

The Law and Economics of Hedge Funds: Financial Innovation and Investor Protection

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Abstract: *A persistent theme underlying contemporary debates about financial regulation is how to protect investors from the growing complexity of financial markets, new risks, and other changes brought about by financial innovation. Increasingly relevant to this debate are the leading innovators of complex investment strategies known as hedge funds. A hedge fund is a private investment company that is not subject to the full range of restrictions on investment activities and disclosure obligations imposed by federal securities laws, that compensates management in part with a fee based on annual profits, and typically engages in the active trading of financial instruments.*

Hedge funds engage in financial innovation by pursuing novel investment strategies that lower market risk (beta) and may increase returns attributable to manager skill (alpha). Despite the funds' unique costs and risk properties, their historical performance suggests that the ultimate result of hedge fund innovation is to help investors reduce economic losses during market downturns. In 2008, as losses from the U.S. subprime mortgage market transformed into an international financial crisis, the value of global equities dropped 42 percent while hedge funds worldwide lost a comparatively smaller 19 percent for their investors. By increasing investors' ability to maximize risk-adjusted returns, hedge funds advance the same goal that federal investor protection regulation seeks to advance.

This Article argues that the beneficial outcomes hedge funds attain for their investors are largely attributable to the legal regime under which they operate. The hedge fund legal regime includes not only federal securities law but also the entity and contract law provisions governing the fund, its manager, and its investors. Applicable federal laws enable the funds to pursue innovative investment strategies by employing the trifecta of leverage, short sales, and derivatives. The entity and contract law governance of hedge funds provides high-powered incentives for fund managers to engage in and capture the gains from financial innovation.

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A general lesson from the law and economics of hedge funds is that when a legal regime permits financial intermediaries to be flexible in their investment strategies while aligning the incentives of investors and innovators through performance fees and co-investment by managers, financial innovation is likely to complement investor protection without wide-ranging regulation. The role of hedge funds in advancing the same goal as investor protection regulation suggests that they should legally be available to a broader class of investors.

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INTRODUCTION

A persistent theme underlying contemporary debates about financial regulation is how to protect investors from the growing complexity of financial markets, new risks, and other changes brought about by financial innovation.¹ Increasingly relevant to this debate are the leading innovators of complex investment strategies known as hedge funds. A hedge fund is a private investment company that is not subject to the full range of restrictions on investment activities and disclosure obligations imposed by federal securities laws, that compensates management in part with a fee based on annual profits, and typically engages in the active trading of financial instruments.² As a type of financial intermediary that offers investors a means to safeguard and grow their capital, hedge funds represent a third stage in the development of investment intermediaries after commercial banks and mutual funds. Although banks allow depositors to earn relatively safe returns on their capital, returns from bank deposits are typically lower than those from stocks and other investment opportunities.³ In addition, while mutual funds allow investors to benefit from the relatively high returns of investing in stocks, mutual funds expose investors to substantial losses from overall market downturns.⁴ Hedge funds, by contrast, employ innovative investment strategies to attain relatively high returns while simultaneously reducing exposures to market risk. As suggested by their historical performance, hedge funds are consistently able to reduce losses during market downturns.⁵

In 2008, as losses from the U.S. subprime mortgage market transformed into an international financial crisis, global equities lost 42 percent of their

1. See, e.g., Robert K. Steel, Under Secretary for Domestic Finance, Remarks Before the American Enterprise Institute, Nov. 13, 2007 (noting the challenge of constructing “a regulatory system ensuring . . . investor protection” yet still “adaptive to the accelerating rate of innovation and complexity in the financial services industry”), available at <http://www.treasury.gov/press/releases/hp1240.htm>; Accredited Investors in Certain Private Investment Vehicles, 72 Fed. Reg. 400, 413 (proposed Jan. 4, 2007) (to be codified at 17 C.F.R. pts. 230 & 275) (justifying increasing the net worth required to invest in hedge funds because “the increase in . . . private pool complexity since 1982 . . . underscores the need to strengthen investor protections”).

2. See generally 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 (2008). See also SEC, IMPLICATIONS OF THE GROWTH OF HEDGE FUNDS, STAFF REPORT TO THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION 3 (Sept. 29, 2003) (noting there is no legal or universally accepted definition of “hedge fund”) [hereinafter SEC STAFF REPORT].

3. See *infra* note 147 and 188 and accompanying text.

4. See *infra* notes 210 and 322 and accompanying text.

5. See *infra* Section III.C.

value while hedge funds worldwide lost a comparatively smaller 19 percent for their investors and with lower monthly volatility.⁶ Although large numbers of hedge funds were closed due to poor returns from the ensuing economic turmoil, hedge fund risk taking was far more prudent than that in the banking sector, which several times was in danger of collapsing and received government aid to prevent a massive disruption of the financial system.⁷

To be sure, investors were justifiably frustrated with hedge fund returns, managers preventing investors from withdrawing capital, and certain aspects of hedge fund reporting.⁸ Going forward, investors will likely see lower fees, smaller minimum investments, and more timely access to their own capital; and the funds will likely increase disclosures and rely even more on independent service providers.⁹ The industry is also likely to become less leveraged, face greater competition from passive replicator funds, and more concentrated as smaller funds close, are bought out, or are unable to afford to comply with new and costly risk-management practices and new regulation.¹⁰

Nonetheless, the rapid growth and increasing sophistication of the hedge fund industry over the last decade seems to have enabled it to adapt to the new realities created by the financial crisis. As the financial crisis continues, hedge funds will likely be well-positioned to take advantage of new investment opportunities and continue to meet investor demand for returns less correlated to the overall market than those achieved by traditional investment strategies.¹¹

6. The MSCI World Index fell from 1588.80 on January 1, 2008 to 920.226 on December 31, 2008. See MSCI Index Performance, available at <http://www.msibarra.com/products/indices/stdindex/performance.html> (follow The World Index Free) (data on file with author) CREDIT SUISSE TREMONT, ONE FOR THE RECORD BOOKS: HEDGE FUND PERFORMANCE IN 2008 1, Jan. 2009 (displaying the returns to the Credit/Suisse Tremont Hedge Fund Index in 2008 and comparing the standard derivation of the Index with that of global and U.S. equities).

7. See Chairman Ben S. Bernanke, Troubled Asset Relief Program and the Federal Reserve's Liquidity Facilities, Before the Committee on Financial Services, U.S. House of Representatives, November 18, 2008 (stating that Federal Reserve provision of funds to banking institutions was intended to "prevent an international financial collapse"); Remarks by Treasury Secretary Timothy Geithner, Introducing the Financial Stability Plan, Tuesday, February 10, 2009 (stating that government support of banks is necessary to prevent "a complete collapse of our financial system").

8. EDHEC-RISK AND ASSET MANAGEMENT RESEARCH CENTRE, HEDGE FUND REPORTING SURVEY, NOVEMBER 2008, available at <http://www.hedgeweek.com/redirector/2034/289403>.

9. See FINAlternatives, *New Hedge Fund Platform Provides Access To Top Tier Managers*, Jan. 30, 2009, available at <http://www.finalternatives.com/node/6797>; Tom Sullivan, *Better Disclosure, Courtesy Madoff*, BARRON'S, Jan. 27, 2009, available at <http://online.barrons.com/article/SB123275439344011621.html>; James Mackintosh, *Fund Plans Third-Party Checks*, FINANCIAL TIMES, March 1, 2009; Ivy Schmerken, *New Era in Hedge Fund Transparency?*, ADVANCED TRADING, Jan. 20, 2009.

10. FINAlternatives, *Hedge Fund Leverage Falls By Half*, March 3, 2009; Joseph A. Giannone, *As Hedge Funds Flop, Replication Funds Get Chance*, REUTERS, Jan. 26, 2009.

11. See Tommaso Sanzin, *Manager Capacity vs. Market Capacity*, AllAboutAlpha.com, Jan. 4, 2009; Steve Johnson, *Change on the Cards for Hedge Funds*, FINANCIAL TIMES, Jan. 18, 2009 (reporting that a hedge fund consultant stated that "[w]e have got 30 new managers launching at the moment, which is more than I have ever had in the last 12 years"); FINAlternatives, *Global Hedge Fund Assets Fall To \$1.8T In 2008*, March 5, 2009 (reporting that in 2008 55 new U.S. hedge funds that raised \$50 million or more were launched in contrast to 81 in 2007); FINAlternative, *Hedge Funds See*

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Although hedge funds can no longer be considered “absolute return” vehicles, in the sense of producing positive returns in all market conditions as was often claimed by hedge fund industry professionals, their massive outperformance of the general market in the worst of economic conditions suggests that the funds deserve their namesake.

This Article argues that the beneficial outcomes hedge funds attain for their investors are largely attributable to the legal regime under which they operate. Although the benefits of hedge funds are widely recognized,¹² that these benefits are systematically related to the federal securities regime and internal governance structures applicable to the funds is underappreciated.¹³ While scholars have attributed the unique benefits of hedge fund activists to the legal regime under which the funds operate,¹⁴ this Article moves beyond the relatively small group of hedge funds that seek to influence company managers and analyzes the dominant mode of hedge fund activity which consists of trading financial instruments and other assets. Failing to draw broader conclusions may have important policy implications, as financial innovation by hedge funds generally has the result of protecting investor wealth during market downturns.

Part I examines the law applicable to hedge funds. Although the hedge fund industry is made up of a very diverse array of investment funds (not all of which technically “hedge” their investments), two aspects of their governing regime make the funds distinct. The first aspect is the absence of legal restraints on their investment strategies. While the law restricts banks and mutual funds in how they may invest or trade financial instruments, hedge funds face no legal barriers in utilizing the trifecta of leverage, short sales, and derivatives to achieve their objectives for investors.¹⁵ Second are hedge funds’ unincorporate governance structures, which are characterized by managerial co-investment into the fund, performance-based fees, and virtually complete discretion by the manager in investing the fund’s assets and choosing under what circumstances

'Lifetime' Opportunity In 2009, Jan. 23, 2009; Alex Akesson, *Eurekahedge Forecasts More Hedge Fund Launches in 2009*, HEDGE.CO.NET, Jan. 27, 2009.

12. See, e.g., SEC STAFF REPORT, *supra* note 2, at 4-5; Jean-Pierre Mustier & Alain Dubois, *Risks and Return of Banking Activities Related to Hedge Funds*, Banque de France, Financial Stability Review—Special Issue on Hedge Funds 88-89, April 2007.

13. See Bhaswar Gupta & Edward Szado, *Hedge Fund Legal Structure and its Impact on Performance* 8, Center for International Securities and Derivatives Markets, University of Massachusetts at Amherst-Eugene M. Isenberg School of Management Working Paper, May 20, 2008 (noting that “very little research has focused on the interactions between hedge fund legal structures and their risk, performance or strategy focus”).

14. See *infra* notes 202-203.

15. An investment is leveraged to the extent borrowed funds are used to make the investment or the investment otherwise has exposure which magnifies gains or losses. A short sale is a way to profit from a price decline. It requires the short seller to borrow securities, sell them, repurchase them at a lower price, and return the securities to the lender. A derivative is a financial instrument, such as stock options and futures, whose price is derived from the value of some underlying asset. See FRANÇOIS-SERGE LHABITANT, *HANDBOOK ON HEDGE FUNDS* 151-52, 126-29, 142-50 (2006).

investors may withdraw their capital.

Part II explains how the legal regime applicable to hedge funds facilitates financial innovation. Hedge funds innovate by implementing novel investment strategies to stay competitive and prevent investors from withdrawing capital. These novel investment strategies often include utilizing innovations in financial instruments such as complex derivatives. Consistent with the research on innovation and governance more generally, hedge fund governance devices facilitate innovation by providing managers with the flexibility to adapt to changing economic conditions and high-powered incentives to capture the gains from innovation.

Nonetheless, hedge fund innovation is not without its downsides. Relative to investing in stocks and other liquid assets, hedge funds create unique costs for their investors in the form of higher company-specific risk and short-term limitations on the ability of investors to withdraw their capital. On balance, however, innovation by hedge funds helps investors to diversify a traditional portfolio of stocks and bonds and thereby reduce exposures to overall market risk. As suggested by empirical studies on the sources of hedge fund returns, the superior risk-adjusted performance of hedge funds does not stem solely from the skills of hedge fund managers. Hedge fund returns seem to also stem from the unique strategies that hedge funds pursue which, at root, are enabled and incentivized by the legal regime under which the funds operate.

The ultimate result of hedge fund innovation is analyzed in Part III, which shows that, by helping investors to maximize risk-adjusted returns, hedge funds advance the same goal that federal investor protection regulation seeks to advance. Insofar as the outcomes that hedge funds produce for their own investors are concerned, the current regulatory regime provides sufficient protection for investors. Fundamental reform is not warranted except to broaden the range of investors able to benefit from hedge funds.¹⁶

I. THE HEDGE FUND LEGAL REGIME

Numerous sources of law apply to hedge funds, and the Securities and Exchange Commission (SEC) is the primary federal agency tasked with hedge fund regulation and oversight.¹⁷ Hedge funds are governed by the entity law of

16. The impact that hedge funds have on investors in other companies, the funds' relationship to systemic risk, and the regulatory issues implicated by such matters, are beyond the scope of this Article.

17. The discussion of law applicable to hedge funds in this Part is limited primarily to those laws which are most relevant to the economic activities of hedge funds described in Parts II and III, and is by no means exhaustive. Other bodies of law which are potentially applicable to hedge funds and are not discussed in this Article include state law and federal regulation under the Commodity Exchange Act for hedge funds trading commodity interests, the Employee Retirement Income Security Act as it applies to hedge funds accepting capital from certain qualifying pension investors, and various industry-wide efforts at self-regulation or the adoption of best practices. See SCOTT J. LEDERMAN, HEDGE FUND REGULATION § 7:2 (2007) (discussing pension related regulation); *id.* at §§ 4:5, 6:13 (discussing commodities-related regulation); Press Release, United States Treasury Department, *PWG Private-*

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the state or offshore jurisdiction in which they are organized, along with the law of contract governing their operating agreements. As investment advisers to the funds they manage, hedge fund managers are also governed by state and federal investment adviser law. As issuers of securities, and as purchasers and sellers of the securities of other companies, hedge funds are governed by federal securities regulation. However, the funds operate so as to be totally excluded from federal law applicable to investment companies. Nonetheless, hedge funds are fully subject to federal prohibitions on fraud, market manipulation, and insider trading, and must make disclosures in connection with trading registered securities.

A. Uncorporate Governance

A “hedge fund” consists of three basic entities: investors, the fund itself, and the investment adviser/management company.¹⁸ U.S.-based hedge funds typically adopt some type of unincorporate form and are structured as limited partnerships or limited liability companies (LLCs).¹⁹ A hedge fund limited partnership is made up of two types of partners—limited partners and the general partner. The limited partners provide capital as the fund’s investors.²⁰ Limited partner investors are not liable for the fund’s debts, although they are subject to losing all of their investment capital and any undistributed profits.²¹ Hedge funds typically only accept capital contributions at the beginning of each month, and may close themselves off to new contributions if the manager determines that additional capital will undermine the ability of the manager to make profitable trades.²² When a capital contribution is made to a hedge fund limited partnership, a capital account is established for the investor representing the investor’s pro rata interest in the fund.²³

Although limited partnership statutes permit a partnership agreement to

Sector Committees Release Best Practices for Hedge Fund Participants, April 15, 2008, <http://www.treas.gov/press/releases/hp927.htm>; Hedge Fund Working Group, *Hedge Fund Standards: Final Report*, Jan. 2008, <http://www.pellin.co.uk/HFWG/Final-Report.pdf>.

18. Other entities that constitute the core of hedge fund service providers include one or more prime brokers, a custodian, a fund administrator, and an auditor. *See* LHABITANT, *supra* note 15, at 90-108.

19. *See generally* Larry E. Ribstein, *The Rise of the Incorporation* (University of Illinois Law & Economics Research Paper No. LE07-026 2007) (analyzing the reasons for and implications of the growing usage of non-corporate business forms); DOUGLAS L. HAMMER ET AL., SHARTSIS FRIESE LLP, U.S. REGULATION OF HEDGE FUND INVESTORS 88 (2005); LEDERMAN, *supra* note 17, at § 2:3, 2-4. Because the differences between hedge funds structured as limited partnerships or LLCs are generally not important for the purposes this Article, the analysis here of limited partnerships applies equally to LLCs unless otherwise noted.

20. *See, e.g.*, *Allen v. Amber Manor Apartments Partnership*, 96 Ill. App. 3d 541 (1981) (holding that limited partnership status is obtained by making a capital contribution).

21. *See, e.g.*, Del. Rev. Unif. Ltd. Partnership Act § 17-303.

22. LEDERMAN, *supra* note 17, at § 2:2.4, 2-4.

23. HAMMER ET AL., *supra* note 19, at 89.

grant voting rights to limited partners,²⁴ in practice, hedge fund limited partnerships do not typically grant any voting rights to their limited partners.²⁵ To avoid losing their limited liability, limited partners do not participate in management decisions.²⁶ Limited partners of a hedge fund are passive investors whose decision making is limited to deciding when and how much capital to contribute or withdraw, subject to capital redemption restrictions under the fund's operating agreement.²⁷

The general partner of a hedge fund limited partnership is the fund's portfolio manager and investment adviser and is responsible for managing all aspects of the hedge fund business, including managing the fund's investment portfolio.²⁸ Limited partnership law gives the general partner complete control over the activities of the partnership and the terms of the partnership agreement, subject only to the fiduciary duties owed to limited partners and whatever duties the general partner chooses to be bound by in the agreement.²⁹ The fiduciary duties of general partners are to a large extent waivable in the limited partnership agreement. For example, the Delaware limited partnership statute, which seeks "to give maximum effect to the principle of freedom of contract," allows the partnership agreement to limit the fiduciary duties of general partners.³⁰

Courts in Delaware and in other states interpret fiduciary duties as contractual in nature, such that anything short of an intentional breach of the partnership agreement typically will not constitute a breach of fiduciary duty.³¹ In particular, a hedge fund manager may negotiate different fees to be charged to different investors, and give different investors unique rights as to disclosure and other issues through "side letters," so long as such differential treatment does not violate investors' contractual rights or the manager's fiduciary duty to

24. See, e.g., Del. Rev. Unif. Ltd. Partnership Act (RULPA) § 17-302(b) (2007) (stating that "the partnership agreement may grant to all or certain identified limited partners or a specified class or group of limited the partners the right to vote separately or with all or any call or group of the limited partners or the general partners, on any matter").

25. LEDERMAN, *supra* note 17, at § 2:2.1, 2-3. Partnership statutes expressly allow for a partnership agreement to completely eliminate any voting powers of limited partners. See, e.g., Del. RULPA § 17-302(f) ("A partnership agreement may provide that any limited partner or class or group of limited partners shall have no voting rights.").

26. See Del. RULPA § 17-303(a).

27. See *infra* Section I.B.2.

28. HAMMER ET AL., *supra* note 19, at 89, 94; LEDERMAN, *supra* note 17, at §2:2.1, 2-3. For the purposes of this Article, the terms hedge fund "manager" and "investment adviser" are used interchangeably to refer to the same business entity, unless otherwise noted.

29. HAMMER ET AL., *supra* note 19, at 90.

30. Del. Code. tit. 6, § 17-1101(c), (d). The equivalent provisions allowing statutory waiver for the member of an LLC are located in Del. Code. tit. 6, § 18-1101(b)-(e).

31. LARRY E. RIBSTEIN, UNINCORPORATED BUSINESS ENTITIES 331-32 (2d ed. 2000) (reviewing case law including cases holding that the general partner's competition with the partnership is not a breach of fiduciary duty so long as it is authorized in partnership agreement).

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not give preferential treatment to some investors to the detriment of others.³² Accordingly, organizing as a limited partnership affords the hedge fund manager overwhelming flexibility in managing its internal affairs and carrying out its investment strategy.

The general partner of a limited partnership bears unlimited liability for any debts the partnership itself cannot satisfy.³³ To prevent hedge fund managers from being subject to unlimited personal liability, the general partner of a hedge fund is typically a company organized as an LLC or some other limited liability entity such as a limited partnership or Subchapter S corporation.³⁴

In addition to giving managers broad discretion and limiting the liability of investors and managers, organizing the fund as a limited partnership, and the general partner as a limited liability entity, is crucial to the fund, its investors, and the manager in minimizing tax burdens. As a limited partnership and LLC, respectively, neither the fund nor the general partner-manager would be taxed at the entity level. All income, gains, losses, and deductions “pass through” to the general and limited partners who report such items on their personal income tax returns.³⁵ Pass-through taxation preserves the tax treatment of the fund’s income as it is allocated to investors. This can benefit investors because the favorable tax treatment given to long-term capital gains relative to ordinary income is passed along to them.³⁶ Because personal income tax is assessed on an annual basis, hedge fund investors incur tax liability each year in which the hedge fund realizes net income.³⁷

B. *The Hedge Fund Operating Agreement*

The wide-ranging flexibility of the law of limited partnerships, LLCs, and other forms of unincorporate governance serves as a virtually blank slate upon which hedge funds may write their operating agreements. Even more so than state-based corporate law, limited partnership and LLC law is “enabling,” as opposed to mandatory, meaning that companies may choose the details of their own governance structures from a default set of “off-the-rack” rules provided by state business-entity statutes.³⁸ Hedge funds utilize detailed operating agreements to define the precise rights and duties between managers and

32. HAMMER ET AL., *supra* note 19, at 90; LEDERMAN, *supra* note 17, at § 2:3.3[F], 2-19-20; Susan Ferris Wyderko, Testimony Concerning Hedge Funds Before the Subcommittee on Securities and Investment of the United States Committee on Banking, Housing, and Urban Affairs (May 16, 2006).

33. See Del. Code Ann. tit. 6, § 17-403; HAMMER ET AL., *supra* note 19, at 92.

34. HAMMER ET AL., *supra* note 19, at 88 n.4, at 91-92; LEDERMAN, *supra* note 17, at §2:3.1, 2-5. As control persons of the general partner entity, its owners may be personally liable for actions of the general partner as manager of the fund. HAMMER ET AL., *supra* note 19, at 92.

35. HAMMER ET AL., *supra* note 19, at 88-89, 92.

36. LEDERMAN, *supra* note 17, at § 2:3.3, 2-7; HAMMER ET AL., *supra* note 19, at 89.

37. HAMMER ET AL., *supra* note 19, at 89.

38. See FRANK H. EASTERBROOK & DANIEL R. FISCHEL, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* 2-3 (1991).

investors.

1. *Hedge Fund Manager Compensation*

Under the terms of the applicable operating agreement, the hedge fund management company is compensated by a management fee, typically ranging from 1 to 2 percent of the underlying fund's net asset value, which may be calculated monthly or quarterly.³⁹ The management fee covers expenses for operating and administering the fund—such as for overhead, personnel salary, office leases and physical capital costs.⁴⁰ Management fees are typically used throughout the asset management industry, including by publicly registered mutual funds.⁴¹

A distinguishing and defining feature of hedge funds, however, is that their operating agreements have provisions compensating managers based upon the performance of the funds they advise.⁴² Performance is typically calculated on an annual basis.⁴³ Hedge fund performance-based fees have historically ranged from 15 to 20 percent of profits in excess of prior losses and net of management fees.⁴⁴ Performance-based compensation is contractually structured as an income allocation to the management company contingent upon the fund's performance, and not as a fixed fee for services.⁴⁵ This compensation structure decreases the tax burden to the manager by preserving the tax character of capital gains realized by the fund. As a result, the fund is not required to convert income from capital gains to ordinary income, which is taxed at a higher rate.⁴⁶

Hedge funds' performance fees are limited by two types of contractual provisions, each requiring a threshold level of investment returns before any performance-based compensation is allocated to the manager. The more common provision is called a "high-water mark." A high-water mark limits the performance fee allocation to positive gains above the amount of the investor's capital contribution.⁴⁷ A high-water mark requires any losses from previous years to be recouped first, meaning that an investor must actually receive a net positive return on their investment before a manager is paid a performance

39. HAMMER ET AL., *supra* note 19, at 327; LEDERMAN, *supra* note 17, at § 2:3.3[A], 2-8.

40. LEDERMAN, *supra* note 17, at § 2:3.3[A], 2-8.

41. Securities and Exchange Commission, *Invest Wisely: An Introduction to Mutual Funds* (August 8, 2007).

42. See LHABITANT, *supra* note 15, at 30.

43. LEDERMAN, *supra* note 17, at § 2:2.3.

44. JAMES R. BARTH ET AL., HEDGE FUNDS: RISKS AND RETURNS IN GLOBAL CAPITAL MARKETS, MILKEN INSTITUTE 32-33 (December 2006); LEDERMAN, *supra* note 17, at § 2:3.3[C], 2-10.

45. LEDERMAN, *supra* note 17, at § 2:3.3[C], 2-10.

46. *Id.* (noting that capital gains are characterized as a "guaranteed payment" when allocated to the manager).

47. HAMMER ET AL., *supra* note 19, at 329-330; LEDERMAN, *supra* note 17, at § 2:3.3[C][1], 2-11.

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fee.⁴⁸ A “hurdle rate” is another compensation provision utilized by hedge funds, typically in conjunction with a high-water mark. A performance fee subject to a hurdle rate will not be allocated to the manager unless a minimum rate of return is achieved.⁴⁹ Particular hurdles may be calculated annually or on a cumulative basis, and may be fixed at an absolute rate or depend on some other rate or performance benchmark.⁵⁰

In addition to earning compensation from performance fees, hedge fund manager compensation may also be derived from the manager’s own investment in the fund. Managers often co-invest a significant portion of their own capital directly in the underlying funds they manage.⁵¹ Using a comprehensive database of hedge funds from 1994 to 2002, several financial economists estimated that the average investment by managers accounted for 7.1 percent of fund assets, with the median manager owning 2.4 percent of the fund.⁵² Hedge fund investors often desire co-investment by managers to align the manager’s incentives with their own.⁵³

2. Restrictions on Share Liquidity

Investors’ financial rights in a limited partnership are overwhelmingly determined by contract.⁵⁴ Limited partnership law generally leaves it to the operating agreement to determine when and under what circumstances a limited partner is entitled to a distribution of capital. It also permits limited partners to transfer their economic interests in the firm (e.g., rights to profits, losses, and distributions) but not their voting or management rights or powers.⁵⁵ In practice, hedge funds place significant restrictions on the ability of investors to redeem their shares with the fund and to resell or otherwise transfer their shares.⁵⁶

Operating agreements also generally restrict investors’ ability to withdraw capital on a periodic basis (ranging from monthly to quarterly to annually)⁵⁷

48. HAMMER ET AL., *supra* note 19, at 329; LEDERMAN *supra* note 17, at § 2:3.3[C][1], 2-11.

49. HAMMER ET AL., *supra* note 19, at 330-31; LEDERMAN, *supra* note 17, at § 2:3.3[C][2], 2-12.

50. *Id.*

51. HAMMER ET AL., *supra* note 19, at 92; LEDERMAN, *supra* note 17, at § 2:2.2, 2-3.

52. Vikas Agarwal et al., *Role of Managerial Incentives and Discretion in Hedge Fund Performance*, J. FIN. 6, 40 tabl. I (forthcoming), available at <http://ssrn.com/abstract=889008>. See also European Central Bank, Financial Stability Review 50, Chart 1.41 (June 2008) (finding that 35 percent of hedge funds had the personal capital of their manager directly invested in the fund), <http://www.ecb.int/pub/pdf/other/financialstabilityreview200806en.pdf>.

53. GOVERNMENT ACCOUNTABILITY OFFICE, HEDGE FUNDS: REGULATORS AND MARKET PARTICIPANTS ARE TAKING STEPS TO STRENGTHEN MARKET DISCIPLINE, BUT CONTINUED ATTENTION IS NEEDED GAO-08-200, 11 (2008).

54. RIBSTEIN, *supra* note 31, at 294.

55. Del. Code Ann. tit.6 §17-702(a).

56. Share resale restrictions are generally required for a hedge fund make a private offering under federal law. See *infra* Section I.D.1.

57. LEDERMAN, *supra* note 17, at § 2:2.4, 2-4; HAMMER ET AL., *supra* note 19, at 3. By comparison,

and may permit the manager to bar withdrawals at its discretion.⁵⁸ In addition, investors must typically give 30 to 90 days' notice before being able to withdraw capital.⁵⁹ Hedge funds may also implement a "lock-up" period that prohibits a capital contribution from being withdrawn after it is first invested in the fund.⁶⁰ Lock-up periods are typically less than one quarter, but may be as long as two years.⁶¹ Finally, hedge funds may also use a "gate" to limit how much capital can be withdrawn on a given date, which is usually based upon a fraction of the net asset value of the fund.⁶²

Hedge funds limit the liquidity of their shares for several reasons. First, limitations on liquidity may benefit the fund in the long run because capital redemptions at a given point in time may be disruptive to the fund's operations and inconsistent with the fund's investment objectives or trading strategy.⁶³ Second, restrictions on the resale of hedge fund shares are required for a hedge fund to qualify for certain exemptions under federal law relating to raising capital.⁶⁴ Third, hedge funds place restrictions on the trading of their shares so as to not be deemed a publicly traded partnership with its associated higher tax burden.⁶⁵

C. Investment Company and Investment Adviser Law

Because a hedge fund consists of an investment fund and an investment adviser, its activities fall within the scope of federal regulation under the Investment Company Act of 1940 (the "Company Act") and the Investment Advisers Act of 1940 (the "Advisers Act").⁶⁶ All hedge fund managers are subject to some provisions of the Advisers Act, and registered hedge fund advisers are subject to the full scope of the Advisers Act. By definition, however, hedge funds are completely excluded from any provision of the Company Act.

publicly registered mutual funds are required to redeem shares to investors *daily*. Company Act Rule 22c-1(b), 17 C.F.R. § 270.22c-1(b) (2007) (requiring registered investment companies to calculate net asset value at least daily).

58. See LHABITANT, *supra* note 15, at 29.

59. LEDERMAN, *supra* note 17, at § 2:3.3[D][3], 2-16.

60. *Id.*

61. *Id.* at § 2:3.3, 2-16-17. BARTH ET AL., *supra* note 44, at 38-41 (showing that a majority of hedge funds have a lock-up period of less than one quarter).

62. LEDERMAN, *supra* note 17, at § 2:3.3[D][3][b], 2-16.

63. See *infra* Section II.B.2.

64. See *infra* Section I.D.1.

65. LEDERMAN, *supra* note 17, at § 2:3.3[D][2] at 2-15.

66. Investment Company Act of 1940, Pub. L. No. 76-768, ch. 686, title I, 54 Stat. 789 (codified as amended at 15 U.S.C. §§ 80a-1-80a-64); Investment Advisers Act of 1940, Pub. L. No. 76-768, ch. 686, title II, 54 Stat. 847 (codified as amended at 15 U.S.C. §§ 80b-1-80b-21).

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1. Investment Company Law

The Company Act was passed in the wake of the stock market crash of 1929 and government allegations of pervasive self-dealing and investor abuse in the investment fund industry.⁶⁷ The Company Act requires registration by all investment companies, defined as any issuer that, among other things, “is or holds itself out as being engaged primarily . . . in the business of investing, reinvesting, or trading securities.”⁶⁸ A registered investment company is subject to wide-ranging and detailed regulation intended to ensure that unsophisticated investors are able to make informed investment choices and to prevent fund sponsors from acting opportunistically at the expense of investors.⁶⁹

The investment activities of hedge funds would deem them an “investment company” under the Company Act; however, the funds operate so as to qualify for at least one of two exclusions from the definition of an investment company. Under section 3(c)(1) of the Company Act, hedge funds are excluded from the definition of investment company so long as they have no more than 100 investors and sell their securities only through a private sale.⁷⁰ Under section 3(c)(7) of the Company Act, hedge funds are excluded from the definition of investment company so long as they only sell securities to “qualified purchasers” through a private sale.⁷¹ Qualified purchasers include both natural persons owning at least \$5 million in investments and certain companies with at least \$100 million in securities investments.⁷² Section 3(c)(7) allows hedge funds to sell their securities to an unlimited number of

67. See WILLIAM J. BAUMOL, *THE ECONOMICS OF MUTUAL FUND MARKETS: COMPETITION VERSUS REGULATION* 48-54 (1990); Celebration of the 60th Anniversary of the Investment Company Act Opening Remarks by Paul Roye Director, Division of Investing Management U.S. Securities & Exchange Commission (Oct. 4, 2000), available at <http://sec.gov/news/speech/spch405.htm>.

68. Company Act § 3(a)(1), 15 U.S.C. § 80a-3(a)(1) (2006).

69. See Company Act § 1(b)(1), 15 U.S.C. § 80a-1(b)(1); Form N-1A Items 14-15, 10, 5, 3 (requiring disclosure of information including contact information of the fund’s investment advisers and portfolio managers, the history of the fund, its risk/return profile and investment objectives, the fund’s organization, and how the fees it charges to investors are calculated). Registered investment companies must also quarterly disclose portfolio holdings to the SEC and semiannually to investors. Company Act §§ 30(a), 30(b); Company Act Rule 30b1-1, 17 C.F.R. §270.30b1-1; Company Act Rule 30b1-5, 17 C.F.R. §270.30b1-5; Company Act § 30(e); Company Act Rule 30e-1, 17 C.F.R. §270.30e-1. Open-end registered investment companies must also daily calculate net asset value and allow investors to redeem shares within 7 days at that value. Company Act § 22(e); Company Act Rule 22c-1(a), 17 C.F.R. § 270.22c-1(a) (1993) (requiring registered investment companies to sell, redeem, or repurchase shares at net asset value); Company Act Rule 22c-1(b), 17 C.F.R. § 270.22c-1(b) (1993) (requiring registered investment companies to calculate net asset value at least daily).

70. 15 U.S.C. § 80a-3(c)(1).

71. 15 U.S.C. § 80a-3(c)(7). Nonpublic offerings for the purposes of being exempted from the Company Act are generally interpreted to be the same as those as under section 4(2) of the Securities Act. SEC STAFF REPORT, *supra* note 2, at 12 n.36.

72. 15 U.S.C. § 80a-2(a)(51)(A)(i); 17 C.F.R. § 270.2a51-1(g)(2) (1997); LEDERMAN, *supra* note 17, at § 5:1.2 (explaining that qualified institutional buyers under Rule 144A of the Securities Act generally meet the definition of qualified purchaser).

qualified purchaser investors without falling under the definition of an investment company; however, sales must be limited to 499 investors to avoid registration under the Securities and Exchange Act.

Because hedge funds are excluded from the Company Act, the funds are not subject to the investment activity restrictions imposed upon registered investment companies by the Company Act and its regulations.⁷³ For example, to use leverage in the form of borrowing bank funds, a registered investment company must cover the debt by retaining assets equivalent to at least 300 percent of the borrowings.⁷⁴ In addition, under the Company Act an investment company that engages in a short sale or certain derivatives transactions must effectively hedge the investment position with an offsetting trade or hold liquid securities of an equivalent value in a segregated account.⁷⁵ Particular hedge funds may not utilize each of these trading activities. For instance, a substantial portion of hedge funds utilize little to no leverage.⁷⁶ Nonetheless, exclusion from Company Act investment restrictions is essential to the hedge fund business model and facilitates the undertaking of investment strategies which are relatively less exposed to market risk.⁷⁷

The Company Act also imposes additional restrictions on the most widely utilized type of registered investment company—"mutual funds."⁷⁸ Mutual funds are prohibited from investing greater than 15 percent of the net value of

73. See generally Audrey Talley & James L. Love, *Restrictions on Investments*, in MUTUAL FUND REGULATION, Chapter 8 (2d ed. Clifford E. Kirsch 2007).

74. Company Act § 18(c) (debt restriction for closed-end investment companies), § 18(f) (debt restriction for open-end investment companies).

75. Emerald Management Co., SEC No-Action Letter (Jan. 21, 1978); LEDERMAN, *supra* note 17, at § 5:2.7, 5-28-29; Talley & Love, *supra* note 73 at §§ 3:3.1[B][3], 3-7—3-11. Although the SEC has authority under Section 12(a) of the Company Act to prohibit registered investment companies from undertaking short sales or purchasing securities on the "margin" (which is a form of borrowing), it has not exercised that authority.

76. Leverage measures the extent to which an investor's returns are magnified through borrowing or some other means such as the utilization of derivatives. Although hedge funds are often mistakenly viewed as highly leveraged institutions, only a small portion of the industry is highly leveraged. See Roger Merritt & Eileen Fahey, FitchRatings, Credit Policy, Hedge Funds: The Credit Market's New Paradigm 4 (June 5, 2007) (estimating leverage for different types of credit strategy hedge funds). In general, hedge fund leverage has steadily and substantially decreased since 1998. From 1998 to 2004, researchers at the Bank for International Settlements estimated that average hedge fund leverage dropped from about 8 times assets to 3 times assets. See Patrick McGuire et al., *Time-varying Exposures and Leverage in Hedge Funds*, BIS QUARTERLY REVIEW 69 March 2005. The Organization for Economic Co-operation and Development (OECD) estimated that in 2007 average gross hedge fund leverage was 3.9 to 1, which means that for every 3.9 dollars in hedge fund assets, one dollar was equity and the rest was borrowed (or the economic equivalent of borrowing was achieved by using derivatives). Adrian Blundell-Wignall, *An Overview of Hedge Funds and Structured Products: Issues in Leverage and Risk*, FIN. MARKETS TRENDS 48 (2007). See also generally Patrick McGuire & Kostas Tsatsaronis, Estimating Hedge Fund Leverage, BIS Working Papers, September 2008. Other estimates of hedge fund leverage have found similarly low measures. See International Monetary Fund (IMF), Global Financial Stability Report Financial Stress and Deleveraging Macro-Financial Implications and Policy 41, Box 1.5 (October 2008); European Central Bank, Financial Stability Review 45, Chart 1.32 December 2008.

77. See *infra* Section II.A.

78. For a fuller discussion of registered investment companies, see *infra* notes 182-189 and accompanying text.

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their assets in illiquid securities, including the privately placed securities issued by hedge funds.⁷⁹ Mutual funds also may not utilize lock-ups because open-end investment companies must return capital to investors within seven days of a redemption request.⁸⁰ Furthermore, mutual funds typically have relatively narrowly defined investment strategies and lack the flexibility to quickly adapt their strategies to changing market conditions because deviating from an investment policy deemed “fundamental” requires shareholder approval.⁸¹ In addition, mutual funds holding themselves out as “diversified” funds are prohibited, with respect to 75 percent of their assets, from holding more than 10 percent of the voting securities of any single issuer, or having the securities of an issuer constitute more than 5 percent of the mutual fund’s net asset value.⁸²

2. Investment Adviser Law

Hedge fund managers meet the definition of “investment adviser” under the Advisers Act, which is defined as any person in the business of advising others about whether to purchase or sell certain securities.⁸³ An adviser must register under the Advisers Act if it holds its services out to the public as an investment adviser, advises an investment company registered under the Company Act, or advises 15 or more clients.⁸⁴ However, a hedge fund manager may gain exemption from the Advisers Act by qualifying as a private adviser under section 203(b)(3), which requires that the manager has not advised more than 15 clients in the previous 12 months (which in practice may include up to 15 separate funds with several hundred investors each), does not hold itself out to the public, and does not advise a registered investment company.⁸⁵ To purportedly enable regulators to more effectively address investor protection and systemic risk concerns relating to hedge funds, the foregoing adviser registration rules are likely to be modified by the 111th Congress in a way that

79. Investment Company Act Rel. No. 18,612. The SEC defines “illiquid” securities as those that cannot be sold at or near their net asset value within seven days. Acquisition and Valuation of Certain Portfolio Instruments by Registered Investment Companies, Investment Company Act Rel. No. 14,983, 51 Fed. Reg. 9,773 (Mar. 12, 1986); Investment Company Act Rel. No. 5,947, 35 Fed. Reg. 19,989 (Oct. 21, 1969).

80. Company Act § 22(e).

81. 15 U.S.C. § 8-a-13(a)(1)-(4); Talley & Love, *supra* note 79 at § 8.2.1[B]; LEDERMAN, *supra* note 17, at § 5:2.7, 5-27.

82. Company Act § 5(b)(1). To minimize their tax liability, mutual funds must also comply with the diversification rule of the Internal Revenue Code, which requires mutual funds to meet the same diversification rule with respect to 50 percent of its assets. See Internal Revenue Code § 851(b)(3).

83. Advisers Act § 202(a)(11), 15 U.S.C. § 80b-2(a)(11) (2006).

84. Advisers Act §§ 203(b)(3). Each individual fund is a “client” for Advisers Act purposes, not each investor in the advised fund. Advisers Act § 203(b)(3).

85. 17 C.F.R. § 275.203A-1(a); Advisers Act § 203(b)(3), 15 U.S.C. § 80b-3(b)(3). A “client” includes a legal organization, thereby allowing hedge fund managers to count each separate fund as a client, and not each separate investor in each fund. 17 C.F.R. § 275.203(b)(3)-1(a) (2004).

would require most hedge fund managers to register under the Advisers Act.⁸⁶

Both registered and unregistered advisers are subject to the provisions of the Advisers Act prohibiting material misstatements, misleading omissions, and other fraudulent practices to investors or prospective investors.⁸⁷ The Advisers Act prohibits any fund manager from making false or misleading statements regarding investment strategies, experience and credentials, risks associated with the fund, or valuation of the fund's assets.⁸⁸ Under the Advisers Act, fraudulent or misleading statements or omissions need not be willful to be unlawful; negligence is sufficient for liability.⁸⁹ In addition, registered managers must disclose basic information about the manager on Form ADV, either to investors or the SEC.⁹⁰ This includes information about its investment strategies,⁹¹ along with material facts about the financial condition of the management company.⁹²

Unregistered managers are not subject to any limitations on charging performance fees.⁹³ By contrast, a fund manager registered as an investment adviser is generally prohibited from charging a performance fee to clients based solely upon the client's capital gains (*i.e.*, the fund's profits).⁹⁴ However, a registered adviser may charge a profit-based performance fee if advising a fund which is excluded from the Company Act under section 3(c)(7),⁹⁵ or if all investors in the fund meet the definition of a "qualified client."⁹⁶ A qualified client includes natural persons and companies having at least \$1.5 million in net worth or at least \$750,000 managed by the adviser.⁹⁷ In addition, a registered adviser is permitted to charge a performance fee if the fee symmetrically increases or decreases in proportion to the performance of the fund averaged over a specified period or relative to an external benchmark of performance.⁹⁸ Symmetric performance-based fees, also known as "fulcrum fees," are only utilized by approximately 2 percent of U.S. mutual funds, in part due to accepted commercial practice as well as the incentives fulcrum fees

86. See, e.g., Press Release, United States Treasury Department, Fact Sheet: Administration's Regulatory Reform Agenda Moves Forward: Legislation for the Registration of Hedge Funds Delivered to Capitol Hill (July 14, 2009), <http://www.treas.gov/press/releases/tg214.htm>.

87. Advisers Act § 206(4)-(8), 15 U.S.C. § 275.206(4)-(8).

88. Prohibition of Fraud by Advisers to Certain Pooled Investment Vehicles, 72 Fed. Reg. 44756, 44759 (Aug. 9, 2007) (to be codified at 17 C.F.R. pt. 275).

89. *Id.* at 44,759-60 (noting that negligent misstatements are prohibited under the Advisers Act).

90. Form ADV is required under Advisers Act Rule 204-3(a), 17 C.F.R. § 275.204-3(a) (1994).

91. Form ADV, Part II, <http://www.sec.gov/about/forms/formadv.pdf>.

92. 17 C.F.R. § 275.206(4)-4(a)(1)-(2).

93. HAMMER ET AL., *supra* note 19, at 333.

94. Advisers Act § 205(a)(1), 15 U.S.C. § 80b-5(a)(1) (2006) (prohibiting a registered adviser from being paid compensation "on the basis of a share of capital gains upon or capital appreciation of the funds or any portion of the funds of the client").

95. Advisers Act § 205(b)(4); 15 U.S.C. § 80b-5(b)(4).

96. Advisers Act Rule 205-3(d)(1), 17 C.F.R. § 275.205-3(d)(1).

97. *Id.*

98. Advisers Act § 205(b)(1)-(2), 15 U.S.C. § 80b-5(b)(1)-(2).

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create for investors to exit early or to not join well-performing funds.⁹⁹

D. Securities Regulation

Hedge funds fall within the orbit of federal securities regulation for two primary reasons. First, hedge funds raise investment capital by issuing limited partnership or LLC-member interests, which are considered “securities” under the federal securities laws.¹⁰⁰ Second, as purchasers and sellers of the securities of U.S.-based public companies, hedge funds must comply with various obligations arising in connection with securities trading.

1. Raising Investment Capital

In raising capital from limited partner-investors, hedge funds act both as issuers and sellers of securities that utilize interstate commerce, and are therefore subject to the antifraud provisions of the Securities Act and the Exchange Act.¹⁰¹ These statutes prohibit specific material misstatements, fraudulent conduct more generally, and material omissions. Under section 17(a) of the Securities Act, it is unlawful for an issuer to make any untrue statement of material fact or to omit any fact so that a statement that was made is misleading.¹⁰² Under section 10(b) and Rule 10b-5 of the Exchange Act, material omissions in connection with the sale of any security are likewise prohibited.¹⁰³ Under Rule 10b-5, hedge fund managers are also liable for utilizing material nonpublic information to purchase or sell securities in violation of a fiduciary duty—*i.e.*, for insider trading.¹⁰⁴ In addition, under various provisions of the Exchange Act and Securities Act, hedge funds are prohibited from manipulating the prices of publicly or privately held securities.¹⁰⁵

Despite being subject to fraud liability, hedge funds raise capital so as not to be subject to the registration and disclosure obligations typically required of

99. Sophia Grene, *A Cautious Embrace of Performance Fees*, FIN. TIMES, Jan. 7, 2008; Marcel Kahan & Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. PENN. L. REV. 1021, 1050 (2006-2007).

100. Exchange Act Rule 3a11-1 (“The term equity security is hereby defined to include any . . . limited partnership interest”); *Securities and Exchange Commission v. Parkersburg Wireless Limited Liability Company*, 991 F. Supp. 6 (D. D. C. 1997) (holding that LLC interests are “securities” under the Securities Act and Exchange Act).

101. Notwithstanding that hedge funds privately raise capital in reliance upon Securities Act Regulation D, such an offering is fully subject to the antifraud provisions of the Securities Act. Regulation D Preliminary Note 1, 17 C.F.R. § 230.501 (2007); *Landreth Timber Co. v. Landreth et al.*, 471 U.S. 681, 692 (1985).

102. 15 U.S.C. § 77q(a) (applying its provisions to any “offer or sale of any security”).

103. Exchange Act § 10(b), 15 U.S.C. § 78j; Rule 10b-5, 17 C.F.R. § 240.10b-5 (2007). Furthermore, under the Securities Act mere negligence is sufficient to be liable for fraud. *Aaron v. SEC*, 446 U.S. 680, 701-02 (1980).

104. LEDERMAN, *supra* note 17, at § 8:3.3.

105. LARRY D. SODERQUIST, UNDERSTANDING THE SECURITIES LAWS § 14:5 (4th ed. 2004).

companies making a public offering of securities. The Securities Act requires all companies publicly raising capital to register with the SEC and disclose information to investors.¹⁰⁶ Section 5 of the Securities Act requires all interstate issuers of securities to file a registration statement.¹⁰⁷ Registration statements generally include a prospectus to be delivered to investors before or accompanying a sale.¹⁰⁸ A prospectus contains information such as a description of the issuer's business, the particular securities being offered, important risk factors affecting the issuer, financial statements, and numerous items relating to the issuer's financial condition.¹⁰⁹

Hedge funds make offerings of securities under the constraints of two exemptions from the registration and disclosure requirements of the Securities Act, which are widely referred to as "private placements" or "private offerings."¹¹⁰ First, section 4(2) of the Securities Act specifically exempts nonpublic offerings of securities by an issuer from the requirements of section 5.¹¹¹ As developed by case law following the U.S. Supreme Court case of *SEC v. Ralston Purina Co.*, an offering will be deemed private if potential investors have access to the same kind of information available in a registration statement, are financially sophisticated, have the ability to bear economic risk, and perhaps other factors.¹¹² To qualify for a statutory private offering pursuant to section 4(2) of the Securities Act, a fund must provide potential investors with access to the same type of information as would be provided in a registration filed pursuant to section 5 of the Securities Act.¹¹³

Second, hedge funds also issue securities under Rule 506 of Regulation D of the Securities Act (Rule 506). Rule 506 requires funds to limit their investor base almost exclusively to accredited investors¹¹⁴ (although it does not limit the

106. Securities Act § 5(a), 15 U.S.C. § 77a (2006).

107. Securities Act § 5, 15 U.S.C. § 77e (2006).

108. HAMMER ET AL., *supra* note 19, at 145, 157 (describing the components of disclosure for registration statement on Form N-1A and Form S-1).

109. *See, e.g.*, Form S-1, Part 1. Form S-1 is the general form to be used by issuers of standard U.S. securities.

110. SEC STAFF REPORT, *supra* note 2, at 14.

111. Securities Act § 4(2), 15 U.S.C. § 77d(2) (2006) (exempting from Section 5 of the Securities Act any "transaction not involving a public offering").

112. *SEC v. Ralston Purina Co.*, 346 U.S. 119, 125-26 (1953); HAMMER ET AL., *supra* note 19, at 116-20. Other factors include whether the offering is personally made to potential investors, raises a low amount of capital, and involves a small group of offerees and a limited number of shares. *Id.*

113. 346 U.S. at 125-26.

114. 17 C.F.R. § 230.506. Rule 506 does, however, allow sale to no more than 35 nonaccredited investors that are financially sophisticated, which is defined as an investor that, either alone or with the assistance of a purchaser representative, possesses "such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment." Regulation D Rule 506(b)(2)(ii), 17 C.F.R. § 230.501(b)(2)(ii). It should be noted that although Rule 506(b)(2)(i) limits the number of "purchasers" allowed to 35, that limitation has no effect because accredited investors are not included in the definition of "purchaser" under Regulation D. 17 C.F.R. § 230.501(e)(1)(iv).

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number of investors a hedge fund may have).¹¹⁵ Accredited investors include certain companies with at least \$5,000,000 in assets and natural persons whose net worth (or whose joint net worth with a spouse) exceeds \$1,000,000 or that have an annual income for the last two years of at least \$200,000 (or \$300,000 in joint spousal income if married).¹¹⁶ To qualify for an exemption pursuant to Rule 506, a hedge fund is also prohibited from offering or selling its securities using “general solicitation or general advertising.”¹¹⁷ Rule 502(c) of Regulation D lists any advertising in print or broadcast media, and any invitation to a seminar or meeting by such methods, as constituting general solicitation or advertising.¹¹⁸ Hedge funds seeking the safe harbor provision of Rule 506 must also exercise reasonable care to prevent the resale of their securities.¹¹⁹ Securities purchased pursuant to a Rule 506 private placement cannot be resold by the purchaser without registration or qualification for another exemption from registration.¹²⁰

When an offering is made pursuant to Rule 506, the offering is deemed in accordance with section 4(2) and hence exempt from the registration requirements of section 5 of the Securities Act.¹²¹ Nonetheless, to avoid the liability involved with making a private placement, hedge funds usually make offerings that would satisfy the requirements of Rule 506 and the judicially-defined statutory section 4(2) exemption.¹²²

115. As far as legal considerations are concerned, hedge funds limit the number of their investors to comply with the section 3(c)(1) “investment company” exclusion under the Investment Company Act and/or to avoid mandatory registration and reporting under the Securities Act and Exchange Act.

116. 17 C.F.R. § 230.501(a). The SEC on December 27, 2006, proposed new rules to introduce a higher accredited investor requirement applicable to hedge fund investors and revised other aspects of Regulation D. *See* 72 Fed. Reg., *supra* note 1, at 403-05 (requiring that an investor in a fund exempt under section 3(c)(1) of the Company Act be an “accredited natural person” owning at least \$2.5 million in investable assets); Revisions of Limited Offering Exceptions in Regulation D, 72 Fed. Reg. 45116 (August 10, 2007). The proposed rules were never finalized.

117. 17 C.F.R. § 230.506(b)(1).

118. 17 C.F.R. § 230.502(c). In *In re CGI Capital Inc.*, the SEC found that a broker-dealer made a general solicitation when it sent out a mass email about privately raising capital for an internet startup without first verifying whether the potential investors were accredited or otherwise sophisticated. *In re CGI Capital Inc.*, Securities Act Rel. No. 7, 904 (Sept. 29, 2000).

119. *Id.* Exercising reasonable care to prevent resale is meant to “assure that the purchasers of the securities are not underwriters within the meaning of section 2(a)(11) of the [Securities] Act.” *Id.*

120. 17 C.F.R. § 230.502(d) (1997).

121. 17 C.F.R. § 230.506(a) (2008) (“Offers and sales of securities by an issuer that satisfy the conditions in paragraph (b) of this Rule 506 shall be deemed to be a transaction not involving any public offering within the meaning of Section 4(2) of the [Securities] Act.”).

122. HAMMER ET AL., *supra* note 19, at 120 (“Hedge funds typically rely on the safe harbor of Regulation D Rule 506 . . . in addition to relying on the statutory section 4(2) exemption, in offering and selling their interests.”); LEDERMAN, *supra* note 17, at § 4:2.1 (noting that hedge funds typically raise capital “pursuant to a private placement exempted from registration under section 4(2) of the Securities Act and Rule 506 of Regulation D”). *See also* LARRY D. SODERQUIST & THERESA A. GABALDON, *SECURITIES LAW* 73 (1998) (noting the importance of the section 4(2) private placement exemption even in light of Rule 506 because, among other reasons, it minimizes liability for making an unregistered public offering).

2. *Disclosures Relating to Trading Registered Securities*

Hedge funds must comply with various requirements under the Exchange Act arising out of their investments in public companies.¹²³ First, all hedge funds and their managers are required to disclose large shareholdings of public companies. To regulate the market for control of public companies, sections 13(d) and 13(g) require that hedge funds or their advisers must disclose beneficial ownership of greater than 5 percent in a class of voting shares of securities registered under the Exchange Act, and disclose whether the purpose of such ownership is to acquire or influence the issuer.¹²⁴ In connection with preventing insider trading, section 16(a) requires that hedge funds, upon acquiring a 10 percent ownership stake in any issuer's class of voting equity securities registered pursuant to the Exchange Act, must disclose such ownership, any other equity ownership in the company, and any subsequent changes in such ownership.¹²⁵ In addition, to increase publicly available knowledge about institutional shareholdings, under section 13(f) hedge funds owning more than \$100 million in stock traded on a national exchange are required to quarterly disclose to the public all of their equity holdings and to weekly disclose to the SEC certain short sale positions.¹²⁶

E. Hedge Funds Versus Corporate Governance

Hedge fund governance structures are quite different from those applicable to registered investment companies and public companies more generally. The particular governance devices adopted by hedge funds are explicable, in part, by the transaction cost theory of the firm, according to which companies adopt governance structures aligned with transaction-specific characteristics to reduce transaction costs and increase performance,¹²⁷ which in the case of hedge funds is measured by investment returns. A major source of hedge fund transaction costs stems from managers, to whom investors delegate investment decision-making power, unduly consuming investor wealth, taking on too much risk, or

123. Hedge funds also typically do not need to register as broker-dealers under the Exchange Act. SEC STAFF REPORT, *supra* note 2, at 18.

124. Exchange Act § 13(d), 15 U.S.C. § 78m(d); Exchange Act § 13(g), 15 U.S.C. § 78m(g); 17 C.F.R. § 240.13d-1(a) (2007).

125. Exchange Act § 16(a)(3)(B); 17 C.F.R. § 240.16a-1; 17 C.F.R. § 240.16a-2 (2007).

126. Exchange Act Rule 13f-1(b); 17 C.F.R. § 240.13f-1(b) (2007); U.S. Securities and Exchange Commission, Disclosure of Short Sales and Short Positions by Institutional Investment Managers, 73 Fed. Reg. 61678, Oct. 17, 2008.

127. Oliver E. Williamson, *Strategizing, Economizing, and Economic Organization*, 12 STRAT. MGMT. J. 75, 79 (1991) (identifying the main task of the transaction cost theory of the firm as "align[ing] transactions, which differ in their attributes, with governance structures, which differ in their costs and competencies, in a discriminating (mainly, transaction cost economizing) way"); Robert J. David & Shin-Kap Han, *A Systematic Assessment of the Empirical Support for Transaction Cost Economics*, 25 STRAT. MGMT. J. 39, 40 (2004) (noting that the central claim of the transaction cost economics is "that transactions will be handled in such a way as to minimize the costs involved in carrying them out").

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failing to take on enough risk to sufficiently engage in activities such as innovation.¹²⁸ A primary task of organizational law and contracting is thus to reduce these types of agency costs by aligning incentives.¹²⁹

Public corporations limit agency costs through the market for corporate control, monitoring by an independent board of directors and activist shareholders, granting employee stock options, and other mechanisms.¹³⁰ Registered investment companies must also have a board of directors, 40 percent of whom are independent.¹³¹ By contrast, hedge funds do not have a corporate-style, independent board of directors that plays any significant role in the manager's investment decision making.¹³² Additionally, because hedge fund limited partners cannot freely transfer their control (voting) rights and there is a very limited secondary market for hedge fund shares, hedge fund managers are insulated from the market for corporate control.¹³³ Hedge fund management thus takes place in a relatively flat organizational structure and without investment decisions being subject to outside monitoring and influence by non-managers.

Hedge funds do, however, employ governance mechanisms to resolve agency problems so investors can "assure themselves of getting a return on their investment."¹³⁴ Unlike public corporations, ownership and management in a hedge fund are not fundamentally separated.¹³⁵ Hedge funds are generally "owner-operated" and managers often have a substantial ownership stake in the underlying funds that they advise.¹³⁶ In addition, whereas the compensation of corporate managers is comprised of a large fixed salary and pension not

128. See generally Sanford Grossman & Oliver D. Hart, *An Analysis of the Principal-Agent Problem*, 51 *ECONOMETRICA* 7 (1983); Speech, Chester S. Spatt, Chief Economist and Director, Office of Economic Analysis U.S. Securities and Exchange Commission, *Conflicts of Interest in Asset Management*, May 12, 2005; Houman B. Shadab, *Innovation and Corporate Governance: The Impact of Sarbanes-Oxley*, 10 *U. PENN. J. BUS. & EMP. L.* 955, 978-79 (2008) (discussing agency costs from a failure to innovate).

129. Eugene F. Fama, *Agency Problems and the Theory of the Firm*, 88 *J. POL. ECON.* 288 (1980); Romano, *Corporate Law and Corporate Governance*, 5 *INDUSTRIAL AND CORPORATE CHANGE* 277, 277-78 (1996) ("The fundamental task of corporate law is to provide a framework of governance institutions that mitigate the agency problem"); Andrei Shleifer & Robert W. Vishny, *A Survey of Corporate Governance*, 52 *J. Fin.* 737, 737 (1997) ("Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment."). See also Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 *J. FIN. ECON.* 305, 308 (1976).

130. See generally Shleifer & Vishny, *supra* note 129.

131. Company Act § 10(a), 15 U.S.C. § 80a-10(a) (2006).

132. See L'HABITANT, *supra* note 15, at 92 (questioning the role of hedge fund directors).

133. M. Corey Goldman, *Mutiny? Good Luck*, *INSTITUTIONAL INVESTOR MAGAZINE*, Feb. 24, 2009 (reporting that hedge fund boards typically are not involved in monitoring management and that "the fine print in a hedge fund charter usually makes it almost impossible" for investors to replace directors or otherwise influence management decisions). See also Ribstein, *supra* note 19, at 19.

134. Shleifer & Vishny, *supra* note 129, at 737 (surveying and defining corporate governance issues from a "straightforward agency perspective").

135. Ribstein, *supra* note 19, at 8.

136. See *supra* notes 51-52.

directly dependent upon the manager's contribution to company performance,¹³⁷ the fixed portion of hedge fund manager compensation (the 1 to 2 percent management fee) is relatively small compared to what hedge fund managers could earn through performance fees tied directly to producing gains for investors.¹³⁸ Although hedge funds place short-term limitations on investor redemptions, relative underperformance will lead investors to redeem their capital and may even cause a forced liquidation of the fund.¹³⁹ Performance-based compensation and co-investment, limited partner liquidation rights, and the need to return to investors to raise capital serve as substitute governance mechanisms for the strong voting rights and share transferability found in public companies.¹⁴⁰

II. FINANCIAL INNOVATION, MARKET RISK, AND HEDGE FUND GOVERNANCE

Financial innovation can further the overall purposes of the financial system by decreasing investment risk and reducing the transaction costs associated with investing. Hedge funds innovate by implementing novel investment strategies that decrease market risk for their investors. The legal regime applicable to hedge funds facilitates their innovation activities in two ways: the lack of federal restrictions on hedge fund investment activities enables the funds to innovate, and the unincorporate governance of the funds provides high-powered incentives to do so.

A. Hedge Fund Innovation

Innovation is a process that entails the commercialization of a new idea and results in something new and valuable to consumers or producers.¹⁴¹ A

137. See Lucian A. Bebchuk & Robert J. Jackson, Jr., *Executive Pensions*, 30 J. CORP. L. 823, 850 tabl. 8 (2005) (finding that the mean base salary plus pension was 38.6 percent of the total compensation for S&P 500 CEOs that left the company during 2003 and the first five months of 2004).

138. See Ribstein, *supra* note 19, at 4.

139. See *infra* Part II.B.3 for a fuller discussion of hedge funds' need to continually return to investors for capital.

140. See Ribstein, *supra* note 19, at 12, 15. For a somewhat parallel comparison of private equity and corporate governance see Ronald W. Masulis & Randall S. Thomas, *Does Private Equity Create Wealth? The Effects of Private Equity and Derivatives on Corporate Governance*, U. CHICAGO L. REV. (forthcoming 2009).

141. Jan Fagerberg, *Innovation: A Guide to the Literature*, in THE OXFORD HANDBOOK ON INNOVATION 4 (JAN FAGERBERG, DAVID C. MOWERY & RICHARD R. NELSON EDS. 2005) ("Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out in practice.") [hereinafter HANDBOOK ON INNOVATION]; Elspeth McFadzean, Andrew O'Loughlin & Elizabeth Shaw, *Corporate Entrepreneurship and Innovation Part 2: A Role- and Process-Based Approach*, 8 EUR. J. INNOVATION MGMT. 393, 395 (2005) (innovation involves an idea discovery phase and a commercialization phase); CORPORATE GOVERNANCE, MARKET STRUCTURE AND INNOVATION 3 (Mario Calderini, Paola Garrone & Maurizio Sobrero eds. 2003) (innovation begins "with the generation of new knowledge targeted to the discovery of new products and processes, and ending with their commercial exploitation"); MARY O'SULLIVAN, CONTESTS FOR CORPORATE CONTROL: CORPORATE GOVERNANCE AND ECONOMIC PERFORMANCE IN THE UNITED STATES AND GERMANY 12 (innovation

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fundamental goal of the financial system is to facilitate investment activities by matching up investors seeking positive returns on their capital with firms seeking to raise financial capital,¹⁴² and financial innovation can further this goal. For example, innovation can decrease investment risk by increasing the range of available investment opportunities or the quality of information about the potential risks and rewards of a particular investment. In addition, more investment activities can be undertaken when innovation reduces transaction costs. Investment transaction costs include the cost of not being able to quickly exit an investment (illiquidity) and the cost of paying fees to third-party asset managers.¹⁴³

Hedge funds innovate by creating new and often complex investment strategies that may build upon innovations in financial instruments and financial production methods (financial engineering). These innovative strategies have resulted in hedge funds taking a leading role in a wide range of specific industries and market niches, including weather derivatives and film finance.¹⁴⁴ Although hedge fund innovation may come at the expense of increasing investment transaction costs and investors' exposures to hedge fund-specific risks, the net impact of such innovation is generally to reduce exposures to market risk and specific systematic market risk factors, thereby helping to diversify an investment portfolio.

1. Investing and Diversification

Investors benefit from receiving the highest returns on the capital they invest. One source of higher investment returns is the skill of an asset manager in implementing investment strategies. Managerial skill is typically measured and represented by the quantity alpha (α). Another source of higher returns is higher risk. Risk is the likelihood that purchased assets will decrease in price and thereby impart a loss to an investor.¹⁴⁵ Higher risk is a source of higher

generates "higher quality and/or lower-cost products"). Categories of innovation include new products for consumers (i.e., goods and services), new methods of production, and new forms of business organization. See JOSEPH A. SCHUMPETER, *THE THEORY OF ECONOMIC DEVELOPMENT: AN INQUIRY INTO PROFITS, CAPITAL, CREDIT, INTEREST, AND THE BUSINESS CYCLE* 66 (Transaction ed. 1983) (1934) (innovation consists of new goods, new methods of production, exploitation of new markets and sources of supply, and new forms of organization).

142. See Robert C. Merton, *Financial Innovation and Economic Performance*, 4. J. APPL. CORP. FIN. 12, 12 (1992) ("The primary function of the financial system is to facilitate the allocation and deployment of economic resources, both spatially and across time, in an uncertain environment.").

143. "Liquidity" means either the ease with which an investor has access to credit or can sell an asset without incurring a substantial loss. Stephen G. Cecchetti, *Federal Reserve Policy Actions in August 2007: Frequently Asked Questions*, VoxEU.org, August 13, 2007, <http://www.voxeu.org/index.php?q=node/460>.

144. Arjuna Sittampalam, *The Pioneering Role of Hedge Funds*, EDHEC Risk, Alternative Investments, Feb. 23, 2009.

145. Burton G. Malkiel, *A Random Walk Down Wall Street*, in FOUNDATIONS OF CORPORATE LAW 29, 29 (Roberta Romano ed. 1999).

returns because investors must be compensated for taking greater risks.¹⁴⁶ For example, stocks typically have higher returns than bonds because taking an equity position in a company to share in its profits is generally riskier than making a loan to that company to receive interest payments.¹⁴⁷

“Modern portfolio theory” focuses on those returns attributable to risk and teaches that investors should seek to maximize risk-adjusted returns.¹⁴⁸ Risk-adjusted return is a measure of how much risk an investor must take to earn a certain level of return. Higher risk-adjusted returns give investors greater assurance that they will receive the expected return from an investment rather than suffering a loss.¹⁴⁹ Financial risk is typically measured by calculating the standard deviation of an investment’s return, which shows how likely it is that the investment will produce a return either greater or less than its historical average.¹⁵⁰ Other measures of risk focus solely on the likelihood that an investment will impart a loss to the investor or fail to achieve a specific investment goal. For example, the value-at-risk measure shows how much an investor can expect to lose over a given period, and the shortfall-risk measure shows the likelihood of an investor not achieving, or falling short of, a desired rate of return.¹⁵¹ Risk-adjusted returns are maximized when, taking into account the different measures of risk, an investor is receiving the highest possible return for the total amount of risk they are taking on.¹⁵² In deciding among different investments, investors should choose a combination of risk and return consistent with their investment goals and tolerance for risk.

Two components of overall investment risk are idiosyncratic risk and market risk. Idiosyncratic risks arise from the particular circumstances of a company or related issuers, such as management quality and employee retention.¹⁵³ Market risk, by contrast, is the risk that the value of an investment

146. See *id.* at 35; RICHARD A. BREALY ET AL., PRINCIPLES OF CORPORATE FINANCE 193-94 (8th ed. 2006) (reviewing empirical evidence of the risk-return relationship).

147. BREALY ET AL., *supra* note 146, at 147-49.

148. Modern portfolio theory was first developed by Nobel prize-winning economist Harry Markowitz in the 1950s. See Harry M. Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952); HARRY M. MARKOWITZ, PORTFOLIO SELECTION: EFFICIENT DIVERSIFICATION OF INVESTMENTS (1959).

149. LHABITANT, *supra* note 15, at 455.

150. Malkiel, *supra* note 145, at 29-30.

151. LHABITANT, *supra* note 15, at 443-44.

152. The Sharpe ratio is the most common way of measuring risk-adjusted returns. A Sharpe ratio is calculated by dividing an investment’s return in excess of the return to a hypothetical “risk-free” investment (typically proxied by the return on the ninety-day U.S. Treasury bill) by the standard deviation of the returns. See LEDERMAN, *supra* note 17, at § 1:3, 1-18; LHABITANT, *supra* note 15, at 455. The Sortino ratio is another measure of risk-adjusted returns, which incorporates the downside risk measures by comparing an investment’s return to its risk of incurring a level of losses below some minimum acceptable amount. See *id.* at 472-73; HEDGE.CO.NET, SHARPE VS SORTINO RATIO (2003), <http://www.hedgeco.net/sharpe-ratio-sortino-ratio.htm>.

153. BREALY ET AL., *supra* note 146, at 162. Idiosyncratic risk is also referred to in the finance literature as “unsystematic” risk or “unique” risk. See Malkiel, *supra* note 145, at 34.

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will increase or decrease along with fluctuations in the overall market.¹⁵⁴ Market risk arises because economy-wide changes often impact a significant, if not overwhelming, portion of individual companies and other issuers, and thereby cause the security prices of different companies to move up or down together.¹⁵⁵

Although investments with higher returns tend to have higher risk, diversification can reduce overall investment risk without reducing returns. Diversification is accomplished by broadening the different sources of investment risk to which an investor is exposed, and requires investing in a portfolio of numerous securities from a wide range of issuers and types of assets (e.g., stocks, bonds, commodities, real estate).¹⁵⁶ As explained by Nobel Prize-winning economist James Tobin, diversification cautions investors against putting all their “eggs in one basket.”¹⁵⁷ Diversification reduces risk to the extent that the returns of different securities are independent of (i.e., have a low correlation to) one another.¹⁵⁸ Having a low correlation means that when some securities perform poorly, others may perform well, and the net effect is to insulate a portfolio from overall losses. Diversification reduces idiosyncratic risk because losses stemming from the unique circumstances of any single issuer are not correlated with losses from others.¹⁵⁹ Empirical research finds that idiosyncratic risk can be minimized by purchasing the securities of approximately twenty different companies.¹⁶⁰

Once an investment portfolio is diversified with respect to idiosyncratic risk, the remaining risk to a portfolio comes from market risk.¹⁶¹ Properly understood, risk is therefore not about the risk of individual securities; rather, it is a portfolio-level issue regarding the impact of adding securities on the likelihood of a portfolio experiencing losses.¹⁶² Market risk is the sensitivity of a portfolio’s, or an individual security’s, price to movements in the general market, and it is represented by the quantity known as beta (β).¹⁶³ A portfolio with a beta equal to one will perfectly mirror returns of the market; a portfolio with a beta of zero is “market neutral” and will not change in response to changes in the market; a beta of negative-one means a portfolio will return the

154. Unless otherwise noted, this Article adopts the standard convention of measuring “the market” by the value of the Standard and Poor’s 500 Index, which tracks the stock prices of 500 of the largest public companies operating in the U.S. See, e.g., Richard Roll & Stephen A. Ross, *The Arbitrage Pricing Theory Approach to Strategic Portfolio Planning*, FIN. ANAL. J. 122, 128 (1995).

155. BREALY ET AL., *supra* note 146, at 162; Malkiel, *supra* note 145, at 34.

156. Malkiel, *supra* note 145, at 32.

157. James Tobin, Recipient of the 1981 Alfred Nobel Memorial Prize in Economic Sciences, Lecture at Trinity University (April 30, 1985).

158. See Malkiel, *supra* note 145, at 32–33.

159. BREALY ET AL., *supra* note 146, at 161–62.

160. *Id.* at 162.

161. See BREALY ET AL., *supra* note 146, at 167; Malkiel, *supra* note 145, at 35–36.

162. LHABITANT, *supra* note 15, at 540.

163. BREALY ET AL., *supra* note 146, at 167.

exact opposite of the market (e.g., a 10 percent market gain will result in a 10 percent loss); and a beta of two will have returns with double the magnitude of the market (in either direction).¹⁶⁴ Diversification by purchasing securities from different asset classes can decrease market risk because securities from different classes are exposed to different sources of market risk.¹⁶⁵ For example, stocks are generally exposed to fluctuations in the overall economy, while bonds are exposed to changes in interest rates.¹⁶⁶

The capital asset pricing model shows that investors are generally awarded higher returns only for investing in securities with more market risk (higher beta).¹⁶⁷ To maximize risk-adjusted returns, investors should therefore invest in an efficient portfolio that yields the highest return for the level of market risk that they are willing to bear.¹⁶⁸ Because returns are dependent upon manager skill (α) and market risk (β), this relationship can be expressed mathematically as

$$R_p = \alpha + \beta R_m$$

where R_p is the return to a portfolio and R_m the return of the general market.¹⁶⁹

“Arbitrage Pricing Theory” goes one step further by unpacking market risk into various components.¹⁷⁰ According to Arbitrage Pricing Theory, the return to a portfolio of securities is not simply dependent on economy-wide changes and a portfolio’s sensitivity to those changes in the aggregate, but upon changes in several market-risk factors such as interest rates, foreign exchange rates, and changes in inflation forecasts.¹⁷¹ Accordingly, there are several different betas, each reflecting the sensitivity of a portfolio to a specific market risk factor. If, for example, the return to a portfolio (R_p) is dependent upon manager skill and interest rates, exchange rates, and inflation, this relationship can be expressed as

$$R_p = \alpha + \beta_1 R_{INT} + \beta_2 R_{FOREX} + \beta_3 R_{INF}$$

where β_1 represents the sensitivity of the portfolio to interest rates and R_{INT} is the change in the interest rate, β_2 is the sensitivity of the portfolio to foreign exchange fluctuations and R_{FOREX} is the change in foreign exchange rates, and β_3 is the sensitivity of the portfolio to inflation and R_{INF} is the change in the inflation rate. As with market risk, diversification across asset classes can

164. *Id.* Stocks of relatively risky companies such as Amazon.com have higher betas than those of staples of the economy such as Coca-Cola. From January 1999 to December 2003, the beta of Amazon.com was 2.22 whereas it was 0.28 for Coca-Cola. *Id.* at 168.

165. L'HABITANT, *supra* note 15, at 539-541.

166. *Id.* at 548.

167. BREALY ET AL., *supra* note 146, at 188-89; Malkiel, *supra* note 145, at 35.

168. BREALY ET AL., *supra* note 146, at 182-85.

169. M. Barton Waring & Laurence B. Siegel, *The Myth of the Absolute-Return Investor*, 6 FIN. ANAL. J. 12, 15 (2006); FILIPPO STEFANINI, INVESTMENT STRATEGIES OF HEDGE FUNDS 69-70 (2007).

170. *See, e.g.*, Rall & Ross, *supra* note 154, at 122-26 (reviewing Arbitrage Pricing Theory).

171. BREALY ET AL., *supra* note 146, at 199.

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decrease losses from systematic risk factors because the returns to such securities are relatively uncorrelated.¹⁷² In sum, diversification among securities and across classes of financial instruments reduces a portfolio's overall investment risk and thereby facilitates the maximization of risk-adjusted returns.

2. *Transaction Costs and Idiosyncratic Risk*

Constructing a diversified portfolio requires a sufficient level of financial acumen, time, capital, and other resources to search for and monitor investment opportunities. Furthermore, investors with relatively small amounts of capital face high transaction costs in attempting to diversify by directly investing in multiple separate issuers of securities and in other assets.¹⁷³ Investment intermediaries such as banks, mutual funds, and hedge funds reduce transaction costs by utilizing their specialized skills and resources to inform or make informed investment decisions for others, and by operating on a large enough scale to take advantage of scale economies.¹⁷⁴ Investment intermediaries do, however, introduce transaction costs that investors would not bear if investing on their own and, as a consequence, may provide no net value to investors.

The two most economically significant investment intermediaries are depository institutions and registered investment companies.¹⁷⁵ A depository institution is a financial intermediary whose primary source of funds is deposits and for which a substantial source of profit derives from earning interest from making loans.¹⁷⁶ Depository institutions include commercial banks, savings and loans institutions, and credit unions.¹⁷⁷ Depository institutions have introduced several innovations relevant to investors. They have decreased transaction costs by offering investors a place for safekeeping of their assets, easy access to cash, and a way to pool a small amount of capital with other small investors to benefit from returns (in the form of interest payments) on large loans to borrowers.¹⁷⁸ Furthermore, depository institutions allow investors (depositors) to diversify and lower idiosyncratic risk by lending their funds to numerous borrowers and using the institution's superior expertise in

172. See Rall & Ross, *supra* note 154, at 122 (noting that “[d]ifferent portfolios have different sensitivities to these [systematic risk] factors” such that a “portfolio that is so hedged as to be insensitive to these factors . . . is essentially riskless”); *id.* at 127 (“Altering the mix of stocks and bonds in the portfolio will certainly affect the amount and type of risk exposure” to systematic risk factors).

173. KEVIN DOWD, *COMPETITION AND FINANCE: A REINTERPRETATION OF FINANCIAL AND MONETARY ECONOMICS* 25 (1996).

174. *Id.* at 114-120; STEPHEN G. CECCHETTI, *MONEY, BANKING AND FINANCIAL MARKETS* 259 (2006). Of course, borrowers often raise funds directly by issuing securities such as stocks and bonds. *Id.*

175. CECCHETTI *supra* note 174, at 330-31.

176. *Id.* at 286.

177. *Id.*

178. *Id.* at 264-67.

making and monitoring loans.¹⁷⁹ However, loan making is inherently limited in its ability to maximize depositors' risk-adjusted returns. Commercial banks are prohibited by law from owning stock in public companies, and can therefore only earn the relatively safer, but relatively lower, returns on debt investing.¹⁸⁰ Banks are also restricted in their use of derivatives generally to hedging their loan-related risks,¹⁸¹ which limits their ability to expose investors to a broader range of risk and return.

A registered investment company is a publicly available pooled investment fund that may take one of three legal forms in the U.S.: open-end, closed-end, or as a unit investment trust. The most widely-utilized type of registered investment companies are mutual funds,¹⁸² which are a type of open-end investment company that sells shares to individual and institutional investors that do not trade on secondary markets.¹⁸³ Closed-end registered investment companies offer fixed numbers of shares that trade in secondary markets.¹⁸⁴ Investment companies decrease transaction costs and idiosyncratic risk by typically investing in a diverse portfolio of securities. The mutual fund market is extremely differentiated with funds specializing in securities based upon types of assets (e.g., stocks, bonds, or money-market instruments), firm size (i.e., so-called large-cap, mid-cap or small-cap funds), sector (e.g., energy companies, technology companies), and/or geographic location (e.g., emerging markets).¹⁸⁵ Mutual funds typically adopt a traditional, "long-only" investment

179. *Id.* at 267-68; ALAN D. MORRISON & WILLIAM J. WILLHELM, JR., INVESTMENT BANKING: INSTITUTIONS, POLITICS, AND LAW 3 (2007) (noting that bank depositors "play no part in interpreting or gathering" the information that banks acquire from borrowers).

180. Gramm-Leach-Bliley Act §16, 12 U.S.C. § 24 (Seventh); 12 U.S.C. § 335; 12 C.F.R. pt. 1 (describing the different types of debt instruments in which banks may invest). Commercial banks may, however, engage in a wide range of financial services activities through qualified affiliates. See generally RICHARD S. CARNELL ET AL., THE LAW OF BANKING AND FINANCIAL INSTITUTIONS 27, 425-94 (4th ed. 2009).

181. Office of the Comptroller of the Currency Bulletin 96-43, Credit Derivative, Guidelines for National Banks, Aug. 12, 1996; LISSA L. BROOME & JERRY W. MARKAM, REGULATION OF BANKS FINANCIAL SERVICES ACTIVITIES: CASES AND MATERIALS 922 (2d ed. 2004) (noting that "a bank trading in derivatives for its own account must use that trading to offset some other risk. Speculation is not allowed.").

182. As of the end of the third quarter of 2008, the total assets managed by U.S. mutual funds was \$10.63 trillion, closed-end funds managed \$238.44 billion, and unit investment trusts managed \$1.35 billion. See Investment Company Institute, Archive of "Trends" Releases, <http://www.ici.org/stats/mf/arctrends/>; Investment Company Institute, Closed-End Fund Statistics, <http://www.ici.org/stats/ce/>; Investment Company Institute, Unit Investment Trust Statistics, <http://www.ici.org/stats/uit/>.

183. SEC, INVEST WISELY: AN INTRODUCTION TO MUTUAL FUNDS, <http://www.sec.gov/investor/pubs/inwsmf.htm> ("Legally known as an 'open-end company,' a mutual fund is one of three basic types of investment companies."); Company Act § 4(3), 15 U.S.C. § 80a-4(3) (defining "management company"); Company Act § 5(a)(1), 15 U.S.C. § 80a-5(a)(1) (defining a management company as "open-end" if it "is offering for sale or has outstanding any redeemable security of which it is the issuer").

184. SEC, *supra* note 183.

185. See Dustin Woodard, *Different Types of Mutual Funds*, About.com, http://mutualfunds.about.com/cs/buildingblocks/a/fund_types.htm.

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strategy consisting of purchasing stocks and/or bonds, earning dividend or interest income, and ultimately selling the securities at a higher price.¹⁸⁶ A mutual fund's performance is evaluated by comparing a fund's returns to the overall performance of the market or other relevant benchmark.¹⁸⁷

Mutual funds are an improvement over banks because they offer investors a relatively low-cost method to invest in a diverse portfolio of stocks that can earn higher returns than bank deposits.¹⁸⁸ However, the relatively higher returns of mutual funds come with increased risk. Mutual funds specializing in equities, for instance, reward investors with higher returns at the expense of increasing exposure to stock market risk. Furthermore, investment company regulation hampers the ability of mutual funds and closed-end registered investment companies to decrease or diversify away market risk through the employment of non-traditional investment strategies or asset classes.¹⁸⁹ For instance, the Company Act's requirement that a registered investment company must offset a short position hampers the ability of mutual funds to engage in short sales to reduce the exposure of the fund to decreases in stock prices and hence market risk. Accordingly, during economic downturns mutual funds typically remain invested in securities even as they continue to decrease in value.

3. *Hedge Fund Investment Strategies and Market Risk*

While depository institutions and mutual funds benefit investors by reducing investment transaction costs and idiosyncratic risk, hedge funds are uniquely able to reduce losses from market risk. Exclusion from the definition of "investment company" under the Company Act permits hedge funds to employ leverage, short sales, and derivatives without having to comply with the Act's restrictions with respect to those activities. Not having to comply with the Company Act enables hedge funds to more easily pursue investment strategies with a low correlation to the overall market than mutual funds, which typically seek returns relative to the overall market (or a segment of the market).¹⁹⁰ Hedge funds' relatively low market risk is achieved by utilizing innovative investment strategies that go beyond traditional long-only investments in stocks and bonds. In 1949, Alfred Winslow Jones started the first modern hedge fund

186. LEDERMAN, *supra* note 17, at § 1:3, 1-16-17 (noting that traditional investment strategies consist of stocks, bonds, and other fixed-income investments).

187. Bing Liang, *On the Performance of Hedge Funds*, 55 FIN. ANALYSTS J. 72, 72 (1999) (contrasting hedge funds with "mutual funds and other traditional investment vehicles" that evaluate returns relative to an external benchmark).

188. *Compare* Federal Reserve Statistical Release, Historical Data, H.15 Selected Interest Rates, Annual 1-Month Certificate of Deposit, <http://www.federalreserve.gov/releases/H15/data.htm> (follow CDs, Secondary Market, 1-Month Annual), with EconStats, S&P 500 (Large Cap) Index US Yearly Data, %Chg for Year, http://www.econstats.com/eqty/eqea_mi_1.htm.

189. *See supra* Section I.C.1.

190. LEDERMAN, *supra* note 17, at § 1:3, 1-17; LHABITANT, *supra* note 15, at 32.

by combining traditional long positions in stocks he believed would increase in price with short positions in stocks of companies he believed would decrease in price.¹⁹¹ Since that time, so-called “long-short equity” funds have become a primary type of hedge fund strategy and in 2008 were employed by approximately 40 percent of hedge funds comprising 27 percent of industry assets.¹⁹²

In addition to long-short equity, there are three other general types of hedge fund investment strategies that together encompass the overwhelming portion of funds in the industry. These strategies are relative value, corporate event driven, and directional funds. Relative value funds are those that employ the trading technique known as arbitrage, which seeks to profit from a price discrepancy between two assets that are expected to change.¹⁹³ One type of relative value fund is convertible bond arbitrage, which seek gains based upon a temporary mismatch between the price of a corporate bond and the stock of the company that the convertible bondholder has a right to convert the bond into.¹⁹⁴ Convertible bond arbitrage strategies were first utilized by the proprietary trading desks of large investment banks.¹⁹⁵ Another type of relative value strategy are strategies specializing in mortgage-backed securities (MBS) arbitrage. An MBS is a security that pays investors periodic interest payments stemming from a pool of underlying mortgage payments.¹⁹⁶ The first MBS was introduced in 1978 and hedge funds pioneered the arbitrage of MBS by using innovative models to value the cash flows of an MBS. The interest rate risk to which MBS securities are exposed is typically hedged by short positions in Treasury bonds (or derivatives).¹⁹⁷ Other relative value trading strategies include fixed income arbitrage and equity market neutral funds.¹⁹⁸

Corporate event driven strategies seek to profit from trades based upon company extraordinary events such as mergers or bankruptcies.¹⁹⁹ A type of corporate event driven strategy is merger arbitrage, which seeks to purchase the stock of a company that has just announced that it will be acquired and sell short the stock of the acquiring company with the expectation that the acquiring company’s stock will fall after the acquisition and the acquired company’s stock will increase.²⁰⁰ Other event driven funds include those that invest in

191. LHABITANT, *supra* note 15, at 8-10.

192. EUREKAHEDGE, THE EUREKAHEDGE REPORT 11, Jan. 2009 (estimating strategy composition of North American hedge funds).

193. STEFANINI, *supra* note 169, at 14.

194. *Id.* at 99-100; LHABITANT, *supra* note 15, at 279-84.

195. LHABITANT, *supra* note 15, at 287-88.

196. STEFANINI, *supra* note 169, at 167.

197. *Id.* at 173-74.

198. For general descriptions of these sub-strategies see LHABITANT, *supra* note 15, at 197-214, 297-310.

199. STEFANINI *supra* note 169, at 14.

200. *Id.* at 75-76, 82-83.

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underperforming securities and those that engage in corporate activism.²⁰¹ Compared to institutional shareholders such as mutual funds and pension funds, hedge funds are much more active in monitoring and influencing corporate managers and practice innovative means of cooperating with managers and other forms of activism.²⁰² Empirical studies strongly suggest that hedge fund activism generally benefits investors of the companies that hedge funds influence.²⁰³

Directional investment strategies seek gains from major trends in the market.²⁰⁴ A popular type of directional hedge fund is a global macro fund, which invests in a broad array of financial instruments based upon an analysis of macroeconomic conditions in various countries and takes into account such factors as gross domestic product, demographics, and currency exchange rates.²⁰⁵ In the early 1990s, the global macro hedge funds of George Soros, Julian Robertson, and others pioneered taking large and leveraged positions in foreign currencies.²⁰⁶ Although global macro funds accounted for approximately 32 percent of hedge fund assets in 1994,²⁰⁷ by 2008 approximately 8 percent of fund assets were involved with the strategy.²⁰⁸

The foregoing innovative hedge fund investment strategies have the general effect of reducing an investor's exposure to market risk. This is demonstrated by hedge funds generally exhibiting betas lower than equity mutual funds, both in the aggregate and across the vast majority of specific fund strategies.²⁰⁹ Using overlapping but not equivalent time periods, Figure 1 compares the betas of the foregoing general hedge fund strategies to that of equity mutual funds ordered by beta. Figure 1 illustrates that all four hedge fund strategies have a

201. *Id.* at 14.

202. See Kahan & Rock, *supra* note 99, at 1042-45. See also generally Frank Partnoy & Randall Thomas, *Gap Filling, Hedge Funds, and Financial Innovation*, in *NEW FINANCIAL INSTRUMENTS AND INSTITUTIONS: OPPORTUNITIES AND POLICY CHALLENGES* 101 (Yasuyuki Fuchita & Robert E. Litan eds.) (describing the innovative aspects of hedge fund activism); Robert C. Illig, *What Hedge Funds Can Teach Corporate America: A Roadmap for Achieving Institutional Investor Oversight*, 57 *AM. U. L. REV.* 225 (2007-2008).

203. See generally Alon Brav, Wei Jan, Frank Partnoy & Randall Thomas, *Hedge Fund Activism, Corporate Governance, and Firm Performance*, 63 *J. FIN.* 1729 (2008); Thomas W. Briggs, *Corporate Governance and the New Hedge Fund Activism: An Empirical Analysis*, 32 *J. CORP. L.* 681 (2006-2007); Christopher P. Clifford, *Value Creation or Destruction? Hedge Funds As Shareholder Activists*, 14 *J. CORP. FIN.* 323 (2008).

204. STEFANINI, *supra* note 169, at 14.

205. *Id.* at 239-40. See also STEVEN DROBNY, *INSIDE THE HOUSE OF MONEY: TOP HEDGE FUND TRADERS ON PROFITING IN THE GLOBAL MARKETS* (2006) (describing the wide array of global macro strategies through interviews with hedge fund managers).

206. STEFANINI, *supra* note 169, at 240-41; LHABITANT, *supra* note 15, at 12-15, 327-50.

207. BARTH ET AL., *supra* note 44, at 19.

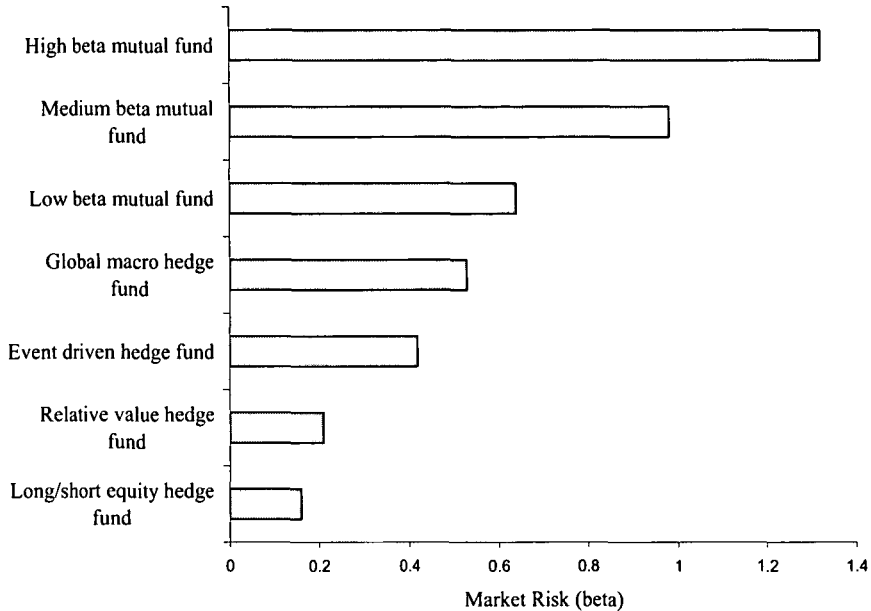
208. EUREKAHEDGE, *supra* note 192.

209. See Bing Liang, *On the Performance of Hedge Funds*, 55 *FIN. ANALYSTS J.* 72, 78, 79 (1999) (noting that "hedge funds are absolute performers with no relative benchmark" and finding empirically that "the low beta value for hedge fund groups indicate that hedge funds have low systematic risk"); Daniel Capocci & Georges Hübner, *Analysis of Hedge Fund Performance*, 11 *J. EMPIRICAL FIN.* 55, 73 tabl. 5 panel C (2004) (estimating the betas and alphas of hedge funds by strategy from 1994 to 2000).

lower average beta than equity mutual funds when equity mutual funds are separated into low, medium, and high beta mutual funds.²¹⁰ This means that mutual funds are generally more exposed to market risk than hedge funds.

Figure 1: Market Risk of Hedge Funds Versus Mutual Funds

Sources: Capocci & Hübner (2004), Chalmers et al. (2001).



Furthermore, hedge funds have relatively low correlation to market risk when market risk is unpacked into separate systemic risk factors. In a comparison of hedge fund returns with those of mutual funds based upon how sensitive each is to standard systematic risk factors (such as changes in stock prices, bond prices, and the value of the dollar), William Fung and David Hsieh found that hedge funds have a relatively low correlation to standard systematic factors compared to mutual funds.²¹¹ Fung and Hsieh also applied arbitrage

210. Capocci & Hübner, *supra* note 209, at 73 tabl. 5 panel C; John M.R. Chalmers et al., *On the Perils of Financial Intermediaries Setting Security Prices: The Mutual Fund Wild Card Option*, 57 J. FIN. 2209, 2217 tabl. III (2001) (estimating equity mutual fund betas from February 1, 1998 to March 30, 2000). Although Figure 1 is an accurate reflection of average market correlations by broad classifications of hedge funds and equity mutual funds, particular hedge funds may have higher betas than average mutual funds and particular mutual funds may have lower betas than average hedge funds.

211. See William K.H. Fung & David A. Hsieh, *Hedge Funds: An Industry in Its Adolescence*, 91 ECON. REV. 1, 8 (2006). Notwithstanding their typically low correlation to market movements, hedge fund returns may become more correlated to general market trends during downturns. Monica Billio, Mila Getmansky & Lorian Pelizzon, *Phase-Locking and Switching Volatility in Hedge Funds* 38

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pricing theory to determine what specific systematic risk factors are common to hedge funds.²¹² They found that hedge funds are exposed to a set of non-standard risk factors such as the difference between returns to small and large cap stocks.²¹³ Accordingly, hedge fund innovation helps to diversify a portfolio by lowering exposures to standard market risks and broadening the types of risk to which investors are exposed.

4. *Unique Costs and Risks of Hedge Fund Innovation*

Although hedge fund innovation reduces exposures to market risk and standard systematic risk factors, it would be premature to conclude on this basis that the funds reduce overall investment risk and thereby make investors better off. Specifically, overall investment risk may be increased if decreasing market risk comes at the expense of increasing hedge fund-specific risks by even more. More generally, the benefits of hedge fund innovation must be weighed against the costs and risks unique to investing in hedge funds. These costs and risks include unique transaction costs and higher company-specific risks than public companies.

First, hedge funds typically require investors to bear unique transaction costs because, unlike making bank deposits or purchasing mutual fund shares, hedge funds charge a relatively high management fee and also typically constrain the ability of investors to immediately withdraw their capital.²¹⁴ If a hedge fund fails to outperform other collective investment vehicles with lower management fees, the relatively high hedge fund management fees are not worth paying. In addition, despite their generally low correlation to market risk factors, hedge funds may not be an attractive investment to investors seeking to withdraw their capital due to the redemption restrictions often exercised by the funds.²¹⁵

(Department of Economics, Ca' Foscari University of Venice Working Paper, November 2006) (finding "that exposures [to market factors] can be strongly different in the down-market regimes compared to normal times suggesting that risk exposures of hedge funds in the down-market regimes are quite different than those faced during normal regimes"); Javier Mencía, *Testing Dependence Between Financial Returns, An Application to the Hedge Fund Industry* 3 (Bank of Spain Working Paper, January 2006) (finding that "when strong shocks to the market occur, ['hedge funds'] diversification benefits seem to deteriorate due to non-linear dependence"). *But see* Nicole M. Boyson, Christof W. Stahl & Rene M. Stulz, *Is There Hedge Fund Contagion?* 26 (National Bureau of Economic Research Working Paper, March 2007) (finding "no systematic evidence of contagion between broad markets and hedge funds"), available at <http://ssrn.com/abstract=884202>.

212. William Fung & David A. Hsieh, *Empirical Characteristics of Dynamic Trading Strategies: The Case of Hedge Funds*, 10 REV. FIN. STUD. 275 (1997); William Fung & David A. Hsieh, *Hedge Fund Benchmarks: A Risk-Based Approach*, 60 FIN. ANAL. J. 65 (2004) (noting that, like Arbitrage Pricing Theory, their "hedge fund risk-factor model similarly helps investors identify the common sources of risk").

213. Fung & Hsieh, *Hedge Fund Benchmarks*, *supra* note 212, at 71.

214. *See infra* Part II.B.2 regarding the economic impact of hedge fund redemption restrictions.

215. *See generally* Andrew Ang & Nicolas P.B. Bollen, *Locked Up By a Lockup: Valuing Liquidity As a Real Option*, (Columbia Business School and Vanderbilt University Working Paper, Nov.

Second, hedge funds' low correlation to market risk factors also comes at the expense of increasing company-specific risk. Unlike traditional stocks and bonds whose returns are normally distributed like a bell curve, particular hedge funds' returns are typically more asymmetric. Hedge fund returns exhibit the higher moment statistical return properties of negative skew and high kurtosis.²¹⁶ This means that when hedge fund returns are negative, their losses may be very large. Indeed, this large loss risk may increase as more hedge funds are added to a portfolio.²¹⁷

Nonetheless, despite hedge funds' generally higher company-specific risk, returns to the funds as a whole exhibit lower overall risk than the equity market. To adequately measure the net impact of hedge funds on overall investment risk, downside risk measures must be utilized in addition to the market risk measure discussed above.²¹⁸ One such measure is the maximum drawdown, which calculates the most an investor can lose over a time period. Comparing the maximum drawdown of hedge funds to that of other asset classes from January 1994 to December 2005, François-Serge Lhabitant found that hedge funds were less risky than all other asset classes except government bonds.²¹⁹ For example, whereas maximum drawdowns for the NASDAQ and S&P 500 stock indices were 75.03 percent and 46.28 percent respectively, the worst loss an investor in a diversified portfolio of hedge funds could have experienced was 13.81 percent.²²⁰ As discussed in Part III, hedge funds continued to lose less than the overall stock market through 2008.

B. Hedge Fund Governance and Innovation

Hedge funds' flat unincorporate governance structure is a successful adaptation to the needs of an investment fund required to innovate to be successful. Innovation stems from learning and from discovering new

13, 2008) (modeling the costs of hedge fund lockups to investors), available at <http://ssrn.com/abstract=1291842>.

216. See, e.g., Chris Brooks, & Harry M. Kat, *The Statistical Properties of Hedge Fund Index Returns and Their Implications for Investors*, 5 J. ALT. INVESTMENTS 26 (2002); Burton G. Malkiel & Atanu Saha, *Hedge Funds: Risk and Return*, 61 FIN. ANALYSTS J. 80, 80 (2005).

217. E.g., Harry M. Kat, *Integrating Hedge Funds into the Traditional Portfolio*, in HEDGE FUNDS: INSIGHTS IN PERFORMANCE MEASUREMENT, RISK ANALYSIS AND PORTFOLIO ALLOCATION 3, 3-15 (Greg N. Gregoriou et al. eds., 2005) [hereinafter HEDGE FUND INSIGHTS]; François-Serge Lhabitant & Michelle Learned, *Hedge Fund Diversification: How Much is Enough?* 3-4 (FAME Research Working Paper No. 52, July 2002).

218. See, e.g., Hilary Till, *Risk Considerations Unique to Hedge Funds*, QUANTITATIVE FIN. 409-11 (2002); Natalya Lyzanets & Maksym Senchyna, *Comparing Different Value-at-Risk Models for Hedge Funds*, University of Lausanne Working Paper, October 2005; Daniel Giamouridis & Ntoula Ioanna, *A Comparison of Alternative Approaches for Determining the Downside Risk of Hedge Fund Strategies* (Cass Business School Research Paper, October 2006); Martin Eling, *Performance Measurement of Hedge Funds Using Data Envelopment Analysis*, 20 FIN. MARKETS PORTFOLIO MGMT. 4 (2006).

219. LHABITANT, *supra* note 15, at 520, fig. 23.3.

220. *Id.*

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knowledge, which may be contained by individuals within a firm or from a firm's external environment,²²¹ and is facilitated by decentralized and flexible governance structures that allow knowledge to be efficiently generated, disseminated, and acted upon.²²² Flat, unincorporate governance allows hedge fund managers to quickly adapt investment strategies and other aspects of operations to changing economic conditions.²²³ Furthermore, hedge fund governance devices (e.g., performance fees, lock-ups) foster the types of incentives and financial commitment conducive to implementing innovation activities.²²⁴ By aligning the interests of investors and managers, hedge fund governance devices reduce the transaction costs associated with delegating investment decision making to a portfolio manager.

1. Managerial Performance-Based Incentives

Hedge fund manager incentives are primarily derived from managerial co-investment and profit-based performance fees.²²⁵ The success of hedge funds in innovating is likely due in part to this incentive structure. Innovative activities

221. O'SULLIVAN, *supra* note 141, at 12-14 (characterizing innovation as a cumulative learning process based upon the existing "common stock of knowledge"); Per Davidsson, Harry J. Sapienza & Shaker A. Zahra, *Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda*, 43 J. MGMT. STUD. 917, 932 (2006) (arguing that innovative "learning . . . depends on what [firms] already know"); Keith Pavitt, *Innovation Process*, in HANDBOOK ON INNOVATION 86, *supra* note 141, at 88 (noting that some of the knowledge learned in the innovation process is firm-specific). The ability to innovate from knowledge external to the firm reflects what organizational researchers refer to as a firm's "absorptive capacity." See Wesley M. Cohen & Daniel Levinthal, *Absorptive Capacity: A New Perspective on Learning and Innovation*, 35 ADMIN. SCI. QTRLY. 128, 128 (1990). See also Tunji Adegbesan & Joan E. Ricart, *What Do We Really Know About When Technological Innovation Improves Performance (and When It Does Not)?* 12-13 (IESE Business School University of Navarra Working Paper, 2007) (reviewing innovation research to find that "innovativeness is dependent on a firm's ability to leverage external knowledge, integrating it with its internal knowledge sources").

222. See Shadab, *supra* note 128, at 970-82 (arguing that public companies with more decentralized governance structures are associated with more innovation activities).

223. By contrast, outside monitoring and hierarchical corporate governance devices are generally less suited to facilitate the types of activities that support innovation. *Id.*

224. Measuring the performance impact of particular hedge fund governance devices likely suffers from well-known endogeneity problems. See Samjai Bhagat, Brian Bolton & Roberta Romano, *The Promise and Peril of Corporate Governance Indices* 41-45 (University of Colorado, University of New Hampshire, Yale Law School, NBER and ECGI Working Paper, Oct. 7, 2007) (reviewing literature on the endogeneity between corporate performance and governance structures). However, because hedge fund governance devices are established and disclosed to investors before any capital contributions are made and are typically held constant over the course of the life of a fund, measuring the relationship between hedge fund governance and performance may be less prone to error in practice. Agarwal et al., *supra* note 52, at 3.

225. See Agarwal et al., *supra* note 52, at 5 ("[W]e estimate the total delta, the overall pay-performance sensitivity measure, as the total expected dollar increase in the manager's compensation for a one-percent increase in fund's NAV . . . [which] combines the delta from investors' assets (manager's option delta) and the delta from the manager's co-investment.") (emphasis in original). Career concerns also create incentives for hedge fund managers, and have been found to align incentives. Stephen J. Brown, William N. Goetzmann & James Park, *Careers and Survival: Competition and Risk in the Hedge Fund and CTA Industry*, 56 J. FIN. 1869, 1869, 1184-85 (2001).

tend to involve a relatively higher degree of risk than non-innovative ones.²²⁶ Innovation by definition involves something new and unknown, and therefore requires undertaking activities with a relatively higher degree of uncertainty regarding their outcomes.²²⁷ As innovation researchers suggest, performance-based compensation provides incentives to take such risks.²²⁸ Furthermore, a fund manager's compensation attributable to the performance fee is effectively the same as a payout from a call option with a "strike price" set at the value of the fund when each investor joins.²²⁹ A call option is a contract that gives the option holder the right to purchase a security at a predetermined strike price, yielding a profit equal to the difference in the market price and strike price (minus the purchase price of the option). When a hurdle rate is employed by a hedge fund, the manager effectively begins the investment period below the high-water mark ("out of the money"), a position that may optimally align incentives.²³⁰ That a hedge fund performance fee has the same payout as a call option likely reflects the more general phenomenon that the incentives and gains related to innovation are also the same as the payout from an option.²³¹

Managerial co-investment unsurprisingly seems to align incentives and increase performance. Although few empirical studies assess the impact of managerial co-ownership on fund performance, a study by Agarwal et al. of a representative sample of 7,535 hedge funds from 1995 to 2004 found a positive and statistically significant relationship between co-investment and performance.²³² However, co-investment beyond a certain level may decrease performance to the extent that high co-investment could result in the fund

226. Bengt Holmstrom, *Agency Costs and Innovation*, 12 J. ECON. BEHAV. ORG. 305, 309 (1989).

227. Mary O'Sullivan, *Finance and Innovation*, in HANDBOOK ON INNOVATION 86, *supra* note 141, at 257-58; Pavitt *Innovation Processes* in HANDBOOK ON INNOVATION 86, *supra* note 141, at 88 ("Innovation is inherently uncertain, given the impossibility of predicting accurately the cost and performance of a new artifact, and the reaction of users to it.")

228. O'SULLIVAN, *supra* note 141, at 60-61 ("[T]he prospects of sharing in the gains of successful innovation by the investing organization can lead even mobile participants to forgo the lure of the market and remain committed to the pursuit of organizational goals."); Paulina Ramirez & Andrew Tylecote, *Corporate Governance and Innovation: The U.K. Compared with the U.S. and "Insider" Economies*, 35 RES. POL'Y, 160, 162 (2006); Vincent L. Barker II & George C. Mueller, *CEO Characteristics and Firm R&D Spending*, 48 MGMT. SCI. 782, 793 (2002); Jeffrey L. Coles, Naveen D. Daniel & Lalitha Naveen, *Managerial Incentives & Risk-Taking*, 79 J. FIN. ECON. 431, 464 (2006).

229. William N. Goetzmann, Jonathan E. Ingersoll & Stephen Ross, *High-Water Marks and Hedge Fund Management Contracts*, 4 J. FIN. 1685, 1714-16 (2003); Mark J.P. Anson, *Hedge Fund Incentives Fees and the "Free Option"*, J. ALT. INVESTMENTS 43, 43-44 (Fall 2001).

230. See Agarwal et al., *supra* note 52, at 4-5.

231. See Steven R. Grenadier & Allen M. Weiss, *Investment in Technological Innovations: An Option Pricing Approach*, 44 J. FIN. ECON. 397 (1997); John E. Core & Jun Qian, *Option-Like Contracts for Innovation and Production* (University of Pennsylvania Financial Institutions Center Working Paper, January 2000).

232. Agarwal et al., *supra* note 52, at 31. Specifically, Agarwal et al. found a positive and significant correlation between managerial ownership and performance such that a one standard deviation increase in ownership increases returns by an estimated 1.5 percent. *Id.* at 19. See also Cecile Le Moigne & Patrick Savaria, *Relative Importance of Hedge Fund Characteristics*, 20 FIN. MARKETS PORTFOLIO MGMT. 419, 424 (2006) (finding in a sample of 3,775 funds from 1989 to 2005 that funds with the personal capital of managers invested had higher returns).

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manager becoming too cautious.²³³ The optimal range of co-investment is an issue yet to be analyzed in-depth by empirical researchers.²³⁴

The impact of profit-based performance fees on performance cuts in two directions. Performance fees may benefit investors to the extent that they incentivize managers to innovate, expend more effort, and attract better talent to the industry. However, performance fees are a cost to investors in that they are deducted from increases in the value of their assets. Performance fees thus benefit investors so long as the incentive/talent-drawing effect results in net-of-fee gains greater than the investors' alternative investment options.²³⁵ In assessing the impact of performance fees on investors, a threshold issue is whether a performance-based fee structure reduces agency costs relative to investment funds that compensate managers solely based upon assets under management. The empirical evidence generally answers this question in the affirmative, finding that hedge fund performance fees in part account for their outperformance of mutual funds (which cannot by law charge performance fees),²³⁶ and that private investment funds that do not charge performance fees underperform those that do.²³⁷ Performance-based compensation in hedge funds therefore seems to provide incentives that facilitate innovation beneficial to investors.

When isolating the impact of the performance fee *rate* on performance, the empirical evidence is mixed. Most studies examining the issue find that hedge fund returns increase, as does the rate of the performance fee.²³⁸ However,

233. Roy Kouwenberg & William T. Ziemba, *Incentives and Risk-Taking in Hedge Funds*, 31 J. BANKING FIN. 3291 (2007) (concluding that "if the manager's own stake in the fund is substantial (e.g. > 30%), risk taking will be reduced considerably"); L'HABITANT, *supra* note 15, at 33 (noting that "a successful fund manager at the end of his [or her] career will have so large a commitment in the fund that he [or she] will refrain from taking risks, even though these are well remunerated").

234. See Agarwal et al., *supra* note 52, at 19-20 (finding that very high managerial co-investment is correlated with negative but not statistically significant returns).

235. William N. Goetzmann, Jonathan E. Ingersoll & Stephan A. Ross, *High-Water Marks and Hedge Fund Management Contracts*, 4 J. FIN. 1685, 1704-05 (2003) (discussing formal conditions under which performance fees are justified).

236. Carl Ackermann, Richard McEnally & David Ravenscraft, *The Performance of Hedge Funds: Risk, Return, and Incentives*, 54 J. FIN. 833 (finding that in a sample of funds from 1988-1995, hedge funds consistently outperformed mutual funds in part because of incentive fees); Bing Liang, *On the Performance of Hedge Funds*, 55 FIN. ANAL. J. 72 (Jul/Aug 1999) (finding that hedge funds exhibit superior risk-adjusted returns as compared to mutual funds).

237. Le Moigne & Savaria, *supra* note 232, at 424. *But see* Kouwenberg & Ziemba, *supra* note 233, at 3308 (finding that "hedge funds with incentive fees have significantly lower mean returns (net of fees) and worse risk-adjusted performance").

238. Bing Liang, *On the Performance of Hedge Funds*, 55 FIN. ANALYSTS J. 72 (Jul/Aug 1999) (finding average hedge fund returns positively related to performance fees); William Fung & David A. Hsieh, *Hedge-Fund Benchmarks: Information Content and Biases*, 58 FIN. ANAL. J. 22 (2002); C. Ackermann, R. McEnally & D. Rosencraft, *The Performance of Hedge Funds: Risk, Return and Incentives*, 54 J. FIN. 833 (1999) (same); Franklin R. Edwards & Mustafa O. Caglayan, *Hedge Fund Performance and Manager Skill*, 21 J. FUTURES MKTS. 1003 (2001) (same for a sample of funds from January 1990 to August 1998); Hung-Gay Fung, Xiaoqing Eleanor Xu & Jot Yau, *Global Hedge Funds: Risk, Return, and Market Timing*, 58 FIN. ANALYSTS J. 19 (2002) (same for sample of 115 equity funds from 1994 to 2000).

some studies find no relationship between incentive fee rate and performance.²³⁹ The evidence is also mixed regarding the impact of performance fees on hedge fund survival, although no study finds that funds with higher incentive fees and high-water marks have an increased probability of failure.²⁴⁰ These discrepancies may be attributable to the fact that hedge fund manager incentives are based not only upon the performance fee rate, but also on factors such as managerial co-investment, the presence of high-water marks and hurdle rates, and the timing of investments into the fund. After taking into account all of these incentives facing hedge fund managers, Agarwal et al. found that hedge funds perform better when total incentives are higher—in the presence of higher performance fees, more managerial co-investment into the fund, and higher high-water marks.²⁴¹

The existence of a high-water mark ensures that managers are not paid a performance fee unless they first produce a gain for investors,²⁴² and therefore creates a high-powered incentive to produce a positive return. Empirical studies have found that funds with high-water marks perform better than those without, which suggests that managers respond positively to the incentive. Using a sample of 8,752 hedge funds from January 1990 to December 2005, Indraneel Chakraborty and Sugata Ray found that high-water marks seemed to induce managers at or just below the mark to expend more effort.²⁴³

However, the utilization of a high-water mark in conjunction with performance fees may cause the interests of hedge fund managers and investors to diverge in some instances. If a fund is significantly below its high-water

239. Stephen J. Brown, William N. Goetzmann & Roger J. Ibbotson, *Offshore Hedge Funds: Survival and Performance 1989-1995*, 72 J. BUS. 91 (1999) (finding no relationship between incentive fee rates and performance); Thomas Schneeweis, Hossein Kazemi, & George Martin, *Understanding Hedge Fund Performance: Research Issues Revisited: Part I*, 5 J. ALT. INV. 6 (2002) (finding little relationship between performance fees and returns in a group of long/short equity funds).

240. BARTH et al., *supra* note 44, at 63-64 (finding that funds with higher management and performance fees are less likely to fail); Naohiko Baba & Hiromichi Goko, *Survival Analysis of Hedge Funds* 27 (Bank of Japan Working Paper, March 2006) (finding funds with higher performance fees are less likely to be operational); Guillermo Baquero, Jenketer Horst & Marno Verbeek, *Survival, Look-Ahead Bias and the Performance of Hedge Funds*, 40 J. FIN. QUANT. ANAL. 493, 504 (2005) (finding that “the higher the incentive fee, ceteris paribus, the more likely it is that the fund will liquidate in the next quarter”).

241. Agarwal et al., *supra* note 52, at 6-7. *See also* Liang, *supra* note 238, at 74 (finding that funds with high-water marks outperformed funds without). In a separate study, Agarwal et al. found that hedge fund managers with higher incentives and opportunities to artificially manage their earnings may be doing so to improve performance results. Vikas Agarwal, Naveen D. Daniel & Narayan Y. Naik, *Why is Santa So Kind to Hedge Funds? The December Return Puzzle* 1-3 (Working Paper Marh 29, 2007).

242. William N. Goetzmann, Jonathan E. Ingersoll & Stephan A. Ross, *High-Water Marks and Hedge Fund Management Contracts*, 4 J. FIN. 1685, 1686 (2003) (noting that “[h]igh-water mark contracts have the appealing feature of paying the manager a bonus only when the investors make a profit, and in addition, requiring that the manager make up any earlier losses before becoming eligible for the bonus payment”).

243. Indraneel Chakraborty & Sugata Ray, *Effort, Risk and Walkaway Under High Water Mark Style Contracts*, 2, 20 (Oct. 29, 2008) (University of Pennsylvania Working Paper), *available at* <http://ssrn.com/abstract=1083089>. *See also* Agarwal et al., *supra* note 52, at 17, 28, 31.

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mark such that earning a performance fee requires a substantial gain by the end of the year, the manager might take on excessive risk and “swing for the fences” because either coming in at just below or far below the high-water mark will equally result in the manager not being paid a performance fee.²⁴⁴ Chakraborty and Ray found evidence of this effect: returns for funds 10 percent below their high-water mark were more volatile than those at the mark, and funds further from the high-water mark took more and relatively poorer risks.²⁴⁵ On the other hand, excessive risk-taking may be constrained by a desire to prevent the fund from collapsing, losing co-invested funds, or ending up far below the high-water mark in the first place.²⁴⁶ Using a sample of 4,990 hedge funds from January 1994 through December 2007, Andrew Clare and Nick Motson found that hedge fund managers well below their high-water mark do not increase their risk-taking activities even though doing so may jeopardize earning performance fees.²⁴⁷ To prevent individual managers from leaving the employment of a fund well below its high-water mark, some hedge fund operating agreements allow for a reduced performance fee allocation even if the high-water mark is not achieved, and others reset the high-water mark at a level below that required for an investor to recoup losses.²⁴⁸

2. Illiquidity Transaction Costs

Investing is a transaction between an investor and a hedge fund where the investor purchases shares in exchange for an expected future gain. Greater restrictions on redemption increase the cost of the transaction to investors because the longer an investor is required to commit capital, the greater is the potential opportunity cost from not being able to deploy capital elsewhere and the greater is the risk an investor will not be able to exit if the hedge fund

244. All About Alpha.com, New Research Illustrates Wide-ranging Implications of the Ubiquitous “High Water Mark,” Jan. 21, 2008, available at <http://allaboutalpha.com/blog/2008/01/21/new-research-illustrates-wide-ranging-implications-of-the-ubiquitous-high-water-mark/>. At least one hedge fund manager has sought to assure investors that such an incentive would not affect her conduct by employing a compensation contract paying the performance fee every three years instead of annually. Jenny Anderson, *Starting a Revolution in the Pay Structure for Hedge Fund Managers*, N.Y. TIMES, Nov. 17, 2006.

245. Chakraborty & Ray, *supra* note 243, at 2.

246. See Stavros Panageas & Mark M. Westerfield, *High-Water Marks: High Risk Appetites? Convex Compensation, Long Horizons, and Portfolio Choice*, J. FIN. 4, 14-15 (forthcoming 2009) (arguing through mathematical modeling that a desire to avoid falling below the high-water mark restrains hedge fund manager risk-taking), available at <http://ssrn.com/abstract=1316667>; James E. Hodder & Jens C. Jackwerth, *Incentive Contracts and Hedge Fund Management*, 42 J. FIN. QUANT. ANAL. 811 (2007) (arguing through mathematical modeling that managerial co-investment induces managers to reduce risk as fund value fall below the high-water mark).

247. Andrew Clare & Nick Motson, *Locking in the Profits or Putting it All on Black? An Investigation into the Risk-Taking Behaviour of Hedge Fund Managers 3* (City University London - Sir John Cass Business School Working paper, Nov. 26, 2008), available at <http://ssrn.com/abstract=1307713>.

248. LEDERMAN, *supra* note 17, at § 2:3.3[C][1], 2-11-12.

experiences losses. Redemption restraints give hedge fund investments the quality of asset-specificity. Assets have specificity to the extent that they are committed to a particular investment and not easily redeployed to a different transaction.²⁴⁹ As the seminal work of Oliver Williamson explains, asset-specificity gives rise to transaction costs because uncertainty about future economic outcomes and the ability of parties to take advantage of each other leaves those owning investment specific assets vulnerable to unexpected changes in asset prices or opportunism by counterparties.²⁵⁰ Likewise, when a hedge fund invests in illiquid assets the fund is itself vulnerable to losses if, before an investment realizes its full gains, investors prematurely withdraw funds or lenders demand additional collateral. Illiquid investments, which are not often traded, require more time than liquid investments for gains to be realized.²⁵¹ Consequently, hedge funds lock in capital as a governance device to prevent capital withdrawals so managers can exert the control required to capitalize on their illiquid investments.²⁵²

Although the limitations hedge funds place on capital redemptions impose a transaction costs on investors, a tradeoff is that these limitations are associated with the benefit of higher returns. Empirical studies suggest that redemption restrictions allow hedge funds to successfully implement relatively long-term investment strategies involving illiquid assets without having to prematurely return capital to investors.²⁵³ As a result, investors are compensated with higher returns in exchange for bearing transaction costs from redemption restrictions.²⁵⁴ This illiquidity premium in part reflects a return to innovation. Innovative companies generally foster asset-specificity to increase performance.²⁵⁵ Maintaining a sufficiently long commitment to innovative activity is necessary to earn a positive return on the underlying investment because the benefits of innovation may not pay off immediately.²⁵⁶ Lock-ups

249. Oliver E. Williamson, *Transaction Cost Economics: The Governance of Contractual Relations*, 22 J. LAW. ECON. POL. 233, 255 (1979) (stating that “asset specificity refers to durable investments that are undertaken in support of particular transactions, the opportunity costs of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated”).

250. *Id.* at 251-54 (noting that a “critical dimension” for describing contractual relations is the degree to which investments are asset specific).

251. LEDERMAN, *supra* note 17, at § 2:2.3[D][1], 2-14; George A. Aragon, *Share Restrictions and Asset Pricing: Evidence from the Hedge Fund Industry*, 8 J. FIN. ECON. 33, 34 (2007) (arguing that “share restrictions allow funds to efficiently manage illiquid assets”).

252. *See also* Ribstein, *supra* note 19, at 10 (noting that capital lock-in is a feature required for all successful firms).

253. Agarwal et al., *supra* note 52, at 18; BARTH et al., *supra* note 44, at 63-64.

254. *See* Agarwal et al., *supra* note 52, at 18; Liang, *supra* note 238, at 78 (finding hedge fund performance to be higher the longer the lock-up period); Aragon, *supra* note 251, at 34.

255. *See* O’SULLIVAN, *supra* note 141, at 33.

256. *Id.* at 20, 60 (financial commitment consists of institutions that “support the ongoing access of a business organization to the financial resources required to undertake and sustain the development and utilization of productive resources until such a time as these resources can generate returns”); Holmstrom, *supra* note 226, at 309; Benn Lawson & Danny Samson, *Developing Innovation Capability*

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and other restrictions on investor share redemption facilitate financial commitment which, in turn, can promote innovation by giving the fund enough time to benefit from a new illiquid investment strategy. Although hedge fund liquidity restrictions may only delay redemption by several months, such restrictions are long-term relative to hedge fund active investment strategies and thereby allow the funds enough time to capture the gains from innovation.

3. *Lack of Public Financing*

A third hedge fund governance device is the need to obtain and keep investor capital. Because hedge fund securities are privately issued,²⁵⁷ the funds do not have access to the relatively stable sources of external capital provided by the public secondary markets or the reputational benefits of being publicly listed on a stock exchange. Accordingly, fund managers have a strong incentive to engage in those activities necessary to obtain and prevent withdrawal of capital from investors. The basic business model of a hedge fund derives from a manager believing that he or she “has a set of *skills that could earn above average risk adjusted returns*.”²⁵⁸ The type of skill required for a successful hedge fund is skill in generating new and unique knowledge about the future prices of financial instruments or other assets, or skill in generating trading strategies to better exploit existing information about the prices of financial instruments. This business model can only be successful if the fund innovates by continually developing and implementing valuable, unique, and not-easily-copied investment strategies.²⁵⁹

First, because any particular hedge fund strategy will typically become less profitable as the fund grows in size and more capital is devoted to the strategy,²⁶⁰ hedge funds must implement new investment strategies to be able to increase assets under management without reducing returns and hence performance-based fees. Second, competitive pressures in the hedge fund industry also drive innovation. Barriers to entry in the hedge fund industry are low.²⁶¹ As additional managers enter the industry and capital continues to flow

in *Organizations: A Dynamic Capabilities Approach*, 5 INT’L J. INNOVATION MGMT. 377, 4 (2001) (Business Source Premier database version, on file with author) (arguing that “innovation is a force of instability, often requiring long-term vision and commitment to yield results”).

257. See *supra* Section I.D.1.

258. Fung & Hsieh, *supra* note 211, at 2 (emphasis in original).

259. See generally Jay Barney, *Firm Resources and Sustained Competitive Advantage*, 17 J. MGMT. 99 (1991).

260. Manuel Ammann & Patrick Moerth, *Impact of Fund Size on Hedge Fund Performance*, 16 (Working Paper Series in Finance Paper No. 11, Sept. 2005) (finding “a negative relationship between fund sizes and returns”); Le Moigne & Savaria, *supra* note 237, at 419-20 (reviewing literature on performance and fund size and finding mixed results); Naryan Y. Naik et al., *Capacity Constraints and Hedge Fund Strategy Returns*, 13 EUR. FIN. MGMT. 239 (2007) (finding increases in capital to funds decreases their performance); LHABITANT, *supra* note 15, at 520.

261. LEDERMAN, *supra* note 17, at § 1:4.2, 1-21-1-23.

into the funds, superior returns may decrease as new participants compete away profits.²⁶² Furthermore, even though hedge fund managers often go to great lengths to protect their proprietary strategies and investment positions,²⁶³ the superior returns obtained by a particular hedge fund trading strategy may be short-lived as rival managers and other traders discover and imitate the trading strategies of each other.²⁶⁴ There are also an increasing array of low-cost close substitutes for hedge funds, such as mutual funds that use hedge fund-like strategies, and synthetic hedge fund “clones” potentially able to replicate the returns of mediocre hedge funds.²⁶⁵ Because hedge fund investors are relatively quick to withdraw capital from underperforming funds,²⁶⁶ increasing competition places a greater importance on innovating to provide a unique service to investors. Indeed, the relatively high attrition rates in the industry, which are in large part attributable to funds voluntarily closing for failure to meet investment objectives, reflect the importance of outperforming rivals.²⁶⁷

Finally, hedge funds must innovate as part of their overall strategy to keep up with a constantly changing economic world.²⁶⁸ Financial innovation is often

262. William Fung et al., *Hedge Funds: Performance, Risk and Capital Formation* 19 (July 19, 2006) (AFA 2007 Chicago Meetings Paper) (finding “that following significant inflow of capital in the industry, the level of alpha has come down substantially in recent years”), available at <http://ssrn.com/abstract=778124>.

263. See, e.g., Gregory Zuckerman, *Trader Made Billions on Subprime*, WALL ST. J., Jan. 15, 2008, at A1; RICHARD BOOKSTABER, *DEMONS OF OUR OWN DESIGN: MARKETS, HEDGE FUNDS, AND THE PERILS OF FINANCIAL INNOVATION* 184 (describing how sellers can mask trades by employing securities dealers).

264. BOOKSTABER, *supra* note 263, at 195 (noting the risk of a fund’s positions being traded against once known by others).

265. Vikas Agarwal, Nicole M. Boyson & Narayan Y. Naik, *Hedge Funds for Retail Investors? An Examination of Hedged Mutual Funds*, J. FIN. QUANT. ANAL. (forthcoming), available at <http://ssrn.com/abstract=891621>; William Fung & David A. Hsieh, *Hedge Fund Replication Strategies: Implications for Investors and Regulators*, 10 FIN. STABILITY REV., Banque de France 55, April 2007; Marc Hogan, *Hedge Funds: Attack of the Clones*, BUSINESSWEEK.COM, Dec. 4, 2006.

266. Vikas Agarwal et al., *Flows, Performance, and Managerial Incentives in Hedge Funds* 30 (July 22, 2004) (EFA 2003 Annual Conference Working Paper No. 501) (finding that “money-flows chase good recent performance”); Bill Ding et al., *Market Volatility, Investor Flows, and the Structure of Hedge Fund Markets* 3 (Working Paper, November 6, 2006) (finding evidence that hedge fund investors are “smart” such that they have skill in allocating capital to funds that perform above-average); Guillermo Baquero & Marno Verbeek, *A Portrait of Hedge Fund Investors: Flows, Performance and Smart Money* 6-7 (EFA 2006 Zurich Meetings Paper, November 14, 2007) (finding that hedge funds investors rapidly withdraw capital from underperforming funds), available at <http://ssrn.com/abstract=773384>.

267. Nicholas T. Chan et al., *Systemic Risk and Hedge Funds*, in *THE RISKS OF FINANCIAL INSTITUTIONS* 249-50 (Mark S. Carey & René M. Stulz eds. 2006); Stuart Feffer & Christopher Kundro, *Understanding and Mitigating Operational Risk in Hedge Fund Investments* Capco, The Capital Markets Company Ltd. (2003).

268. See RICHARD R. NELSON & SIDNEY G. WINTER, *AN EVOLUTIONARY THEORY OF ECONOMIC CHANGE* 128-34 (1982); Astrid H. Lassen, Frank Gertsen & Jens O. Riis, *The Nexus of Corporate Entrepreneurship and Radical Innovation*, 15 CREATIVITY INNOVATION MGMT. 359, 366 (2006) (arguing that the “flexibility” required for innovation entails both “the ability to react quickly to changes” and “the ability to incorporate change as a continuous consideration in the organization” such that change “is perceived as a natural process”); Mark Casson, *Entrepreneurship and the Theory of the Firm*, 58 J. ECON. BEHAV. ORG. 327, 333 (2005) (“Competition is also a source of volatility . . . [e]ntrepreneurs need to monitor the launch of their rivals’ initiatives so that they can neutralize their

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a response to broad macroeconomic changes in general price levels, interest rates, and currency exchange ratios.²⁶⁹ Accordingly, greater macroeconomic instability will tend to spur more financial innovation, often in an attempt to reduce the risks from such change.²⁷⁰ Hedge funds' short-term trading strategies are exposed to and dependent upon continual and rapid changes in their economic environment. There are nonstop changes in the value of the investment positions taken by the funds and the risk factors to which they are exposed. These changes must be continually monitored and often require managers to make incremental innovations to their investment strategies to attain their objectives.²⁷¹

C. Alpha and the Hedge Fund Legal Regime

Notwithstanding the generally higher company-specific risks of hedge funds, their lower exposures to market risk and downside risk means that hedge funds can help to diversify an investment portfolio and lower overall risk.²⁷² Indeed, numerous studies document that hedge funds produce superior risk-adjusted returns (alpha) relative to traditional long-only investments.²⁷³ Hedge

impacts quickly.”).

269. See W. Scott Frame & Lawrence J. White, *Empirical Studies of Financial Innovation: Lots of Talk, Little Action?*, 42 J. ECON. LIT. 116, 120 (2004).

270. *Id.*

271. See ARMELLE GUIZOT, *THE HEDGE FUND COMPLIANCE AND RISK MANAGEMENT GUIDE* 44-54 (2007).

272. A large body of academic finance literature supports the proposition that hedge funds lower the risk of traditional portfolios despite the funds' relatively higher company-specific risk. See Jean-François Bacmann & Gregor Gawron, *Fat-Tail Risk in Portfolio of Hedge Funds and Traditional Investment*, in *HEDGE FUND INSIGHTS*, *supra* note 217, at 491-513 (demonstrating that “the risk of a traditional portfolio is reduced when hedge funds are added”); R. McFall Lamm Jr., *Asymmetric Returns and Optimal Hedge Fund Portfolios*, J. ALT. INVESTMENTS 6, 9-21 (2003) (“[O]ptimal hedge fund portfolios should have up to a 30% smaller allocation to distressed debt than symmetric return models indicate . . . offset by larger allocations to equity market neutral, rotational, and systematic macro strategies, which produce more positively skewed portfolios.”); Jan-Hein Cremers, Mark Krizman & Sebastien Page, *Optimal Hedge Fund Allocations: Do Higher Moments Matter?*, 32 J. PORTFOLIO MGMT. 70, 70 (2005) (finding that “higher moments of hedge funds do not meaningfully compromise the efficacy of mean-variance optimization” where investors are generally risk averse); Niclas Hagelin, Bengt Pramborg & Fredrik Stenberg, *Hedge Fund Allocation under Higher Moments and Illiquidity*, in *HEDGE FUND INSIGHTS*, *supra* note 217, at 105-128 (finding that “gains from allocating into hedge funds occur even when possible effects of deviations from normality”); Jean Brunel, *Revisiting the Role of Hedge Funds in Diversified Portfolios*, in *HEDGE FUND INSIGHTS*, *supra* note 217, at 129-49 (concluding that despite hedge funds' unique risks, “there is indeed a role for nontraditional, hedge fund-type strategies in diversified portfolios”); Ivilina Popova et al., *Optimal Hedge Fund Allocation with Asymmetric Preferences and Distributions* (May 1, 2006) (Seattle University Economics & Finance Working Paper) (showing “that conditional on the investor's objective, a substantial allocation to hedge funds is justified even with consideration for the highly unusual skewness and kurtosis”), available at <http://ssrn.com/abstract=900012>. Of course, how and to what extent adding hedge funds to a traditional portfolio of stocks and bonds decreases risk depends on several factors, such as what assets the portfolio is already composed of and what particular hedge funds are added. See Bacmann & Gawron *supra* note 272, at 512 (“[T]he benefits of the inclusion of hedge funds in a traditional portfolio depend on the initial composition of the portfolio and on the type of hedge fund added to the portfolio.”); Lhabitant & Learned, *supra* note 217, at 3-4.

273. See Robert Kosowski, Narayan Y. Naik & Melvin Teo, *Do Hedge Funds Deliver Alpha? A*

fund alpha therefore reflects the gains to investors from hedge fund innovation.

One likely source of hedge fund alpha are the superior investment skills of hedge fund managers.²⁷⁴ Another likely source of alpha are the unique systematic risk exposures that hedge funds are exposed to by pursuing innovative investment strategies.²⁷⁵ This is because hedge funds can earn superior returns from taking on unique systematic risks.²⁷⁶ Hedge funds' utilization of innovative strategies is, in turn, due in part to the hedge fund legal regime, which enables and provides incentives for managers to take on unique systematic risks. Accordingly, some combination of hedge funds being excluded from the Company Act and operating subject to the incentives provided by their uncorporate governance devices explains the superior performance of the funds.²⁷⁷ In that respect, the hedge fund legal regime is a source of hedge fund alpha.

III. HEDGE FUNDS AND INVESTOR PROTECTION

The ability of hedge funds to reduce the risk of loss to investment portfolios bears an important relationship to a fundamental policy objective of U.S. securities law. By disclosing material information and reducing the exposure of investment capital to losses, hedge funds complement the legislative and regulatory objective of investor protection.

Bayesian and Bootstrap Analysis, 84 J. FIN. ECON. 229, 262-63 (2007); Bill Ding & Hany A. Shawky, *The Performance of Hedge Fund Strategies and the Asymmetry of Return Distributions*, 13 EUR. FIN. MGMT. 309, 329 (2007) (finding that from 1990 to 2003, all hedge fund categories achieved above average performance when measured against an aggregate equity market index); Robert Peng Chen & Roger G. Ibbotson, *The A,B,Cs of Hedge Funds: Alphas, Betas, and Costs* 14, Yale ICF Working Paper No. 06-10, Sept. 2006, available at <http://ssrn.com/abstract=733264>; Harry M. Kat & Joelle Miffre, *The Impact of Non-Normality Risks and Tactical Trading on Hedge Fund Alphas*, 16-17 (May 24, 2006) (Cass Business School Finance Working Paper) (finding the representative hedge fund manager to have superior trading skills but noting that previous studies and their own may overstate alpha), available at <http://ssrn.com/abstract=424368>; Capocci & Hübner, *supra* note 209, at 77 (finding that hedge funds as a whole "[d]eliver significant excess returns").

274. Studies finding a lack of long-term and industry-wide persistence in performance by hedge fund managers undermine the notion that superior performance on an industry-wide basis is solely a result of manager skill. See Martin Eling, *Does Hedge Fund Performance Persist? Overview and New Empirical Evidence*, EURO. FIN. MGMT. (forthcoming 2009). See also John M. Griffin & Jin Xu, *How Smart are the Smart Guys? A Unique View from Hedge Fund Stock Holdings*, AFA 2008 New Orleans Meetings Working Paper (finding that hedge fund managers are not better at picking stocks than mutual fund managers), available at <http://ssrn.com/abstract=924242>.

275. See generally Rajna Gibson & Songtao Wang, *Hedge Fund Alphas: Do They Reflect Managerial Skills or Mere Compensation for Liquidity Risk Bearing?* (Swiss Finance Institute Research Paper No. 08-37, 2008) (finding that hedge fund alpha is a return for making illiquid investments), available at <http://ssrn.com/abstract=1304541>.

276. In the context of providing an alternative to manager skill as an explanation for superior hedge fund performance, hedge fund systematic risk exposures are often referred to as "alternative beta." See Roman Tancar & Jan Viebeg, *Alternative Beta Applied—An Introduction to Hedge Fund Replication*, FIN. MARKETS PORTFOLIO MGMT. 259, 260-63 (2008).

277. See Duen-Li Kao, *Battle for Alphas: Hedge Funds Versus Long-Only Portfolios*, 52 FIN. ANALYSTS. J. 16, 23-25 (2002) (describing how hedge funds' unique legal structure may explain the author's finding that hedge funds outperform long-only portfolios).

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A. Diversification and Investor Protection

Investor protection is a hallmark goal of federal securities law and an animating principle of the SEC.²⁷⁸ Investor protection means protecting investors from economic losses stemming from fraud and more subtle forms of opportunism by issuers, traders, and other market participants. The legislative history of the Securities Act and the Exchange Act demonstrates that Congress was concerned with ordinary investors being subjected to fraud, inadequate disclosure, and manipulation of stock prices.²⁷⁹ The primary means by which U.S. securities law protects investors is by mandating the “full and fair disclosure of the character of securities,”²⁸⁰ combined with liability for fraud or violations of specific disclosure requirements.²⁸¹ The purpose of the disclosure regime is not to prevent investors from taking on “too much” risk, but rather to protect investors by enabling them to make informed investment decisions based upon accurate, complete, and timely company disclosures.²⁸²

From the perspective of financial economics, the ultimate goal of investor

278. See, e.g., Securities Act § 2(b), 15 U.S.C. § 77b(b) (2000) (“Whenever pursuant to this subchapter the [Securities and Exchange] Commission is engaged in rulemaking and is required to consider or determine whether an action is necessary or appropriate in the public interest, the Commission shall . . . consider . . . the protection of investors”); Securities and Exchange Act § 3(f), 15 U.S.C. 78f(a) (2000) (stating substantially same); Investment Company Act § 2(c), 15 U.S.C. 80a-2c (2000) (stating substantially same).

279. C. Edward Fletcher III, *Sophisticated Investors Under the Federal Securities Laws*, 6 DUKE L. J. 1081, 1133-34 (1988). See also *Chiarella v. United States*, 445 U.S. 222, 228 n.10 (1980) (“The essential objective of securities legislation is to protect those who do not know market conditions from the overreachings of those who do.”); Phillip A. Loomis, Jr., *The Securities Exchange Act of 1934 and the Investment Advisers Act of 1940*, 28 GEO. WASH. L. REV. 214, 226 (1959-1960) (noting that periodic reporting under the Exchange Act “is an essential part of the effort to remedy abuses in exchange trading” because “the absence of public disclosure of the facts facilitates manipulation, speculation on inside information, and other improper practices”); Exchange Act §§ 8-11, 16, 15 U.S.C. §§ 78h-j, 78j-1, 78p (2000) (prohibiting manipulative and abusive trading practices by insiders, speculators and others).

280. Securities Act, Preamble.

281. LOUIS LOSS & JOEL SELIGMAN, *FUNDAMENTALS OF SECURITIES REGULATION* 30 (4th ed. 2001) (noting that the results of the Securities Act are “primarily twofold” in that the “disclosure requirement will in itself prevent from fraudulent transactions” in addition to the Act’s “stringent civil liability provisions”).

282. See S. Rep. No. 47, 73d Cong., 1st Sess. 1 (1933) (noting that the “basic policy [of the Securities Act] is that of informing the investors of the facts concerning securities to be offered for sale in interstate and foreign commerce and providing protection against fraud and misrepresentation”); SEC v. Ralston Purina Co., 346 U.S. 119, 124 (1953) (“The design of the [Securities Act] is to protect investors by promoting full disclosure of information thought necessary to informed investment decisions.”); Company Act § 1(b)(1), 15 U.S.C. § 80a-1(b)(1) (2000); John E. Tracy & Alfred B. MacChesney, *The Securities and Exchange Act of 1934*, 32 MICH. L. REV. 1025, 1048 (1934) (noting that the Exchange Act disclosure requirements facilitate accurate “evaluation of prices of securities”); *Goldstein v. SEC*, 451 F.3d 873, 876, (D.C. Cir. 2006) (noting that the purpose of the Advisers Act is to “substitute a philosophy of full disclosure for the philosophy of caveat emptor” in the investment advisory profession”) (quoting SEC v. Capital Gains Research Inc., 375 U.S. 180, 186 (1963)); Phillip A. Loomis, Jr., *The Securities Exchange Act of 1934 and the Investment Advisers Act of 1940*, 28 GEO. WASH. L. REV. 214, 245 (1959) (noting the registration and disclosure requirements of the Advisers Act sought to provide “a compulsory census of investment advisers and which would provide in small degree for the regulation of some of their activities”) (internal quotation omitted).

protection regulation is the maximization of risk-adjusted returns: mandating truthful disclosures enables investors to minimize losses by making informed choices about the potential risks and rewards of purchasing certain securities. Disclosure helps to inform investors about the market risk of securities, and thereby facilitates successful diversification. In this way, investors are not protected against losses per se, but only against those losses whose underlying risk is not priced into the security in the form of a higher return.

Prohibiting fraud also facilitates the maximization of risk-adjusted returns. Even though fraud is a type of idiosyncratic risk that can be minimized through diversification, fraud undermines investor protection in part because it may misinform investors about the market risk of securities and thereby prevent efficient portfolio diversification. Because investment losses reduce investor wealth regardless of whether they stem from fraud or investment risk, to the extent financial innovation enables investors to diversify their portfolios and reduce losses, innovation also facilitates investor protection. Since hedge funds are uniquely able to diversify a portfolio from market risks, the funds advance the same goal sought by investor protection regulation.

B. Hedge Fund Disclosures

Hedge funds are relatively opaque investment vehicles because they are not subject to public registration or disclosure requirements and managers often keep their particular investment strategies and positions private.²⁸³ However, as a matter of law and practice, the funds typically make disclosures sufficient for investors to make informed investment decisions.

There are two legal grounds for hedge fund disclosure. First, hedge funds are subject to liability under the Securities Act, the Exchange Act, and the Advisers Act for making fraudulent or misleading statements.²⁸⁴ As interpreted by U.S. courts, a fund making some disclosures must also make additional disclosures to ensure that its communications are not misleading.²⁸⁵ Second, hedge funds usually make private offerings under the requirements of Rule 506 and according to the judicially-defined statutory section 4(2) exemption.²⁸⁶ This latter exemption requires hedge funds to disclose to investors the type of

283. Benjamin S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., *Hedge Funds and Systemic Risk*, Remarks at the Federal Reserve Bank of Atlanta's 2006 Financial Markets Conference (May 16, 2006), (transcript available at <http://www.federalreserve.gov/newsevents/speech/bernanke20060516a.htm>) (noting that "[i]t is commonly observed that hedge funds are 'opaque'—that is, information about their portfolios is typically limited and infrequently provided").

284. See *supra* Section I.C.2 and Section I.D.1.

285. See *First Virginia Bankshares v. Benson*, 559 F.2d 1307, 1317 (5th Cir. 1977) (noting that "a duty to speak the full truth arises when a defendant undertakes a duty to say anything").

286. See *supra* note 122 and accompanying text.

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information contained in a Securities Act registration statement.²⁸⁷ Accordingly, to fulfill their obligations under federal law, hedge funds must make true, accurate, and comprehensive disclosures to investors.²⁸⁸

There are also economic incentives for hedge funds to make disclosures. To satisfy investors while fulfilling their legal duties under the antifraud laws and section 4(2), hedge funds typically furnish directly to potential investors a private placement memorandum (PPM).²⁸⁹ A PPM is a widely utilized form disclosure which contains the type of information that would be provided by a registration statement publicly filed under section 5 of the Securities Act, along with the unique facts and circumstances surrounding the fund.²⁹⁰ Accordingly, hedge funds typically disclose the following information in connection with a private placement: a basic description of the fund including its investment objectives, strategies, and the types of securities the fund purchases; risks pertaining to the funds' investment strategy and regulatory and tax issues; a description of how fees are calculated and potential conflicts of interest by the managers and other principals; a summary of the terms of the fund, how it is managed and organized, and how investors can redeem shares; and financial statements including net asset value and how that value is calculated.²⁹¹ Hedge funds also make periodic disclosures to investors, with one survey finding that 89 percent of surveyed hedge fund managers made at least monthly disclosures to investors.²⁹² Hedge funds typically utilize third parties such as prime brokers, custodians, and administrators that have direct access to the fund's investment positions and the ability to verify the fund's true investment returns.²⁹³ Third parties such as Morningstar are also increasingly making

287. See *supra* note 112.

288. LEDERMAN, *supra* note 17, at § 4:2.2, 4-12 (noting that "in light of various federal and state anti-fraud provisions, a well advised hedge fund prepares a comprehensive offering memorandum, even if the offering is directed solely to accredited investors, to ensure that all material information is conveyed"); HAMMER ET AL., *supra* note 19, at 4 (same).

289. SEC STAFF REPORT, *supra* note 2, at 46 ("Most hedge funds provide written information to their investors in the form of a private offering memorandum or private placement memorandum . . ."); HAMMER ET AL., *supra* note 19, at 118 ("Instead of merely providing access to information [similar to what would be provided by a registration statement], the issuer may furnish directly the information that would be provided by a registration statement, as in a private offering memorandum that fully discloses such information.").

290. SEC STAFF REPORT, *supra* note 2, at 47-49 (noting the information typically disclosed in a PPM); HAMMER ET AL., *supra* note 19, at 118 ("A hedge fund's private offering memorandum should contain all the information required in a registration statement . . ."); LEDERMAN, *supra* note 17, at § 4:2.2, 4-13.

291. SEC STAFF REPORT, *supra* note 2, at 47-49; LEDERMAN, *supra* note 17, at § 4:2.2, 4-13-14; HAMMER ET AL., *supra* note 19, at 144-58.

292. PRICEWATERHOUSECOOPERS, TRANSPARENCY VERSUS RETURNS: THE INSTITUTIONAL INVESTOR VIEW OF ALTERNATIVE ASSETS 50 (March 2008). See also Email from Bruce Gibney & Alda Leu, Clarium Capital Management LLC to Nancy M. Morris, Secretary, Securities and Exchange Commission at 5 (Mar. 9, 2007), available at <http://www.sec.gov/comments/s7-25-06/s72506-566.pdf> (stating that "[i]t is routine for hedge funds to provide monthly reports [to investors], and many provide weekly and even daily reports of performance").

293. LHABITANT, *supra* note 15, at 93-103. The antifraud law applicable to hedge funds and their

public information relevant to evaluating and investing in different hedge funds, such as performance history, fees, and different measures of risk.²⁹⁴

Furthermore, as competition for investor capital increases and investors become more sophisticated and comfortable with the funds, investors are increasingly demanding that hedge funds disclose information about the types of investments they make, their risk management policies, and other practices.²⁹⁵ Indeed, hedge funds, their investors, and third parties such as trade groups are increasingly recommending substantial transparency as a best practice.²⁹⁶ As the industry becomes more prominent and institutionalized, and as competition for investors grows, hedge funds are likely to further expand and standardize disclosures to avoid liability and meet investor demand.²⁹⁷ This is especially the case after the subprime-initiated financial crisis and the Madoff scandal, which have likely served to make investors especially wary of opaque manager disclosures.²⁹⁸

C. Hedge Funds and Protection from Financial Losses

Based upon their historical returns, hedge funds have furthered the same goal that investor protection regulation seeks to advance by helping investors maximize risk-adjusted returns. When added to a traditional portfolio of stocks and bonds, hedge funds can decrease overall investment risk.²⁹⁹ Indeed, in some circumstances investing in a diversified portfolio of hedge funds may be superior to holding any traditional investments whatsoever.³⁰⁰

utilization of independent service providers provides substantial, though certainly not perfect, assurances against fraud. See Chidem Kurdas, *Does Regulation Prevent Fraud? The Case of Manhattan Hedge Fund*, 13 INDEPENDENT REV. 325, 326-27 (2009). For example, the multibillion dollar securities fraud carried out by Bernard Madoff was possible in part because Madoff did not manage a hedge fund and did not utilize independent services providers. Felix Salmon, *Can Hedge Funds Be Fraudulent?*, Potfolio.com, Dec. 15, 2008.

294. Jeff Benjamin, *Hedge Funds Go Prime Time*, INVESTMENTNEWS, Feb. 28, 2008; Morningstar, *Hedge Fund Database, Overview*, available at <http://corporate.morningstar.com/US/asp/subject.aspx?xmlfile=545.xml>

295. Indeed, most hedge fund advisers voluntarily register and submit to the disclosure obligations of the Advisers Act to attract investors. HAMMER ET AL., *supra* note 19, at 17 (noting that “some investment advisers choose to register with the SEC to gain whatever marketing cachet SEC registration might afford”); SEC STAFF REPORT, *supra* note 2, at 22 n.76; HFR, *Hedge Fund Research Releases Data on Number of Hedge Fund Firms Registered with the Securities and Exchange Commission*, Feb. 2, 2009 (finding that approximately 55 percent of U.S.-based hedge funds are registered with the SEC and that 60 percent of global hedge fund assets are managed by SEC-registered funds), available at http://www.hedgefundresearch.com/pdf/pr_20090202.pdf.

296. Notably, investors do not typically demand and best practices do not recommend position-level transparency. Nor would such information be generally useful to investors. See, e.g., The Bank of New York, Casey, Quirk, and Associates, *Institutional Demand for Hedge Funds 2: A Global Perspective* 10 (2006); BOOKSTABER, *supra* note 263, at 220-21, 225-26.

297. *The Hedge Fund 100*, INST. INVESTOR, June 2002; Christine Williamson, *Institutional Interest Lights Transparency Fire*, PENSIONS & INVESTMENTS, Oct. 15, 2007.

298. See *supra* note 9.

299. See *supra* Section II.A.

300. See Todd Brulhard & Peter Klein, *Faulty Hypotheses and Hedge Funds*, CAN. INVESTMENT

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1. Performance in the Modern Hedge Fund Industry

The hedge fund industry did not exist in its current form until the mid-1990s. Before that time, the industry was less than 1 percent of its current size, operations were less standardized and sophisticated, and data about industry-wide performance was less easily available.³⁰¹ Since the mid-1980s, average industry-wide returns have been approximately 9 percent.³⁰² Since the late-1990s, there have been three periods where either overall markets, or specific systematic risk factors, caused economy-wide losses and tested the ability of hedge funds to offer protection against market fluctuations. First was the Russian debt crisis of 1998. On August 17, 1998, the government of Russia caused massive fluctuations in systematic risk factors by devaluing its currency and defaulting on its debt, among other actions.³⁰³ These economic shocks caused losses in many large hedge funds and ultimately led to a \$3.6 billion private rescue of the now-infamous hedge fund Long Term Capital Management (LTCM).³⁰⁴ Yet despite LTCM's losses, in August 1998 hedge funds as a whole fared better than the market, losing 7.75 percent compared to a loss of 14.46 percent for the S&P 500.³⁰⁵

A second period testing the ability of hedge funds to provide protection against market downturns was the recession from 2000 to 2002 following the crash of the technology bubble. Figure 2 compares average yearly hedge fund returns to those of the general market from 1997 to 2007.³⁰⁶ As Figure 2 illustrates, hedge fund returns, while often lower than market returns on an

REV. 6, 10-11 (2005) (concluding that large allocations to hedge funds are appropriate because extreme returns are larger among stock indices than hedge fund indices), available at www.aima-canada.org/doc_bin/SUMMER2005_aimawinner.pdf.

301. BARTH ET AL., *supra* note 44, at 4 (listing total assets of hedge funds by year from 1981 to June 2006); Mercer Oliver Wyman, *New Study Reveals Strengthened Global Hedge Fund Industry Risk Management Practices and Highlights Areas for Improvement (2006)*, available at http://www.oliverwyman.com/ow/pdf_files/Global_Hedge_Fund_RM_MOW_0606.pdf.

302. See, e.g., Kat & Miffre, *supra* note 273, at 7-8 (finding an annualized average return from hedge funds of 12 percent from January 1985 to August 2004). See also Chen & Ibbotson, *supra* note 273, at 16 (finding the compounded annual return for hedge funds from 1995 to April 2006 to be 9 percent).

303. LHABITANT, *supra* note 15, at 16.

304. HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG-TERM CAPITAL MANAGEMENT, REPORT OF THE PRESIDENT'S WORKING GROUP ON FINANCIAL MARKETS 14 (1999).

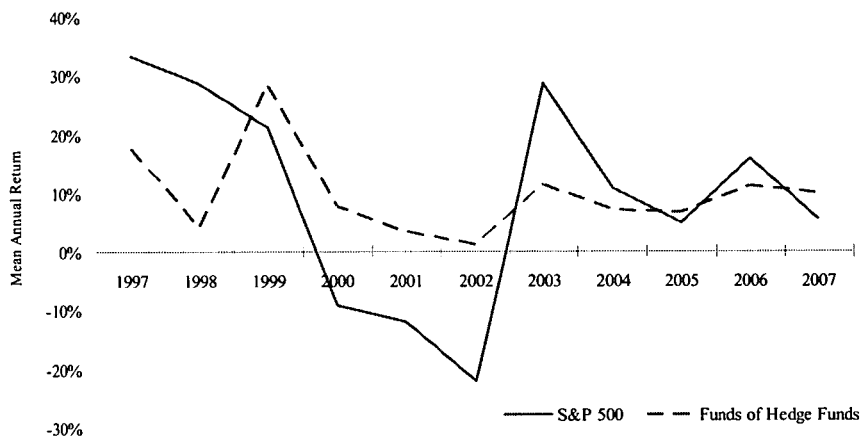
305. LHABITANT, *supra* note 15, at 525, fig. 23.10.

306. Returns for the S&P 500 were obtained from EconStats, S&P 500 (Large Cap) Index, available at http://www.econstats.com/eqty/eqea_mi_1.htm. Hedge fund annual returns are based upon the EDHEC Funds of Funds index, which is the return to a diversified portfolio of hedge funds. See EDHEC Alternative Index, Funds of Funds, available at http://www.edhec-risk.com/indexes/pure_style/downloads/one_page_summary_reports/fof.pdf. For annualized returns from 1997 to 2007 see Véronique Le Sourd, *Hedge Fund Performance in 2008*, EDHEC Risk and Asset Management Research Centre 10 (2009), available at http://docs.edhec-risk.com/mrk/090220_Publication/EDHEC_Publication_HF_Performance_in_2008.pdf. Using funds of hedge funds returns is a sound method to approximate average hedge fund performance. See Fung & Hsieh, *supra* note 211, at 15 (noting that funds of hedge funds "are actual pools of hedge funds, and, as such, they directly reflect actual investment experience in hedge funds").

absolute basis, preserved investor wealth when the broader market was negative. From 2000 to 2002, the average return of the S&P 500 Index was a negative 15.5 percent whereas the average annual return for hedge funds during the same period was a gain of approximately 4.2 percent.

Figure 2: Hedge Fund Mean Annual Returns Compared to U.S. Equity Market Returns from 1997 to 2007

Sources: EconStats, Le Sourd (2009).



In addition to offering protection from annual stock market losses, hedge funds as a class have also offered protection from losses on a monthly basis. Returns to hedge funds are typically higher than those of the stock market in months when the market returns a loss.³⁰⁷ By one estimate, from January 1994 to December 2005, the S&P 500 averaged a loss of 3.53 percent during down-months whereas the average monthly hedge fund return during those same months was a loss of only 0.30 percent.³⁰⁸

2. Hedge Fund Performance During the Financial Crisis

The third major test of the hedge fund industry began in late 2007 as losses from the U.S. subprime mortgage market initiated a global financial crisis. A subprime mortgage is a home loan to a borrower without the requisite measure of creditworthiness to qualify for a lower interest “prime” mortgage; hence, this

307. CRESTMONT RESEARCH, PERSPECTIVES ON HEDGE FUND INVESTING 18 (2007), available at <http://www.crestmontresearch.com/pdfs/HF%20Industry%20Presentation.pdf>.

308. LHABITANT, *supra* note 15, at 523-25, fig. 23.8.

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type of loan has a higher probability of delinquency or default.³⁰⁹ Due principally to a slowdown in housing appreciation in 2006, delinquencies and defaults in the previously growing number of subprime loans began to sharply increase in 2006.³¹⁰ Losses on subprime mortgages spread not only to the banks that made the loans, but also to other financial institutions such as investment banks, mutual funds, pension funds, and hedge funds. These institutions invested in securities backed by mortgages (mortgage-backed securities) and securities themselves backed by mortgaged-backed securities (known as collateralized debt obligations, or CDOs).³¹¹ Because subprime-related losses caused market participants to question the value of all types of debt securities and the creditworthiness of financial institutions, a “credit crunch” ensued as lenders substantially curtailed their lending activities, and the issuance and trading of CDOs and other debt securities dramatically decreased.³¹² Through September 2008, global financial institutions lost a total of \$760 billion from writing down the value of loan assets including debt securities backed by mortgages.³¹³

Hedge funds were not immune to the financial crisis.³¹⁴ In 2008, hedge funds suffered the worst losses in their history. Hedge funds lost 19 percent and their investors withdrew a record \$158.91 billion in capital.³¹⁵ The industry shrank in 2008 by nearly one-third from withdrawals and investment losses to end the year with \$1.8 trillion in assets under management.³¹⁶ Investors in several large and prominent hedge funds such as those sponsored and managed by Bear Stearns, Goldman Sachs, Citadel, and Peloton Partners either experienced massive losses or were completely wiped out, and others were

309. John Kiff & Paul Mills, *Money for Nothing and Checks for Free: Recent Developments in U.S. Subprime Mortgage Markets 3* (Int’l Monetary Fund Working Paper WP/07/188 July 2007).

310. *Id.* at 7-9.

311. IMF, GLOBAL FINANCIAL STABILITY REPORT FINANCIAL STRESS AND DELEVERAGING MACRO-FINANCIAL IMPLICATIONS AND POLICY 35 Box 1.4 (October 2008) (displaying investors in mortgage-related securities), available at <http://www.imf.org/external/pubs/ft/gfsr/2008/02/pdf/text.pdf>; BANK FOR INTERNATIONAL SETTLEMENTS (BIS), BASEL COMMITTEE ON BANKING SUPERVISION, THE JOINT FORUM, CREDIT RISK TRANSFER, DEVELOPMENTS FROM 2005 TO 2007, 9-10, 16-17 (July 2008) (describing CDO investors), available at http://www.fsforum.org/publications/r_0804c.pdf?noframes=1.

312. Pierre Paulden et al., *Wall Street Abandons Neediest Clients, Cuts Credit*, BLOOMBERG, Feb. 2008; Jody Shenn, *CDO Market is Almost Frozen, JPMorgan, Merrill Say*, BLOOMBERG, Feb. 5, 2008.

313. IMF, *supra* note 311, at 15-17.

314. Hedge funds did not initiate the crisis nor seem to have meaningfully exacerbated its associated losses. See Houman B. Shadab, *Hedge Funds and the Financial Market*, Written Testimony Before the House Committee on Oversight and Government Reform 7-14 Nov. 14, 2008, <http://oversight.house.gov/documents/20081113102107.pdf>. See also Stephen Brown et al., *Hedge Funds in the Aftermath of the Financial Crisis 171*, in RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 2009 (concluding that “there is very little evidence to suggest that hedge funds caused the financial crisis or that they contributed to its severity in any significant way”), available at <http://whitepapers.stern.nyu.edu/summaries/ch06.html>.

315. CREDIT SUISSE TREMONT, *supra* note 6, at 1; FINAlternatives, *Hedge Funds Lose \$158B in 2008*, March 3, 2009.

316. FINAlternatives, *Global Hedge Fund Assets Fall to \$1.8T in 2008*, March 5, 2009.

unable to withdraw their capital due to restrictions placed on redemptions.³¹⁷ Like other financial institutions, hedge funds realized losses due to having to write down the value of loan assets.³¹⁸ However, hedge fund investments in mortgage-related securities were very limited compared to those of other market participants.³¹⁹ Hedge fund losses in 2008 were distributed across a wide range of hedge fund investment strategies.³²⁰ Yet despite the unprecedented 19 percent annual loss, hedge fund performance in 2008 was at an all time high relative to the U.S. public equity market, which lost 38.47 percent of its value.³²¹ Hedge funds also far outperformed stock mutual funds, which lost an average of 37.6 percent in 2008.³²² In contrast to the banking sector, there is little evidence to suggest that the hedge fund industry was ever in danger in collapsing.³²³ To the contrary, new hedge funds continued to be opened throughout the financial crisis and the funds were not the target of government bailouts.³²⁴

Hedge funds' superior performance relative to other financial institutions and the market as a whole is in part attributable to financial innovation by the funds and, accordingly, the legal regime enabling and providing incentives for such innovation. First, hedge funds' flexible management structures and investment policies allowed them to rapidly adapt their trading strategies to mitigate or even profit from subprime-related losses.³²⁵ After the collapse of

317. Matthew Goldstein & David Henry, *Bear Bets Wrong*, BUS. WEEK, Oct. 22, 2007; Katherine Burton, *Goldman Global Equity Hedge Fund Rises 12% After Cash Infusion*, Bloomberg Aug. 23, 2007; Louise Armitstead, *Hedge Fund Legends Hit by Financial Crisis*, TELEGRAPH, April 6, 2008; Richard Wachman, *Bloodbath in Mayfair as Half of All Hedge Funds Face Termination*, GUARDIAN UK, Oct. 26, 2008; MarketFolly, *2008 Hedge Fund Performance Numbers: December & Year-End*, Jan. 20, 2009, available at <http://www.marketfolly.com/2009/01/2008-hedge-fund-performance-numbers.html>; Henny Sender, *On Wall Street: Hedge Fund Won't Let Go*, FINANCIAL TIMES, Dec. 12, 2008.

318. IMF, *supra* note 311, at 14-16 (estimating that hedge funds and certain other nonbank financial institutions incurred \$60 billion in losses through October 2008).

319. Hedge funds held an estimated 10 percent of CDO equity securities in 2007, which account for about half of all hedge fund CDO investments. In a typical CDO structure, less than 5 percent of the securities are equity, which means that the overwhelming majority of CDO securities were purchased by institutions other than hedge funds. See John Lipsky, First Deputy Managing Director, IMF, *The Global Economy and Financial Markets: Where Next?*, Speech at the Lowy Institute, Sydney, Australia, July 31, 2007, available at <http://www.imf.org/external/np/speeches/2007/073107a.htm> (estimating that hedge funds purchased 10 percent of CDO equity); BIS, *supra* note 311, at 53 tabl. C.1.

320. See generally CREDIT SUISSE TREMONT, *supra* note 6.

321. Econ Stats, S&P 500 Large Cap Index, available at http://www.econstats.com/cqy/eqea_mi_1.htm.

322. Rob Wherry, *Our Mutual Fund Report Card for 2008*, SMART MONEY, Jan. 7, 2009.

323. See *supra* note 7.

324. James Mackintosh, *Hedge Funds Cut Down to Size?*, FINANCIAL TIMES, Jan. 11, 2009; Johnson, *supra* note 11; FINAlternatives, *supra* note 316. Hedge funds likely benefitted from government aid indirectly, however, to the extent such aid prevented banks from making additional margin calls to hedge funds and preserved the funds' counterparty relationships.

325. CREDIT SUISSE TREMONT, *HEDGE FUNDS HOLD STEADY IN 2007 3-4*, Dec. 13, 2007 ("Many hedge funds were able to profit in a difficult environment due to their ability to produce attractive risk adjusted returns over short and long term investment horizons by adjusting their positions to de-correlate with the broad market."). See also Gregory Zuckerman, *Hedge Funds Bounce Back—In a Big Way*, WALL ST. J. Nov. 19, 2007.

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investment bank Bear Stearns in March of 2008, hedge funds began using more than just one prime broker (such as Bear Stearns) to shield themselves against the risk of another prime broker collapsing. When investment bank Lehman Brothers declared bankruptcy on September 15, hedge funds largely avoided losses associated with Lehman's custody of hedge fund assets.³²⁶ Hedge funds have also been adopting other new best practices throughout the financial crisis.³²⁷

Second, hedge fund manager incentives stemming from co-investment and performance fees led them to manage and limit risk exposures to subprime-backed securities while at the same time seeking strategies to profit from their misvaluation. Hedge fund managers routinely ignored evaluations of mortgage-backed securities issued by credit rating agencies and instead did their own proprietary research.³²⁸ Third, because of hedge funds' abilities to short sell and to trade derivatives without Company Act restrictions, they were able to employ innovative investment strategies to profit from subprime mortgage risk exposures.³²⁹

Unlike hedge funds, which were able to provide some significant protection to their investors during the financial crisis, mutual funds and banks were unable to offer any such protection due in part to the legal regime under which they operate. Mutual fund managers lack the incentives provided to hedge fund managers from co-investment and performance fees. Mutual funds are also unable to adapt their investment strategies to changing market conditions and are limited in their ability to employ short sales and utilize derivatives.³³⁰

326. Pierre Cooper, *Hedge Funds Swerve Lehman Crash*, HFMWEEK, Sept. 2008. See also Sameer Shalaby, *The End of the Single Prime Broker Model*, ADVANCED TRADING, Sept. 30, 2008.

327. Pauline Skypala, *Hedge Funds Move to Self-Regulate*, FINANCIAL TIMES, Jan. 4, 2009; Ivy Schmerken, *Hedge Funds Outsource to Independent Fund Administrators*, WALL STREET & TECH., Jan. 6, 2009.

328. See Rich Blake, *House Money*, TRADER MONTHLY 40, November 2007 (reporting that hedge fund manager Paul Ullman stated that he "can't rely on ratings agencies or underwriters to tell us [a credit derivative] is high-grade" and that mortgage "[d]efaults and delinquency likelihoods and prepayment drop-offs . . . are all, to some extent, knowable if you put the time in"), available at <http://www.traderdaily.com/magazine/article/12161.html>; Zuckerman, *supra* note 263. See also Christine Richard & Katherine Burton, *Ackman Devoured 140,000 Pages Challenging MBIA Rating*, BLOOMBERG, Jan. 31 2008.

329. Zuckerman, *supra* note 263 (reporting that the hedge fund managed by John Paulson profited \$15 billion by implementing a novel investment strategy that entailed purchasing CDS protection and short selling CDO tranches and the ABX subprime mortgage index); FINalternatives, *Hedge Fund Gains 1,000%. Preps Short Credit Fund*, Nov. 28, 2007 (reporting that the portfolios of manager Andrew Lahde "hold short positions in AA tranches down to BBB- on the ABX Index"); David Gaffen, *Making Money Off Subprime Declines*, Marketbeat, WSJ.com, Feb. 8, 2008 (noting that hedge fund manager Don Brownstein profited from subprime by "us[ing] a combination of the ABX and a basket of single name credit default swaps, which we were short"); Mark Pittman, *Betting on a Crash—The Gamble of J. Kyle Bass*, NEW ZEALAND HERALD, Jan. 1, 2008 (reporting that hedge fund manager J. Kyle Bass "used the leveraging effect of derivatives to sell short about US\$1.2 billion of sub-prime securities"); RISK, *Hedge Fund of the Year—Stark Investments*, Jan. 2008, Vol. 21 (reporting that two Wisconsin-based hedge funds profited by short selling bonds associated with subprime mortgages).

330. See *supra* Section I.C.1.

These activities were required to mitigate or profit from subprime-related losses. Mutual funds invested in stocks and bonds suffered losses along with the rest of the market.

Commercial bank operators likewise do not possess the high-powered incentives of hedge fund managers to manage risk. To the contrary, due to bank capital regulation banks had short-term incentives to take on excessive mortgage-related risks.³³¹ In addition, because commercial banks are limited by law primarily to the business of making loans, they were unable to diversify their investments to reduce their exposure to losses from subprime mortgages.³³² And unlike hedge funds, commercial banks are regulated and insured pursuant to federal banking law, which undermines the incentive for banks and their creditors to appropriately manage risks and engage in other forms of market discipline.³³³

Investment banks, on the other hand, have the same ability as hedge funds to employ short sales and derivatives and also have high-powered incentives to engage in due diligence and investment strategy innovation. This explains why some investment banks were able to profit from subprime-related securities in the same manner as hedge funds. For example, through their proprietary trading desks, Goldman Sachs and Deutsche Bank utilized derivatives and short sales to earn profits of an estimated \$4 billion and \$1 billion respectively on trades related to subprime loan losses.³³⁴ Career concerns and the bonus compensation of investment bank executives and traders likely provided substantial incentives to engage in the type of research and contrarian investment strategies required to mitigate losses or profit from the subprime collapse.

Nonetheless, investment bank professionals lack the full panoply of hedge fund incentives and governance structures most conducive to benefiting from financial innovations such as CDOs.³³⁵ One reason why Goldman Sachs' and Deutsche Bank's trades were relatively uncommon among investment banks may be because, unlike hedge fund managers, investment bank traders do not

331. See generally Viral V. Acharya & Matthew Richardson, *Causes of the Financial Crisis*, 21 CRITICAL REV. (forthcoming 2009), available at <http://growthcommissionblog.org/files/Acharya%20Richardson%20Critical%20Review%20Article.pdf>.

332. See *supra* notes 180-181 and accompanying text.

333. See Peter J. Wallison, *Healthy Hedge Funds, Sick Banks*, American Enterprise Institute for Public Policy Research, Financial Services Outlook, February 2008.

334. Kate Kelley, *How Goldman Won Big On Mortgage Meltdown*, WALL ST. J., Dec. 14, 2007, at A1 (reporting that Goldman Sachs trader Michael "Swenson and his traders began shorting certain slices of the ABX, or betting against them, by buying credit-default swaps"); Jacqueline Simmons & Elena Logutenkova, *Deutsche Bank Payday Burgeons on Subprime Trading Bet*, BLOOMBERG July 30, 2007; Rich Blake et al., *Fourth Annual Trades of the Year*, TRADER MONTHLY 74, February/March 2008.

335. See also Steven M. Davidoff, *A Partnership Solution for Investment Banks?*, Deal Professor, N.Y. Times, Aug. 20, 2008, available at <http://dealbook.blogs.nytimes.com/2008/08/20/a-partnership-solution-for-investment-banks/>.

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typically face the risk of losing their own co-invested capital.³³⁶ Investment bank underwriters in particular earned performance-based compensation based in large part on the volume of securities they underwrote and sold in the previous year, and not on whether the securities they sold produced long-term gains for clients or caused a long-term price increase of the investment bank's stock.³³⁷

Furthermore, hedge funds' less hierarchical uncorporate governance structures generally led the funds to take a more integrated approach toward risk management and investment strategy. By contrast, large investment banks had trouble properly integrating the mortgage-related securities into their established risk-management practices, a deficiency typical of multi-unit firms attempting to integrate innovations with existing risk-management routines.³³⁸ Merrill Lynch, for example, suffered \$14.1 billion in losses from subprime-backed securities in part because credit risk management was inappropriately segregated from market risk management.³³⁹ The hierarchical governance structure of investment banks and their multiple lines of business created conflicts within the company from taking long and short positions in mortgage-related securities. Hedge fund managers were able to evaluate the mortgage-related securities market without any preconceived notion about the value of such securities. Investment banks, on the other hand, had sold mortgage-related securities to their clients and retained such securities on their balance sheets,³⁴⁰ and therefore had both economic and reputational reasons to believe that such securities were sound investments. For these reasons, the traders at Goldman Sachs had "heated debates" about how much capital to devote to trading against subprime loans, and Deutsche Bank's head trader responsible for profiting from the subprime collapse had to endure significant criticism from his colleagues for taking investment positions against the housing market.³⁴¹ No such

336. See Richard Beales & Rob Cox, *Lightly Regulated, Rightly*, WALL ST. J., Feb. 11, 2008, at C12 (reporting that in contrast to hedge funds "[i]nvestment bankers are often playing with faceless shareholders' money" and that "[b]onuses based partly on individual success are almost always going to outweigh any losses on bankers' stock holdings in a firm that had a bad year").

337. See Acharya & Richardson, *supra* note 331, at 13-15.

338. DAVID BESANKO, DAVID DRANOVE, MARK SHANLEY & SCOTT SCHAEFER, *ECONOMICS OF STRATEGY* 436 (4th ed. 2006) (noting that established firms already invested in a particular method of operation may lack incentives to adapt to change); Deborah Dougherty & Trudy Heller, *The Illegitimacy of Successful Product Innovation in Established Firm*, 5 ORG. SCI. 200, 214 (1994) (finding that a common barrier to innovation exists where "the constituent activities of new product development *do not fit into, or are not a part of, the legitimate system of thought and action*"); Wim Vanhaverbeke & Nico Peeters, *Embracing Innovation as Strategy: Corporate Venturing, Competence Building and Corporate Strategy Making*, 14 CREATIVITY INNOVATION MGMT. 246, 247 (2005).

339. See Susanne Craig & Randall Smith, *Merrill's Risk Manager*, WALL ST. J., Jan. 18, 2008, at C1.

340. See Vikas Bajaj, *Bankers' Lesson From Mortgage Mess: Sell, Don't Hold*, N.Y. TIMES, Nov. 5, 2007 ("[B]anks kept a sizable part of the bonds issued by their C.D.O.'s on their own books this spring and summer.").

341. Kelley, *supra* note 334; Blake et al., *supra* note 334.

arguments seemed to have taken place among traders within a hedge fund.

IV. CONCLUSION

The historical performance of hedge funds suggests that the hedge fund legal regime creates sustained benefits for investors despite the unique risks and complexity brought about by the funds' innovative investment strategies. The lack of legal restrictions on the ability of hedge funds to employ leverage, short sell, and use derivatives strongly suggests that investment flexibility is highly conducive to creating and utilizing innovative investment strategies with relatively low exposures to market risk. In addition, hedge funds' unincorporate governance indicates that hedge fund-like incentives to utilize financial innovation help market participants strike a relatively healthy balance between risk taking and risk management. A general lesson from the law and economics of hedge funds is that when a legal regime permits financial institutions to be flexible in their investment strategies and aligns the incentives of investors and innovators through the right mix of performance fees and managerial co-investment, financial innovation is likely to complement investor protection.

As policymakers in light of the financial crisis seek to ensure that investor protection is not compromised by rapid financial innovation, the outcomes achieved by hedge funds provide important lessons about what type of regulatory and governance regimes facilitate innovation while maintaining investor protection. Hedge funds substantially outperformed both the public equity markets as a whole and the heavily regulated mutual fund industry. Unlike banks and other financial institutions, the hedge fund sector was never in danger of collapsing nor did losses from hedge funds threaten the financial system or require federal rescue measures. The performance of hedge funds undermines the notion that mandatory disclosure, direct government oversight, and limitations on risk taking (such restrictions on leverage and compensation practices) are necessary to advance investor protection.

From the perspective of protecting hedge fund investors, additional hedge fund regulation does not seem warranted. Instead, the role of hedge funds in advancing the goal of investor protection suggests that the funds should be available to a broader class of investors. In testimony on May 22, 2003 before the House Committee on Financial Services, then SEC Chairman William H. Donaldson noted that "there is a definite need to examine how hedge funds, properly run and properly disclosed, can be allowed to be purchased by retail investors."³⁴² One approach to achieving this goal is to reduce the wealth-based qualifications required to invest in hedge funds.³⁴³ Hedge funds possess risk

342. The Long and Short of Hedge Funds: Effects of Strategies for Managing Market Risk: Hearing Before the Subcomm. on Capital Markets, Insurance, And Government Sponsored Enterprises of the H. Comm. on Financial Services, 108th Cong. 16 (2003).

343. See generally Shadab, *supra* note 2 (discussing why permitting sophisticated retail investors to

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and disclosure characteristics comparable to a wide range of investment opportunities that U.S. retail investors are currently permitted to invest in, including mutual funds that employ hedge fund-like strategies and exchange-traded funds that attempt to replicate the returns of hedge funds.³⁴⁴ Hedge funds also typically make disclosures sufficient for a wide range of investors to make informed investment decisions. In addition, the companies and products unsophisticated retail investors *are* permitted to invest in are not generally safer or less prone to fraud, easier to understand, or even more meaningfully transparent than hedge funds.³⁴⁵ Another approach to making the benefits of hedge funds more widespread is for policymakers to lift the restrictions on mutual funds being able to charge (asymmetric) performance fees and utilize leverage, short sales, and derivatives. This approach was suggested by the SEC in a 2003 staff report analyzing the growth of hedge funds.³⁴⁶

Because hedge fund innovation generally complements the goal of investor protection regulation, permitting a wider range of investors to invest in the funds would likewise advance regulatory policy goals. Nonetheless, the inability of hedge funds to remain immune from fluctuations in the overall market and the financial crisis in particular shows that the hedge fund legal regime is no panacea for the enduring problem of investment risk. Investors, managers, and creditors should remain vigilant about the inherent complexities of investing and the ability of losses to rapidly spread across all types of investment intermediaries, regardless of the legal regime under which they operate.

have access to hedge funds promotes wealth-maximization and investor protection); Steven M. Davidoff, *Black Market Capital*, 172 COLUM. BUS. L. REV. (2008).

344. See Housman B. Shadab, *An Artifact of Law: U.S. Prohibition of Retail Hedge Funds*, 24 J. FIN. TRANSFORMATION 73, 77-78 (2008).

345. *Id.*

346. SEC STAFF REPORT, *supra* note 2, at 104.