HEDGE FUND VALUATION: RETAILIZATION, REGULATION, AND INVESTOR SUITABILITY

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I. Introduction

Valuation issues could become the next "black eye" for the hedge fund industry.[2] The credit crunch and the global financial crisis have underscored that the valuation of complex financial products and hard-to-value assets is one of the most pressing issues affecting confidence in the financial industry today.[3] Pricing and valuation errors do happen despite efforts to ensure fair pricing at all times.[4] As discussed below, hedge funds cannot always ensure accurate valuation.[5] This potential for inaccuracy can result in

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[2] Stuart Feffer & Christopher Kundro, Valuation Issues and Operational Risks in Hedge Funds, 10 CAPCO INST. J. FIN. TRANSFORMATION: FOCUS ON ALTERNATIVE INV. 41, 41 (2003); *see also The Hedge Fund Industry: Hearing Before the Subcomm. on Securities and Investment of the S. Comm. on Banking, Housing and Urban Affairs*, 109th Cong. (2006) (testimony of James Chanos, Chairman, Coalition of Private Investment Companies).

[3] *See generally* HEDGE FUND WORKING GROUP, HEDGE FUND STANDARDS: FINAL REPORT (2008), http://www.pellin.co.uk/HFWG/HFWG-FINAL-REPORT.pdf [hereinafter HFWG] (noting that the issue does not only affect hedge funds but the financial industry at large and is just as pressing for investment banks, proprietary trading desks, commercial banks and money market funds).

[4] *See generally* TECH. COMM. OF THE INT'L. ORG. OF SEC. COMM'NS, REGULATORY APPROACHES TO THE VALUATION AND PRICING OF COLLECTIVE INV SCHEMES (1999), http://www.iosco.org/library/pubdocs/pdf/IOSCOPD91.pdf [*hereinafter* REGULATORY APPROACHES] (describing reasons for errors in asset valuation).

[5] *See generally* TECH. COMM. OF THE INT'L. ORG. OF SEC. COMM'NS, PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS (2007), http://www.iosco.org/library/pubdocs/pdf/IOSCOPD240.pdf [*hereinafter* PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS] (outlining principals of hedge fund valuation and challenged that arise in valuing complex financial instruments).

catastrophic scenarios for managers and investors. In 2002, for example, Lipper & Co. liquidated three of its hedge funds after a $315 million write-down related to the incorrect valuation of illiquid securities.[6] Hedge fund valuation issues are alleged to have significantly contributed to the collapse of Beacon Hill Asset Management and others.[7]

The variety of hedge fund investments and strategies does not allow for a uniform approach to valuation because some types of investments, such as non-concentrated positions in liquid securities, are easier to value than other investments. To the extent that recent transaction prices as well as marketable bids and offers are not readily available and cannot be checked on major wires and feeds, broker quotes must be sought to determine what the position is worth.[8] In addition, broker quotes may be difficult to obtain and can be quite unreliable—mortgage-backed securities, for example, can sometimes vary by 20 to 30 percent—making accurate valuation of these securities difficult. The potential for inaccuracy is exacerbated by highly complex securities that can only be accurately valued by use of highly complex mathematical models.

International bodies have tried to address the issue, primarily focusing on the valuation of complex futures, options, structured credits and over-the-counter derivatives.[9] As a result of political pressures on hedge funds to ensure that valuation methodologies are consistently and reasonably applied, interest groups, international bodies, and regulators have made various proposals and issued guidelines.[10] However, these proposals and guidelines mostly address

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[6] Allison Bisbey Colter, *Several Kenneth Lipper Hedge Funds are Being Liquidated After Big Losses*, WALL ST. J., Mar. 29, 2002, at C11.

[7] Feffer & Kundro, *supra* note 2, at 42-43.

[8] *Id*. at 43.

[9] *See* PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5; TECH. COMM. OF THE INT'L. ORG. OF SEC. COMM'NS, THE REGULATORY ENV'T FOR HEDGE FUNDS A SURVEY AND COMPARISON (2006), http://www.iosco.org/library/pubdocs/pdf/IOSCOPD226.pdf [*hereinafter* THE REGULATORY ENV'T FOR HEDGE FUNDS].

[10] *See* CHARTERED FIN. ANALYST INST., CENTRE FOR FIN. MARKET INTEGRITY, ASSET MANAGER CODE OF PROFESSIONAL CONDUCT (2005), http://www.cfapubs.org/doi/pdf/10.2469/ccb.v2004.n4.4008; FIN. STABILITY FORUM, REPORT OF THE WORKING GROUP ON HIGHLY LEVERAGED INSTITUTIONS 66 (2000), http://www.fsforum.org/publications/r_0004a.pdf?noframes=1 [hereinafter FIN. STABILITY FORUM REPORT]; INT'L ASSN. OF FIN. ENGINEERS, INVESTOR RISK COMM., VALUATION CONCEPTS FOR

Electronic copy available at: http://ssrn.com/abstract=1428387

issues relating to complex financial instruments and do not take into account that a uniform approach to the issue of valuation presents many challenges. They also do not adequately distinguish between retail investors and qualified investors.[11] So far, no legislature has issued an exhaustive set of rules to address the factors that lead to inaccurate valuation.

This paper analyzes the factors that contribute to the valuation problem, followed by a summary of existing proposals and rules as they pertain to valuation of hedge funds to lead into a discussion of the phenomenon of "retailization" and how it is recognized and addressed by regulators in various jurisdictions. The paper then details some of the reasons for a different treatment of retail and qualified investors. The paper concludes with a description of theoretical regulatory options to address the differences as well as potential problems with such options and analyzes alternatives.

II. The Valuation Problem

Valuation may be defined as the process of determining the value of a hedge fund portfolio at a given time.[12] An inherent

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INVESTMENT COMPANIES AND FINANCIAL INSTITUTIONS AND THEIR STAKEHOLDERS (2004), http://www.iafe.org/upload/IAFEValuationConcepts.pdf [*hereinafter* VALUATION CONCEPTS FOR INVESTMENT COMPANIES]; INT'L SWAPS AND DERIVATIVES ASSN., INC., ISDA 1999 COLLATERAL REVIEW (1999), http://www.isda.org/press/ pdf/colrev99.pdf; PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5; REGULATORY APPROACHES, *supra* note 4.

[11] For purposes of this paper, the term "qualified investor" is not used in accordance with the technical definition of Securities Exchange Act of 1934, 15 U.S.C. § 78(c) (2000) or any other laws, but shall mean any investor who would be considered a qualified or accredited investor under any of the existing rules and regulations of U.S. law. "Retail investor," for purposes of this paper, shall mean any investor who would currently not be considered an accredited or qualified investor under any of the existing rules and regulations of U.S. law. *See, e.g.*, 15 U.S.C. § 77b(a)(15) (2000) (defining "accredited investor" for purposes of the Securities Act of 1933); 15 U.S.C. § 80a-3(c)(7) (2000) (defining "qualified purchaser" for purposes of the Investment Company Act of 1940); 17 C.F.R. § 230.144A (2008) (defining "qualified institutional buyer" for purposes of Rule 144A); 17 C.F.R. § 230.501(a) (2008) (defining "accredited investor" for purposes of Regulation D under the Securities Act of 1933).

[12] HFWG, *supra* note 3, at 21.

problem with valuation is the attempt to provide a single number to determine what an illiquid or derivative asset is worth, what it might be sold for and over what period. Peer pressure and intense competition among hedge funds to attract investors make accurate valuation of hedge funds a vital issue. With the lack of regulatory oversight in most jurisdictions, as well as the general lack of self-discipline and internal controls, valuation is very likely to become the next major issue for the hedge fund industry.[13]

Addressing the valuation problem appropriately and with the least regulatory costs and least impact on the industry will require identifying the reasons for under- and/or over-valuation of hedge funds. These include (i) convergence of hedge funds and private equity funds, (ii) the fee structure of hedge funds (iii) potential conflicts of interest of hedge fund managers who manage and value their portfolios, (iv) valuation of complex futures, options, structured credits and over-the-counter derivatives, and (v) transparency.

A. Convergence of Hedge Funds and Private Equity Funds

The need to stay competitive and attract institutional investors requires private equity funds and hedge funds to diversify and merge different aspects of alternate asset management.[14] Accordingly, over the last several years, private equity funds and hedge funds have been acquiring stakes in each other. Merging both asset classes allows private equity funds and hedge funds to offer a broader variety of funds to their investors and to combine the new asset classes with cost advantages of increasing scale.[15] Blackstone Group and other alternative asset managers manage a multitude of entities such as private equity funds, hedge funds, as well as funds of hedge funds and various closed end mutual funds and debt-based funds.[16]

A private equity firm's performance tends to improve with age.[17] Accordingly, hedge funds employing investment strategies

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[13] Feffer & Kundro, *supra* note 2.
[14] IBISWORLD, U.S. INDUS. REPORT: PRIVATE EQUITY, HEDGE FUNDS & INV. VEHICLES 39 (May 30, 2008), [hereinafter IBISWORLD U.S. INDUSTRY REPORT].
[15] *Id.*
[16] *Id.*
[17] *See* Steven N. Kaplan & Antoinette Schoar, *Private Equity Performance:*

akin to private equity firms may statistically be most at risk for underperformance. This possibility, in turn, may create incentives to correct performance data by way of valuation. Valuation problems could be further exacerbated by the business strategies and model of private equity funds. The core business model of private equity funds, with variations, is to invest private funds from individuals, institutional investors, and endowments into companies directly. In a trend cresting in early 2008, some funds would purchase the outstanding stock of publicly traded companies, thereby taking them private. This limited disclosure about the new portfolio companies in two ways. First, the newly privatized companies were no longer subject to the 1934 Act disclosures. Second, the public markets no longer 'valued' the companies via trading.

In reporting the fair value of their holdings, companies are required by U.S. accounting authorities to distinguish between assets with market-based valuations and those valued internally by the company using "unobservable inputs."[18] Private companies are harder to value than publicly traded companies because of the absence of periodic disclosure and because of the absence of market-check. Moreover, private equity firms hold their companies until a realization event that may come years in the future. With such a long-term strategy, the value of a private equity firm's portfolio is less important to that firm at any single moment in time than it would be to a hedge fund limited partner. If hedge funds engage in private equity strategies, i.e. adding private companies to their portfolio, they may exacerbate the valuation issues. The convergence of hedge funds and private-equity funds makes it more difficult to accurately assess the value of each asset class.

As long as private equity funds and hedge funds are treated as separate asset classes with no significant convergence, most

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Returns, Persistence and Capital Flows, 60 J. FIN. 1595, 1791-1823 (2005) (describing a study on the performance of private equity firms over a thirty-year period, finding a wide discrepancy in the performance of private equity firms over such thirty-year period, and concluding that new private equity funds were at risk for the greatest underperformance).

[18] FAIR VALUE MEASUREMENTS, Statement of Fin. Accounting Standards No. 157 ¶¶ 22-30 (Fin. Accounting Standards Bd. 2006) [hereinafter FASB 157], *available at* www.fasb.org/st/, www.fasb.org/pdf/fas157.pdf; *see also* Richard Beales & Gillian Tett, *Real Risks Emerge When Pandora's Investment Box is Opened*, FIN. TIMES, June 29, 2007, *available at* http://www.ft.com/cms/s/0/d42b071a-25bd-11dc-b338-000b5df10621.html.

practitioners deal with valuation issues in an asset class specific manner. For private equity funds, practitioners address the valuation issue with a variety of measures including reference to the original purchase price and fair market valuation involving independent appraisers. For hedge funds, practitioners often require valuation of securities and over-the-counter products at the average of the last "trade" price on each trading day during the ten trading day periods ending immediately prior to the time of determination, or if no sales occurred on any such day, the mean between the closing "bid" and "ask" prices on such day. Other securities are often valued by the general partner of a hedge fund at fair market value in such a manner as the general partner may determine. These measures for hedge fund and private equity fund valuation, at best, provide a best-effort valuation.

In the context of convergence of hedge funds and private equity funds, valuation issues necessitate a rethinking of existing valuation methods. Hedge funds, for example, often set aside private equity investments in so-called "side pockets." Side pockets are separate accounts that do not require regular valuations and are excluded from calculation of performance fees. This practice allows hedge funds to treat such an investment as a private equity fund within the hedge fund. Setting aside such investment also allows the hedge fund to exclude the investment from the calculation of the performance-based fee until it is sold while at the same time maintaining its established valuation methodology to calculate performance and other fees for its existing portfolio. However, because of the inability to charge performance fees on the funds in the side-pocket, some funds choose to estimate the value of private equity investments.[19] The infrequency of realization events of private equity investments creates incentives for hedge fund managers to avoid side pockets and instead use estimates for the valuation of private equity investments. This in turn enables them to charge performance fees for private equity investments just like the rest of their portfolios. The ability to charge performance fees for private

[19] If hedge funds estimate the valuations of private equity investments, they may be required to agree to a "clawback," i.e. recalculate fees and reimburse under or overpayments that resulted from using estimates prior to the realization event. Given the administrative burden and potential cashflow impact, most managers try to avoid clawbacks if possible. However, they may agree to clawbacks to use estimates that, in turn, enable them to charge performance fees.

equity investments based on estimates in combination with an increase in the percentage of private equity investments in the portfolio of hedge funds increasingly disincentivizes mangers from using side pockets. Without the use of side pockets, estimates and valuation errors that come with valuing assets held for long periods will probably prevail.[20]

B. Fee Structure

The fee structure of hedge funds creates very strong financial incentives to hide weak performance by way of valuation. Hedge funds charge fees of up to 30 percent of profits and one to three percent of assets under management. High water marks in subscription agreements require fees of up to 30 percent of profits that only will be paid out if the funds' performance in the previous year is exceeded. [21] These often-handsome fees are the reason for a young and successful trader in an investment bank or larger mutual fund to set up their own hedge fund to bring in investors. By way of example, in 2008, the top 25 hedge fund managers, as measured by compensation, earned $11.6 billion (though down from $22.5 billion in 2007).[22]

The ability to attract investors is crucial especially in the first two years of a hedge fund. The track record of a hedge fund is an

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[20] *See, e.g.*, REPORT OF THE ASSET MANAGER'S COMMITTEE TO THE PRESIDENT'S WORKING GROUP ON FINANCIAL MARKETS, BEST PRACTICES FOR THE HEDGE FUND INDUSTRY, Jan. 15, 2009, at 20, *available at* http://www.amaicmte.org/Public/AMC%20Report%20-%20Final.pdf [hereinafter ASSET MANAGER'S COMMITTEE] ("Certain funds provide for side pockets to protect investors by avoiding the need for them to transact (redeeming or investing) in respect of such investments, where there is greater inherent subjectivity in their valuation prior to realization or other key event.").

[21] A "high water mark" is an incentive for higher performance. If a hedge fund starts investing with $100 million and grows in the first year to $200 million, the manager receives a significant performance fee. But, if the manager does not enhance the performance in the second year to more than $200 million, the fund will not obtain a performance fee at all. Similarly, if the fund loses money in year two, the manager will not receive a performance fee until the fund reaches the high water mark in the next accounting period.

[22] Louise Story, *Top Hedge Fund Managers Do Well in a Down Year*, NYTIMES.COM, Mar. 24, 2009, http://www.nytimes.com/2009/03/25/business/25hedge.html.

important marketing tool, and managers have very strong incentives to keep the track record and the performance of the fund at par with their peers' or the industry averages. The fee structure creates incentives, while the valuation practices and problems create opportunities, to overstate the performance of a fund.

Poor fund performance that drives down the amount of assets under management could incentivize the valuation. Alongside a bear market, poor performance puts pressure on expected revenue and revenue growth rates.[23] Such pressure is expected to continue and grow as redemptions and investment declines are likely to cause hedge fund assets to fall as much as 50 percent from their peak by mid-2009.[24] The current fee structure could come under pressure from institutional and qualified investors if hedge funds and private equity funds cannot sustain above-average performance. At the same time, new low-cost vehicles are being introduced that mimic the performance of hedge funds across a range of asset classes, offering hedge fund performance at lower fees.[25] The introduction of these vehicles could result in increasing competition for investors. Such competition, in turn, could result in downward pressure on the fee structure of hedge funds, as increasing competition for qualified investors could result in greater negotiating power for such investors. Hedge funds would perhaps be able to justify lower performance with lower fees. Lower performance and pressure on fees, however, could incentivize the creative use of valuation problems.

C. Conflict of Interest of the Manager

As structured debt instruments and over-the-counter derivatives used by hedge funds can be highly complex, the hedge fund manager may be the only person who is in a position to competently assess the value. This unique competency is particularly problematic when one considers that the Net Asset Value ("NAV")

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[23] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 6 (referencing graphs).
[24] Jenny Strasburg, Gregory Zuckerman & Cassel Bryan-Low, *More Hedge Funds Expected to Succumb*, WALL ST. J., Nov. 22, 2008, at B2 ("Redemptions and investment declines will likely cause hedge-fund assets to fall as much as 50 percent from their peak by mid-2009, Citigroup Inc. said in a Nov. 16 research report." (citing a Citigroup Inc. November 16 research report)).
[25] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 39.

of positions held by a hedge fund is used as the basis for the hedge fund's subscriptions, redemptions, and performance calculations.[26] Performance calculations based on NAV are also used to advertise the fund and charge performance and other fees to the investors. This presents a conflict of interest for the managers. Often, investors do not realize how and by whom their units are valued. Given the conflicting responsibilities, managers have an incentive and the ability to inappropriately over-value their portfolios.[27]

The issue of conflict management has been addressed extensively in surveys.[28] Because of the appearance of conflicts of interest, it has become industry practice to carry out valuations and NAV assessments by independent administrators. Sixty-one percent of respondents to a survey conducted by Deloitte said that they use independent administrators to calculate the official NAV and only seven percent of fund managers stated that they carry out this function themselves.[29] According to a similar survey conducted by Pricewaterhouse Coopers, 37 percent of respondents indicated that they have instituted a formalized pricing committee and nearly half (48 percent) have no plans to establish one.[30]

The surveys seem to indicate that the majority of industry participants avoid conflicts of interest and recognize the importance and neutrality of independent appraisers. However, it is important to note that roughly one third of hedge funds may have occasion to revise the prices used by the administrator in certain circumstances as part of a reconciliation processes between manager, administrator, and broker.[31] Moreover, 30 percent of valuation committees in the Deloitte survey had only one member and only 31 percent of

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[26] Feffer & Kundro, *supra* note 2 at 42.

[27] *See* PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5, at 9-10.

[28] *See, e.g.*, PRICEWATERHOUSECOOPERS, GLOBAL HEDGE FUND VALUATION AND RISK MANAGEMENT SURVEY-INSIGHTS INTO CURRENT INDUS. PRACTICES, Oct.-Sept. 2004, http://www.pwc.com/extweb/pwcpublications.nsf/docid/8B84B51EEBC609A785256F5F007C62DF/$file/globalhedgefundsurvey.pdf [hereinafter PWC]; DELOITTE, PRECAUTIONS THAT PAY OFF—RISK MANAGEMENT AND VALUATION PRACTICES IN THE GLOBAL HEDGE FUND INDUSTRY: A DELOITTE RESEARCH STUDY, http://www.securitization.net/pdf/Deloitte/Precautions_24Jan07.pdf [hereinafter DELOITTE].

[29] *See* DELOITTE, *supra* note 28, at 13.

[30] PWC, *supra* note 28 at 3.

[31] DELOITTE, *supra* note 28, at 13.

respondents in the Deloitte survey had a valuation committee with three members or more. [32] Only 25 percent of respondents include a valuation committee review as part of their regular operational risk management.[33]

Even if independent administrators and valuation committees are used, it is important to note that a majority of hedge funds in their startup phase try to keep overheads down. Thus, they may have problems with independence in a phase when independence would be crucial. Also, an independent administrator is usually paid by the hedge fund manager and may not understand all of the positions and strategies employed by the manager. The administrator may not have the understanding of complex securities products required to appropriately value the positions, and the manager may remain the person in charge of valuation even though formally that position has been externalized. Had the administrator the required knowledge and understanding of the complexities, he or she would probably be incentivized to use that experience and understanding in a more profitable setting.

D. Sophistication of Financial Instruments

The sophistication of financial instruments and the constant invention and production of new instruments and structures often make them difficult to price.[34] Inherent or synthetic leverage of many of these new instruments exacerbates valuation problems. Many of these hard-to-value assets, including collateralized debt obligations ("CDOs") and collateralized loan obligations ("CLOs"), are so complex that accurate valuation may never be achieved,[35] in large part due to the need to value "every single trade . . . based on its characteristics."[36] In most cases, such valuation will inevitably be subjective and, in the case of CDOs, the riskiest equity tranches

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[32] *Id.* at 14.
[33] *Id.* at 14.
[34] *See* INT'L ASS'N OF SEC. DEALERS, FAIR VALUE MEASUREMENT CONSIDERATIONS: RECOMMENDED CHANGES TO THE IAS EXPOSURE DRAFTS (2007), http://www.isda.org/c_and_a/pdf/Proposed-IAS39changes-clean.pdf; Feffer & Kundro, *supra* note 2.
[35] COUNTERPARTY RISK MANAGEMENT GROUP II, TOWARD GREATER FINANCIAL STABILITY: A PRIVATE SECTOR PERSPECTIVE 132-33 (2005) , http://www.crmpolicygroup.org/crmpg2/.
[36] Beales & Tett, *supra* note 18.

present a particular challenge as they are exposed to potential problems with the underlying collateral.[37] Given recent scandals with CDO devaluation,[38] the issue of adequate valuation of complex financial products remains at the forefront of the issue of hedge fund valuation.[39]

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[37] *See* SATYAJIT DAS, CREDIT DERIVATIVES: CDOS AND STRUCTURED CREDIT PRODUCTS (3d ed. 2005).

[38] *See* Beales & Tett, *supra* note 18.

[39] New approaches to derivatives and investment valuation develop regularly and the academic debate remains very much in flux. For a discussion of the underlying assumptions of valuation, see Mary Barth, *Including Estimates of the Future in Today's Financial Statements* (Bank of Int'l Settlement Working Papers No. 208, 2006), *available at* http://www.bis.org/publ/work208.htm; Claudio Borio & Kostas Tsatsaronis, *Risk in Financial Reporting: Status, Challenges and Suggested Directions* (Bank of Int'l Settlement Working Paper No. 213, 2006), *available at* http://www.bis.org/publ/work213.pdf; Wayne Landsman, *Fair Value Accounting for Financial Instruments: Some Implications for Bank Regulation* (Bank of Int'l Settlement Working Paper No. 209, 2006), *available at* http://www.bis.org/publ/work209.htm; Ken Peasnell, *Institution Specific Value* (Bank of Int'l Settlement Working Paper No. 210, 2006), *available at* http://www.bis.org/publ/work210.htm. For the use of either historical costs or fair value of financial instruments, see Stephen G. Ryan et al., *Recommendations on Hedge Accounting and Accounting for Transfers of Financial Instruments*, ACCOUNTING HORIZONS, Mar. 2002 at 81-93 (2002). For a thorough discussion of the benefits of the Copula approach for the valuation and hedging of correlation products and other derivatives, see Leif Andersen, Jakob Sidenius & Sustana Basu, *All Your Hedges in One Basket*, RISK, Nov. 2003, at 67-72; Douglas T. Breeden & Robert H. Litzenberger, *Price of State-Contingent Claims Implicit in Option Prices*, 51 J. BUS., 621-51 (1978); Jens Carsten Jackwerth & Mark Rubinstein, *Recovering Probability Distributions from Options Prices*, 51 J. FIN., 1611-31 (1996); John Hull & Alan White, *Valuation of a CDO and* n-*th to Default CDS Without Monte Carlo Simulation*, J. DERIVATIVES, at 8-23 (2004). For a critique of the Copula approach, see Allan Mortensen, *Semi-Analytical Valuation of Basket Credit Derivatives in Intensity-Based Models*, 13 J. DERIVATIVES, at 8-26 (2006). For a comparison of the efficacy of low-discrepancy methods with Monte Carlo methods on the valuation of financial derivatives and the benefits of the Sobol method of valuation, see Spassimir H. Paskov, *Computing High Dimensional Integrals with Applications to Finance*, (Columbia Univ. Tech Report, Dep't. of Comp. Sci., 1994); Spassimir H. Paskov & Joseph F. Traub, *Faster Valuation of Financial Derivatives*, 22 J. PORTFOLIO MGMT. 113 (1995); Joseph F. Traub & Henryk Wozniakowski, *Breaking Intractability*, SCI. AM., Jan. 1994, at

Several surveys indicate that complex financial products are at the forefront of valuation problems.[40] In a survey by Deloitte, fifty out of the sixty total respondents (roughly 83 percent) confirmed that they held at least one of the five asset classes that give rise to valuation difficulties.[41] Hedge funds are increasingly utilizing hard-to-value instruments to enhance the performance of portfolios and to manage risk.

Deloitte identified that most hedge funds rely on exchange quotes, broker quotes, and third party or vendor pricing services to value complex or illiquid assets.[42] On the upside, relatively few hedge fund managers use proprietary or purchase pricing models[43], which are notoriously unreliable.[44] On the downside, 73 percent of reporting fund managers use exchange quotes even though not always accurate.[45] Using exchange quotes is problematic if applied to thinly traded assets, as the price for less frequently traded assets may not be indicative of fair market value at the time of valuation,[46] and nearly a quarter of survey participants relied exclusively on these quotes to value assets. [47] One third of respondents in the PWC survey found that the process of valuation does not identify stale prices.[48] According to PWC, only 50 percent of respondents perform "acid" tests to compare transaction prices to prior valuation prices.[49] According to the Deloitte survey, the problem with hard-to-value assets is two-fold, in that the instruments are either highly complex and/or thinly traded.[50]

102-07. For risk-neutral derivative security valuation, see CHI-FU HUANG & ROBERT H. LITZENBERGER, FOUNDATIONS FOR FINANCIAL ECONOMICS (1988). For the merits of canonical valuation *see* Michael Stutzer, *A Simple Nonparametric Approach to Derivative Security Valuation* 51 J. FIN. 1633 (1996). For a discussion of the importance of valuing options on CDOs and CDS portfolios, see Darrell Duffie, *Credit Swap Valuation*, 55 FIN. ANALYSTS J., Jan.-Feb. 1999, at 73.

[40] *See, e.g.,* DELOITTE, *supra* note 28; PWC, *supra* note 28.

[41] DELOITTE, *supra* note 28, at 15.

[42] *Id.*

[43] *Id.*

[44] *See generally* NASIM N. TALEB, THE BLACK SWAN (2007).

[45] *Id.*

[46] *Id.*

[47] *Id.*

[48] PWC, *supra* note 28, at 4; DELOITTE, *supra* note 28, at 15.

[49] PWC, *supra* note 28, at 4.

[50] DELOITTE, *supra* note 28, at 15.

E. Transparency

Transparency is one of the crucial factors in valuing hedge fund units. The surveys indicate contradictory results that cannot be explained with weighting or geographical area of respondents. According to the 2007 Deloitte survey, over 30 percent of respondents did not disclose valuation procedures to all investors,[51] and only about 60 percent disclosed their risk management policy to investors.[52] According to Deloitte, best practice should demand that hedge fund managers provide investors with the firm's valuation procedures at least annually and upon any material changes to these procedures.[53] The Deloitte survey found that, to the extent that hedge funds did disclose valuation procedures to investors, almost three fourths provided this information at least annually, whereas the remaining one fourth did not provide valuation procedures on a regular basis.[54] PWC also found that about half of the respondents did not feel any pressure from their investors to provide updated information on valuation on a regular basis.[55] This seems to indicate an overall lack of voluntary disclosure to investors and could explain recent trends and pressure from politicians and regulators to demand more transparency from hedge fund managers.

Such lack of available risk data has precipitated solution proposals including one for a requirement of mandatory disclosure of risk positions to the SEC[56] or to a systemic risk regulator.[57] The assessment of risk could entail a valuation analysis and would

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[51] DELOITTE, *supra* note 28, at 14.
[52] *Id.* at 10.
[53] *Id.* at 14.
[54] *Id.* at 14.
[55] PWC, *supra* note 28, at 6 (stating that only 52 percent of investors felt increasing pressure from investors to disclose additional information).
[56] *Suggestions for Regulation of Hedge Funds Following the Financial Crisis of 2008*, *Testimony Before the H. Comm. on Oversight and Gov't Reform*, (2008) (statement of Professor David S. Ruder, Professor of Law Emeritus, Northwestern University School of Law, former Chairman of the U.S. Securities and Exchange Commission) [hereinafter Testimony of David Ruder].
[57] Henry Paulson, *Reform the Architecture of Regulation*, FT.COM, TIMES, Mar. 17, 2009, http://www.ft.com/cms/s/0/a2b1243c-1326-11de-a170-0000779fd2ac.html?nclick_check=1.

probably require an analysis of hard-to-value assets and complex financial instruments.

III. Regulatory Proposals to Address Valuation Problems

The hedge fund industry has grown to 8,000 firms and approximately $2 trillion in assets under management.[58] Evidence of continual growth reflects the importance of hedge funds as an alternative investment group for both institutional and wealthy individual investors.[59] In 2003, hedge funds-of-funds started to aggressively enter the market and are now selling hedge-fund-like products to institutional investors and qualified individual investors.[60] This marketing has drawn increasing media attention to the sector and will probably result in regulatory scrutiny.[61]

Regulators and international bodies have proposed best practice guidelines and rules that in many cases impose burdens on hedge funds.[62] Some commentators have directly addressed the industry-best-practice advice and criticized it.[63] Their criticism revolves around several central issues such as consistency in the valuation process, sound management supervision and oversight and strict independence and separation of duties.[64] They have proposed, for example, that a trader or portfolio manager should never perform final valuations and, wherever possible, an independent third party should check valuations prepared by the manager.[65] Additionally, fund managers should keep financial and accounting staff independent of the portfolio management team.[66] In terms of

[58] ASSET MANAGER'S COMMITTEE, *supra* note 20, at 5.
[59] Roundtable Discussions Relating to Hedge Funds, Notice of roundtable discussions, Release No. IA-2117, 68 Fed. Reg. 15,488 (Mar. 31, 2003), *available at* http://www.sec.gov/spotlight/hedgefunds.htm.
[60] *See e.g.* Hanna Shaw Grove and Russ Alan Prince, *The Street's Latest Lure,*, NEWSWEEK, May 26, 2003 at 62 (stating that Wall street is tailoring funds for the "mass affluent"—those with $25,000 or $50,000 to invest).
[61] *Id*.
[62] *See infra* Part III.B.
[63] Feffer & Kundro, *supra* note 2.
[64] *Id.* at 45 ("[F]und management companies and investors should 1) Insist on strict independence and separation of duties; 2) Ensure consistency in the valuation process, and; 3) Require a level of management supervision and oversight.").
[65] *Id.* at 46.
[66] *Id.*

consistency in the valuation process, timing seems to be of utmost importance, requiring daily mark-to market and monthly as well as quarterly pre-statement valuations.[67] These periodical valuations should be carried out according to well-defined processes; any deviations from otherwise consistently applied sources, methods, and models should be clearly noted and documented.[68] As for appropriate supervision and oversight,[69] if the fund manager performs the valuations him or herself, the manager should ensure that there is a set of clearly documented policies and procedures in place and that they are followed.[70] To the extent possible, a fund manager should try to outsource some of the valuation mechanics to third party pricing services.[71]

A. Regulating Complex Financial Instruments

The hedge fund market is growing. New managers increasingly emerge with new funds as they realize that they can be more profitable if they are not tied to large institutions with huge overheads. Most of these new managers focus their attention on highly complex and profitable instruments where pricing and valuation issues are most prevalent. This trend can make it very difficult for hedge fund managers to guarantee their investors standard or accurate pricing procedures.

U.S. accounting authorities expect companies to report the fair value of their holdings using a "fair value hierarchy," distinguishing between those assets valued using markets and those valued using "unobservable inputs."[72] The Financial Accounting Standards Board ("FASB") has also issued guidance as to Fair Value

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[67] *Id.*
[68] *Id.*
[69] BANK FOR INTERNATIONAL SETTLEMENTS, THE INTERNATIONAL CONVERGENCE OF CAPITAL MANAGEMENT AND CAPITAL STANDARDS 176 (2005), *available at* www.bis.org/publ/bcbs118.pdf (referencing valuation paragraph 778(ii) of Basel II).
[70] Feffer & Kundro, *supra* note 2, at 46 ("If the fund manager performs the valuations themselves, there should be a set of clearly documented policies and procedures, as well as a way of ensuring that those policies and procedures are actually followed in practice . . .").
[71] *Id.* at 46.
[72] Richard Beales & Gillian Tett, *The Real Risks Emerge When Pandora's Investment Box is Opened*, FIN. TIMES, June 29, 2007, at 41.

Measurements in FAS 157[73] as to distinguishing between assets with market-based valuations and those valued internally at the company using "unobservable inputs."[74] According the FASB, "entry" and "mark-to-model" prices do not reflect the realities of market behavior and fair value reporting should, therefore, reflect an "exit price" if and when an asset is sold.[75] Risk measurement and management technology can be instrumental in bridging the gap between accounting standard setters and prudential authorities, thus improving financial reporting and indirectly affecting hedge fund valuation.[76] Landsman points out that "regulators need to consider how to let managers reveal private information in fair value estimates while minimising strategic manipulation of mode inputs to manage income and regulatory capital."[77] Mangers also need to consider how best to minimize measurement errors in fair values to maximize their usefulness to investors and creditors when making investment decisions.[78] Landsman concludes that regulators may want to ensure that bank managers have incentives to select investments that maximize economic efficiency of the banking system.[79]

Matching valuation principles for financial assets with fair value principles may help to prevent complications for the application of fair value principles.[80] In addition, the market environment of October 2008 precipitated the SEC's Office of the Chief Accountant and the FASB staff to issue guidance to assist in the determination of fair value.[81] Under the guidance, expected cash flows and other internal assumptions of hedge fund managers can be used to measure fair value when relevant market evidence does not exist.[82]

In the aftermath of the events of August and September 2008, the Emergency Economic Stabilization Act was signed into

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[73] FASB 157, *supra* note 18.
[74] Beales & Tett, *supra* note 72.
[75] FASB 157, *supra* note 18, at ¶¶ C16, C26.
[76] *See* Borio & Tsatsaronis, *supra* note 39, at 2.
[77] Landsman, *supra* note 39, at v.
[78] *Id.*
[79] *Id.*
[80] *See* Peasnell, *supra* note 39, at v.
[81] FASB Issue Clarification on Fair Value Accounting, Federal Securities Law Reports, Issue No. 2351, No. 2348, Fed. Sec. L. Rep. (CCH) ¶2,348-1 (Oct. 8, 2008).
[82] *Id.*

law on October 3, 2008 (the "Act").[83] Section 133 of the Act directs the SEC to prepare a study on mark-to-market accounting standards as provided for in FASB 157 and consider the effects of fair value standards on the quality of information available to investors.[84] The Act also requires the SEC to consider alternatives to FASB 157.[85] As banks and life insurers continue to struggle with deteriorating investment holdings, the FASB fast-tracked efforts to provide mark-to-market relief for financial firms.[86] Certain structured securities that were rated lower than double-A at the time of origination can expect some easing on mark-to-market requirements.[87]

B. Industry Valuation Proposals and Best Practice Guidance

Due to the importance of hedge fund valuation and its impact on the hedge fund industry, various groups and bodies, including self-regulatory bodies, have commented on and made recommendations as to how to tackle the issue.[88] Interestingly, some of the groups addressed the valuation problem, at least partly, in the first wave of regulatory proposals in the wake of Long Term Capital

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[83] Pub. L. No. 110-343, 122 Stat. 3765 (2008).
[84] Emergency Economic Stabilization Act of 2008 § 133, 12 U.S.C.A. § 5238 (2008).
[85] *Id*. § 5238(a)(6).
[86] Leslie Scism & David Reilly, *FASB Reviews Valuation Method,* WALL ST. J., Dec. 23, 2008, at C1.
[87] *Id.*
[88] *See, e.g.,* ASSET MANAGER CODE OF PROFESSIONAL CONDUCT, *supra* note 10; REGULATORY APPROACHES, *supra* note 4; FIN. STABILITY FORUM REPORT, *supra* note 10; ISDA 1999 COLLATERAL REVIEW, *supra* note 10; PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5; PRIVATE EQUITY INDUSTRY GUIDELINES GROUP, US PRIVATE EQUITY VALUATION GUIDELINES, (2004), *available at* http://www.peigg.org/images/2004_1_Sep_U.S._PE_Valuation_Guidelines_Reissued.pdf [hereinafter PEIGG]; PRIVATEEQUITYVALUATION.COM, INTERNATIONAL PRIVATE EQUITY AND VENTURE CAPITAL VALUATION GUIDELINES (2006) [hereinafter PRIVATE EQUITY GUIDELINES]; 2003 SOUND PRACTICES FOR HEDGE FUND MANAGERS, *supra* note 10; VALUATION CONCEPTS FOR INVESTMENT COMPANIES, *supra* note 10.

Management[89] ("LTCM").[90] More recent proposals address the valuation problem.[91]

1. Hedge Fund Working Group[92]

The Hedge Fund Working Group ("HFWG"), a London-based organization, identified in its Final Report on Hedge Fund Standards[93] two central themes: the segregation of functions in valuation and hard-to-value assets.[94] For the segregation of functions in valuation, the HFWG recommends that valuation procedures be aimed at mitigating conflicts of interest,[95] by separating the valuation responsibilities from portfolio management responsibilities.[96] Other recommendations include disclosure of the valuation process to investors[97] and including disclosure of a manager's involvement of the valuation process.[98] The HFWG also made recommendations on

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[89] *See* REGULATORY APPROACHES, *supra* note 4; ISDA 1999 COLLATERAL REVIEW, *supra* note 10; FIN. STABILITY FORUM REPORT, *supra* note 10.

[90] LTCM was a leading hedge fund in 1998 and counted, among others, Nobel laureate Gary Becker as a member of the board but failed due to a combination of inadequate risk management strategies, high leverage, very large positions, lack of funding liquidity and insufficient monitoring of fund credit quality by counterparties. Its failure created systemic risk concerns that eventually forced the New York Federal Reserve to orchestrate a bail-out involving most of the top investment banks on Wall Street. *See generally* Roger Lowenstein, *How LTCM Came to the Edge of the Abyss*, WALL ST. J., Sept. 11, 2000, at C1 (excerpt from ROGER LOWENSTEIN, WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT (2000)).

[91] *See* PEIGG, supra note 88, PRIVATE EQUITY GUIDELINES, *supra* note 88, ASSET MANAGER CODE OF PROFESSIONAL CONDUCT, *supra* note 10, ASSET MANAGER CODE OF PROFESSIONAL CONDUCT, *supra* note 10, PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5.

[92] The Financial Stability Forum Report also made similar recommendations as to best handle valuation risk. STABILITY FORUM REPORT, *supra* note 10.

[93] HFWG, *supra* note 3.

[94] *Id.* at 54-63.

[95] *Id.* at 47.

[96] *Id.* at 48 (adding that "If a smaller of start-up manager considers it impractical to do so, it should disclose this in its marketing documents and do what it reasonably can to enable and encourage the fund governing body to disclose this in the fund's offering documents.").

[97] *Id.* at 49.

[98] *Id.* at 57.

how best to deal with hard to value assets, such as adopting and disclosing standard procedures.[99] Also, if a side pocket is used, the HFWG recommends managers ensure that management fees for side pocketed assets, if charged, are calculated on no more than the lower of cost or fair value, and that performance fees for side-pocketed assets are paid only at realization event or if a liquid market price is available.[100]

2. The Private Equity Industry Guideline Group

The Private Equity Industry Guideline Group has also provided valuation guidelines.[101] In light of the continuing convergence of private equity and hedge funds, developments in private equity guidelines are relevant for this paper. As with the hedge fund industry, the key goals of these guidelines also focus on consistency, transparency and prudence. More specifically, the guidelines are intended to provide greater transparency into valuation results through the use of a valuation policy committee (as described in the guidelines); to focus the private equity industry on the need to determine fair value for each of their investments in a manner that is consistent with these guidelines; and to encourage managers to approach valuation from a consistent, transparent and prudent basis.[102]

3. CFA Code of Professional Conduct

Another industry group that has set up a code of professional conduct is the Chartered Financial Analyst ("CFA") institute.[103] The code directly addresses performance and valuation. The performance and valuation provisions of the code entail provisions for the manager to present performance information that is fair, accurate, relevant, timely, and complete.[104] Managers must not misrepresent the performance of individual portfolios or of their firm.[105]

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[99] *Id.*
[100] *Id.* at 62.
[101] PEIGG, *supra* note 88; PRIVATE EQUITY GUIDELINES, *supra* note 88.
[102] PEIGG, *supra* note 88.
[103] ASSET MANAGER CODE OF PROFESSIONAL CONDUCT, *supra* note 10.
[104] *Id.* at 5.
[105] *Id.*

Moreover, managers should use fair market prices to value client holdings and apply, in good faith, methods to determine the fair value of any securities for which no readily available, independent, third-party market quotation is available.[106]

4. IOSCO

The International Organisation of Securities Commissions ("IOSCO") committee has proposed nine basic principles to relieve conflicts of interest of the hedge fund manager and enable investors to obtain a guide as they consider putting money into hedge funds.[107] The main suggestions are that hedge funds should draw up policies for valuing investments, ensure they are used properly and apply them as independently as possible. To the extent possible, valuation methods should be made clear to investors. To avoid distortions that could disadvantage investors, IOSCO's guidelines for valuing hedge funds emphasize consistency, transparency and independence.[108]

5. President's Working Group Committees

The President's Working Group Asset Manager's Committee and the Investor's Committee were formed as private sector committees by the President's Working Group in September 2007.[109] The primary task of the committees was to develop guidelines that define best practices for the hedge fund industry[110] using the PWG's principles-based guidance.[111] In the

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[106] *Id.*

[107] PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5, at 3-4; *see also* Alison Smith, *FSA Has Hedge Fund Valuations in its Sights*, FIN. TIMES, Mar. 17, 2006, at 18 (discussing the FSA's attempt to help investors better evaluate the risks through improved regulations of the hedge fund industry).

[108] PRINCIPLES FOR THE VALUATION OF HEDGE FUND PORTFOLIOS, *supra* note 5, at 3-4.

[109] Press Release, U.S. Dept. of the Treasury, PWG Announces Private Sector Groups to Address Market Issues for Private Pools of Capital (Sept. 25, 2007), available at http://www.treas.gov/press/releases/hp575.htm.

[110] *Id.*, *see also* President's Working Group on Financial Markets, Investor's Committee Mission Statement, *available at* http://www.ustreas.gov/press/releases/reports/InvestorsCommMission09252007.pdf.

[111] Press Release, U.S. Dept. of the Treasury, President's Working Group Releases Common Approach to Private Pools of Capital Guidance on hedge

context of the valuation issue, the Asset Manager's Committee suggested robust valuation procedures with a specific focus on hard-to-value assets, the segregation of responsibilities, oversight and other measures for the valuation of assets, and thorough written policies.[112] The Investor's Committee, in turn, addresses valuation policy, governance of the valuation process, valuation methodologies and valuation controls with an overall emphasis of transparency, independence, oversight, and effective governance.[113]

IV. Retailization of the Hedge Fund Industry

A. Regulatory Recognition of Retailization

Before 1998, hedge fund regulation in many jurisdictions had been limited. This situation allowed hedge funds to invest without significant regulatory oversight but also precipitated much uncertainty.[114] Most regulatory proposals on hedge fund regulation

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fund issues focuses on systemic risk, investor protection (Feb. 22, 2007), *available at* http://www.treas.gov/press/releases/hp272.htm.

[112] ASSET MANAGER'S COMMITTEE, *supra* note 20, at iii.

[113] REPORT OF THE INVESTORS' COMMITTEE TO THE PRESIDENT'S WORKING GROUP ON FINANCIAL MARKETS, BEST PRACTICES FOR THE HEDGE FUND INDUSTRY, April 15, 2008, 43-49, *available at* http://www.mintzgroup.com/pdf/investors_committee_report.pdf.

[114] In the U.S., the SEC in 1985 adopted a safe harbor rule for hedge fund advisers. Definition of "Client" for Certain Purposes, Investment Advisers Release No. 956, 50 Fed. Reg. 8740 (Mar. 5, 1985) (discussing 17 C.F.R. § 275.203(b)(3)-1)). *See also* Rules Implementing Amendments to the Investment Advisers Act of 1940, Investment Advisers Act Release No. 1633, 62 Fed. Reg. 28112 (May 22, 1997). The 1985 safe harbor rule allowed counting each entity, i.e. each hedge fund rather than each individual investor, as one client and, thus, effectively excused hedge fund managers from registration under the IAA's fifteen-client limit. Investment Advisers Act Section 203(b)(3), 15 U.S.C. § 80(b)(3) (2000). Before the safe harbor provision, it had been issuing a long line of no-action letters. *See, e.g.,* B.J. Smith, SEC No-Action Letter, (CCH) (Dec. 25, 1975); Wofsey, Rosen, Kweskin & Kuriansky, SEC No-Action Letter, (CCH) (Apr. 25, 1974); David Shilling, SEC No-Action Letter, (CCH) (Apr. 3, 1976); Ruth Levine, SEC No-Action Letter, (CCH) (Dec. 15, 1976); S.S. Program Limited, SEC No-Action Letter, (CCH) (Oct. 17, 1974); Hawkeye Bancorporation, SEC No-Action Letter, (CCH) (June 11, 1971). In this

came after 1998 in the aftermath of the near-collapse and subsequent bailout of LTCM. The LTCM case illustrates the risks surrounding hedge funds that are highly leveraged, manage very large positions, provide inadequate risk management strategies, lack funding liquidity, and offer insufficient monitoring of fund credit quality by counterparties. In the aftermath of LTCM's near-collapse, international bodies and regulators reviewed ways to improve the regulatory framework as it pertains to hedge funds.[115]

It is important to note that LTCM was unique because of the large scale of its activities, the sheer size of its positions,[116] and market-making abilities in certain markets.[117] Counterparties often treated it more like an investment bank than a hedge fund.[118] Unlike LTCM, very few hedge funds today have market-making abilities; they do not nearly use as much leverage as LTCM and their positions can generally not move markets. Because LTCM was so unique among its peers due to its leverage, the size of its positions and its market making abilities, regulatory proposals mostly addressed LCTM as a single case[119] rather than the range of issues pertaining to all hedge funds.

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author's opinion, reliance on SEC no-action letters led to significant ambiguity in the area.

[115] *See* BASEL COMMITTEE ON BANKING SUPERVISION, BANKS´ INTERACTION WITH HIGHLY LEVERAGED INSTITUTIONS (Jan. 1999). *See also* TECHNICAL COMM. OF IOSCO, HEDGE FUNDS AND OTHER HIGHLY LEVERAGED INSTITUTIONS (Nov. 1999); REPORT OF THE PRESIDENTS WORKING GROUP ON FINANCIAL MARKETS, HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG TERM CAPITAL MANAGEMENT (Apr. 1999); COUNTERPARTY RISK MANAGEMENT POLICY GROUP, IMPROVING COUNTERPARTY RISK MANAGEMENT PRACTICES (June 1999).

[116] *See* U. S. GEN. ACCOUNTING OFFICE, REPORT TO CONGRESSIONAL REQUESTERS: LONG-TERM CAPITAL MANAGEMENT—REGULATORS NEED TO FOCUS GREATER ATTENTION ON SYSTEMIC RISK 5 (1999).

[117] *See* BASLE COMM. ON BANKING SUPERVISION, BANK FOR INT'L SETTLEMENTS, REPORT ON BANKS INTERACTIONS WITH HLIS 10 (1999) ("For counterparties, the usual credit risks in transactions were magnified in particular by LTCM's size, its use of extensive leverage, its reliance on a high degree of market liquidity, its concentration in certain markets and instruments, and its highly secretive nature.").

[118] Interview with Michael Dubin, Hedge Fund of Funds Manager, Powers & Dubin LLP, in N. Y., N. Y. (June 16, 2001).

[119] It would probably be worth counting the number of references to LTCM and contrast that with the references to hedge funds in general or other

Recently, however, the regulatory debate is shifting from proposals that addressed leverage and other problems that surfaced after LTCM's collapse towards issues relating to valuation of hedge fund units. More important, with the emergence of retailization, valuation of hedge fund units may become an increasingly contentious issue. The regulatory proposals appearing soon after LTCM did not adequately take valuation problems into account. While qualified institutional investors have the means and experience to value their investments in hedge funds and can usually afford to hire lawyers and accountants or investment professionals to determine the accuracy and value of their interests in a hedge fund, retail investors rarely have such means at their disposal. Accordingly, there is an increasing need to ascertain that hedge fund units are accurately valued before they are introduced to the public. Regulators and legislatures in many jurisdictions have recognized the need to consider the issues as they pertain to retail investors of hedge funds. So far, however, regulators and legislatures have not addressed the issue of valuation and its interplay with retail investors. The following section gives an overview of the retailization phenomenon and the regulatory actions it has precipitated in the United Kingdom, the United States of America, the European Union and Germany.

1. United Kingdom

In the United Kingdom, the Financial Services Authority ("FSA"), in its consultation with the public, asked if retailization of hedge funds should be allowed.[120] This sparked a lively debate.[121] As hedge funds can be "investment companies" and can have a corporate structure in the UK, they are publicly marketable once they are listed. Alternatively, hedge funds may be structured as limited

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specifically named hedge funds. The author would conjecture that a statistically significant skew towards the word LTCM would be noticeable.

[120] FIN. SERV. AUTH., DISCUSSION PAPER 16, HEDGE FUNDS AND THE FSA (2002) [hereinafter FSA DISCUSSION PAPER] (presenting sample questions asked of public respondents regarding whether regulators should allow retailization of hedge funds).

[121] *See* ASHLEY KOVAS, BUNDESVERBAND ALTERNATIVE INV., DEVELOPMENTS IN HEDGE FUND REGULATION—A UK PERSPECTIVE (2003) (introducing arguments from both sides of the debate: regulators who want to together their rules regarding hedge funds versus regulators that contemplate liberalization of hedge fund management).

partnerships or trusts, thus regulated as "collective investment schemes," and are, as such, marketable to certain "sophisticated" investors,[122] institutional investors[123] and, to a considerably more limited extent, to retail investors. The FSA also extended the scope of authorized collective investment schemes,[124] thereby allowing hedge funds to be more broadly marketed with some limitations. Hedge funds of funds were also authorized for the first time.

It is noteworthy, however, that the FSA decided not to liberalize the retail market further than described above[125] and prohibited retailization of hedge funds of funds by prohibiting marketing of hedge funds of funds through authorized onshore vehicles. This may be a result of a lacking demand for retailization.[126] Existing hedge funds still prefer to have "a small number of very sophisticated investors who understand the nature of the funds and will leave their investments in the fund for a

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[122] INVESTOR RISK COMM., INT'L ASS'N OF FIN. ENGINEERS, VALUATION CONCEPTS FOR INVESTMENT COMPANIES AND FINANCIAL INSTITUTIONS AND THEIR STAKEHOLDERS (2004), *available at* http://iafe.org/html/documents/IAFEValuationConcepts0604_000.pdf .

[123] INVESTOR RISK COMM., INT'L ASS'N OF FIN. ENGINEERS, HEDGE FUND DISCLOSURE FOR INSTITUTIONAL INVESTORS (2001), *available at* http://iafe.org/html/upload/IRCConsensusDocumentJuly272001.pdf (recognizing that IRC understood that various investors, including pension funds, endowments, foundations, insurance companies and fund of funds would find different hedge fund formats relevant to their individual needs).

[124] *See* FIN. SERV. AUTH., CONSULTATION PAPER 185, THE CIS SOURCEBOOK—A NEW APPROACH (2003) [hereinafter FSA CONSULTATION PAPER] (describing the introduced two-tier CIS scheme, which would allow flexibility based on consumer experience and expertise and whether or not the consumer was a retail investor).

[125] *Id.* (acknowledging that despite liberalization, the proposed funds available for retail and non-retail market will still be subject to authorization and regulation in order to differentiate them from unregulated funds); FIN. SERV. AUTH., DISCUSSION PAPER 05/4, HEDGE FUNDS: A DISCUSSION OF RISK AND REGULATORY ENGAGEMENT (2005), *available at* www.fsa.gov.uk/pubs/discussion/dp05_04.pdf ("[W]here a hedge fund is structured as an unregulated collective investment scheme (CIS), as many of them are, they can be marketed to very limited classes of investors.").

[126] Kovas, *supra* note 121, at 21-22 ("[T]he FSA was not deluged with demands that this should happen. Most existing hedge funds do not welcome the prospect of large number of retailers investing directly into their funds.").

reasonable period of time."[127] Despite the limits to retailization, hedge funds in the UK are undoubtedly becoming more mainstream investment products than in the past.[128]

2. United States

Hedge funds under U.S. jurisdiction usually do not raise funds through public offerings, they do not advertise broadly, or engage in general solicitation, thereby avoiding regulation of the SEC and the Commodity Futures Trading Commission ("CFTC"). Utilizing its rule-making authority under the Investment Advisers Act ("IAA"),[129] the SEC, in December 2004, issued a final rule to require hedge fund advisers to register under the IAA.[130] The rule was eventually issued only by a three-to-two vote,[131] and then overturned by the D.C. Circuit in 2006.[132]

In adopting the hedge fund advisor registration rule, the SEC cited the growth of the hedge fund industry, retailization, "the broadening exposure of investors to hedge fund risk, and the growing number of instances of malfeasance by hedge fund advisers" as the

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[127] *Id* at 22.

[128] FSA DISCUSSION PAPER, *supra* note 120, at § 3.5 (presenting data showing that UK hedge funds have experienced rapid growth since 1990 and that their assets under management have grown fivefold between 1994 and 2001).

[129] Investment Advisers Act §211(a), 15 U.S.C. 80b-11(a) (2000). Section 211(a) asserts that the Commission may adopt rules "necessary or appropriate to the exercise of the functions and powers conferred upon the Commission elsewhere in this title" and "may classify persons and matters within its jurisdiction and prescribe different requirements for different classes of persons and matters." *Id. See also* Investment Adviser Act, 15 U.S.C. §§ 80b-2(a)(17) (2000) ("The Commission may by rules and regulations classify, for the purposes of any portion or portions of this title, persons, including employees controlled by an investment adviser.").

[130] Registration Under the Advisers Act of Certain Hedge Fund Advisors, 69 Fed. Reg. 72,054 (Dec. 10, 2004) (codified at 17 C.F.R. §§275 & 279 (2008)) [hereinafter Registration Under the Advisors Act] (codifying the requirement for advisors of certain private investment pools to register with the SEC pursuant to the Investment Adviser Act).

[131] For the history of U.S. hedge fund regulation before Goldstein v. Sec. Exch. Comm'n, 451 F.3d 873 (D.C. Cir. 2006), see WULF A. KAAL, HEDGE FUND REGULATION BY BANKING SUPERVISION—A COMPARATIVE INSTITUTIONAL ANALYSIS 177-98 (Peter Lang 2006) (2005).

[132] Goldstein v. Sec. & Exch. Comm'n, 451 F.3d 873 (D.C. Cir. 2006).

main reasons why the previous regulatory scheme for hedge fund advisers was inadequate.[133] Among the most obvious arguments for its regulation, the SEC referred to possible prevention or diminishment of losses that hedge fund investors might otherwise experience as a result of hedge fund advisers' fraud.[134] To support the regulation, the SEC referred to several studies that seem to suggest that hedge fund fraud was on the rise. The SEC also referred to the increased exposure of small investors as a result of the decrease in minimum investment requirements[135] and the additional dangers that are associated with this phenomenon.[136] Contrasting these benefits with costs associated with a registration requirement for hedge funds, the SEC emphasized that it was "sensitive" to the costs and benefits that result from the rule.[137] In the section on cost benefits analysis to justify its rulemaking in Rule 203(b) (3)-2 under the IAA, the SEC identified, among others, the benefits to hedge fund investors by deterring fraud and curtailing losses, providing basic information about hedge fund advisers, and improved compliance controls.[138] The SEC also saw benefits to mutual fund investors, other investors and markets, regulatory policy, and hedge fund advisers.

Commissioners Cynthia A. Glassman and Paul S. Atkins opposed releasing the final rule.[139] Despite an emphasis by the majority on the risks of retailization, the dissenting commissioners pointed to the 2003 Staff Report, which found that retailization was

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[133] *See* Registration Under the Advisers Act, *supra* note 130*,* at 72,059.
[134] *Id.* at 72,078 ("Registration allows us to conduct examinations of hedge fund advisers, and our examinations provide a strong deterrent to advisers' fraud, identify practices that may harm investors, and lead to earlier discovery of fraud that does occur.").
[135] *See* STAFF REPORT TO THE U. S. SECURITIES AND EXCH. COMM'N, IMPLICATIONS OF THE GROWTH OF HEDGE FUNDS 81 (Sept. 2003) [hereinafter SEC Staff Report].
[136] *See* Registration Under the Advisers Act, *supra* note 130, at 72,057 (noting several sources acknowledging that hedge fund expansions attract investors that were previously too risk averse).
[137] *Id.* at 72,078 .
[138] *Id.* at 72,078-79 (listing benefits to include a strong deterrent to advisers' fraud, identification of practices that may harm investors, earlier discovery of existing fraud, the ability to screen individuals seeking to advise hedge funds, and to deny entry to those with a history of disciplinary problems).
[139] *Id.* at 72,089.

not an issue[140] and argued that the inflow of funds is already so rapid that hedge fund advisers had more to invest than they could handle and were in no need to solicit retail investors.

In *Goldstein*[141], the D.C. Circuit struck down the hedge fund rule as an instance of arbitrary rulemaking by the SEC.[142] In vacating the rule, the D.C. Circuit underscored the substantive limits of agency rule-making power and rejected the SEC's position that it had authority to determine the meaning of the term "client" where the term had not been otherwise defined in the Advisers Act.[143] Many advisers who had previously registered under the rule decided to de-register. Reacting to *Goldstein*, the SEC dramatically expanded the fraud protection for investors[144] and proposed to increase the "accredited investor" standards under Regulation D.[145] Regulation D defines the term "accredited investor" as a natural person whose individual net worth, or joint net worth with such person's spouse, exceeds $1,000,000 at the time of the purchase[146] or whose individual income exceeds $200,000 (or joint income with the person's spouse exceeds $300,000) in each of the two most recent years and who has a reasonable expectation of reaching the same income level in the year of investment.[147] The SEC proposal envisaged raising the numerical requirement in Regulation D by

[140] *See* SEC Staff Report, *supra* note 135, at 80 ("[T]he staff has not uncovered evidence of significant numbers of retail investors investing directly into hedge funds.").
[141] 451 F.3d 873 (D.C. Cir. 2006).
[142] *Id.* at 884 ("[T]he *Hedge Fund Rule* only exacerbates whatever problems one might perceive in Congress's method for determining who to regulate. The Commission's rule creates a situation in which funds with one hundred or fewer investors are exempt from the more demanding Investment Company Act, but those with fifteen or more investors trigger registration under the Advisers Act. This is an arbitrary rule.").
[143] *Id*. at 881-83.
[144] *See* Prohibition of Fraud by Advisors to Certain Pooled Investment Vehicles; Accredited Investors in Certain Private Investment Vehicles, Investment Advisers Act Release No. 33-8766, 72 Fed. Reg. 400 (proposed Dec. 27, 2006) [hereinafter SEC Proposed Rules] (explaining provisions of the proposed rule allowing the SEC to bring enforcement actions against investment advisers who defraud investors or prospective investors).
[145] *Id.* at 405.
[146] Definitions and terms used in Regulation D, 17 C.F.R. § 230.501(a)(5) (2008).
[147] *Id.* § 230.501(a)(6).

adding to the net worth or income test specified in rule 501(a)[148] or rule 215,[149] a requirement of ownership of at least $2.5 million in investments.[150]

The SEC has not put this rule proposal in the context of retailization, but the reasoning for the proposal that "natural persons may have indirect exposure to private pools,"[151] and "many individual investors today may be eligible to make investments in privately offered investment pools as accredited investors that previously may not have qualified as such for those investments,"[152] seems to indicate that retailization was a major concern.[153] The proposed rule has not yet been adopted.

3. European Union

In European Member States, except for the UK, retailization has not been an issue because the hedge fund industry was less developed. However, reacting to increased concerns over investor protection, the European Union, in various directives attempted to address concerns of inadequate hedge fund oversight. Among those are the Market Abuse Directive ("MAD"),[154] the Markets in Financial

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148 *Id*. § 230.501(a).
149 *Id*. § 230.215.
150 SEC Proposed Rules, *supra* note 144, at 414 (clarifying that in addition to other Regulation D requirements, an accredited investor must own not less than $ 2.5 million in investments, after inflation adjustment).
151 *Id.* at 404.
152 *Id*. at 409.
153 *Id.* at 405 ("As proposed, the term accredited natural person would include any natural person who meets the requirements specified in the current definition of accredited person, as that term relates to natural persons, and would add a requirement that such person also must own (individually, or jointly with the person's spouse) not less than $2.5 million (as adjusted every five years for inflation) in investments at the time of purchase of securities issued by private investment vehicles under Regulation D or section 4(6).").
154 Commission Directive 04/72 art. 1-14, 2004 O. J. (L 162) 70 (EC) (implementing Directive 2003/6/EC of the European Parliament and of the Council as regards accepted market practices, the definition of inside information in relation to derivatives on commodities, the drawing up of lists of insiders, the notification of managers' transactions and the notification of suspicious transactions).

Instruments Directive ("MIFID"),[155] the Capital Requirements Directive ("CRD"),[156] and the Undertakings for Collective Investment in Transferable Securities ("UCITS") Directive.[157] Although all of these directives impact hedge funds in several ways, the UCITS Directive attempts to address the risks posed by retailization. The UCITS Directive improves investors' protection by replacing the simplified prospectus requirement with a requirement for Key Investor Information ("KII"), [158] thus attempting to ensure that investors receive clear, easily understandable and relevant information when they envisage investing in UCITS.[159] KII is a

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[155] Commission Directive 04/39, art. 1-73, 2004 O. J. (L 145) 1 (EC).

[156] The Directive is also called Basel II or Capital Requirements Directive / Market Risk Directive. Council Directive 93/6, art. 1-15, 1993 O. J. (L 141) 1, (EEC) (explaining proposed requirements regarding capital adequacy of investment firms and credit institutions).

[157] Council Directive 85/611, art. 1-59, 1985 O.J. (L375) 3 (EC) (pronouncing the EEC's position on the co-ordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)). The original UCITS Directive came into effect in 1989, setting out certain minimum conditions that a collective investment scheme ("CIS") needed to meet to be sold on a cross-border basis. However, its scope was limited to schemes invested in shares and bonds, and whilst the manager of the scheme could market that scheme in other member states, it could not carry out other investment services. Accordingly, the European Commission proposed two amending directives: Management Directive and Product Directive. Both of them were formally adopted on January 21, 2002. *See* Council Directive 01/107, art. 1-5, 2002 O. J. (L 041) 20, 2034 (EC) ("amending Council Directive 85/611/EEC . . . with a view to regulating management companies and simplified prospectuses"); Council Directive 01/108, 2002 O. J. (L 041) 35, 35-42 (EC) ("amending Council Directive 85/611/EEC . . . with regard to investments of UCITS").

[158] Before KII, the simplified prospectus had to be provided to investors prior to their subscription to the fund and was originally intended to provide the average retail investor with basic information about the fund to enable the retail investor to make an informed investment decision. After consultation with the regulators, the industry and consumers, it became apparent, however, that the simplified prospectus did not allow for useful comparisons of investment options as it was still too long and complex. Thus, the attempt to improve the information investors receive with the KII.

[159] Press Release, European Union, Financial Services: Commission Proposes Improved EU Framework for Investment Funds (July 16, 2007), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1161&format=HTML&aged=0&language=EN&guiLanguage=en.

relatively short document that summarizes key facts to retail investors in a clear and understandable manner focusing on strategy and objectives, risk and reward, as well as performance and charges, allowing retail investors to compare key features of various hedge funds. Additionally, KII is provided in the language of the country where the fund is marketed to the investor.

4. Germany

In Germany, retailization and the associated concerns have to be seen in light of the socio-economic realities of German politics. Politicians and regulators in Germany, partially to appease their constituencies who were increasingly exposed to the effects of a globalized economy, set out to fend off and marginalize activist hedge funds. They are primarily concerned because private equity firms and foreign wealth funds are becoming increasingly important in global financial markets due to their financial resources.[160] During the national election campaign in April 2005, Franz Müntefering, the Chairman of the German Social Democratic Party, likened private equity firms and hedge funds to a swarm of locusts descending on firms and firing employees.[161] Germany is particularly active in the international debate on improvements of regulation of international financial markets and made tighter regulation of global financial industries one of its core objectives during its presidency of the G-8 in 2007.[162]

Given this background of regulatory initiatives and political fear mongering, it is perhaps not surprising that retailization of hedge funds remains a rather contentious issue in Germany. German and international banks had for years tried to persuade investors in

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[160] Hubert Zimmermann, Cornell University, Controlling the Locusts: Germany and the Global Governance of New Financial Markets, Address at the ISA 49th Annual Convention, (Mar. 23, 2008), *available at* http://www.allacademic.com/meta/p254581_index.html (arguing that one of the two phenomena subject of the German initiative was "the emergence of hedge funds and private equity as major actors").

[161] *See* Editorial, *Deutschland AG*, FIN. TIMES, Aug. 21, 2008, *available at* http://www.ft.com/cms/s/0/9d5e1c10-6fb6-11dd-986f-0000779fd18c.html.

[162] *See* Zimmermann, *supra* note 160 (acknowledging that Germany has been predominantly active in improving the regulation of international financial markets and made this one of their main goals while presiding the G-8 in 2007).

Germany of the advantages of hedge funds, while politicians and regulators repeatedly warned of the dangers. The enactment of the Investment Act in December 2003[163] only partially alleviated these fears. Hedge funds of funds, such as DWS Xavex Hedge Select, among others,[164] have opened the world of hedge funds to retail investors—DWS Xavex Hedge Select allows German retail investors to participate with an initial investment of as low as €1,000. However, the risk exposure for retail investors is probably not comparable with that of qualified investors in other jurisdictions as hedge funds of funds in Germany are still covered by the legislation and the investor protection rules pertaining to mutual funds.

B. Retailization in Practice

Hedge funds are exempt from certain U.S. securities laws provided they do not advertise or otherwise hold themselves out to the public, limit the resale of their securities, and curtail the sale of their securities to only a limited number of wealthy investors.[165] Hedge funds generally comply with these requirements and limit the sale of their securities to sophisticated and wealthy investors.[166] Some recent developments, however, would perhaps indicate that the prevailing orthodoxy could be under pressure. For instance, the aforementioned Regulation D provides a safe harbor under Section 4(2) of the Securities Act of 1933 and defines "accredited investor" as including, among other things, a person with a net worth of more than one million dollars.[167] Inflation may have eroded the significance of a million dollar net worth as a proxy for investor sophistication under Regulation D. As noted earlier, to update the safe harbor numerical standards for hedge fund investors, the SEC

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[163] Investmentmodernisierungsgesetz (InvG), Dec. 19, 2003, BGBl. at 62, amended Dec. 4, 2004, BGBl. at 3166, art. 8, §8.

[164] Other German hedge funds include Deutsches Wertpapier Sparen DWS Xavex Hedge Select, Commerzbank's ADZ Fund, Dresdner Bank AG AI Global Hedge Certificate.

[165] *See* Houman B. Shadab, *Fending for Themselves: Creating a U.S. Hedge Fund Market for Retail Investors*, 11 N. Y. U. J. LEGIS. & PUB. POL'Y 251, 285-90 (2008).

[166] *But see id.* at 309-18 (arguing normatively for the establishment of a hedge fund market for retail investors).

[167] 17 C.F.R. § 230.501(a)(5) (2008).

has proposed amendments to Regulation D.[168] It would perhaps be difficult to determine what level of wealth should be a proxy for assumed "sophistication" of investors.

1. U.S. Blue Sky Law Exemptions for Investment Advisors

The SEC has engaged in a theoretical discussion of retailization in the context of hedge fund fraud.[169] Hedge fund managers are mostly investment advisors under U.S. Federal Law[170] but are exempt from registration if they provide investment advisory services to fewer than fifteen clients, do not provide advisory services to registered investment companies, and do not hold themselves out to the public as an adviser.[171] Almost all hedge fund managers mostly comply with these requirements to earn and maintain exemption from registration as an investment adviser under federal rules.[172] Without exemptions, they would be subject to SEC

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[168] SEC Proposed Rules, *supra* note 144, at 405-08 (proposing a two-step approach to determine whether an individual is an accredited investor. First step is whether the individual meets the test in rule 501(a) or rule 215 and the second step is whether the individual owns at least $2.5 million in investments); *see also* Testimony of David Ruder, *supra* note 56, at 5 n.8.

[169] *See* Registration Under the Advisors Act, *supra* note 130 at 8-9 (discussing that non-traditional entities are participating in the hedge fund market and losses resulting from hedge fund frauds might put at risk the entities' ability to meet their obligations); *see also* SEC Proposed Rules, *supra* note 144, at 401-07 (implying that retailization has exposed more natural persons to the risks of hedge fund fraud).

[170] *See* Investment Advisers Act of 1940 § 202(a)(11), 15 U.S.C. § 80b-2(a)(11) (2000).

[171] Investment Advisers Act of 1940 § 203(b)(3), 15 U.S.C. § 80b-3(b)(3) (2000) (excluding from mandatory registration those advisers that have had less than fifteen clients in the last year "and who neither holds himself out generally to the public as an investment adviser nor acts as an investment adviser to any investment company").

[172] It is unclear what role investment adviser registration with the SEC plays in the current environment. Some of the data made available to the author by Robert E. Place of the SEC's Investment Management Division highlights the importance of Goldstein v. Sec. & Exch. Comm'n*,* 451 F.3d 873 (D.C. Cir. 2006): "11,292 investment advisers are registered with the Commission with total AUM of $43 trillion. 1,845 or 16 percent of these advisers are identified by Form ADV as hedge fund advisers. 790 hedge fund advisers have registered since January 1, 2005 (and are still registered).

inspections, books and record keeping requirements,[173] disclosure requirements,[174] code of ethics requirements,[175] and significantly higher legal fees. Hedge fund managers have incentives to bring in investors as soon as possible to make a new hedge fund operational, but it is vital in this process to keep the number of investors below fifteen. Even though a "client" under the IAA can include legal entities,[176] hedge fund managers would probably want to make sure, especially in the start-up phase of a fund, that they maximize the counting of potential clients that would be excluded from the fifteen-client limit under federal law. Such clients could be retail investors who could qualify to invest under state specific *de minimis* exemptions.

Under *de minimis* exemptions in state Blue Sky laws, there could be several scenarios in which retail investors would be able to invest in hedge funds and hedge-fund-like-vehicles. There would probably also be several reasons why hedge fund managers would consider bringing in retail investors for a hedge fund under such exemptions. If the hedge fund manager wants to bring U.S. investors into the fund and the respective investors are residents of certain states, the fund manager would have to register as an investment adviser under the respective state laws if the state does not have a *de minimis* exemption that exempts the manager from registration. Such registration under state law would require filing a Form ADV, used

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217 of these advisers have registered since the Goldstein decision (June 23, 2006). 169 hedge fund advisers are located outside the U.S. 11,710 private investment funds ("PIF") identified; (10,029 PIFs once duplicate names are removed). $3 trillion in private investment fund assets identified; ($2.6 trillion in PIF assets once duplicate names are removed). 753 or 30 percent of the HF advisers that were identified on June 23, 2006, either withdrew their registration or had their registration cancelled. 382 or 15 percent of the HF advisers that were identified on June 23, 2006, have been reclassified as non hedge fund advisers because of changes they made to their Form ADV." Email from Robert E. Place, Inv. Mgmt. Div., Sec. & Exch. Comm'n, to author (Dec. 10, 2008) (on file with author).

[173] 17 C.F.R. § 275.204-2 (2008).

[174] *Id*. § 275.204-3.

[175] *Id.* § 275.204A-1 (requiring registered investment advisers to "establish, maintain and enforce a written code of ethics," subject to some minimum requirements included in the rule).

[176] *Id.* § 275.203(b)(3)-1(a)(2).

by the SEC to federally register certain investment advisers,[177] with the appropriate state through the Investment Advisor Registration Depository, which would cause significant transaction costs. Especially in the start-up phase of a hedge fund, the manager may want to avoid such costs. The manager would also probably want to avoid having to worry about what kind of investors to bring into the fund and whether they would need to be qualified investors in order to be acceptable. The manager would probably also want to use existing investors in the fund as a form of advertising for the fund to bring in additional investors Additionally, the manager would probably like to establish a track record and get the fund operational as soon as possible. Accordingly, certain state *de minimis* investment adviser registration exemptions for investors could be an attractive alternative to federal laws for hedge fund manager, especially in the start-up phase of a hedge fund.

Investment adviser registration exemptions under state Blue Sky laws would probably not suffice to explain the phenomenon of retailization or justify any data insufficiencies. Theoretically, however, it appears to give some indication as to how previously unqualified investors would perhaps be able to gain access to the hedge fund world. A possible explanation for retailization gives only limited guidance for researchers. The quantification of the economic significance of retail investors in hedge funds would be important, as such quantification would probably help researchers understand the origins of retailization. A data-supported determination of the origins of retailization, in turn, would probably help researchers understand if retail investors in hedge funds would warrant special regulatory attention.[178]

Eighty-five percent of hedge fund assets under management globally are located in U.S. and U.K. jurisdictions.[179] A majority of such fund assets may be located in the U.S. The analysis of *de minimis* rules under Blue Sky laws could be a starting point to determine if and how retailization of hedge funds is taking place.[180]

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[177] *See generally* Sec. & Exch. Comm'n, Answers: Form ADV, http://www.sec.gov/answers/formadv.htm (last visited Apr. 20, 2009).

[178] *Cf.* SEC Proposed Rules, *supra* note 144, at 401-07 (suggesting that the SEC has previously used retailization as an argument to justify hedge fund fraud rules).

[179] HFWG, *supra* note 3, at 3.

[180] States that have *de minimis* exemptions would, in most cases, allow up to five investors to invest in hedge funds without qualification requirements

In lieu of such analysis, some conclusions could perhaps be drawn from analyzing the existence of *de minimis* rules in states with the highest percentage of hedge fund assets under management. [181] This methodology is based on the assumption the higher the number of assets under management in a state, the higher the potential access rate for retail investors.[182]

TABLE 1: LOCATION OF HEDGE FUNDS WITH AT LEAST $1 BILLION IN AUM[183]

Location	**Number of Funds**	**Billion Dollars AUM**	**% of AUM**
New York	144	973.4	68.01%
Connecticut	30	198	13.83%
California	32	133.9	9.36%
Massachusetts	11	83.3	5.82%
Texas	11	42.6	2.98%

Table 1, above, indicates that a majority of assets under management in the U.S. are located in New York State. Under New York law, any person who has more than five investment advisory clients in New York, excluding financial institutions and institutional buyers, is required to register with the State of New York as an investment adviser.[184] Before the rule was adopted by the New York Attorney General on January 29, 2003, many hedge fund managers in New York had not been subject to regulation because they were

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for these investors and without requiring the hedge fund manager to register as an investment advisor.

[181] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 11-12 (referencing a table showing "Top 5 States by Income").

[182] It is unclear if the percentage of assets under management per U.S. state would be correlated with the resident status of potential retail investors in hedge funds. Assuming that the majority or at least a significant percentage of total income of a hedge fund would perhaps be collected from investors who are residents in the state in which the respective hedge fund is registered, it would perhaps be possible to identify retail investors from such states who could have invested in hedge funds under such state's Blue Sky Law *de minimis* exceptions.

[183] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 11-12

[184] N.Y. GEN. BUS. LAW § 359-eee (2007).

exempt under the previous New York State *de minimis* rule that provided an exemption for persons who sold investment advisory services to less than forty persons within the state of New York.[185] Similarly, the New Jersey legislature is expected to cancel the current *de minimis* exemption allowing five clients or less from New Jersey without triggering an investment adviser requirement.[186] The State of Connecticut, following New York State in hedge fund assets under management,[187] also provides a *de minimis* exemption under which a hedge fund manager does not have to register as an investment adviser provided the manager has less than five clients from Connecticut and no place of business in the state.[188] Illinois has a similar rule.[189]

Massachusetts Law also provides a *de minimis* rule that allows for less than six clients who were residents of Massachusetts within the past 12 months provided that the investment advisor does not have a place of business in the State of Massachusetts.[190] The State of California has a similar rule.[191] Texas, however, even though it technically provides a *de minimis* exemption for investment advisers with fewer than six clients within the past twelve months,[192] still requires a notice filing through Form ADV—Part I.[193]

In this small sample of states, a statistically significant majority (six out of seven) provides *de minimis* rules that would allow some access for retail investors. It is unclear if an increase in

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[185] WARD B. HINKLE, HODGSONRUSS, LLP, INVESTMENT ADVISER ALERT, CHANGES IN NEW YORK REGULATORY SCHEME—NEW RULES TRIGGER NEW REGISTRATION AND FILING REQUIREMENTS, INVESTMENT ADVISER ALERT (2003), *available at* http://www.hodgsonruss.com/files/1_2_1/InvestAdvise2003WBH.pdf.

[186] N.J. STAT. ANN. § 49:3-56(g) (2001).

[187] *See* IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 11-12.

[188] CONN. GEN. STAT. § 36b-6e (2007).

[189] ILL. ADMIN. CODE tit. 14, § 130.805 (2006).

[190] MASS. GEN. LAWS ANN. ch. 110A, § 401(m)(1)(G) (2002).

[191] CAL. CORP. CODE § 25202(a) (2005).

[192] Texas Securities Act §12-1 (2003); 7 TEX. ADMIN. CODE § 7:116.1(b)(2)(A) (2008).

[193] 7 TEX. ADMIN. CODE § 7:116.1(b)(2)(C) (2008). "[Form ADV] Part 1 contains information about the adviser's education, business and disciplinary history within the last ten years." Sec. & Exch. Comm'n, Answers: Form ADV, http://www.sec.gov/answers/formadv.htm (last visited Apr. 20, 2009).

the sample size to all fifty states would change the distribution significantly.

2. CFTC Rules

In addition to Federal law and state securities laws, hedge funds and their advisers may have to comply with the Commodity Exchange Act ("CEA") and rules promulgated by the Commodities Futures Trading Commission ("CFTC"). In 1998, the CFTC established that engaging in even one commodity futures transaction would precipitate a hedge fund's consideration as a "commodity pool".[194] Along the same lines, if a hedge fund manager provides futures advice to the hedge fund, the manager will typically be considered a Commodity Pool Operator ("CPO")[195] or "Commodity Trading Adviser" ("CTA").[196]

In the context of retailization, the CEA, like state securities laws, also provides a *de minimis* exemption from CTA registration.[197] For purposes of counting clients, certain business organizations are counted as a single client[198] and a hedge fund that has fifteen or fewer clients may qualify the hedge fund manager to remain exempt from registration as a CTA.[199] If a fund manager qualifies for the "families and friends" program, he or she will be able to trade options and futures for 15 individuals who will not have to qualify as sophisticated or qualified investors. This helps to circumvent accredited investor standards and allow retail investors into hedge funds.

C. Market Segmentation

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[194] *See* Commodities Futures Trading Comm'n, No. 98-18, COMM. FUT. L. REP. P 27,276, 1998 WL 141550.
[195] Commodity Exchange Act, 7 U.S.C. § 1a(5) (2000).
[196] *Id*. § 1a(6)(A). *See* Commodities Futures Trading Comm'n, No. 98-18, *supra note* 194.
[197] *Id.* § 6m(1); 17 C.F.R. § 4.14(a)(10) (2008).
[198] 17 C.F.R. § 4.14(a)(10) (2008).
[199] 7 U.S.C. § 6m(1) (2006) (sometimes labeled "family and friends programs").

According to IBIS World, five percent of all investors in the hedge fund market are retail investors.[200] Five percent is a significant number. Most notably, the report distinguishes retail investors as any investors who are not institutional investors or high net worth individuals. The proportion of the five percent investing in hedge funds would probably have to be discounted because retail investors tend to be heavily represented in exchange traded funds.[201]

Even though the expected revenue and revenue growth rates were under increasing pressure in 2008,[202] the long-term forecasts by IBISWorld indicate that the industry will grow at an average annual rate of 26.1 percent during the five-year period through 2013.[203] These assumptions would probably have to be adjusted given recent reports that redemptions and investment declines are likely to cause hedge fund assets to fall, by mid-2009, as much as 50 percent from their peak.[204]

Given the forecast, it seems unlikely that the market segmentation would substantially change in the coming years. Increasing competition among hedge funds and new low-cost vehicles that track the performance of hedge funds across a range of asset classes[205] could result in pressure on the fee structure of hedge funds. Moreover, the depreciating performance of hedge funds has and will continue to precipitate redemptions by investors.[206] Redemptions, in turn, will result in smaller numbers of investors who are willing to leave their funds with hedge funds or commit new funds. The smaller pool of investors would probably have to be shared by more hedge funds and hedge fund like vehicles. Some funds would probably not be able to compete based on performance and fees. In attempting to compete with their peers, such funds would probably be tempted to find ways to open up to retail investors on an increasing scale.

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[200] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 9 (referencing graph).
[201] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 10.
[202] *Id.* at 6 (referencing graphs).
[203] *Id.* at 38 (referencing graphs).
[204] Strasburg et al, *supra* note 24.
[205] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 39.
[206] Strasburg et al, *supra* note 24 ("Redemptions in the industry will amount to between 25 percent and 40 percent of hedge-fund assets by March 2009, says Barry Colvin, vice chairman of Balyasny Asset Management, a New York hedge fund . . .").

Accordingly, if the segmentation of the industry stays constant while the industry grows at an average annual rate of 26.1 percent during the five-year period to 2013, the industry can expect a correlated growth rate for retail investors. At the same time, increasing competition in the industry could precipitate action to open hedge funds to retail investors.

V. Market Failure and Inequities

Events in world financial markets and certain financial instruments such as CDOs could raise concerns over market failure in financial instruments. Concerns over market failure of highly complex financial products are closely related to valuation problems in hedge funds as complex financial products are frequently used by hedge funds and are difficult to value. Legislators and regulators could use market failure to legitimize attempts to impose stricter rules on hedge funds.

A. Moral Hazard and Market Failure in Complex Financial Instruments

Scholars have long debated the theory of market failure.[207] Keynesian economist Paul A. Samuelson, along with others, defined the phenomenon of market failure and formalized it.[208] Other scholars later opined that Samuelson's arguments were, in many

[207] For a thorough discussion of the theory of market failure and most of the arguments pro and contra, see, e.g., DAVID L. WEIMER & AIDAN R. VINING, POLICY ANALYSIS: CONCEPTS AND PRACTICE, (2nd ed. 1992); PAUL A. SAMUELSON , ECONOMICS: AN INTRODUCTORY ANALYSIS, (6th ed. 1964); Louis De Alessi, *Error and Bias in Benefit-Cost Analysis: HUD's Case for the Wind Rule*, 16 CATO J. 129 (1996); Steven N. S. Cheung, *The Fable of the Bees: An Economic Investigation*, 16 J. L. & ECON. 11 (1973); Ronald H. Coase, *The Lighthouse in Economics*, 17 J. L. & ECON. 357 (1974); Joseph Farrell, *Information and the Coase Theorem*,1 J. ECON. PERSPECTIVES 113 (1987); J. E. Meade, *External Economies and Diseconomies in a Competitive Situation,* 62 ECON. J. 54 (1952); Richard Nelson, *Roles of Government in a Mixed Economy*, 6 J. POLICY ANALYSIS AND MGMT. 541 (1987); DOUGLASS C. NORTH & ROBERT P. THOMAS, THE RISE OF THE WESTERN WORLD: A NEW ECONOMIC HISTORY (1973); Charles Wolf, *A Theory of Nonmarket Failure: Framework for Implementation Analysis*, 22 J. L. & ECON. 107 (1979).
[208] *See* Samuelson, *supra* note 207.

respects, fallacious.[209] In some cases, markets would be inefficient because agreements within the market were not enforced.[210] Perhaps today, market inefficiencies are not the direct result of any inherent failures but could be the result of the neglect to set up an institutional framework. In 2007, the market experienced record downgrades in mortgage-backed securities. CDOs, and other complex debt securities, fueled unprecedented bank write-downs. Some AAA rated debt lost all its value.[211] January 2008 was the worst month for CDOs in more than 10 years with issuance of CDOs grinding to a near halt worldwide.[212] The value of the CDO market had previously been estimated at more than $2 trillion. As the value of CDOs fell, the market for them disappeared.[213]

1. Hierarchies in Financial Institutions

In the case of complex financial products and derivatives, market participants engaged in executing transactions in products are predominantly mid- to lower-level employees of banks or traders for hedge funds and other large institutions beholden to the desires of their employers. As such, these market participants are agents of their firms. Moral hazard[214] becomes a real problem in the forms of (i)

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[209] *See e.g.* THE THEORY OF MARKET FAILURE—A CRITICAL EXAMINATION (Tyler Cowen ed., 1988) (compiling a collection of primary critiques of market-failure theory with suggestions on further research, contributors include James M. Buchanan, Robert J. Smith, Robert Axelrod, Earl R. Brubaker, Steven N. S. Cheung, Harold Demsetz, Jerome Ellig, Kenneth D. Goldin, and Jack High).

[210] *See e.g.* North & Thomas, *supra* note 207 at 8 (stating that "[g]overnments take over the protection and enforcement of property rights because they can do so at lower cost than private volunteer groups . . . .").

[211] John Shenn, CDO Market is Almost Frozen, JP Morgan, Merrill Say, BLOOMBERG.COM, Feb. 5, 2008, http://www.bloomberg.com/apps/news?pid=20601087&sid=aCk0Qr1f2Eew&refer=home ("The slowdown of the more than $2 trillion CDO market follows record downgrades in mortgage-linked securities last year. Some AAA rated debt lost all its value . . .").

[212] Paul J. Davies, *Trading in CDOs Slows to a Trickle*, FINANCIAL TIMES.COM, Feb. 11, 2008, http://www.ft.com/cms/s/0/39f3e128-d808-11dc-98f7-0000779fd2ac.html?nclick_check=1.

[213] IBISWORLD U.S. INDUSTRY REPORT, *supra* note 14, at 31.

[214] Organisation for Economic Cooperation & Development Glossary of Statistical Terms—Moral Hazard, http://stats.oecd.org/glossary/detail.asp?ID=1689 (last visited Apr. 7, 2009).

hidden action, i.e. the actions of the agents are unobservable by the principal, and (ii) hidden information, i.e. the agent has information that the principal has not. As for hidden action, the investment activities of individual traders and managers are not directly observable by the individuals and institutions whose economic assets are utilized for these trades. Even if the institutions would be able to put monitoring measures into place, the activities of individual traders would probably not be directly controllable. Hidden information is also an issue in this context because the traders in most cases will have more market information and knowledge than their supervisors and clients. This is mostly due to the nature of trading information and the expertise that a trader in specialized instruments or markets will develop over the course of his or her career.

The principal-agent problem is further exacerbated by hierarchies in financial institutions that often create multiple layers of agency relationships to trade and invest in complex financial products. In these layers, the agents who are using complex financial products to invest a principal's funds are often removed by several levels from the principals who are bearing the real economic risk of a transaction. The moral hazard problem is further exacerbated when the financial products involved in many of these transactions are so highly complex that the agents, mostly on the buy side, do not entirely understand them and trade for the principal based on incomplete and asymmetric information. The use of these instruments is often based on the agent's assumption as to what other market participants may be doing the next day or the day thereafter and often leaves little consideration for the real or underlying value of such instruments.

2. Moral Hazard of Rating Agencies

The buyer of CDOs may rely heavily on the rating agencies—possibly creating another level of agency problems. Rating agencies are uniquely active in the CDO market[215] but have

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[215] *See* Frank Partnoy, *How and Why Credit Rating Agencies are Not Like Other Gatekeepers*, *in* FINANCIAL GATEKEEPERS: CAN THEY PROTECT INVESTORS? 59, 62 (Yasuyuki Fuchita & Robert E. Litan eds., 2006), ("Credit rating agencies are more profitable than other gatekeepers, they face different and potentially more serious conflicts of interest, and they are uniquely active in structured finance, particularly with regard to

serious deficiencies in policies and procedures for rating CDOs and other structured products tied to subprime mortgages.[216] Rating agencies are paid for their ratings by the issuer of a CDO[217] but since the major users of such ratings are the buyers of CDOs, conflicts of interests arise.[218] The rating agency as the agent would probably have an incentive to issue high ratings to satisfy the issuer of a CDO as its principal. The buyer as the beneficiary of the rating has no means of controlling the rating agencies and its ratings other than through its relationship with the issuer. The issuer principal has incentives to control the rating agency agent in the hope that the buyer will continue to rely on the ratings from the rating agency. It seems unlikely that the issuer-buyer relationship and the incentives inherent within could adequately control the principal-agent relationship between issuer and rating agency to ensure accurate ratings. As the incentive structures are not directly aligned with the beneficiary of the ratings, the beneficiary is not able to monitor the rating agency adequately. The problem is exacerbated when considering that the increasing number and complexities of CDOs often lead to information asymmetries for rating agency employees who

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collateralized debt obligations.").

[216] SEC. AND EXCH. COMM'N, SUMMARY REPORT OF ISSUES IDENTIFIED IN THE COMMISSION STAFF'S EXAMINATIONS OF SELECT CREDIT RATING AGENCIES 1-2 (2008), http://www.sec.gov/news/studies/2008/craexamination070808.pdf [hereinafter SEC CREDIT AGENCY REPORT] ("[T]he Staff's examinations revealed that: there was a substantial increase in the number and in the complexity of RMBS and CDO deals since 2002, and some of the rating agencies appear to have struggled with the growth; significant aspects of the ratings process were not always disclosed; policies and procedures for rating RMBS and CDOs can be better documented; the rating agencies are implementing new practices with respect to the information provided to them; the rating agencies did not always document significant steps in the ratings process - including the rationale for deviations from their models and for rating committee actions and decisions—and they did not always document significant participants in the ratings process; the surveillance processes used by the rating agencies appear to have been less robust than the processes used for initial ratings; issues were identified in the management of conflicts of interest and improvements can be made; and the rating agencies' internal audit processes varied significantly.").

[217] *Id.* at 23. This is the so-called "Issuer-Pays" conflict. ("Each of the NRSROs examined uses the "issuer pays" model, in which the arranger or other entity that issues the security is also seeking the rating, and pays the rating agency for the rating.").

[218] *Id*.

reportedly struggled with the complexities.[219] Given the complexities of CDOs and the increase in deal volumes, one would have expected higher transactions costs. In fact, not all rating agencies experienced higher transaction cost through hiring additional personnel to match their respective percentage increases in CDO deal volume.[220] The lack of correlation between CDO deal volume and revenues for rating agencies from providing CDO ratings[221] and the disproportionate increase in staff levels[222] at least raises monitoring questions for the buyers of CDOs who rely on the ratings provided by the agencies.

Rating agencies seem to be struggling with a host of other issues that they will probably need to address in the near future, such as a lack of disclosure about the ratings process for CDOs, substandard documentation of ratings policies and procedures, insufficient documentation regarding the rationale for deviating from models to adjust ratings, and lagging surveillance processes in updating ratings.[223]

The SEC has proposed new rules to address the concerns.[224] The rules require, among other provisions, that rating agencies keep records of all actions related to a current rating, and maintain a record of the rationale for any material difference between the rating implied by a quantitative model and the rating that the agency actually issued.[225] Their record-keeping obligation will also extend to any complaints with respect to the performance of a credit analyst in providing a credit rating.[226] The agencies are also required to provide transition statistics for each asset class of credit ratings for which they are registered or seeking registration.[227] In performing the credit

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[219] *Id*. at 12. ("Internal documents at two of the rating agencies appear to reflect struggles to adapt to the increase in the volume and complexity of the deals.").
[220] *Id.* at 10. (reporting that for the most part, rating agencies' increases in staffing correlated with deal volume. However, with respect to CDOs, "two rating agencies' staffing increases did not appear to math their percentage increases in deal volume.").
[221] *Id.* at 11.
[222] *Id.*
[223] *Id*. at 1.
[224] *See* SEC Adopts New Rules for Credit Rating Agencies, Re-Proposes Others, Fed. Sec. L. Rep. (CCH), Letter No. 2356 (Dec. 10, 2008).
[225] *Id.*
[226] *Id.*
[227] *Id.*

ratings, the rating agencies will also have to disclose how much they relied on verification performed on assets underlying or referenced by a structured finance transaction.[228] It is unclear if these new SEC rules will suffice to comprehensively address the disclosure and documentation issues.

The combination of various layers of principal-agent relationships, bounded rationality, moral hazard and incomplete and asymmetric allocation of information could have resulted in market failure for complex financial instruments. Financial regulators may use this as justification to regulate complex financial instruments and other hard-to-value assets and perhaps may feel the need to go beyond that. It remains unclear if such regulation would produce results superior to private ordering.

B. Informal Rules Protect Primarily Qualified Investors

Valuation of hedge funds is important for both qualified investors and retail investors as the NAV of positions held by a hedge fund is used as the basis for all of the hedge fund's subscriptions, redemptions and performance calculations. Performance calculations based on the NAV are used to advertise the fund and charge performance and other fees to the investors. When faced with performance calculations as well as subscriptions and redemption prices, the interests of qualified and retail investors are mostly aligned. Qualified and retail investors generally both seek to get the best and most accurate price when they subscribe to a fund or when they redeem their shares or pay performance fees to management. Especially when paying performance fees of up to 30 percent of profits, investors expect the fund to get the NAV and the performance calculations right. However, some crucial differences distinguish the interests and incentives of qualified and retail investors. More specifically, qualified investors can rely on a set of informal rules and business practices that are not available to retail investors.

Qualified investors tend to have some form of industry knowledge or relationships with people in the industry and they often willingly accept and anticipate the valuation problem. Their emphasis tends to be on a long-term investment that is based on

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[228] *Id.*

mutual trust and, in most cases, a pre-existing relationship or knowledge of the manager and the manager's reputation in the community. Qualified investors often have a closer relationship with the management of hedge funds due to their industry involvement and other business relationships.[229] Even though their preference may be to obtain accurate valuation when needed, they have strong incentives to accept valuation problems in order to maintain the relationships with management and other industry participants and protect their reputations. Managers are also dependent on their reputations in the marketplace and have strong incentives to protect their performance records. Even though managers may not be able to value their units accurately and may have incentives to misprice the units, they may ignore valuation problems and may give a qualified investor a better price or another form of compensation to maintain the relationship and their reputation and the reputation of the fund. Accordingly, the interests of managers and qualified investors are somewhat correlated and qualified investors are less likely to raise valuation issues or sue the hedge fund and its management. Even if things do go wrong, qualified investors may attempt to maintain the relationship in order to negotiate favorable terms. Given their role in the industry, and the industry practices and informal rules that protect their relationships and investments, qualified investors may not desire nor require extended investor protection rules to optimize valuation of hedge funds.

In contrast, retail investors often have little appreciation for or knowledge of potential valuation problems. In most cases, they have not been previously exposed to or involved in the industry and they may not be part of a network of contacts and informal references that would allow them to get involved. They also do not normally have the financial means to hire professionals to refer them and then assist them in the decision making process. Unlike the qualified investor, the retail investor would probably not have been referred to

[229] If the investment should not be based on a pre-existing relationship, qualified investors mostly have the foresight and financial means to hire professionals to assist in the decision making process that leads to an investment. The fund, in turn, hires professionals to draft the pertinent documentation and review the accounts for the fund. These professionals may get involved in the solicitation process, they may refer other industry participants who they had previously worked with or who are part of their larger network of contacts. Often they may be in a position to introduce the investors to the management of the fund.

the fund through a mutual acquaintance, an attorney or other business relationship, but rather would probably have read about it in the media[230] or would have relied otherwise on publicly available information. Accordingly, the retail investor probably would not be able to rely on an existing relationship, and therefore the good faith treatment and the set of informal rules that come with it. Retail investors also do not have incentives to accept valuation problems to maintain relationships with management and other industry participants. Their arms length and impersonal relationships with management disincentivizes informal arrangements. Business practices and informal rules of the industry may not apply to management's dealings with retail investors. Accordingly, retail investors may not have the benefit of informal compensation for valuation inaccuracies. Retail investors are also less likely to care about their reputation in the industry or the relationship with the hedge fund's management but will rather focus on the financial return of their investments and any impact that valuation inaccuracies may have thereon. Their incentives are, thus, not aligned with management, and retail investors are more likely to raise valuation issues or sue a hedge fund and its management for valuation inaccuracies. Given their minority position in the industry and the lack of informal rules and management's disincentives to protect their investments, retail investors are more likely to benefit from investor protection rules that optimize valuation of hedge funds.

VI. Regulatory Options and Potential Alternative

Recent developments in world markets, the housing and credit crisis and its repercussions in the U.S. economy and financial markets could make it more likely for the U.S. and other legislators to attempt to regulate the markets and the economy. There could be many reasons for new and enhanced regulation in the current environment[231] even though the role of regulation in the economy and financial markets and the effect of regulation remain unclear.

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[230] Many magazines for medical professionals have started to publicize hedge fund investments. *See, e.g.*, John J. Grande, *Alternative Investment Strategies Can offer Significant ROI* OPHTHALMOLOGY TIMES, May 15, 2002; Leslie Kane, *Where to Put Your Money: Four Experts Tell Whether You Should put Your Money*, MED. ECON., Jan. 9, 2004, at 48.
[231] *See supra* Part V.

Hedge funds are major players in international financial markets and disproportionately utilize hard-to-value assets and complex financial instruments, both of which could be primary targets of any regulatory efforts. Legislators and financial regulators could attempt to regulate the complex financial products that have been involved in recent events. Hedge funds could then adjust their market exposure and strategies to such new regulations. Regulators and legislatures could also attempt to regulate hedge funds directly.

It is unclear if any one form of regulation would substantively be able to address the concerns over valuation of hedge funds. A focus on hard-to-value assets and complex financial products alone would probably ignore other causes. The problem is exacerbated if a regulator or legislator were to consider the role of retailization and the different levels of protection and incentive structures for retail and qualified investors. The effect of a hypothetical regulatory attempt on the industry and individual industry participants would be mostly unclear.

This paper has proposed the following combination of causes for the valuation problem: (i) the convergence of hedge funds and private equity funds, (ii) the fee structure of hedge funds (iii) the conflicts of interest of hedge fund managers who manage and value their portfolios, (iv) the valuation of complex futures, options, structured credits and over-the-counter derivatives, as well as (v) transparency. The paper has also demonstrated that retailization is a phenomenon that could change the hedge fund industry and creates different levels of protection and incentive structures for qualified and retail investors. Legislators and financial regulators intending to address concerns over valuation could be well advised to consider the impact of retailization and the different levels of protection for qualified and retail investors as well as the lack of understanding and knowledge of both retail and qualified investors when it comes to certain asset classes.

Regulators and legislators would probably have several options to address the issues around complex financial instruments and valuation concerns in hedge funds, including but not limited to (i) limiting the use of hard-to-value assets and complex financial products, (ii) implementing investor qualification requirements for hedge fund investments, (iii) setting standards for valuation and risk disclosure, (iv) correlating investor suitability with hedge fund risk exposure, (v) setting guidelines wherein the level of retail investors would trigger asset allocation (vi) implementing investor suitability standards for certain asset classes. Many of these and other theoretically possible avenues of regulation would probably infringe on the interests of market participants who may not need protection through regulation. Investor suitability standards seem the most preferable to this author because they would probably protect the interests of retail investors while at the same time not unduly burdening the hedge fund industry and other market participants.

A. Limitation on the Use of Hard-to-Value Assets and Financial Products

Regulators could be inclined to argue that market failure in financial instruments precipitated systemic risk. Hedge funds, as the primary users of complex financial instruments, could then be the first to encounter new regulatory requirements such as a limitation on the use of highly complex financial products and hard-to-value assets. It is very unlikely that limiting the use of financial instruments will have positive effects. The implicit inhibition of financial innovation would probably limit investors' use of hedging products and interfere with economic expansion.[232] Many of the markets where a limitation on the use of financial products could have avoided financial losses will most likely disappear. A prime example is the market for CDOs.[233] Further limitation on the use of such instruments would probably be unadvisable. A better approach would be to require hedge funds to demonstrate their knowledge and understanding of the products they utilize and to require disclosure to investors.

B. Investor Qualification Requirements for Investments in Hedge Funds

[232] Thomas Garbaravicius & Frank Dierick, Hedge Funds and their Implications for Financial Stability ECB, OCCASIONAL PAPER NO. 34 (2005), available at SSRN: http://ssrn.com/abstract=75209; *c.f.* Heinz Zimmermann, Credit Risk Transfer, Hedge Funds, and the Supply of Liquidity, U. OF ST. GALLEN LAW & ECONOMICS WORKING PAPER NO. 2008-14 (2007), available at SSRN: http://ssrn.com/abstract=1137924 (concluding that "the role of hedge funds in providing 'liquidity' is questionable.").

[233] *See* Davies, *supra* note 212.("The market for complex debt securities has seen its worst start to the year in more than 10 years with issuance of collateralised debt obligations grinding to a near halt worldwide.").

Another avenue of regulation could be to increase the sophistication test to disqualify retail investors for certain hedge fund investments. Regulation D provides a safe harbor under Section 4(2) of the Securities Act of 1933 and defines “accredited investor” as a person with a net worth of more than one million dollars or an annual income of more than $200,000 for an individual or $300,000 for a married couple.[234] Inflation may have eroded the significance of a one million dollar net worth as a proxy for investor sophistication under Regulation D. To strengthen the safe harbor numerical standards for hedge fund investors, the SEC has proposed amendments to Regulation D.[235]

It would perhaps be difficult to determine at what level of wealth "sophistication" of investors could be assumed. Unless the business of an investor is to primarily invest in certain hard-to-value assets, the sophistication of such investor can probably not be assumed, regardless of personal wealth. Investors who could otherwise afford to hire professionals to help in the decision making process, for a variety of reasons, do not always do that. Accordingly, raising the numerical tests by adding an investable assets requirement[236] would probably not address the question of how the lack of understanding of certain hard-to-value assets could be addressed. A compromise could be a requirement for increasing the numerical test under Regulation D in combination with a requirement that the seller has a reasonable belief that the buyer understands hedge fund investments.

C. Valuation and Risk Disclosure

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[234] 17 C.F.R. § 230.501(a)(5) (2008).

[235] SEC Proposed Rules, *supra* note 144, at 409 (pointing out that many individual investors today may be eligible as accredited investors that, in the past, would not have reached such qualifications. As private pools have become more complex with limited information investors “may find it difficult to appreciate the unique risks of these pools, including those with respect to undisclosed conflicts of interest, complex fee structures and the higher risk that may accompany such pools' anticipated returns.”); *see also* Testimony of David Ruder, *supra* note 56, at n.8 (“ The SEC has proposed amendments to Regulation D strengthening the safe harbor numerical standards for hedge fund investors, but has not yet adopted the amendments. Rel. 33-8766 (Dec 27, 2006) and Rel. 33-8828 (Aug 3, 2007).”).

[236] SEC Proposed Rules, *supra* note 144, at 405.

Transparency has many benefits and could alleviate some of the concerns over valuation and risk assessment. Disclosure of valuation and risk to the SEC would perhaps minimize incomplete information and information asymmetries. More disclosure may not, however, always mean better governance if the information provided is hard to assess and evaluate. In the case of reporting hedge fund risk data to the SEC, it remains unclear if the SEC would be able to adequately process the data to make recommendations or rules that would limit the risk exposure of the respective hedge fund and thus limit systemic risk. A serious obstacle would perhaps be the availability of qualified staff to assess the risk data from hedge funds and make appropriate recommendations. In many cases, understanding and processing the risk data would most likely require an understanding of hard-to-value assets and highly complex financial instruments. Professionals who could understand the risk data would probably be disincentivized to use their knowledge for purposes of supervision rather than economic gain. Knowledgeable risk analysts may find the private sector much more lucrative than the public sector.

In addition to the utilization problem, if the SEC should require hedge funds to provide risk and valuation data in a certain simplified format, the SEC would in fact impose a significant burden on the hedge fund industry. It is unclear if it would be possible to limit the level of complexity of valuation and risk data. Either way, providing risk and valuation data would probably impose significant transaction costs on hedge funds as it would probably require pre-screening of the data. It could also mean that hedge funds would need to hire additional staff to prepare the data. Transaction costs would probably further increase if the SEC would add simplification requirements for risk and valuation data. Hedge fund managers would need to spend time and resources to provide simplified data. Given the complexities of valuation analysis, it remains unclear if hedge fund managers can always ascertain the value of their positions. This, in turn, raises questions regarding the quality of the risk and valuation data that would be provided to the SEC.

D. Correlating Investor Suitability with Hedge Fund Risk Exposure

Depending on future developments in the industry, the SEC would perhaps be able to create investor suitability criteria and correlate them with the risk exposure of hedge funds, i.e. the more sophisticated the investors of a hedge fund, the more risk would be allowed for the fund. In this scenario, the fund management would disclose to the SEC who is investing in the hedge fund, thus allowing the SEC to evaluate the sophistication of the investors in the fund. Based on the average level of sophistication, the SEC could determine what level of risk could be appropriate for such fund and what kind of financial instruments would be appropriate for the respective level of risk. By controlling who is accepted as an investor in the fund, management could control what requirements will be imposed by the SEC in terms of what financial instruments can be used or should not be used. Allowing the SEC to determine what level of risk a fund may take depending on its average investor profile would probably enable the SEC to control risk taking.

A big downside to this approach would most certainly be the transaction and administrative costs that would be involved with such a proposal. It would probably also lead to only ultra-sophisticated institutional investors being able to invest in hedge funds that would have access to hard-to value assets and complex financial instruments. Focusing on the level of retail investors could be one triggering event but would perhaps not have to remain the only criterion.

E. Level of Retail Investors Triggering Asset Allocation

Alternatively, limiting complex financial instruments in portfolios of hedge funds open to retail investors, if commitments from retail investors exceed some level of assets under management, would likely protect the interests of retail investors while at the same time limiting undue burdens for the industry.[237] By requiring hedge funds to limit their risk exposure and the use of hard-to-value assets and complex financial products upon certain triggering events, the SEC would probably be able to avoid a highly complex and costly

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[237] Managers would be incentivized to keep the assets from retail investors under the applicable retail investor asset threshold. Therefore, they would keep the fund in the current regulatory scheme without implementing additional protection for retail investors. Arguably, this would at least make the managers more aware of special rules for retail investors and possibly impact their risk-taking.

assessment of hedge fund risk and valuation data.[238] Actually, the entire problem of hedge fund valuation and the demand for increased transparency and valuation accuracy could probably be avoided, as the SEC would simply monitor the triggering of certain thresholds. However, such supervision would require substantial resources and would create transaction costs. Retail investors may need the additional protection because they are not protected under informal rules, as are qualified investors. This option would not curtail the use of hard-to-value assets and complex financial products per se but would merely limit the use of such assets and products if and when retail investors are involved at a threshold level of, for example, 20 percent of assets under management. Accordingly, asset managers could avoid any regulatory limitations by simply staying below the threshold level. This form of regulation for the retail investors would protect those that are most in need of protection while at the same time would curtail regulatory infringement on other market participants and their interests. The approach could help to avoid burdening the industry and individual market participants.

There are downsides to this approach. Even if it is someday possible to show with data that retail investors do have access to hedge funds,[239] it remains unclear what level of retailization would justify using a regulatory approach that protects retail investors. It seems more likely that the current regulatory scheme that distinguishes between retail and qualified investors would be amended to cover all hedge fund investors.

The approach would probably also fail to appropriately recognize that not only retail investors lack the necessary understanding of certain complex financial products and hard-to-value assets.[240] Incomplete and asymmetric information, bounded rationality of decision makers and moral hazard make it difficult for professional and semi professional investors to discern the different characteristics of many highly complex financial instruments and hard-to-value assets. Lastly, using a trigger level of retail investors as a percentage of NAV of a hedge fund would likely result in hedge

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[238] For a short summary on assessing hedge fund valuation and risk data, *see supra* Part II.
[239] *See infra* note 253.
[240] Mark Whitehouse & Serena Ng, *Insurance Deals Spread Pain Of U.S. Defaults World-Wide*, WALL ST. J., Dec. 23, 2008, at A1 (explaining that "many public-sector and nonprofit organizations that invested in synthetic CDOs didn't understand the risks they were taking on.").

fund managers attempting to avoid the triggering event and keep retail investors below the trigger level of NAV, thus exposing retail investors in such a fund to potentially increased levels of risk.

F. Investor Suitability Standards for Certain Asset Classes

Sophisticated investors and retail investors encounter information asymmetries and limited information on certain products and probably cannot always appropriately assess the sophisticated financial instruments that they use or invest in.[241] This paper has mostly focused on retail investors and the additional forms of regulation that could help to protect them. Separating rules for retail investors and rules for qualified investors and management could potentially produce suboptimal results. Qualified investors would then probably have as much of an assessment and valuation problem with certain complex financial instruments and hard-to-value assets as would otherwise unqualified investors. This issue would arise if, for example, a qualified pension fund were managed by the pension fund's own members who were not financial professionals.[242] Prudent qualified investors would probably be expected to hire professionals to help with the decision making process in an environment of incomplete information. In the real world of bounded rationality of decision makers who may act based on incomplete and asymmetric information, however, decisions are often made without an assessment or an approximation of the extent of potential risk exposure.[243]

1. Existing Suitability Standards

Investor suitability requirements could help ascertain whether potential investors in certain financial instruments and hard-to-value assets have an understanding of the risks and benefits of such instruments before making an investment decision. The

[241] *See supra* Part V.A.2 (elaborating on Moral Hazard of Rating Agencies).
[242] This hypothetical also makes the point that it is not only retail investors who would not understand these complex financial instruments. This, in turn, strengthens the argument for implementation of investor suitability standards that would cover qualified investors and retail investors.
[243] *See supra* Part V.A (Moral Hazard and Market Failure in Complex Financial Instruments).

National Association of Securities Dealers ("NASD"), [244] (now FINRA) promulgated rules that require customer specific suitability, i.e., a broker-dealer had to reasonably believe that its recommendations to invest in a hedge fund or hedge fund product would be suitable for the particular investors the broker-dealer advised.[245] To determine suitability, the broker-dealer is required to examine the investor's financial- and tax status, his or her investment objectives and other relevant information.[246] Interestingly, satisfaction of the accredited investor requirements under Regulation D of the Securities Act, alone, does not satisfy the NASD's suitability requirements. FINRA Interpretive Guidance for Suitability Obligations to Institutional Customers helps to identify the suitability of certain financial products for a particular institutional customer under NASD Rule 2310(a).[247] Core factors include the investor's, or

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[244] In 2007 the National Association of Stock Dealers (NASD) merged with the New York Stock Exchange's regulation committee to form FINRA. Existing NASD rules are still valid and enforceable by NASD's successor FINRA.

[245] FINRA, Inc., Rule 2310(a), Recommendations to Customers (Suitability) (2007), *available at* http://finra.complinet.com/en/display/display_viewall.html?rbid=2403&element_id=3638&record_id=4315.

[246] Rule 2310(b), *id.*

[247] FINRA, Inc., Guidance to Rule 2310(a) (2007), *available at* http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=3641. *See also* INV. DEALER ASS'N OF CANADA, Policy No. 4 - Minimum Standards for Institutional Account Opening, Operation and Supervision, 28 O.S.C.B. 1747, 1748 (2005), *available at* http://www.osc.gov.on.ca/MarketRegulation/SRO/ida/rr/srr-ida_20050211_policy-no4.pdf ("The suitability provisions in the Policy were based, in part, on NASD Interpretation IM-2310-3 entitled Suitability Obligations to Institutional Customers. Under the NASD interpretation, once a member has reasonable grounds for concluding that the institutional customer is making independent investment decisions and is capable of independently evaluating investment risk (based on enumerated factors), then a member's obligation to determine that a recommendation is suitable for a particular customer is fulfilled. Both revised Policy No. 4 and the NASD Rule recognize that these factors are guidelines only and a determination must be made on a case-by-case basis taking into consideration the factors and circumstances of a particular Member-customer relationship. In the United Kingdom, the [FSA] has suitability requirements only for private customers. The private customer definition parallels the definition of retail customers in Canada. When the customer is an intermediate or market counterparty, similar to an institutional customer in Canada, then the adviser is

its agent's, ability to evaluate the inherent investment risk, including the resources available to the investors to make informed decisions.[248] Factors in the investor suitability determination include (i) the investor's capability to evaluate investment risk independently[249] and (ii) the investor ability to make independent investment decisions.[250]

2. Instituting General Investor Suitability Requirements

Instituting general investor suitability requirements could potentially address many of the concerns identified earlier without imposing harsh requirements or rules that would otherwise unduly burden the industry. Perhaps these requirements for investor suitability could provide a general framework for buyers and sellers in the market for certain complex and hard-to-value financial products. Such requirements could follow existing FINRA standards for investor suitability for certain financial products but would probably need to be distinguished in certain respects.[251] The

specifically exempt from suitability requirements.").

[248] FINRA, Inc., Guidance to Rule 2310(a), *supra* note 247.

[249] *Id.* (adding factors such as: "[(i)] the use of one or more consultants, investment advisers or bank trust departments; [(ii)] the general level of experience of the institutional customer in financial markets and specific experience with the type of instruments under consideration; [(iii)] the customer's ability to understand the economic features of the security involved; [(iv)] the customer's ability to independently evaluate how market developments would affect the security; and [(v)] the complexity of the security or securities involved").

[250] *Id.* (adding factors such as: "[(i)] any written or oral understanding that exists between the member and the customer regarding the nature of the relationship between the member and the customer and the services to be rendered by the member; [(ii)] the presence or absence of a pattern of acceptance of the member's recommendations; [(iii)] the use by the customer of ideas, suggestions, market views and information obtained from other members or market professionals, particularly those relating to the same type of securities; and [(iv)] the extent to which the member has received from the customer current comprehensive portfolio information in connection with discussing recommended transactions or has not been provided important information regarding its portfolio or investment objectives").

[251] *Id.* (stating that "[w]hile this interpretation is potentially applicable to any institutional customer, the guidance contained herein is more

requirements could apply to any investor in certain complex financial instruments and hard-to-value assets. They would probably encapsulate all hedge fund investors including both qualified and retail investors. The requirements would probably help to address the lack of sophistication of investors who previously qualified as "sophisticated" but were, in fact, not able to appropriately assess the risk of their investment.[252] Such requirements could, in turn, give retail investors who previously did not qualify for hedge fund investments another opportunity to show their understanding of financial instruments without necessarily requiring a certain level of wealth to qualify. A general requirement, for example, could be that the buyer would need to understand the general category of products and the specific complex product that the buyer is considering for investment. The seller of such instruments could probably be required to have a reasonable expectation that the buyer has experience in such complex financial instruments and hard-to-value assets.

VII. Conclusion[253]

Recent developments in world markets, the credit and housing crisis and its repercussions in the U.S. and world economies and financial markets make it more likely that U.S. and other jurisdictions will attempt to regulate hedge funds and the valuation of hedge funds as part of a general overhaul of the regulatory systems.

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appropriately applied to an institutional customer with at least $10 million invested in securities in the aggregate in its portfolio and/or under management").

[252] *See supra* Part VI.B.

[253] This article premised on the idea that retailization will play a significant role in the future. But, currently, retailization cannot be quantified with a degree of certainty. *See* s*upra* Part II. It is unclear what role retailization would play in the future. Any analysis of the phenomenon is currently relegated to conjecture and attempts to explain potential loopholes. *See id.* (discussing Blue Sky laws exemptions and CFTC Rule exemptions). There is no solid proof for the phenomenon at this time. Using a form of regulation that is premised on speculation without any proof or form of validation through data analysis would probably produce inadequate results and therefore would not be justifiable. (The SEC has not yet raised the qualification criteria for qualified investors under Regulation D. *See supra* Part IV.A.2.). It remains to be seen if future developments will someday provide sufficient data to quantify retailization.

The current system of regulation uses wealth of investors as a proxy for the sophistication of investors. The numerical wealth requirements that are currently in place to define qualified investors who are deemed eligible for hedge fund investments do not take into account that even investors who would otherwise fulfill the numerical wealth requirements do not always have the adequate level of knowledge, understanding and sophistication that would be required for investing in highly complex financial instruments. Recent proposals by the SEC to toughen the numeracy wealth requirements for hedge fund investing fail to ascertain the appropriate level of sophistication and adequate understanding of highly complex financial instruments.

Investor suitability standards would address these concerns by requiring independent verification that investors in highly complex financial products have the capability to evaluate investment risk independently and are capable of making independent investment decisions. Such investor suitability standards would make the criteria of wealth as a proxy for sophistication redundant. Precise criteria for investor suitability should be drafted in a concerted effort of regulators and the investing community.