades, they were pleased with the reported risk-adjusted results. In truth, they should have been concerned that the trader was either taking unreasonable risks or committing fraud.

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[1] By way of background, for the last three years, I have taught hedge-fund management courses at Columbia University School of Engineering, Cornell University Financial Engineering, New York University Stern School of Business, and Yale University School of Management. In these courses I have focused on operational controls rather than on moneymaking skills. An expert witness, arbitrator, and consultant on financial-services matters, I was associated with a hedge fund management company for 18 years, most recently as its vice chairman and chief administrative officer. My opinions do not necessarily represent those of any institution with which I have been or currently am affiliated. Nothing herein shall be construed as investment advice.

Although someone examining the trader's high risk-adjusted profits identified a potential conflict of interest and lack of segregation of duties, many were comforted because the trader's institution was audited and regulated, and had a longstanding status as a large and reputable entity. Ultimately, however, the trader's activity led to a full writedown of the portfolios he traded. While fingers were pointed at just the trader, anyone who studied the lack of segregation of duties should have been worried about this risk.

Does this story sound familiar? Indeed, it should, because allegedly it took place about 15 years ago, when a trader's purported activities led to the collapse of a 233-year-old merchant bank.[2]

Nearly one year ago, allegedly, a rogue trader at a financial services entity accumulated, because of a dramatic failure of internal controls, a position of about $73 billion, which, when unwound upon its discovery, led to a $7.2 billion loss.[3]

The common lessons we can learn from these stories is that there should be a separation between the front and back offices, management must understand fully the trades for which it directly or indirectly receives compensation, segregation of duties is critical, and everyone should be subject to oversight.

Regulatory Structure

Conceptually, we need two types of regulators: one to maintain market and financial-system stability, and one to maintain market integrity and protect market participants and investors from fraud.

Currently, the Federal Reserve (the "Fed") is the regulator best equipped to evaluate the systemic risk to our financial system and maintain market stability. Every financial firm, whether regulated by a federal agency or a state government—or not at all—including any hedge fund whose gross asset value exceeds $1 billion, should provide periodic and timely full transparency of all its financial assets, liabilities, notional value of derivative financial instruments, and borrowings to the Fed. The central bank should not disclose that

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[2] http://www.erisk.com/Learning/CaseStudies/Barings.asp, accessed December 30, 2008.

[3] http://www.socgen.com/sg/upload/comm24012008/en/fraudnote.pdf, accessed January 1, 2009.

information unless it is to another regulator that agrees to be bound by the same restriction of confidentiality. To minimize systemic risk, systems need to be developed to allow real-time processing of the data submitted by the financial firms.

The economic lines separating securities, commodities, and derivative financial instruments continue to blur. The U.S. Securities and Exchange Commission (the "SEC") and U.S. Commodity Futures Trading Commission should merge into one agency, creating a regulator that focuses its efforts on maintaining market integrity and protecting market participants and investors from fraud.

Given the recent growth of hedge fund capital during the last ten years, it is possible that the SEC has not been given enough financial resources to hire the staff needed to keep pace with the industry.

Recommendation I

There should be separate market-stability and market-integrity regulators.

Recommendation II

Financial institutions, as defined above, should provide full, complete, and timely disclosure of positional information to a market-stability regulator.

Internal Control

Three ingredients are essential to the success of hedge funds: trading strategies; capital; and infrastructure and internal controls. While the first two seem obvious, the third is equally important.

A 2003 study of 100 hedge fund failures over a 20-year period concluded that 50 percent of hedge funds had failed because of operational risk, while 38 percent folded because of investment risk alone. Of the operational failures studied, 85 percent of them came from misrepresentation (reports and valuations with false or misleading information), misappropriation of funds (fraud), and unauthorized trading.[4]

Similarly, a 2007 study of 109 hedge fund failures over a twelve-year period concluded that 54 percent of hedge funds had failed because of fraud, 13 percent because of other operational issues, and only 33 percent because of the investment strategy.[5]

When I was interviewed in August 2004 about teaching a hedge funds course at the Yale School of Management, I said that I wanted to emphasize good operational controls, which investors tend to overlook, and are essential to the success of an investment. I was offered the job, and the importance of those controls is what I stress whenever and wherever I teach.

If investors could be given the tools for evaluating non-financial aspects of investments and would be convinced to use those tools, I am certain that vastly fewer of them would fall prey to investment fraud.

Institutional investors worry about operational business enterprise risk,[6] but cannot diversify such risk unless they invest in a large number of funds.[7]

According to one prominent industry professional, institutional-quality hedge-fund management must include checks and balances with independence and separation of duties in risk management, risk

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[4] Kundro and Feffer, Capco, http://www.edge-fund.com/Capco03.pdf, accessed December 31, 2008.

[5] Christory, Daul and Giraud, Edhec, http://www.edhec-risk.com/features/RISKArticle.2007-01-24.1044/attachments/EDHEC%20Position%20Paper%20Quantification%20HF%20Default%20Risk.pdf, accessed December 31, 2008.

[6] In a poll conducted at an Institutional Investor Conference in February 2007, 40 percent of those surveyed said their biggest concern was operational business enterprise risks; 30 percent declared investment risks like concentrated portfolios; and 30 percent asserted lack of sufficient transparency or transparency standards. Survey results, as recorded in my notes from that conference.

[7] In another study, by Christory, Daul and Giraud, they concluded that hedge fund operational risk cannot be diversified without including more than 40 funds, resulting in possible financial over-diversification. Therefore, due diligence is required before investing. 40 funds means less time to investigate each individual one and inclusion of funds with lower standards of operations, which increases likelihood of default of individual funds. See http://www.commodities-now.com/content/market-news/archive-2007/market-news-2007011763134.php, accessed January 1, 2009.

oversight, capital allocation across strategies, valuation, cash, collateral, settlements, custody, and compliance.[8]

If I were conducting a due diligence examination of a proposed investment, some of the items I might study, to understand better its operational controls, include:[9]

- the experience, expertise and professional standing of the trading adviser or fund manager;
- the adequacy of the systems, controls, governance, accounting, administration, business continuity, safekeeping, risk management, and trading and execution arrangements;
- the investment strategy and trading philosophy;
- the methodology used to calculate the fund value;
- the degree of leverage embedded in notional principal contracts;
- the level of liquidity offered and whether it is sufficient for the feeder fund to be able to meet its obligation to redeem its investors on request;
- whether there is a risk that a feeder fund may not be able to withdraw from the underlying funds in which it has invested when the investor in the feeder fund wants to withdraw capital;
- after an investor has notified that it wants to redeem its investment, what is the maximum number of days it can take to receive the redemption proceeds, including all possible restrictions;
- whether there is an independent annual audit conducted in accordance with GAAP, and if so, what are the qualifications of such auditor and has such auditor been peer reviewed;
- does the adviser trade for more than one account, i.e., "split tickets," and is there a written allocation policy;
- does the adviser use "soft dollars";[10]
- what is the alignment of interests between manager and investors;
- what is the personal securities trading policy;
- what is the use of side pockets;[11] and

[8] Presentation to students, by Tanya Beder, Chairman SBCC Group, at Columbia University, Spring 2006.
[9] Many of these items come from draft due diligence guidance issued in March 2007 by the U.K.'s Financial Services Authority for funds of alternative investment funds open to retail investors. See http://www.fsa.gov.uk/pubs/cp/cp07_06.pdf, accessed January 1, 2009.
[10] The term, "soft dollars," is explained later in this Statement.

- what is the use of side letters[12]

In addition, the Alternative Investment Management Association has published a number of standardized due diligence questionnaires ("DDQ") for hedge fund and fund of funds managers and commodity trading advisers, the use of which I endorse.

Those who do not feel experienced enough to perform due diligence or analyze the DDQ responses should hire third-party resources for these important tasks.

Recommendation III

The SEC, working with a team of investors and investment managers, should organize a task force to develop a model DDQ.

Risk is Commensurate with Reward

Unfortunately, for many investors, due diligence begins and ends with reviewing the prospective manager's performance record. There is a tendency for investors to "chase returns" and to assume that past performance guarantees future results.

It is a maxim in investing that risk is commensurate with reward. The payoff from many hedge-fund strategies resembles that of insurance—a high probability of a small profit and a low probability of a large loss. Because it is hard to collect the typical 2-percent-of-the-capital-under-management-and-20-percent-of-the-net-profits compensation arrangement on single-digit percentage performance, investment advisers use financial leverage[13] to amplify the returns.[14] Therefore, a

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[11] A "side pocket," is the term used to describe the status of an investment from which, because it is either hard to value or illiquid, an investor cannot withdraw her *pro rata* share until the investment becomes easy to value or is sold.

[12] Certain fund managers may grant "side letters" to certain investors, which confer upon them special privileges such as reduced fees, capacity guarantees, better redemption rights, e.g., shorter notice periods, gate waivers, and greater portfolio transparency. The types of investors who receive those letters are early-stage, prestigious, and large ones, as well as those that attract others.

[13] Employing financial leverage includes both borrowing to amplify the results of the investment and embedded exposure to an asset whose value is greater than the up-front payment. Derivative financial instruments with such embedded exposure

manager with an impressive performance record may have achieved that record because of his or her tolerance for risk-taking—not because he or she is a better or smarter investment adviser than someone whose performance record is lower.

Although volatility of investment returns measured by the standard deviation is the metric the financial industry commonly uses to quantify risk, typical hedge fund payoffs do not follow a bell-shaped symmetrical distribution of returns. In fact, the frequency curve of the aforementioned payoff follows that of a right-skewed distribution.

Investors are lulled into a false sense of security as they receive reports of consistent results. Because of the low volatility, they believe that on a risk-adjusted basis, they have appropriate investments. And, then they brag to their friends about how they have discovered an "absolute return" manager, who makes money in all markets, whether they are rising, declining, or moving sideways. Their friends, who envy that performance and whose own due diligence is limited to staring at the manager's track record, pursue the same or similar low-volatility opportunities. But, then comes the unexpected low-probability-large-loss event, the high risk-adjusted-return fund is no more, and the clarion calls for regulation of hedge funds become deafening.

Here is how one media outlet described the performance of two "feeder funds":[15]

> "Investor documents seen by Financial News showed that the $2.8bn [fund] displayed **average annual returns of 11.6%** since beginning in 1995, on annualised **volatility of 2.6%**. Its largest fall in value was 0.6% in the three months from December 2002… [Another fund] has aggregate exposure to the New York trader of about $7.3bn (€5.1bn). A document seen by Financial News from an investor in hedge funds showed [the fund] documented an **average annual return of 11.3%** since its inception in 1990, on **volatility of just 2.5%** [emphasis added]."[16]

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include options, futures, forwards, and swaps. Because the term, "leverage," has a variety of meanings, anyone can choose his or her own way to calculate it.

[14] Many low-volatility strategies would find it very difficult to attract investors if they did not used leverage to boost returns.

[15] For purposes of this statement, the term, "feeder fund," refers to collective pools of capital from investors for which an independent trader is an investment adviser to the fund, in contrast to the adviser trading for each investor separately.

[16] http://blogs.wsj.com/deals/2008/12/31/funds-of-funds-restructure-to-cope-with-madoff-exposure/, accessed December 31, 2008.

Reportedly, these funds were invested in an alleged Ponzi scheme.[17]

Recommendation IV

One of the benefits of your conducting this meeting is that you can use your influence to teach American investors that risk is commensurate with reward, and that investors should be skeptical of low-volatility returns. I recommend that you instruct the SEC to develop regulations that will require all investment advisers, registered or not, to remind their clients conspicuously that volatility of returns or the absence thereof is not necessarily the sole or even appropriate measure of risk for the investment it is offering.

Independent Valuations

I would be remiss if I did not mention that, when it comes to internal control, I do not see any fundamental distinctions between hedge funds and the proprietary trading desks of investment banks, commercial banks, brokerages, dealers, insurance companies, and other financial services firms.

Valuations rank among the top internal-control concerns of institutional investors.

The U.K.'s Financial Services Authority considers the following good practices for valuations, which I endorse:[18]

- Separation of duties between portfolio manager and back office (If the firm is too small, an independent third party shall provide periodic oversight)
- Reconciliations of positions between back office and prime broker[19]

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[17] http://sec.gov/litigation/complaints/2008/comp-madoff121108.pdf, accessed January 3, 2009 and http://online.wsj.com/documents/madoffcomplaint.pdf, accessed, January 3, 2009.
[18] http://www.fsa.gov.uk/pubs/international/iosco_letter_271106.pdf, accessed December 31, 2008.
[19] A prime broker provides certain services to hedge funds such as clearing and settlement of security transactions, financing of trades, and custody of securities.

- Separate stand-alone pricing-policy document approved by senior management
- Procedures for day-to-day operation of pricing process

A few years ago, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 157, Fair Value Measurements ("FAS 157"). Some, including members of Congress, have asserted that FAS 157 has contributed to the decline of US stocks and to the recent financial turmoil. I reject that assertion. FAS 157 makes financial statements more consistent and comparable.

On the other hand, it is not clear to me that the authors of FAS 157 envisioned circumstances when markets lock up as they did this fall. Nevertheless, the authors disallowed the use of a blockage discount when computing the value of large blocks of securities. I have been told that because managers of certain hedge funds truly believe that if they sold the large blocks on their books they would receive a discounted price, for purposes of redemptions, they pay out the withdrawing investor at the lower value. This is true notwithstanding the fact that they ignore blockage discounts for financial reporting purposes. I find this aspect of FAS 157 disconnected from reality.

Last week, the SEC submitted a report to Congress on FAS 157.[20] Although, as of the time of this writing, I have read only a small portion of the report, its eight recommendations appear to be very constructive and merit strong consideration.

Recommendation V

Members of Congress should mute their criticism of FAS 157 but encourage the SEC to endorse the prudent use of blockage discounts.

Diversification

Diversification, which reduces the risks of excessive concentration, is a necessary part of risk management. A 2007 London Business School report says that the cost of downside protection erodes returns by more than the risk reduced. "Long-term investors should control risk

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[20] http://sec.gov/news/studies/2008/marktomarket123008.pdf, accessed January 1, 2009.

by investing in a portfolio that is diversified across securities, assets and markets."[21]

While the government could not require financial diversification for individuals, it ought to review whether guidance to pension plan trustees is appropriate.

For example, assume that a pension plan invests in one fund, which, in turn, invests in 40 underlying hedge funds, each employing a different strategy. Is that diversification? With regard to strategies, yes. But, what if the top-tier fund manager is an unscrupulous individual, who distributes doctored audited financial statements to his investors because he has snatched the capital to be invested and with it bought personal luxury items instead? In such an instance, the lack of operational diversification will punish the investor.

What about the investor in a multi-strategy fund that only uses one prime broker, which files under Chapter XI of the Bankruptcy Code? Again, there is strategy diversification but not operational diversification.

Is an investment in a mutual fund that tries to replicate the S&P 500 diversified? On the one hand, it may have 500 holdings. On the other hand, however, it is exposed to large-cap stocks but without any exposure to mid- and small-cap securities. It has no direct exposure to fixed income, real estate, or to international stocks. The investor has not diversified its operational risk exposure. Of course, at some point it becomes impractical to create a portfolio that addresses all investment and operational risks and, therefore, investors make tradeoffs.

Recommendation VI

Require all financial intermediaries, including pension plans, to disclose how they diversify their financial **and** operational risks.

Transparency

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21 http://www.london.edu/assets/documents/PDF/Global_Investment_Returns_Yearbook_2007_(Synopsis).pdf, accessed December 31, 2008.

I recently read the following information about an investment:

> "The split-strike conversion strategy was allegedly implemented 6-8 times per year and the investment cycle can range from 2-8 weeks. Between investment cycles, the funds' assets are invested in US Treasuries."[22]

In such an investment, full positional transparency is inadequate because it does not tell the investor how money is being made or lost—it only describes how the capital is parked when the strategy is hibernating.

Increased transparency allows for better due diligence and monitoring. It can help the investor identify excessive concentrations in his portfolio when he aggregates his investments, and any style drift by the investment adviser. On the other hand, the purpose of transparency is not for the investor to ask the manager, "Why did you buy 100 shares of XYZ?," because if an investor thinks she knows more than the adviser does, she should find another manager with which to invest.

On Opening Day of the semester, I ask the students, "Imagine that the only information you have about a fund I am offering to you is its 20-year track record and that the investment has been audited by a Big Four accounting firm since its inception. How many of you would invest in it if, over the last twenty years, its annualized return, net of fees, is 40 percent?" With this example, I aim is to illustrate that investment risk is commensurate with reward—investment fraud is not even a consideration. Typically, almost everyone in the class raises his or her hand. My objective as a teacher is to chip away at that outcome so that when I repeat that question at the last class, there is no hand in the air. For example, on December 12, one of my students at Yale, referring to the news of an alleged Ponzi scheme, emailed to me, "I am definitely a convert. Day one I would have invested but now I know better."

The term, "alpha," refers to the talent of the manager to deliver returns that exceed market risk. One of the arguments made by investment advisers who oppose transparency is that it could allow competitors to reverse engineer proprietary trading algorithms. I do not have much sympathy for those who assert this concern. Too many

[22] http://dealbreaker.com/images/thumbs/UBP%20Madoff%2017-12-2008.pdf, accessed December 31, 2008.

managers generate "fake alpha," by delivering early above-average returns when the expected return is much lower.[23] A cynic might say the purpose of the claim simply is to mask the fake alpha.[24] In the recent alleged Ponzi scheme, investors who asked for details about the split-strike conversion strategy, reportedly were told that the methods were proprietary.[25]

Arguably, David Swensen is one of the greatest investors of our time. Once upon a time, when he considered investing in a fund, its manager would not meet his demand for transparency. Mr. Swensen told the *New York Times*, "If you are sitting in my position, how can you responsibly give money to a fund that won't tell you what they are invested in? If I went to my investment committee and told them we are invested in this fund but we don't know what the positions are, they should fire me."[26]

Recommendation VII

My solution to the transparency dilemma is:

- Full transparency regarding valuation policies, practices, and procedures;
- Partial transparency of performance attributes, portfolio exposures and risk metrics; and
- Limited disclosure of positions

Independent Third-Party Administrators and Custodians

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[23] http://knowledge.wharton.upenn.edu/papers/1352.pdf, accessed December 31, 2008.

[24] Assume that XYZ stock is trading at $100 per share today, and that one-year call options on XYZ, which are exercisable at $200, are valued at $1. If the fund manager's strategy is to sell "short" such uncovered calls every year, in most years, her clients should earn consistent low-volatile returns. When that stock unexpectedly doubles in value, however, the losses on the call will more than erase the previous years' gains. Imagine if the adviser doesn't tell her client what is the fund's strategy. The investor will believe that he has discovered an alpha-generating manager, while if he really understood the strategy, he might not ever invest in that fund.

[25] New Dog, Old Tricks, *Forbes*, by William P. Barrett, January 12, 2009, page 35.

[26] http://www.nytimes.com/2007/02/18/business/yourmoney/18swensen.html?_r=1&oref=slogin&pagewanted=all, accessed January 4, 2009.

A large investor in hedge funds recently announced that it intends to withdraw from any fund that does not use an independent third-party administrator and custodian.[27] An administrator offers services such as fund accounting, communicating with investors, and calculating the fund's net asset value. The custodian, often the prime broker of the hedge fund, is charged with the safekeeping or holding of the fund's securities.

I cannot support mandatory use of independent administrators until they agree to be legally accountable for the valuation process. Short of that, there will always be a shadow of a doubt that the processes used to determine the values were not sufficiently robust. Even if valuations are done in-house, a fund can still use independent sources, including third-party models, to value its portfolio.

While it sounds great to add an extra set of eyes, once again, investors may be lulled into relying upon a Good-Housekeeping-Seal-of-Approval-type of endorsement rather than practicing good due diligence. For example, in 1998, many thought that Value at Risk ("VaR"), a risk metric employed by investment and commercial banks, was the panacea to the risk-management issue. Fast forward ten years to the amount of money investment and commercial banks lost in 2008.

In 2004, the majority of the SEC Commissioners thought that mandatory hedge-fund manager registration would be a solution to systemic risk and fraud. Yet the firm recently in the news because of an alleged Ponzi scheme was an investment adviser registered with the SEC. Someone provided detailed questions to and raised significant concerns with the SEC in 2006, but the adviser was allowed to continue its business.[28]

Would have an independent administrator prevented the alleged Ponzi scheme recently discovered?

I support the use of an independent custodian. In my experience, best practices calls for the trader, whether an employee at a hedge fund or an investment adviser directing a managed account, to have authority only to initiate securities trades. She should not be authorized to open

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[27] http://www.ft.com/cms/s/0/3e0a619c-d131-11dd-8cc3-000077b07658.html, accessed December 31, 2008.
[28] http://online.wsj.com/documents/Madoff_SECdocs_20081217.pdf, accessed Dec 18, 2008.

brokerage accounts, execute or settle trades, or access cash, whether by withdrawal or by electronic transfer. The securities should be held with an independent custodian.

Recommendation VIII

I support legislation that would mandate an independent third-party custodian be used by all investment advisers, whether or not they are registered with the SEC or any state regulator. I oppose the mandatory use of an independent third-party administrator until such time as the administrators accept legal responsibility for valuations.

Sophisticated Investors

The SEC has promulgated minimum net-worth and annual income suitability standards that are designed to protect unsophisticated investors. Wealth serves as a proxy to measure sophistication because no one has developed a better test. Yet many of the victims of the alleged Ponzi scheme reportedly had losses that exceeded those amounts by more than one hundredfold. Unfortunately, I do not currently have a recommendation for dealing with the issue of investor sophistication.

Regulation of Hedge Funds

On March 3, 1999, I appeared before the Subcommittee on Capital Markets, Securities and Government-Sponsored Enterprises of the House Committee on Banking and Financial Services and made three recommendations in response to proposals that some had suggested in the aftermath of the collapse of a large hedge fund:

- first, that government not undertake any additional regulation of hedge funds;
- second, that no arbitrary limits be placed on leverage; and
- third, that, although market self-discipline is the best regulator, government should continue its practice of providing guidance to business.

I believed then, and continue to believe, that operational risk is the great unspoken-about danger. Nearly ten years later, I have revisited my testimony, and want to inform you that my thinking has evolved, as has the industry. Hedge Fund Research estimated the size of the industry in 1998 at $387 billion.[29] At its peak earlier this year, many estimated the size at $1.9 trillion,[30] quintuple the size at the time I testified in 1999. By comparison, the size of the US economy measured by nominal GDP has grown from $9 to $14.4 trillion, or by 60 percent.[31] The Investment Company Institute estimated the size of the mutual-fund industry at $5.530 trillion in 1998[32] and at $9.355 trillion in 2008,[33] a growth of 69 percent. To put that in perspective, the ratio of mutual fund assets to hedge fund assets has declined from about 14:1 to 5:1 in the last ten years. In 2008, shareholder wealth declined by about $7 trillion.[34] Clearly, the hedge fund industry is a much bigger player in the financial arena and therefore has a higher likelihood of contributing to systemic risk.

It is time to reorganize the regulatory structure of the financial services industry. Now is the moment to regulate substance rather than form. For example, hedge funds that extend loans to companies in distress are performing traditional banking functions, banks that issue credit default swaps are standing in for insurers, and insurers with large proprietary trading desks may economically—albeit not legally—be functioning as market makers.

2008 was the year of de-leveraging. The US government is desperately encouraging credit providers to lend. Businesses, small and large, are finding it difficult to tap credit markets, which has led to job layoffs and decline in GDP growth. While one occasionally hears of the over-leveraged hedge fund that is forced to close because gearing amplified its losses, these happenings remain relatively rare. It is ironic that the credit providers, who after 1998 improved their lending practices to hedge funds, fell down on the job with regard to other

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[29] http://www.cboe.com/Institutional/pdf/hedgefundwhitepaper_11-2001.pdf, accessed January 2, 2009.
[30] http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aCwo3Dc8DVM0, accessed January 2, 2009.
[31] http://www.data360.org/dsg.aspx?Data_Set_Group_Id=230, accessed December 31, 2008.
[32] http://www.ici.org/stats/mf/arctrends/trends_12_98.html#TopOfPage, accessed December 31, 2008.
[33] http://www.ici.org/stats/mf/trends_11_08.html#TopOfPage, accessed December 31, 2008.
[34] http://www.nytimes.com/2009/01/01/business/economy/01markets.html?ref=business, accessed January 1, 2009.

types of lenders. For example, the collapse in 2006 of a prominent hedge fund did not require the Fed-type intervention that another well-known fund needed in 1998 because the former fund was less leveraged, and counterparties were better prepared resulting from the superior transparency that they had demanded.

Based upon the information available to me, with regard to arbitrary limits placed on leverage on hedge funds, I have not changed my mind. If regulators limited the leverage that credit providers, i.e., banks, themselves could employ, market discipline would ration the leverage available to hedge funds. U.S. Treasury Secretary Henry M. Paulson stated on February 10, 2007, "Market discipline, focusing on the risk management of regulated counterparties, is the most effective way to address potential systemic risk concerns."[35] With regard to the use of leverage by hedge funds, I agree with that statement.

Risk Management

Risk has been defined as "the possibility of loss to capital, revenue, resources or reputation resulting from either the loss of business, the poor execution of business strategy, changes in creditworthiness of clients or counterparties, variability or volatility in financial markets, or mistakes or inefficiencies in the regular conduct of business."[36]

Eliminating risk taking is impractical because without risk there cannot be any reward. As UBS puts it: "Taking, managing and controlling risk is core to [its] business. The aim is not, therefore, to eliminate all risks but to achieve an appropriate balance between risk and return."[37]

Risk management must address low probability events. In-house investment risk-management tools and analysis could include calculation of exposures, scenarios, stress tests, VaR, and other risk measures. In a hedge fund, the risk manager may be a consultant and a traffic cop, providing perspective on risk and performance to the trading adviser as well as enforcing limits. Risk management helps in capital allocation and performance measurement. Besides investment

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[35] http://www.ustreas.gov/press/releases/hp255.htm, accessed January 1, 2009.
[36] Private communication from Douglas E. Harris, Managing Director, Promontory Financial Group, L.L.C.
[37] http://www.ubs.com/1/ShowMedia/investors/annualreporting?contentId=137532&name=AR07_RTCM_EN.pdf, accessed January 1, 2009.

risk, the risk manager may be responsible for setting and monitoring operational and counterparty risks.

Investors should be given enough information so that they can assess the risk to their portfolio.

Peer Review of CPA Firms

Not all CPA firms undergo a peer review of their accounting and auditing practices.[38] Potentially, a client may hire an accounting firm that lacks the appropriate industry experience.

Recommendation IX

The SEC should require accounting firms that audit broker-dealers go through peer review by firms that have experience auditing similar financial services entities, and that the peer reviewer look at a sample of broker-dealer assignments of the firm.

Soft dollars

Soft dollar practices are arrangements under which products or services other than execution of securities transactions ("soft dollar services") are obtained by an adviser from or through a broker in exchange for the direction by the adviser of client brokerage transactions to the broker.[39] By bundling soft dollar services such as research (whose definition may be aggressively interpreted at times by advisers) with costs of execution, soft dollar services could have the effect of hiding fees to investors.

Recommendation X

Congress should commission the Government Accountability Office to study whether investors benefit from the soft dollar arrangements that Congress allowed in 1975.

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[38] http://www.aicpa.org/audcommctr/toolkitsnpo/Peer_Review_of_CPA_Firms.htm, accessed January 4, 2009.
[39] http://sec.gov/rules/proposed/soft.txt, accessed January 1, 2009.

Conclusion

While we may not be able to undo the damage of the past, you, I, the media covering this meeting, and anyone who joins our efforts should resolve:

- one, to contribute to the development of legislation and regulations that will protect investors from Ponzi schemes and other fraud;
- two, to inform and educate investors regarding the dangers of making investment decisions solely on the basis of past performance, ignoring the importance of understanding the investment strategy, disregarding best internal-control practices, and piggybacking the "smart money"; and
- three, to inform and educate investors regarding the benefits deriving from diversifying both investment and operational risks, and conducting proper due diligence.

Consider the extent of our contribution if, as a result of this meeting, whether through your action or the witnesses' statements, investors will walk away from the next multi-billion-dollar fraud, avoiding the embarrassment and financial pain that inevitably follows.

Regulatory reform of the financial services industry should be a high priority. Thank you again for your leadership in these important matters and for inviting me to testify. I stand ready to assist you, and welcome any questions you may have.