

THE ROLE OF HEDGE FUNDS IN FINANCIAL MARKETS



FEBRUARY 2025

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**The Role of Hedge Funds in Financial
Markets: Enhancing Efficiency,
Liquidity, and Capital Allocation**

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I. Executive Summary

Hedge funds are investment vehicles that pool capital from sophisticated investors, generally institutional investors and wealthy individuals, and typically employ a wider variety of investment strategies relative to other types of investment funds. Hedge funds are increasingly important participants in U.S. financial markets, managing more than \$5.2 trillion in net assets as of the end of the first quarter of 2024.¹ The Committee on Capital Markets Regulation (the “Committee”) recently evaluated the competitive landscape of the U.S. hedge fund industry, including an analysis of performance and fees, and found that the U.S. hedge fund industry is highly competitive and provides strong net-of-fee returns to its investors.² In this report, the Committee will look beyond fees and performance and evaluate the role played by hedge funds in financial markets.

Part II reviews the academic literature on the impact of hedge funds on financial markets, finding that hedge funds’ actively managed investment strategies enhance price efficiency and capital allocation, as well as market liquidity. Part II also examines the academic literature on the subset of hedge funds that pursue strategies as activist shareholders and short sellers, again finding a positive impact on markets.

Part III describes certain characteristics of hedge funds that allow them to uniquely contribute to robust and efficient financial markets, including the ability of hedge funds to ensure a stable capital base through customized redemption terms, and the overall flexibility that hedge funds have with respect to their investment strategies.

Part IV examines hedge funds’ impact on financial stability, focusing on three past episodes of market disruptions: the 1998 collapse of Long-Term Capital Management, the 2007-2008 global financial crisis, and the March 2020 U.S. Treasury market turmoil.

Part V overviews the legislation, regulations, restrictions and market practices that apply to hedge funds, clearly establishing a multitude of guardrails on hedge fund activity.

Overall, this report seeks to inform policy discussions by enhancing public understanding of the impact of hedge funds on financial markets and the regulatory structure in place to protect investors and markets.

¹ SECURITIES & EXCHANGE COMMISSION [“SEC”] DIVISION OF INVESTMENT MANAGEMENT ANALYTICS OFFICE, *Private Fund Statistics (First Calendar Quarter, 2024)* at Table 2.3, <https://www.sec.gov/files/investment/private-funds-statistics-2024-q1.pdf>.

² See COMMITTEE ON CAPITAL MARKETS REGULATION [“CCMR”], *A Competitive Analysis of the U.S. Hedge Fund Market* (May 2023), <https://capmktreg.org/competitive-analysis-of-the-us-hedge-fund-market/>.

II. Hedge Funds and Their Role in Financial Markets

Hedge funds are private investment vehicles that pool capital from institutional investors and wealthy individuals.³ By Congressional design, hedge funds are afforded more flexibility to tailor their investment management to the needs of their investors, including by offering redemption terms that are aligned with the liquidity of their investment portfolios. This, in turn, allows hedge funds to pursue a wider range of investment strategies relative to other pooled investment vehicles that are open to the public, such as mutual funds or ETFs.⁴ Through these strategies, hedge funds typically aim to deliver superior risk-adjusted returns that are uncorrelated from the broader market.

Common hedge fund strategies include:

Long/short equity – buying stocks that are expected to increase in price and selling stocks short that are expected to decrease in price. This strategy seeks to profit from both rising and falling markets, hedging the risks of long positions with offsetting short positions. These strategies can include “relative value” strategies, where the investor seeks to profit, for example, from anticipated performance differences among issuers in the same industry by establishing a long position in the stronger performer and a short position in the weaker performer.

Global macro – investing based on forecasts of macroeconomic developments, such as changes in interest rates, currency fluctuations, or geopolitical developments. Funds may invest across asset classes, including currencies, commodities, bonds, and equities, to capitalize on trends or shifts in global economic conditions.

Event-driven – investing based on corporate events such as mergers, acquisitions, bankruptcies, or restructurings. Hedge funds employing this strategy analyze how these events will impact asset prices and take positions accordingly.

Fixed-income relative-value – investing based on price discrepancies in fixed-income securities, such as government or corporate bonds. The strategy typically seeks to arbitrage differences in bond yields or prices between related securities.

³ See SEC INVESTOR BULLETIN, *Hedge Funds*, https://www.sec.gov/files/ib_hedgefunds.pdf.

⁴ *Id.*

Managed futures – investing in futures contracts in a variety of markets, including commodities, currencies, and interest rates. This strategy often relies on algorithmic models to identify and capitalize on short-term trends.

Quantitative – investing based on mathematical models, algorithms, and data analytics to make investment decisions. Quant funds use large datasets and advanced computing to identify patterns, correlations, and anomalies in financial markets.

Distressed securities – investing in the debt or equity of companies that are experiencing financial difficulties or are in bankruptcy. These securities often offer the potential for high returns if the company recovers.

Through these and various other investment strategies, hedge funds play an increasingly important role in financial markets. As outlined by financial economist Lasse Pedersen, financial markets can be thought of as “efficiently inefficient,” in that markets inherently consist of inefficient *noise* for a variety of reasons (e.g., error, behavioral biases, or other institutional frictions).⁵ Prices can become misaligned from their fundamental value as a result of this noise, providing an investment opportunity for informed active investors. Hedge funds constitute an important part of these informed active investors and contribute significantly to overall financial market efficiency by dampening the inherent noise in markets. Hedge funds do so by researching the issuer of securities and market conditions and developing quantitative models aimed at identifying divergences between an asset’s fundamental value and its market price. As shown by the research discussed below, by implementing investment strategies based on this research and analysis, hedge funds better align securities’ market prices with their fundamental values. Hedge funds thus can generate positive returns for their investors and contribute to efficient price adjustments in the process, which benefits all market participants and helps optimize capital allocation in the economy.

In addition to promoting market efficiency and bolstering corporate governance through active investment strategies, including short selling, a subset of hedge funds also seeks to initiate value-enhancing changes at the corporate level as “activist” shareholders through direct interaction with other shareholders and company management. Part II describes the important role hedge funds play in financial markets with a review of the empirical academic literature.

⁵ See Lasse Heje Pedersen, *Efficiently Inefficient*, PRINCETON UNIVERSITY PRESS (2015).

A. Financial Market Efficiency

(1) Price Efficiency and Capital Allocation

Hedge funds are instrumental to price formation and correcting mispricing in securities markets – buying undervalued assets and selling overvalued assets. Among other attributes of an efficient market, timely incorporation of public information into securities prices is an important feature of financial markets. Hedge funds serve a critical role in the incorporation of public information into securities prices by synthesizing new information, news, and events, and using that information to inform investment strategies. As these funds trade on new information, securities prices adjust. This is in contrast to an increasingly large portion of the investment market which adheres to passive investment strategies. Passive strategies seek to replicate rather than outperform the market and do not seek to identify or act upon mispricings.

Hedge funds have been found to be positive contributors to this price discovery and formation process. As discussed below, there is substantial evidence that price efficiency improves the quality of financial markets, thus benefiting financial market participants, and also drives more efficient allocation of capital among productive enterprises, thus supporting growth in the real economy.

Hedge funds facilitate price efficiency by correcting mispricing in stock prices, generally defined as a deviation from the stock’s fundamental value (i.e., the “efficient price”). Empirical research on mispricing decomposes a stock price into its *efficient price* plus its *pricing error*.⁶

$$\text{current stock price} = \text{efficient price} + \text{pricing error}$$

The pricing error represents the temporary deviation between the current stock price and its efficient price. In a perfectly efficient market, the pricing error would be zero and the current stock price would equal its efficient price. The pricing error, therefore, serves as a measure of price efficiency: the *lower* the pricing error, the *more efficient* the current stock price. Empirical research establishes that hedge funds’ investment activities help correct mispricing and steer individual stocks back toward their efficient price.

Cao, Chen, Goetzmann, and Liang (2018) examine the role of hedge funds in correcting mispricing by examining stock holdings of more than 1,500 hedge funds over a 35-year period (1981-2015),

⁶ See e.g., Ekkehart Boehmer and Juan (Julie) Wu, *Short Selling and the Price Discovery Process*, 26(2) REVIEW OF FINANCIAL STUDIES 287 (2013), <https://dx.doi.org/10.2139/ssrn.972620>.

covering all major hedge funds that invested in U.S. stocks.⁷ The study finds a strong correlation between hedge fund ownership and stock mispricing, indicating that hedge funds tend to identify mispriced stocks. In addition, mispriced stocks with relatively high levels of hedge fund ownership and investment activity have an increased likelihood of price corrections, i.e., elimination of the pricing error, in the following quarter. The study further concludes that hedge funds are unique among active managers in improving price efficiency, as similar results were not found for other types of institutional investors.

The superior ability of hedge funds to identify stock mispricing was also confirmed by Caglayan, Celiker, and Sonaer (2018), which examines hedge fund investments in mispriced stocks over a 33-year period (1982-2014).⁸ The study finds that hedge fund views of stock mispricing were significantly more accurate than those of non-hedge funds. In cases where non-hedge funds identified a stock as underpriced while at the same time hedge funds identified it as overpriced, the stock's price tended to depreciate relative to the entire stock market during the following year, indicating that hedge funds had correctly identified the mispricing while non-hedge funds had not.

Several additional empirical studies further establish the positive role of hedge funds in correcting mispricing. Calluzzo, Moneta, and Topaglu (2019) consider various stock price anomalies identified by academics and examines the impact of hedge fund investments in the relevant stocks.⁹ The study concludes that hedge funds are particularly adept at capitalizing on the anomalies until prices have been corrected, eliminating mispricing and improving price efficiency. In a study of hedge fund trading in the U.S. stock market over a 25-year period (1990-2015), Chen, Da, and Huang (2019) find that hedge funds are effective at identifying mispriced stocks and profiting from the price inefficiency, ensuring prices are more aligned with a stock's fundamental value.¹⁰

Hedge funds have also been found to contribute to price efficiency in other respects. For example, Chen, Kelly, and Wu (2020) find that hedge funds play an important role in price discovery, i.e., incorporating fundamental information into stock prices.¹¹ The study examines the closure of

⁷ Charles Cao, Yong Chen, William N. Goetzmann, and Bing Liang, *Hedge Funds and Stock Price Formation*, 74 (3) FINANCIAL ANALYSTS JOURNAL 54 (2018), <https://dx.doi.org/10.2139/ssrn.2121495>.

⁸ Mustafa Onur Caglayan, Umut Celiker, and Gokhan Sonaer, *Hedge Fund vs. Non-Hedge Fund Demand and the Book-to-Market Effect*, 92 JOURNAL OF BANKING AND FINANCE 51 (2018), <https://doi.org/10.1016/j.jbankfin.2018.04.021>.

⁹ Paul Calluzzo, Fabio Moneta, and Selim Topaloglu, *When Anomalies Are Publicized Broadly, Do Institutions Trade Accordingly?*, 65 (10) MANAGEMENT SCIENCE 4555 (2019), <https://dx.doi.org/10.2139/ssrn.2660413>.

¹⁰ Yong Chen, Zhi Da, and Dayong Huang, *Arbitrage Trading: The Long and the Short of It*, 32 (4) THE REVIEW OF FINANCIAL STUDIES 1608 (2019), <https://dx.doi.org/10.2139/ssrn.2566802>.

¹¹ Yong Chen, Bryan T. Kelly, and Wei Wu, *Sophisticated Investors and Market Efficiency: Evidence from a Natural Experiment*, 138 JOURNAL OF FINANCIAL ECONOMICS 316 (2020), <https://dx.doi.org/10.2139/ssrn.3117188>.

brokerage firms and resulting reduction of equity analysts who typically serve as information providers. The research finds that hedge funds typically fill the information gap, responding to analyst reductions by increasing participation in earnings conference calls and increasing search volume of public SEC filings. Moreover, hedge funds tend to increase their investment activities with respect to affected stocks following a reduction in analyst coverage relative to the period preceding the reduction in analyst coverage, mitigating the impairment of price efficiency that otherwise results from such reduced coverage.

Studies also find that hedge funds positively contribute to price efficiency more generally. Cao et al. (2018) find that hedge fund investment in stocks that exhibit price inefficiencies leads to efficiency improvements for such stocks.¹² Jiao, Massa, and Zhang (2016) examine hedge fund trading in U.S. stocks from 2000-2012, finding that hedge fund investments are informative and predictive of both future stock returns as well as firm fundamentals, providing evidence that hedge funds contribute positively to price discovery through efficient incorporation of fundamental information.¹³

The role of hedge funds in contributing to price efficiency is increasingly important as more assets under management are allocated to passive investment strategies.¹⁴ Passive strategies seek to match the performance of an index of securities that represents a market or market segment.¹⁵ For example, a fund may seek to provide investors with exposure to large cap U.S. stocks by holding the stocks of companies that constitute the S&P 500 index. Passive strategies have become more popular over the past decade, growing from \$9.9 trillion in net assets in 2010 to \$27.6 trillion in 2023.¹⁶ These strategies benefit investors, particularly retail investors, by allowing them to diversify their portfolios and invest at low cost. However, passive strategies do not involve the efficiency-enhancing activities that hedge funds pursue as part of their active strategies. The ability of passive strategies to deliver positive returns is nonetheless dependent on the existence of efficient markets, as inefficient prices can cause a passive strategy to invest too much in overpriced

¹² Charles Cao, Bing Liang, Andrew W. Lo, and Lubomir Petrasek, *Hedge Fund Holdings and Stock Market Efficiency*, 8(1) THE REVIEW OF ASSET PRICING STUDIES 77 (2018), <https://dx.doi.org/10.2139/ssrn.2793513>.

¹³ Yawen Jiao, Massimo Massa, and Hong Zhang, *Short Selling Meets Hedge Fund 13F: An Anatomy of Informed Demand*, 122(3) JOURNAL OF FINANCIAL ECONOMICS 544 (2016), <https://doi.org/10.1016/j.jfineco.2016.09.001>.

¹⁴ On the rise in passive investing, see Vladyslav Sushko and Grant Turner, *The Implications of Passive Investing for Securities Markets*, BIS QUARTERLY REVIEW (2018), https://www.bis.org/publ/qtrpdf/r_qt1803j.htm.

¹⁵ *Id.*; CCMR, *The Rise of Index Investing: Price Efficiency and Financial Stability* (May 2020), <https://capmksreg.org/wp-content/uploads/2022/11/The-Rise-of-Index-Investing-Price-Efficiency-and-Financial-Stability-for-Website-5.19.2020-1.pdf>.

¹⁶ INVESTMENT COMPANY INSTITUTE, *Investment Company Fact Book 2024* at 28, <https://www.ici.org/system/files/2024-05/2024-factbook.pdf>.

assets and too little in underpriced assets. By identifying and acting upon price disparities, hedge funds benefit passive investors invested in the same securities.

Empirical evidence also shows that efficient pricing in financial markets is a key driver of efficient allocation of capital among productive enterprises in the real economy. As shown in Brogaard (2022), when stock prices are more reflective of a firm’s fundamental value and less prone to volatile price swings, investors are more willing to provide capital, thus lowering the cost of capital.¹⁷ In this way, price efficiency improves capital allocation efficiency, as the most deserving firms become more likely to receive the low-cost capital necessary for growth. When financial markets fail to price assets efficiently, the real economy suffers, because prices fail to reflect the economic value of the activity that underlies a financial asset. For example, Ke (2022) analyzes stock market pricing data during the period from 1963 to 2021 and finds that inefficient pricing costs on average 3.1% of the annual nominal U.S. GDP.¹⁸ Bird et al. (2011) found that mispricing in stock markets can significantly impair the real economy, even when other economic factors are favorable.¹⁹ Farhi & Panageas (2004) find that stock market overpricing results in inefficiencies in capital allocation in the real economy and has a net negative effect on economic growth.²⁰

(2) Market Liquidity

Liquidity is crucial for maintaining functional and efficient markets, allowing market participants to trade more efficiently by executing trades quickly and with limited price impact. As active participants in financial markets, hedge funds’ investment activity contributes to market liquidity, which in turn lowers transaction costs for all investors. Moreover, hedge funds’ investment activity typically contributes to liquidity most in relatively illiquid markets, adding liquidity in securities that need it most.

Hedge funds’ positive effect on market liquidity is documented empirically in Aragon and Strahan (2012), which uses the 2008 Lehman Brothers failure as a natural experiment to examine hedge funds’ impact on market liquidity.²¹ Since Lehman Brothers served as prime broker to several

¹⁷ Jonathan Brogaard, Huong Nguyen, and Talis J. Putnins, *Noisy Stock Prices and Capital Allocation Efficiency*, SSRN WORKING PAPER (2022), <https://dx.doi.org/10.2139/ssrn.4013091>.

¹⁸ Shikun Ke, *The Social Welfare of Stock Market Mispricing*, SSRN WORKING PAPER (2023), <https://dx.doi.org/10.2139/ssrn.4644775>.

¹⁹ Ronald Bird, Gordon Menzies, Peter Dixon, and Maureen Rimmer, *The Economics Costs of US Stock Mispricing*, 33(4) JOURNAL OF POLICY MODELING 552 (2011), <https://doi.org/10.1016/j.jpolmod.2010.10.010>.

²⁰ Emmanuel Farhi and Stavros Panageas, *The Real Effect of Stock Market Mispricing at the Aggregate: Theory and Empirical Evidence*, SSRN WORKING PAPER (2005), <https://dx.doi.org/10.2139/ssrn.720462>.

²¹ George O. Aragon and Philip E. Strahan, *Hedge Funds as Liquidity Providers: Evidence from the Lehman Bankruptcy*, 103 (3) JOURNAL OF FINANCIAL ECONOMICS 570 (2012), <https://doi.org/10.1016/j.jfineco.2011.10.004>.

hedge funds, its failure and subsequent freezing of hedge fund client assets provided an opportunity to examine the market impact of the loss of those hedge funds as active market participants. Analyzing stocks held by the affected hedge funds, the study finds that liquidity declined and transaction costs increased for the stocks.²² In addition, the negative impact on liquidity and transaction costs was greatest for the least liquid stocks. Overall, Aragon and Strahan (2012) provide compelling empirical evidence of the positive role that hedge funds play in contributing to market liquidity and lowering transaction costs.

The tendency for hedge funds' investment activities to have a positive effect on market liquidity where it is needed most has been further illustrated in other empirical research. Jylha, Rinne, and Suominen (2014) examine 5,436 hedge funds over a 15-year period (1994-2008) and find that hedge funds increase liquidity in relatively illiquid securities markets.²³

Additional empirical research further documents that hedge fund investment activities increase liquidity in U.S. markets. Cotelioglu, Franzoni, and Plazzi (2021) examine the effect of institutional investors, including hedge funds and mutual funds, on market liquidity in the U.S. stock market during 1999-2013.²⁴ The study finds that overall, hedge fund investment activities have a positive effect on liquidity in U.S. stocks, as measured both by the impact on bid-ask spreads and price impact metrics. Similarly, Jame (2018) concludes that hedge fund investment increases market liquidity.²⁵

B. Hedge Fund Activism

Certain hedge funds pursue strategies based on shareholder "activism," which is to be distinguished from other "active" management strategies. While active strategies may at times involve interaction with a company's management in the investor's capacity as a shareholder, active strategies rely primarily on fundamental research and quantitative analysis. By contrast, "activist" strategies are based primarily on acquiring shares in a company in order to interact with other shareholders and the company's management with the goal of effecting change at the corporate level, including changes to management, board composition, corporate strategy, or

²² For example, stocks affected by the Lehman hedge-fund clients experienced nearly 50% greater liquidity declines than those not held by the impacted hedge funds.

²³ Petri Jylha, Kalle Rinne, and Matti Suominen, *Do Hedge Funds Supply or Demand Liquidity?*, 18(4) REVIEW OF FINANCE 1259 (2014), <https://dx.doi.org/10.2139/ssrn.1629773>.

²⁴ Efe Cotelioglu, Francesco A. Franzoni, and Alberto Plazzi, *What Constrains Liquidity Provision? Evidence from Institutional Trades*, 25 (2) REVIEW OF FINANCE 485 (2021), <https://dx.doi.org/10.2139/ssrn.2239327>.

²⁵ Russell Jame, *Liquidity Provision and the Cross-Section of Hedge Fund Returns*, 64 (7) MANAGEMENT SCIENCE 3288 (2018), <https://dx.doi.org/10.2139/ssrn.2284696>.

financial structure.²⁶ The goal of these changes is to increase the company's profitability and thereby increase the value of the company's shares. As a result, the success of an activist strategy benefits the activist investor as well as other shareholders of the company.

Hedge funds are uniquely positioned as activist investors relative to other institutional investors, including mutual funds, pension funds, and endowments, as a result of several factors. These include, among other things, hedge funds' greater flexibility to enter into derivative contracts and engage in short selling, which allows them to more effectively and precisely mitigate risks and enhance potential returns with respect to their activist strategies. Hedge funds' more tailored redemption terms also facilitate activist strategies.²⁷ For example, unlike mutual funds, hedge funds can employ lockup periods for their funds, allowing them to fully commit to an activist campaign that may last several months or years.²⁸ The significance of lockup periods in shareholder activism is highlighted by Reynolds (2020a),²⁹ who shows that hedge funds with greater redemption restrictions are more likely to engage in activist campaigns. Hedge funds also do not face restrictions on holding large stakes in individual target companies, unlike mutual funds who face limitations in certain cases,³⁰ which further assists in hedge funds' ability to implement such strategies.³¹

(1) Short-Term and Long-Term Stock Returns

The announcement of a hedge fund activist campaign is shown to confer short-term benefits on the stock price of the target firm with abnormal returns averaging 6-8% following the announcement of an activist intervention.³² In an early seminal study on the impact of hedge fund activism, Brav et al. (2008) document abnormal returns of 7-8% during the 40-day window around

²⁶ See Mary Ann Cloyd, *Shareholder Activism: Who, What, When and How?*, HARVARD LAW SCHOOL FORUM ON CORPORATE GOVERNANCE (Apr. 7, 2015), <https://corpgov.law.harvard.edu/2015/04/07/shareholder-activism-who-what-when-and-how/>.

²⁷ See e.g., Alon Brav, Wei Jiang, and Rongchen Li, *Governance by Persuasion: Hedge Fund Activism and Market-Based Shareholder Influence*, ECGI PAPER (2022), https://www.ecgi.global/sites/default/files/working_papers/documents/bravjianglifinal_0.pdf.

²⁸ *Id.* (noting that the median duration of an activist campaign is 262 days and the mean duration is 532 days).

²⁹ Julia Reynolds, *In for the Long Haul: Activist Hedge Funds and Fragility Risk*, SSRN WORKING PAPER (2020), <https://dx.doi.org/10.2139/ssrn.2788788>.

³⁰ E.g., for a mutual fund to be considered "diversified," the 1940 Investment Company Act limits the fund to holding no more than 10% of the voting securities of any one issuer. Section 5(b)(1) of 1940 Investment Company Act.

³¹ Brav, Jiang, and Li (2022), *supra* note 27.

³² "Abnormal" return is the portion of the stock return in excess of the return that would be expected based on traditional factors (e.g., overall stock market factors).

the announcement of the campaign.³³ Several subsequent empirical studies have similar findings. For example, Klein and Zur (2009) find average abnormal returns of 7.2% measured over a 60-day announcement window,³⁴ while Boyson and Mooradian (2011) document 8.1% abnormal returns over a 50-day window,³⁵ and Bebchuk, Brav, and Jiang (2015) find 6% abnormal returns over a 40-day window.³⁶

More recent research further confirms the positive short-term impact. Swanson, Young, and Yust (2022) analyzed 4,312 shareholder activist campaigns from 1994-2014, finding abnormal returns of 5.05% over a 16-day window.³⁷ Finally, in an update to Brav et al. (2008), Brav, Jiang, and Li (2022) examine 4,657 hedge fund activism events during 1994-2018, finding average abnormal returns of 4.8% during a 40-day window.³⁸

While the short-term gains of hedge fund activism are well-documented, critics have argued that the positive returns are short-lived, and activists only focus on short-term payoffs that ultimately harm longer-term shareholder value.³⁹ Despite this concern, however, several empirical studies illustrate that the initial short-term gains do not reverse, and abnormal returns indeed persist over longer time horizons. Bebchuk, Brav, and Jiang (2015) not only find short-term gains of 6% (as noted above), but also find persistent abnormal returns of 2.6% over the three years following an activist campaign and 5.8% over the following five years.⁴⁰ Swanson, Young, and Yust (2022) document abnormal returns of 12.77% over the following two years and 14.57% over three years.⁴¹

³³ Alon Brav, Wei Jiang, Randall S. Thomas, and Frank Partnoy, *Hedge Fund Activism, Corporate Governance, and Firm Performance*, 63 JOURNAL OF FINANCE 1729 (2008), <https://ssrn.com/abstract=948907>. Announcement of the campaign is determined to be the date of the hedge fund’s filing of a Schedule 13D which reveals the fund’s investment in the target company.

³⁴ April Klein and Emanuel Zur, *Entrepreneurial Shareholder Activism: Hedge Funds and Other Private Investors*, THE JOURNAL OF FINANCE (2009), <https://dx.doi.org/10.2139/ssrn.913362>.

³⁵ Nicole M. Boyson and Robert M. Mooradian, *Corporate Governance and Hedge Fund Activism*, 14(2) REVIEW OF DERIVATIVE RESEARCH 169 (2011), <https://ssrn.com/abstract=992739>.

³⁶ Lucian A. Bebchuk, Alon Brav, and Wei Jiang, *The Long-Term Effects of Hedge Fund Activism*, 115 COLUMBIA LAW REVIEW 1085 (2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2291577.

³⁷ Edward P. Swanson, Glen Young, and Christopher G. Yust, *Are All Activists Created Equal? The Effect of Interventions by Hedge Funds and Other Private Activists on Long-Term Shareholder Value*, 72 JOURNAL OF CORPORATE FINANCE (2022), <https://ssrn.com/abstract=3984520>.

³⁸ *Supra* note 27.

³⁹ See e.g., Marcel Kahan and Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1021 (2007), <https://ssrn.com/abstract=919881> (discussing the critique that “activism is designed to achieve a short-term payoff at the expense of long-term profitability.”).

⁴⁰ Bebchuk, Brav, and Jiang (2015) *supra* note 36.

⁴¹ Swanson, Young, and Yust (2022), *supra* note 37.

The evidence on long-term performance is mixed, however. As a counter to the above empirical findings, deHaan, Larcker, and McClure (2019) argue that strong performance by the smallest firms skew the empirical results.⁴² Examining activist interventions from 1994 to 2011, the study finds positive average abnormal returns of 6.8% after one year and 5.9% after two years, but only when weighting returns equally. In an equal-weighted average, the positive returns of the smallest firms are given the same weight as the returns of larger firms, which were generally found to be weaker. However, on a value-weighted basis, i.e., assigning proportionally more weight to larger firms than smaller firms in calculating the average, the study finds that long-term excess returns are statistically non-existent over the two years following activist intervention.

In a more direct test of concerns about the reversal of positive short-term performance, Brav et al. (2022) conduct a separate test of value-weighted portfolios.⁴³ Unlike deHaan, Larcker, and McClure(2019), who examine stock performance beginning one month *prior* to the activist intervention, Brav et al. (2022) study long-term performance beginning in the month *after* the announcement of an activist intervention. If short-term gains were to reverse, then returns after the initial short-term response should be negative. To this end, the study examines *post-activism* stock performance of targeted firms with regression analyses of value-weighted portfolios. Based on this analysis, the study concludes there is no evidence of long-term reversal of short-term gains, illustrating the persistence of strong post-activist stock performance beyond the short term.

(2) *Operating Performance, Productivity, Innovation, and Corporate Governance*

Hedge fund activism has also been shown to confer long-term benefits on the operating performance, productivity, innovation, and corporate governance of target companies. With respect to operating performance, Brav, Jiang, and Li (2022) find that hedge fund activism leads to significant improvements in two common performance metrics – return on assets (“ROA”) and Tobin’s Q.⁴⁴ The ROA of target firms improves by 1.5% relative to control firms following activist intervention and Tobin’s Q improves 0.16-0.32 above a benchmark of control firms in the five years post-intervention.

Brav, Jiang, and Kim (2015) find that hedge fund activism improves productivity of manufacturing plants over a three-year period following intervention.⁴⁵ In addition, manufacturing plants of

⁴² Ed deHaan, David F. Larcker, and Charles McClure, *Long-Term Economic Consequences of Hedge Fund Activist Interventions*, 24(2) REVIEW OF ACCOUNTING STUDIES 536 (2019), <https://dx.doi.org/10.2139/ssrn.3260095>.

⁴³ Brav Jiang, and Li (2022), *supra* note 27.

⁴⁴ *Id.* Tobin’s Q is a relative measure of a firm’s market value compared to the replacement value of its assets.

⁴⁵ Specifically finds that total factor productivity (TFP) increases by 8.9% of the standard deviation from the year of intervention to three years afterward.

targeted firms increase investment in information technology. Brav, Jiang, Ma, and Tian (2018) find that a targeted firm’s patent counts and citations – a quantifiable measure of innovation – improves significantly as a result of activist intervention.⁴⁶ However, the study also finds that research and development (“R&D”) spending declines by \$21 million on average in the five years following the activist campaign. Allaire and Dauphin (2015) similarly find reductions in R&D spending over four years following an activist campaign.⁴⁷ The study attributes improvement in innovation despite the decrease in R&D spending to more efficient allocation of innovative resources, more efficient use of labor, and changes to board-level expertise, all resulting from the activist campaign.

Finally, stronger corporate governance has been found to be associated with hedge fund activist campaigns. Gantchev, Sevilir, and Shivdasani (2020) find that activists are able to bring about change by constraining empire-building via the removal of empire-building CEOs, changing the composition of CEO incentive pay, and restructuring the boards.⁴⁸ Jiang (2022) finds that proxy contests prompted by hedge fund activism contribute to gender diversity on corporate boards by increasing board turnover.⁴⁹ In addition, the study finds that director turnover is 50% higher for boards associated with hedge fund-led proxy contests, which leads to increased diversity in the boards of target firms relative to peer firms.

C. Short Selling

Although a wide variety of market participants engage in short selling, most estimates indicate that hedge funds account for a substantial majority of outstanding short positions held by investors, since short selling is a crucial component of many hedge fund strategies.⁵⁰ Short selling activity

⁴⁶ Alon Brav, Wei Jiang, Song Ma, and Xuan Tian, *How Does Hedge Fund Activism Reshape Corporate Innovation?*, 130(2) JOURNAL OF FINANCIAL ECONOMICS 237 (2018), <https://doi.org/10.1016/j.jfineco.2018.06.012>.

⁴⁷ Yvan Allaire and Francois Dauphin, *Hedge Fund Activism: Preliminary Results and Some New Empirical Evidence*, INSTITUTE FOR THE GOVERNANCE OF PUBLIC AND PRIVATE ORGANIZATIONS (2015), https://www.shareholderforum.com/access/Library/20150401_Allaire.pdf.

⁴⁸ Nickolay Gantchev, Merih Sevilir, and Anil Shivdasani, *Activism and Empire Building*, 138 (2) JOURNAL OF FINANCIAL ECONOMICS 526 (2020), <https://doi.org/10.1016/j.jfineco.2020.06.001>.

⁴⁹ Wei Jiang, *Diversity through Turnover: How to Overcome the Glacial Pace Toward Board Diversity*, COLUMBIA BUSINESS SCHOOL RESEARCH PAPER (2020), <https://dx.doi.org/10.2139/ssrn.3793034>.

⁵⁰ See e.g., OFFICE OF FINANCIAL RESEARCH, Hedge Fund Monitor, <https://www.financialresearch.gov/hedge-fund-monitor/categories/size/chart-20/>; GOLDMAN SACHS, Hedge Fund Trend Monitor, <https://www.gspublishing.com/content/research/en/reports/2023/11/20/c1c0208f-e17d-4152-ac01-22aa849e10dc.html>.

benefits financial markets in several respects that have been well-documented in academic literature.

First, short selling contributes to the accuracy and efficiency of prices in securities markets by ensuring that positive and negative public information about firms is promptly reflected in prices. Akbas, Boehmer, and Erturk (2017) find that short sellers' fundamentally driven research and analysis allows them to more accurately forecast the potential public announcement of negative information about an issuer, negative earnings surprises, and downward revisions in analyst earnings forecasts. The efficient incorporation of information into securities prices helps improve overall market efficiency, benefiting all market participants.⁵¹ And the benefits of short selling on price discovery extend beyond equity markets. Choi, Getmansky, and Tookes (2009) find that short selling improves price discovery in the convertible bond market.⁵²

Moreover, short sellers improve price efficiency through correcting mispricing. Boemer and Wu (2013) find that stocks with the median volume of shorting activity (approximately 18.4% of trading volume) experience pricing errors that are 20% less than stocks with no shorting activity.⁵³ In addition, active short selling leads to faster incorporation of information into stock prices, as stocks in the top 10% of shorting activity incorporate new information into stock prices at *double* the speed of stocks in the bottom 10% of shorting activity. The promotion of efficient prices also helps minimize large price swings in a stock and reduces the likelihood and magnitude of bubbles.⁵⁴

Second, short selling increases liquidity in financial markets. While most short sale trading volume is attributable to market makers, hedge funds contribute to this activity when they establish or liquidate a short position. The liquidity benefits from short selling entail not only contributions to trading volume, but also reductions in transaction costs for all financial market participants. Beber and Pagano (2013) document empirically that curbing short selling activity through regulations leads to significant increases in bid-ask spreads.⁵⁵ In an examination of short selling bans across

⁵¹ Ferhat Akbas, Ekkehart Boehmer, Sorin M. Sorescu, and Bilal Erturk, *Short Interest, Returns, and Unfavorable Fundamental Information*, 46 (2) FINANCIAL MANAGEMENT 455 (2016), <https://doi.org/10.1111/fima.12144>.

⁵² Darwin Choi, Mila Getmansky Sherman, and Heather Tookes, *Convertible Bond Arbitrage, Liquidity Externalities, and Stock Prices*, 91 (2) JOURNAL OF FINANCIAL ECONOMICS 227 (2009), <https://ssrn.com/abstract=891657>.

⁵³ Ekkehart Boehmer and Juan (Julie) Wu, *Short Selling and the Price Discovery Process*, 26(2) THE REVIEW OF FINANCIAL STUDIES 287 (2013), <https://doi.org/10.1093/rfs/hhs097>.

⁵⁴ See e.g., Ernan Haruvy & Charles N. Noussair, *The Effect of Short Selling on Bubbles and Crashes in Experimental Spot Asset Markets*, 61(3) THE JOURNAL OF FINANCE 1119 (2006), <https://www.jstor.org/stable/3699319>.

⁵⁵ Alessandro Beber and Marco Pagano, *Short-Selling Bans Around the World: Evidence from the 2007-2009 Crisis*, 68(1) THE JOURNAL OF FINANCE 343 (2012), <https://ssrn.com/abstract=1502184>.

30 countries, the study finds that complete bans on short selling lead to an increase of 1.98% in bid-ask spreads (relative to an average bid-ask spread of 4.05%).

Increased liquidity lowers transaction costs, which enhances portfolio returns for investors, including pension funds, mutual funds, and other assets of institutional asset managers who manage substantial amounts of U.S. retirement funds. The increased liquidity resulting from hedge funds' short sales also allows more efficient allocation of investment dollars as capital can flow more freely based on company fundamentals and without transaction cost frictions.

Finally, short selling also contributes positively to strong corporate governance by serving as an external disciplining mechanism for firm management. In theory, since short sellers are motivated to uncover wrongdoing by management (and then make investments based on that information through short sales), the probability and speed with which corporate misconduct is discovered increases. As a result, there is less incentive for management to engage in such misconduct, improving the corporate governance of the firm.

Massa, Zhang, and Zhang (2015) find that the presence of short sellers improves the behavior of firm managers.⁵⁶ The higher the degree of short selling potential (proxied by the total supply of shares available to be lent for short sales), the less likely that firm management manipulates corporate earnings. The study also finds that global short selling bans lead to increased earnings manipulation.

Short selling has also been shown to improve corporate governance through disciplining management in mergers and acquisitions (“M&A”) decisions. Chang, Lin, and Ma (2019)⁵⁷ examine the effect of short selling on M&A returns. The study finds that short selling threats result in higher M&A announcement returns. The authors argue that this finding illustrates that short sellers provide external monitoring on management, making management less likely to erode shareholder value with wasteful empire-building activities that benefit management individually but reduce shareholder value.

A significant body of empirical research also shows that curbing short selling activity, either through policy changes to short selling regulation or revised policies on permissible hedge fund

⁵⁶ Massimo Massa, Bohui Zhang, and Hong Zhang, *The Invisible Hand of Short Selling: Does Short Selling Discipline Earnings Management?*, 28 (6) THE REVIEW OF FINANCIAL STUDIES 1701 (2015), <https://dx.doi.org/10.2139/ssrn.2124464>.

⁵⁷ Eric C. Chang, Tse-Chun Lin, and Xiaorong Ma, *Does Short-Selling Threat Discipline Managers in Mergers and Acquisitions Decisions?*, 68(1) JOURNAL OF ACCOUNTING AND ECONOMICS (2019), <https://dx.doi.org/10.2139/ssrn.2348193>.

activities, would damage financial markets with respect to price efficiency, liquidity, and corporate governance, and thereby provides further confirmation of the benefits of short selling in each of these respects.

Saffi and Sigurdsson (2011) find that restrictions on short selling for stocks lead to more persistent and pronounced mispricing of the affected stocks.⁵⁸ Jank et al. (2019) measure a negative effect on price discovery when investors in the EU curtailed short selling activities in response to the implementation of mandatory disclosure of short positions.⁵⁹ Boehmer et al. (2013) find that the 2008 ban on short selling in the United States resulted in “severe degradation in market quality, as measured by quoted spreads, effective spreads, and volatility.”⁶⁰

A report by the Federal Reserve Bank of New York finds that short selling bans increase trading costs in financial markets, reduce liquidity, and “prevent short sellers from rooting out cases of fraud and earnings manipulation.”⁶¹ The report also finds an absence of evidence that short sellers exacerbate financial markets crises by driving down asset prices, as is sometimes asserted. The Securities and Exchange Commission (“SEC”) concluded that reduced short selling harms “the liquidity supply, fundamental analysis vital to price efficiency, and hedging that facilitates capital formation.”⁶² A report by the European Securities and Markets Authority draws similar conclusions with respect to European markets, finding that a ban on short selling implemented in 2020 in response to the COVID-19 crisis harmed liquidity and reduced trading volumes.⁶³ And a review of the relevant empirical literature by the World Federation of Exchange confirms that “the

⁵⁸ Pedro Saffi and Kari Sigurdsson, *Price Efficiency and Short Selling*, 24(3) THE REVIEW OF FINANCIAL STUDIES 821 (2011), <https://ssrn.com/abstract=949027>.

⁵⁹ Stephan Jank, Christoph Roling, and Esad Smajlbegovic, *Flying Under the Radar: The Effects of Short-Sale Disclosure Rules on Investor Behavior and Stock Prices*, 139(1) JOURNAL OF FINANCIAL ECONOMICS 209 (2021), <https://doi.org/10.1016/j.jfineco.2020.07.010>.

⁶⁰ Ekkehart Boehmer, Charles M. Jones, and Xiaoyan Zhang, *Shackling Short Sellers: The 2008 Shorting Ban*, 26(6) THE REVIEW OF FINANCIAL STUDIES 1363 (2013), <https://dx.doi.org/10.2139/ssrn.1412844>.

⁶¹ Robert Battalio, Hamid Mehran, and Paul Schultz, *Market Declines: What Is Accomplished by Banning Short-Selling?*, FEDERAL RESERVE BANK OF NEW YORK (2012), https://www.newyorkfed.org/medialibrary/media/research/current_issues/ci18-5.pdf.

⁶² SEC DIVISION OF ECONOMIC AND RISK ANALYSIS, *Short Sale Position and Transaction Reporting* (Jun. 5, 2014), <https://www.sec.gov/files/short-sale-position-and-transaction-reporting0.pdf>.

⁶³ Alessandro Spolaore and Caroline Le Moign, *Market Impacts of the 2020 Short Selling Bans*, ESMA WORKING PAPER (2024), https://www.esma.europa.eu/sites/default/files/2024-01/ESMA50-524821-3002_Working_Paper_-_Market_impacts_of_the_2020_short_selling_bans.pdf

evidence almost unanimously” shows that short selling bans “reduce liquidity, increase price inefficiency and hamper price discovery.”⁶⁴

⁶⁴ Stefano Alderighi and Pedro Gurrola-Perez, *What Does Academic Research Say About Short-Selling Bans?*, WFE RESEARCH WORKING PAPERS, WORLD FEDERAL OF EXCHANGES (2020), <https://dx.doi.org/10.2139/ssrn.3775704>.

III. Common Hedge Fund Characteristics

The several positive contributions of hedge funds discussed in Part II can be attributed in part to important institutional features that allow them to engage in financial markets as active investors. The regulatory landscape for hedge funds permits certain of these features. Importantly, hedge funds are not subject to registration or regulation under the Investment Company Act of 1940 (“ICA”). As described further in Part V, the ICA imposes prescriptive requirements on the operation, governance, and investment activities of a registered investment company’s (“RIC”) business. This includes limits on the type of instruments in which RICs can invest, strict limitations on the possible terms offered to investors, capital and management structure requirements, and the public disclosure of all of its investment positions, among many others. Taken together, the ICA effectively prevents RICs from engaging in many of the types of investment strategies that are common among hedge funds. However, Congress chose not to apply the ICA’s restrictions to private funds in recognition of the sophistication of their investors, contributing to the ability of hedge funds to provide the benefits to capital markets described throughout this report. Hedge funds are nevertheless subject to a comprehensive regulatory regime, as discussed in detail in Part V.

While not exhaustive, below we highlight two features that commonly allow hedge fund managers to employ the types of strategies and unlock the benefits described above.⁶⁵

A. Versatile Investment Strategies

Hedge funds managers are commonly authorized to pursue a wide range of possible investment strategies, as noted by both the Board of Governors of the Federal Reserve System (“**Federal Reserve**”)⁶⁶ and the SEC.⁶⁷ Academics have similarly highlighted this flexibility. Caglayan, Celiker, and Sonaer (2018) note that the regulatory regime for hedge funds affords them “flexibility in their investment strategies (including the use of short-sell[ing], leverage, and derivatives.”⁶⁸

In general, the increased investment flexibility allows hedge fund managers to engage more effectively in the pro-market behaviors documented above in Part II, including positive

⁶⁵ See Martijn Cremers, Jon A. Fulkerson, and Timothy B. Riley, *Challenging the Conventional Wisdom on Active Management: A Review of the Past 20 Years of Academic Literature on Actively Managed Mutual Funds*, 75(4) FINANCIAL ANALYSTS JOURNAL 1 (2019), <https://ssrn.com/abstract=3247356>.

⁶⁶ See BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *Hedge Funds*, <https://www.federalreserve.gov/releases/efa/efa-hedge-funds.htm>.

⁶⁷ See SEC INVESTOR BULLETIN, *Hedge Funds*, https://www.sec.gov/files/ib_hedgefunds.pdf.

⁶⁸ Caglayan, Celiker, and Sonaer (2018), *supra* note 8.

contributions to price efficiency, liquidity, and corporate governance. Empirical academic studies support this conclusion.

In a study of hedge fund versus non-hedge fund investment activity, Caglayan, Celiker, and Sonaer (2018) document that hedge funds can trade in and out of positions much more easily and faster than other institutional investors.⁶⁹ The study finds that turnover statistics for hedge funds are twice as high compared to other institutional investors, consistent with the claim that hedge funds can move into and out of positions more quickly. Moreover, the study notes that hedge funds “do not face any concentration issues as do other institutions,” allowing them to “load on a particular stock heavily or short the stock as much as short-selling constraints allow, and in turn, they can exhaust the mispricing to a greater extent.”⁷⁰

The relative flexibility of hedge fund investment strategies has also helped improve hedge fund returns. Osinga et al. (2021) find that approximately 30% of hedge funds display timing skills with respect to changing risk exposures.⁷¹ Outperformance due to timing skill is associated with funds that have more investment flexibility. Moreover, Jiang et al. (2022) find that hedge funds with the flexibility to switch investment styles achieve superior returns with the new style over the previous style.⁷²

The regulatory landscape for hedge funds plays a significant role in allowing a relatively high degree of investment flexibility. In general, hedge funds do not face the same requirements and restrictions imposed on registered investment companies, primarily mutual funds. Mutual funds face regulatory restrictions on leverage and their use of derivatives and short sales, and restrictions on changing investment strategy. These restrictions are aligned with the fact that mutual funds are offered to retail investors and required to offer daily liquidity. In fact, Nabilou and Paces (2015) find that, as a result, hedge funds can change positions more quickly than other institutional asset managers.⁷³ Moreover, Cumming and Johan (2009) argue that other institutional investors move more slowly because of requirements to disclose certain investments to shareholders in advance.⁷⁴

⁶⁹ *Id.*

⁷⁰ *Id.* at 3.

⁷¹ Bart Osinga, Marc Schauten, and Remco C.J. Zwinkels, *Timing is Money: The Factor Timing Ability of Hedge Fund Managers*, 62 JOURNAL OF EMPIRICAL FINANCE 266 (2021), <https://dx.doi.org/10.2139/ssrn.2811163>.

⁷² George J. Jiang, Bing Liang, and Huacheng Zhang, *Hedge Fund Manager Skills and Style-Shifting*, 68(3) MANAGEMENT SCIENCE 2284 (2022), <https://dx.doi.org/10.2139/ssrn.3123660>.

⁷³ Hossein Nabilou and Alessio M. Paces, *The Hedge Fund Regulation Dilemma: Direct vs. Indirect Regulation*, 6(1) WILLIAM & MARY BUSINESS LAW REVIEW 183 (2015), <https://dx.doi.org/10.2139/ssrn.2323377>.

⁷⁴ Douglas J. Cumming and Sofia Johan, *Hedge Fund Forum Shopping*, 10(4) UNIVERSITY OF PENNSYLVANIA JOURNAL OF BUSINESS AND EMPLOYMENT LAW 783 (2009), <https://ssrn.com/abstract=1122309>.

Almazan et al. (2004) also highlight that other institutional investors often self-impose structural restrictions on investment strategies beyond those imposed by the SEC, such as “borrowing, purchasing securities on margin, short-selling, holding individual equity options, trading in equity index futures, or purchasing restricted securities.”⁷⁵

It is also important to note that the increased flexibility in investment strategies for hedge funds has also had significant implications with respect to hedge fund returns. While a detailed discussion of relative returns is beyond the scope of this report, returns for hedge funds have generally been found to be strong net of fees. For a comprehensive discussion and analysis of hedge funds returns, see the Committee’s May 2023 Hedge Fund Report.⁷⁶

B. Lockup Periods and Redemption Restrictions

The ability to ensure more stable capital has important implications for how hedge funds can operate and the type of investment strategies they can employ. Unlike open-end mutual funds, which must offer daily redemptions to investors as mandated by the ICA, hedge fund managers can negotiate lockup periods and other redemption restrictions. While not all hedge funds have lockups, and redemption restrictions vary across the industry, these are nevertheless common institutional features of hedge funds and are thus examined below. Redemption restrictions take the form of lockups, redemption notices, redemption frequencies, and gates.

A lockup period is a complete prohibition against an investor withdrawing their investment from a fund for a pre-defined period. A redemption notice entails a requirement that hedge fund investors provide the fund manager with sufficient advanced notice before a redemption request is executed. In addition, redemptions are only granted at certain times – the redemption frequency – which is the frequency with which investors may redeem funds shares (e.g., daily, weekly, monthly, quarterly, etc.). Finally, gates represent the maximum level of redemptions allowed at any given redemption date.

From a theoretical perspective, Shleifer and Vishny (1997) outline the significance of stable capital to fund managers and how mispricing and other market inefficiencies persist if institutional

⁷⁵ Andres Almazan, Keith C. Brown, Murray Carlson, and David A. Chapman, *Why Constrain Your Mutual Fund Manager?*, 73(2) JOURNAL OF FINANCIAL ECONOMICS 289 (2004), <https://doi.org/10.1016/j.jfineco.2003.05.007>.

⁷⁶ CCMR (May 2023), *supra* note 2.

investors are structurally limited from conducting arbitrage trades that correct prices and improve market efficiency.⁷⁷

When prices become misaligned or are otherwise incorrect, an arbitrage opportunity arises in which the hedge fund can profit by trading against the incorrect prices. With sufficient arbitrage trading, prices subsequently correct, improving price efficiency. However, the correction of prices does not necessarily occur immediately, and the hedge fund's arbitrage trade may *temporarily* lose money before becoming profitable.

Unfortunately, some fund investors may respond to the temporary short-term losses by withdrawing capital from the fund before the arbitrage trade becomes profitable. The early withdrawal of funds forces the hedge fund to exit the trade at a loss, imposing losses on the fund. As a result, faced with the risk of losses due to untimely and unpredictable investor withdrawals, the fund may avoid engaging in the arbitrage trade in the first place. In this case, price inefficiencies would persist in the market due to the unstable capital, a so-called limit to arbitrage.

Redemption restrictions and particularly lockup periods overcome this limit to arbitrage by allowing hedge funds to avoid the risk of early and unexpected withdrawals. Stable capital allows the fund to conduct the arbitrage trade, while withstanding temporary losses until prices correct and the trade turns profitable. Moreover, hedge funds can continue to exploit the arbitrage opportunity further until prices become more efficient.

Empirical research on the significance of redemption restrictions confirms the benefits afforded to hedge funds by the more stable capital base. Lockups have been found to have a direct impact on the ability of hedge funds to improve price efficiency. Giannetti and Kahraman (2018) examine the impact of open-end structures (i.e., daily redeemability) on fund manager incentives to exploit mispricing opportunities.⁷⁸ The study finds that hedge funds with higher redemption restrictions are better able to trade against mispriced securities, and thus correct mispricing, than other funds, primarily open-end mutual funds with no redemption restrictions.

Lockups have also been shown to allow hedge funds to invest in less liquid securities, broadening the range of issuers that capital is allocated to and contributing to enhanced liquidity in less liquid names. Aragon (2007) finds that longer lockup periods are associated with less liquid fund portfolios, illustrating that lockups and other redemption restrictions allow funds to efficiently

⁷⁷ Andrei Shleifer and Robert W. Vishny, *The Limits of Arbitrage*, 52 (1) THE JOURNAL OF FINANCE 35 (1997), <https://ssrn.com/abstract=8043>.

⁷⁸ Mariassunta Giannetti and Bige Kahraman, *Open-End Organizational Structures and Limits to Arbitrage*, 31(2) THE REVIEW OF FINANCIAL STUDIES 773 (2018), <https://ssrn.com/abstract=2427432>.

manage illiquid assets and contribute to liquidity in those markets.⁷⁹ The study also considered the relationship between lockup periods and performance, finding that hedge funds with lockup restrictions achieve 4-7% higher returns than those without restrictions.

In another study of lockups and returns, Aiken et al. (2021) find that annual performance of hedge funds with locked-up capital exceeds funds without locked-up capital by 5%.⁸⁰ The outsized returns of hedge funds with lockups, as was also found in Aragon (2007), is consistent with the conclusion that lockups allow hedge funds to overcome limits to arbitrage and engage in more of the arbitrage trades that improve market efficiency.

The benefits of lockups in stabilizing hedge funds' capital base is further illustrated in Reynolds (2020b), which examines whether hedge fund redemption restrictions help insulate against redemption shocks.⁸¹ The study finds that redemption restrictions help reduce exposure to fire-sale risk (i.e., selling pressure resulting from unexpected early withdrawals), as demonstrated by the result that stocks owned by high-restriction hedge funds are 4.7% less likely to be exposed to fire sales. The Reynolds (2020b) study also documents how lockups help hedge funds contribute positively to market quality. The study finds that redemption restrictions aid in reducing volatility for the stocks owned by hedge funds.⁸² Overall, these findings document how redemption restrictions can have positive consequences for market participants and market quality.

Finally, with respect to corporate governance, lockups and other redemption restrictions allow hedge funds to engage in more shareholder activism. Reynolds (2020a) examines the effect of redemption restrictions on the ability of institutional investors to engage in long-term investments and commit to an activist strategy.⁸³ The study finds that hedge funds with greater redemption restrictions are more likely to engage in shareholder activism, highlighting the significance of lockups in allowing hedge funds to engage in such activism.

⁷⁹ George O. Aragon, *Share Restrictions and Asset Pricing: Evidence from the Hedge Fund Industry*, 83 JOURNAL OF FINANCIAL ECONOMICS 33 (2007), <https://ssrn.com/abstract=875635>.

⁸⁰ Adam L. Aiken, Christopher P. Clifford, Jesse A. Ellis, and Qiping Huang, *Funding Liquidity and the Dynamics of Hedge Fund Lockups*, 56(4) JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS 1321 (2021), <https://dx.doi.org/10.2139/ssrn.2848392>.

⁸¹ Julia Reynolds, *Hedge Fund Redemption Restrictions and Stock Price Fragility*, SSRN WORKING PAPER (2020), <https://dx.doi.org/10.2139/ssrn.3681388>.

⁸² Specifically findings that stocks purchased by high-restriction hedge funds exhibit lower volatility than those acquired by low-restriction hedge funds.

⁸³ Julia Reynolds, *In for the Long Haul: Activist Hedge Funds and Fragility Risk*, SSRN WORKING PAPER (2020), <https://dx.doi.org/10.2139/ssrn.2788788>.

IV. Hedge Funds and Financial Stability

The impact of hedge funds on financial market stability and whether hedge fund activities raise any systemic risk concerns have long been topics of potential concern for regulators and policymakers. In a general review of the academic literature on the role of hedge funds with respect to financial market stability, Agarwal and Ren (2023) conclude that empirical studies have failed to “provide a clear verdict in favor of or against hedge funds’ role in propagating systemic risk.”⁸⁴ Compared to other types of financial institutions, Billio et al. (2012) determines empirically that hedge funds contribute least to systemic risk among various sectors of the financial markets.⁸⁵ The study thus provides support for the argument that hedge funds are designed to withstand rapid and large losses associated with illiquid assets.

Despite the lack of empirical evidence that hedge funds in general increase vulnerability in financial markets, the role of hedge funds in contributing to systemic risk is often discussed during periods of market turmoil. These periods include the 1998 Long-Term Capital Management (“LTCM”) collapse, the 2007-2008 global financial crisis, and the March 2020 Treasury market turmoil. We now review the role of hedge funds in each market event. We then review how subsequent legislative and regulatory modifications have further reduced the likelihood that hedge funds’ investment activities will contribute to any similar future events.

A. Long-Term Capital Management Collapse

LTCM was a large U.S. hedge fund that generated high returns by employing fixed-income arbitrage strategies and relative-value trades in various markets. Importantly, LTCM boosted returns with significant levels of leverage, estimated at 30-to-1 at its peak.⁸⁶

Despite several years of high returns, LTCM faced significant losses in 1998 when the Russian government defaulted on its debt, causing a ripple effect through global financial markets. LTCM had made several investments based on the expectation that certain fixed-income security prices would converge, but the Russian default and the resulting market volatility caused prices to move

⁸⁴ Vikas Agarwal and Honglin Ren, *Hedge Funds: Performance, Risk Management, and Impact on Asset Markets*, OXFORD RESEARCH ENCYCLOPEDIA OF ECONOMICS AND FINANCE (2023), <https://dx.doi.org/10.2139/ssrn.4399977>.

⁸⁵ Monica Billio, Mila Getmansky, Andrew Lo, and Lorian Pelizzon, *Econometric Measures of Connectedness and Systemic Risk in the Finance and Insurance Sectors*, 104 (3) JOURNAL OF FINANCIAL ECONOMICS 535 (2012), <https://doi.org/10.1016/j.jfineco.2011.12.010>.

⁸⁶ See Michael Fleming and Weiling Liu, *Near Failure of Long-Term Capital Management*, FEDERAL RESERVE HISTORY (Sep. 1998), <https://www.federalreservehistory.org/essays/lbcm-near-failure>.

further against LTCM's investment. As a result, LTCM's positions began to lose money – losses compounded by the high leverage – and the fund faced margin calls from concerned lenders and counterparties, leading to a rapid decline in its capital.

Concerned that a collapse of LTCM and a disorderly unwinding of its positions would reverberate throughout the financial system, the Federal Reserve orchestrated a bailout funded entirely by private capital. In September 1998, a consortium of major banks and financial institutions agreed to provide a capital infusion of \$3.6 billion in exchange for a 90% stake in the fund, effectively taking over its management to prevent wider financial market disruption. In the end, prices eventually converged and LTCM's positions were profitable.

However, the concerns about financial stability that arose in response to LTCM's distress related to the banks that had loaned to LTCM and the possibility that those banks could have suffered significant losses. Therefore, regulatory efforts to avoid a repeat of LTCM were best aimed at improving the supervision of banks that provide hedge funds with funding.

As discussed in Part III above, hedge funds typically employ lockup provisions, which prohibit investors from redeeming their fund interests for a pre-determined period. These limitations ensure that there is a closer match between the duration of a hedge fund's assets and its liabilities. As a result, as a general matter hedge funds are at less risk of a run compared to banks.

Moreover, as discussed in Section D below, the regulatory landscape for hedge funds has changed significantly since 1998, rendering a repeat of LTCM less likely.

B. 2007-2008 Global Financial Crisis

The 2007-2008 global financial crisis is another episode of financial market turmoil that sparked discussion about the role of hedge funds in the propagation of systemic risk. Given that hedge funds actively traded several of the financial products at the heart of the meltdown, including mortgage-backed securities and related assets, an analysis of hedge funds' contribution to the crisis is certainly appropriate. Moreover, given the leverage generally employed by hedge funds, there was a potential cascading of losses sparked by declines in hedge fund exposure to other asset classes, including equity and fixed-income securities.

The transmission of systemic risk from hedge funds to the broader financial market generally entails two possible channels.⁸⁷ A credit channel is a direct propagation of losses, occurring when

⁸⁷ As outlined in Lloyd Dixon, Noreen Clancy, and Krishna B. Kumar, *Hedge Funds and Systemic Risk* at 32, RAND CORPORATION, <https://www.rand.org/pubs/monographs/MG1236.html> [“RAND Report”].

hedge funds' losses impact their systemically important creditors (e.g., banks or prime brokers), destabilizing those creditors in a manner that cascades throughout the rest of the financial system. A market channel is an indirect propagation of losses through asset price declines or reduced liquidity, occurring when hedge funds respond to price drops by selling assets leading to further asset price declines.

In an examination of the role of hedge funds in the 2007-2008 global financial crisis, the RAND Corporation – a nonpartisan nonprofit think tank – published a report concluding that hedge funds did not play a pivotal role or transmit systemic risk through either the credit or market channel in a material respect. With respect to the credit channel, the RAND report finds that although a substantial number of hedge funds failed during the crisis (approximately 1,700, representing 18% of total funds), hedge fund losses did not lead to significant losses at either their prime brokers or other creditor institutions.⁸⁸

With respect to the market channel, the RAND report examined several possible ways that hedge funds could have posed a systemic risk. First, the report finds that hedge funds did not play a significant factor in the buildup of the housing bubble, including the price increases in the mortgage-backed securities market. Second, the report finds no conclusive evidence suggesting that deleveraging by hedge funds was an important contributing factor to the crisis. In addition, while concerns arose about hedge fund short selling activity, the RAND report finds that most research on the financial crisis concludes that short selling did not play a major role. However, the report does note that hedge fund withdrawals from prime brokers, which effectively constituted a run, likely did contribute to the weakening of prime brokers and their parent organizations.

Other academic research echoes these conclusions. Billio et al. (2012) compare the financial connectedness of the 25 largest hedge funds against other financial institutions from January 2006 to December 2008. They find that hedge funds were not an important source of the systemic risk generated during the 2007-2008 financial crisis.⁸⁹ Romano (2010) concludes that there is an absence of evidence in the literature probing the causes of the 2007-2008 crisis that hedge funds were a contributing factor.⁹⁰ Indeed, they may have helped limit systemic contagion by suspending investor redemptions and providing liquidity to distressed institutions.⁹¹ Similarly, Shadab (2009)

⁸⁸ *Id.* at 42.

⁸⁹ Billio, Getmansky, and Pelizzon (2012), *supra* note 85.

⁹⁰ Roberta Romano, Against Financial Regulation Harmonization: A Comment, YALE LAW & ECONOMICS RESEARCH PAPER (2010) <https://ssrn.com/abstract=1697348>.

⁹¹ *Id.* at 4.

analyzes the performance of the hedge fund industry during the 2007-2008 crisis and claims that hedge funds dampened the crisis' severity by providing liquidity and price efficiency.⁹²

Hedge funds' traits make them less prone to certain practices that exacerbated the 2007-2008 crisis. Strömquist (2009) contends that during the crisis, hedge funds did not generate any herd behavior because they aimed to keep their investment strategies confidential.⁹³ Ladi (2008) also points out that the subprime mortgage crisis did not affect hedge funds as much as other financial institutions, because hedge funds employed a variety of uncorrelated investment strategies and their positions were not transparent.⁹⁴

Government response to the 2007-2008 financial crisis also supports the argument that hedge funds were not important actors in proliferating systemic risk. Lo (2009) argues that the lack of government bailouts to hedge funds proves that they played a peripheral role during the 2007-2008 crisis.⁹⁵

C. March 2020 Treasury Market Turmoil

The March 2020 turmoil in the U.S. Treasury markets was characterized by substantial liquidations of Treasury positions, precipitated by overall market fear and uncertainty related to the COVID-19 pandemic.⁹⁶ Empirical research on the role of hedge funds during this episode, primarily through the so-called Treasury basis trade, has generally been inconclusive with no clear evidence that hedge funds either exacerbated or dampened the market disruptions.

On the one hand, Kruttli, Monin, Petrsek, and Watugala (2021) find that hedge funds contribute liquidity in the Treasury markets under normal conditions, but sudden deleveraging, as occurred

⁹² Houman B. Shadab, *Hedge Funds and the Financial Crisis*, NYLS LEGAL STUDIES RESEARCH PAPER (2009), <https://ssrn.com/abstract=1564847>.

⁹³ Maria Strömquist, *Hedge Funds and Financial Crises*, SVERIGES RIKSBANK ECONOMIC REVIEW (2009), <https://ssrn.com/abstract=1631893>.

⁹⁴ Laszlo Ladi, *Hedge Funds: The Case Against Increased Global Regulation in Light of the Subprime Mortgage Crisis*, 5 BRIGHAM YOUNG UNIVERSITY INTERNATIONAL LAW & MANAGEMENT REVIEW 99 (2008), <https://digitalcommons.law.byu.edu/ilmr/vol5/iss1/4/>.

⁹⁵ Andrew W. Lo, *Regulatory Reform in the Wake of the Financial Crisis of 2007-2008*, JOURNAL OF FINANCIAL ECONOMIC POLICY (2009), <https://dx.doi.org/10.2139/ssrn.1398207>.

⁹⁶ See Jordan Barone, Alain Chaboud, Adam M. Copeland, Cullen Kavoussi, Frank M. Keane, and Seth Searls, *The Global Dash for Cash: Why Sovereign Bond Market Functioning Varied across Jurisdictions in March 2020*, 29(3) ECONOMIC POLICY REVIEW 1 (2023), <https://dx.doi.org/10.2139/ssrn.4666247>.

in March 2020, can force an unwinding of positions that harms overall market liquidity.⁹⁷ However, this finding was not specific to the March 2020 episode. In fact, several other empirical findings point to the opposite conclusion – that hedge funds were not central figures in the turmoil and may have even helped mitigate the damage.

First, foreign investors and mutual funds were found to be much more significant sellers of U.S. Treasuries than were hedge funds during this time.⁹⁸ The Federal Reserve even concluded that “the evidence that large-scale deleveraging of hedge fund Treasury positions was the primary driver of the turmoil remains weak.”⁹⁹ Moreover, a study released by the U.S. Treasury’s Office of Financial Research (“OFR”) concludes that Treasury basis trading continued to provide liquidity to underlying Treasuries even during the March 2020 disruption.¹⁰⁰ Since hedge funds are key participants in Treasury basis trading, they likely contributed positively to Treasury market liquidity in this respect. However, it is also important to note the important role played by the Federal Reserve in response to the turmoil through increased Treasury security purchases and expansion of the Federal Reserve’s repo facility.¹⁰¹ Overall, empirical analysis of the March 2020 Treasury market disruption does not support the conclusion that hedge funds contribute to financial instability in this market.

For a thorough discussion of the role of hedge funds as Treasury basis traders, see the Committee’s December 2023 report, “An Overview of the Treasury Basis Trade.”¹⁰²

D. Regulatory Changes that Mitigate Stability Concerns

Two key regulatory reforms since 1998 and the 2007-2008 financial crisis that mitigate concerns about an LTCM-like crisis and the potential for hedge fund investment activity to contribute to financial instability in general include mandatory central clearing and margin requirements for uncleared swaps. Broadened registration requirements for advisers of private funds have also

⁹⁷ Mathias Kruttli, Phillip J. Monin, Lubomir Petrasek, and Sumudu W. Watugala, *Hedge Fund Treasury and Funding Fragility: Evidence from the COVID-19 Crisis*, FINANCE AND ECONOMICS DISCUSSION SERIES, FEDERAL RESERVE BOARD OF GOVERNORS (2021), <https://www.federalreserve.gov/econres/feds/files/2021038pap.pdf>.

⁹⁸ See CCMR, *An Overview of the Treasury Basis Trade* (Dec. 2023), <https://capmktreg.org/wp-content/uploads/2023/12/An-Overview-of-the-Treasury-Basis-Trade-12-20-23-FINAL.pdf>.

⁹⁹ BOARD OF GOVERNORS FEDERAL RESERVE SYSTEM, *Financial Stability Report* at 34-35 (Nov. 2020), <https://www.federalreserve.gov/publications/files/financial-stability-report-20201109.pdf>.

¹⁰⁰ See Daniel Barth and Jay Kahn, *Basis Trades and Treasury Market Illiquidity*, OFFICE OF FINANCIAL RESEARCH BRIEF (July 16, 2020), <https://www.financialresearch.gov/briefs/2020/07/16/basis-trades-and-treasury-market-illiquidity/>.

¹⁰¹ *Id.*

¹⁰² CCMR (Dec. 2023), *supra* note 98.

subjected significantly more advisers to comprehensive SEC regulation and examination. In addition, increased transparency to regulators about hedge fund portfolio holdings implemented through mandatory Form PF reporting allows for ongoing monitoring and analysis of the systemic effects of hedge fund investment activity.

(1) Mandatory Central Clearing and Margin Requirements

One contributing factor to the LTCM turmoil was the significant leverage LTCM achieved through over-the-counter (“OTC”) derivatives trades that were not centrally cleared.¹⁰³ Central clearing of derivatives involves the use of a central clearing counterparty (“CCP”) acting as an intermediary between buyers and sellers in a derivatives transaction. The CCP becomes the counterparty to every seller and buyer, guaranteeing the performance of both sides. CCPs reduce systemic risk by enforcing risk management standards and imposing both initial and variation margin requirements that limit a single party’s leverage, allowing for multilateral netting of exposures, and mutualizing losses from clearing member failures, among other factors.¹⁰⁴

CCPs impose margin requirements on all participants to serve as a buffer against potential future losses on a derivatives position. For example, a buyer may be required to post initial margin equal to 5% of the total value of the derivative contract. Because of this, derivatives counterparties can increase their positions only so long as they hold sufficient capital to meet margin requirements. The margin requirements imposed by CCPs thus reduce systemic risk by limiting the amount of leverage that can be employed by a single counterparty. In the case of many of LTCM’s trades, LTCM was not required to post margin, as would be required for a centrally cleared trade, allowing it to build substantial leveraged positions.¹⁰⁵ CCPs also mark positions to market on a daily basis, and collect attendant variation margin payments, which ensures that no unrealized losses build up over time.

In general, central clearing improves financial market stability for all market participants.

The benefits of central clearing with respect to futures contracts were evident in the 2006 collapse of Amaranth Capital, which suffered losses of \$6.6 billion (approximately 70% of its assets under

¹⁰³ See RAND Report at 32.

¹⁰⁴ See John Kiff, Randall Dodd, Alessandro Gullo, Elias Kazarian, Isaac Lustgarten, Christine Sampic, and Manmohan Singh, *Making Over-the-Counter Derivatives Safer: The Role of Central Counterparties*, INTERNATIONAL MONETARY FUND GLOBAL FINANCIAL STABILITY REPORT (Apr. 2010), <https://www.imf.org/en/Publications/GFSR/Issues/2016/12/31/Global-Financial-Stability-Report-April-2010-Meeting-New-Challenges-to-Stability-and-23343>.

¹⁰⁵ *Id.* See also RAND Report at 38.

management) in a matter of weeks.¹⁰⁶ Despite the magnitude of the collapse over a relatively short period, Amaranth never posed the same systemic risk concerns as had LTCM.¹⁰⁷ Arguably, the fact that Amaranth's trades occurred primarily in the centrally cleared energy derivatives market prevented its losses and ultimate failure from reverberating through the broader financial markets.

In 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (“**Dodd-Frank**”) expanded mandatory clearing requirements to certain types of swaps,¹⁰⁸ as well as mandated the SEC and Commodity Futures Trading Commission (“**CFTC**”) to require minimum margin requirements on uncleared swaps.¹⁰⁹ Swaps are derivative contracts frequently traded by hedge funds, including LTCM. Because of this increased regulation, an LTCM-like collapse in the future would likely be isolated at the central clearinghouse and would not pose financial stability concerns for the broader market.

The market turmoil that occurred in March 2020 functioned as a natural stress test that evidenced the benefits of the central clearing framework for OTC derivatives. Unlike in 2008, when swaps markets were a source of systemic risk, in 2020 the swap market functioned as a source of market stability and resilience.¹¹⁰

(2) *Adviser Registration under the Investment Advisers Act of 1940*

In passing Dodd-Frank, Congress acknowledged that “hedge funds are generally not thought to have caused the current financial crisis,”¹¹¹ but reasoned that expanding the adviser registration framework was appropriate because hedge funds “are significant participants in many financial markets[] [and] their trades and strategies can affect prices.”¹¹² The Dodd-Frank Act therefore made significant changes to the Investment Advisers Act of 1940 (“**IAA**”) which broadened the

¹⁰⁶ See Hilary Till, *The Amaranth Collapse: What Happened and What Have We Learned Thus Far?*, SSRN WORKING PAPER (2007), <https://dx.doi.org/10.2139/ssrn.2611482>.

¹⁰⁷ See e.g., Troy A. Paredes, *Hedge Funds and the SEC: Observations on How and Why of Securities Regulation*, SEMINAR ON CURRENT DEVELOPMENTS IN MONETARY AND FINANCIAL LAW (Oct. 2006), <https://www.imf.org/external/np/seminars/eng/2006/mfl/tap.pdf>; Gregory Zuckerman, *How the Wreck from Amaranth Was Contained*, THE WALL STREET JOURNAL (Oct. 5, 2006), <https://www.wsj.com/articles/SB116001558904583395>; Philippa Aylmer, *Amaranth Advisers: Did They Cook the Goose?*, 21 HEDGE FUND JOURNAL (2006), <https://thehedgefundjournal.com/amaranth-advisors/>.

¹⁰⁸ Dodd-Frank §721 (7 U.S.C. §1a).

¹⁰⁹ Dodd-Frank §731 (7 U.S.C. §6s(e)).

¹¹⁰ See, e.g., Nick Rustad, *FIA, March Volatility and Clearing*, (Dec. 17, 2020), https://www.cftc.gov/media/5491/GMAC_121720FIA/download.

¹¹¹ 111TH CONGRESS 2D SESSION, *Dodd Report* at 72 (April 30, 2010), <https://www.congress.gov/111/crpt/srpt176/CRPT-111srpt176.pdf>.

¹¹² *Id.* at 71-72.

regulatory requirements applicable to advisers of private funds. Specifically, Dodd-Frank eliminated the exemption which private fund advisers had historically relied upon to bring them outside the IAA’s registration requirements, and replaced it with narrower exemptions, including for advisers of solely private funds with less than \$150 million in assets under management in the U.S.¹¹³ These changes greatly increased the number of private fund advisers registered with the SEC,¹¹⁴ and the amount of hedge fund assets managed by registered advisers. Following Dodd-Frank, approximately 70% of advisers to hedge funds with U.S. operations are currently registered with the SEC and subject to the full IAA, and 86% of hedge funds receive advisory services from registered advisers,¹¹⁵ representing the large majority of hedge fund assets under management. As discussed in Part V below, the IAA comprehensively regulates registered investment advisers, including with respect to safekeeping of client assets, disclosure, and recordkeeping. Registered investment advisers are also subject to examination and enforcement by the SEC. Moreover, Dodd-Frank authorized the SEC to require registered advisers to private funds to keep records and file reports “as necessary and appropriate in the public interest and for the protection of investors, or for the assessment of systemic risk by the Financial Stability Oversight Council.”¹¹⁶

(3) *Form PF Transparency*

The Dodd-Frank Act mandated increased transparency to regulators about hedge funds’ positions through the quarterly filing of Form PF. Form PF provides regulators with information on hedge funds’ long and short exposures, illiquidity of portfolios, and aggregate assets. This information enhances the ability of regulators to identify any potential systemic risk concerns posed by hedge funds, individually and in aggregate, and was not available in 1998. The Form PF instructions state that “[t]he information collected on Form PF is designed to facilitate the Financial Stability Oversight Council’s (“FSOC”) monitoring of systemic risk in the private fund industry”¹¹⁷

¹¹³ SEC, *Private Fund Adviser Overview*, <https://www.sec.gov/about/divisions-offices/division-investment-management/private-fund-adviser-overview>.

¹¹⁴ *Id.*; SEC, *Dodd-Frank Act Changes to Investment Adviser Registration Requirements*, <https://www.sec.gov/divisions/investment/imissues/df-iaregistration.pdf>.

¹¹⁵ January 2025 SEC Form ADV data are available at SEC, *Information About Registered Investment Advisers and Exempt Reporting Advisers*, <https://www.sec.gov/data-research/sec-markets-data/information-about-registered-investment-advisers-exempt-reporting-advisers>.

2,580 registered investment advisers (“RIAs”) reporting any hedge funds. 1,085 exempt reporting advisers (“ERAs”) reporting any hedge funds. 12,543 hedge funds receiving advisory services from an RIA. 1,990 hedge funds receiving advisory services from an ERA.

¹¹⁶ 15 U.S.C. §80b-4(b).

¹¹⁷ SEC, *Form PF Instructions* at 10, <https://www.sec.gov/about/forms/formpf.pdf>.

Form PF has also allowed researchers to examine specific aspects of systemic risk concerns with respect to hedge funds. For example, Barth et al. (2020) utilize Form PF data to examine hedge fund leverage.¹¹⁸ The study finds that hedge fund leverage is negatively related to systematic (i.e., market) risk, suggesting that the ability to employ leverage is an important factor that allows hedge funds to invest in assets less correlated with the overall market. As a result, hedge funds are less likely to face significant losses contemporaneously with downturns in the broader financial market, posing reduced systemic risk concerns. A detailed discussion of Form PF data and the availability of hedge fund data more generally can be found in the **Appendix**.

¹¹⁸ Daniel Barth, Laurel Hammond, and Phillip Monin, *Leverage and Risk in Hedge Funds*, OFFICE OF FINANCIAL RESEARCH WORKING PAPER (Feb. 25, 2020), https://www.financialresearch.gov/working-papers/files/OFRwp-20-02_leverage-and-risk-in-hedge-funds.pdf.

V. Regulation of Hedge Funds

The regulatory landscape for hedge funds allows hedge funds to institute the key institutional features, namely redemption restrictions and flexible investment strategies, discussed in Part III. However, hedge funds are far from unregulated investment vehicles. While hedge funds are excluded from registration and regulation under the Investment Company Act of 1940 (“ICA”), hedge funds currently must comply with a comprehensive regulatory regime. Part V provides an overview of the regulations, restrictions, and market practices that apply to hedge funds. Any future policy approaches to hedge funds should consider the current regulatory landscape as well as all the market benefits that the current regulatory structure provides not only to hedge fund investors but to all financial market participants.

A. Regulation under Federal Securities Laws

(1) *The Investment Advisers Act of 1940*

The Investment Advisers Act of 1940 (“IAA”) regulates advisers in securities and constrains most hedge fund managers. *All* investment advisers are bound by the provisions of the IAA regarding fraud and fiduciary duties to clients. Hedge fund advisers that manage less than \$150 million in assets are exempt from SEC registration but are subject to reporting requirements.¹¹⁹ Advisers that exceed that threshold must register with the SEC and comply with the whole of the IAA (“**registered investment advisers**” or “**RIAs**”). The SEC periodically examines RIAs and may also examine unregistered advisers to ensure compliance. The SEC also has enforcement powers through the court system to enjoin bad practices, enforce compliance, and fine advisers to private funds that violate the IAA.¹²⁰

All investment advisers, whether registered or not, are bound by the IAA’s anti-fraud provisions and the rules thereunder. Generally speaking, these provisions ban fraud, deceit, and manipulation

¹¹⁹ Hedge fund advisers who are exempt from registering with the SEC under the IAA may nevertheless be required to register under and adhere to state investment adviser law, depending on the jurisdiction. *See, e.g.*, Alexander J. Davie, *Guide to State Investment Adviser Registration Exemptions for Private Fund Advisers*, STRICTLY BUSINESS (March 27, 2023), <https://www.strictlybusinesslawblog.com/guide-state-investment-adviser-registration-requirements-for-private-fund-advisers/>.

Advisers of private funds with less than \$150 million in assets under management in the U.S. are exempt from registration under the IAA, though still subject to reporting requirements. Exempt reporting advisers must file a subset of the information required on Form ADV, including organizational information and data regarding the size and makeup of private funds they advise, and must report the amount of private fund assets under management

¹²⁰ 15 U.S.C. §80b–9.

with respect to current and prospective clients, including by way of material misstatements or omissions.¹²¹

The U.S. Supreme Court has also interpreted the IAA’s antifraud provisions to impose fiduciary duties on all investment advisers.¹²² Advisers owe a fiduciary duty of loyalty to clients, including avoiding conflicts of interest, must act in the best interest of the client, and must make “full and fair disclosure of all conflicts of which might incline an investment adviser” to render advice which is not disinterested.¹²³ Advisers also owe a fiduciary duty of care, again requiring the adviser to act in the best interest of the client, including providing advice in line with client objectives.¹²⁴ Multiple obligations stem from these fiduciary duties, including “the obligation to allocate investment opportunities fairly among clients, to seek best execution for client transactions, to recommend only suitable investments to clients after a reasonable inquiry[,],... to provide advice and monitoring[,],... to correct trade errors[,],... and to use exculpatory provisions that attempt to limit [the investment adviser’s] liability to clients... only in a manner that does not mislead clients.”¹²⁵

The IAA sets forth comprehensive regulation governing an RIA’s activities. RIAs must make certain public disclosures and adhere to rules and regulations to ensure safekeeping of client assets, maintain comprehensive and accurate records, manage certain conflicts of interest, and engage in permissible marketing, among others. They must also file periodic reports with the SEC. RIAs must establish a compliance program (reviewed annually), a code of ethics, and take steps to prevent insider trading. Critical IAA requirements are discussed below.

a. Disclosure Requirements

RIAs must disclose certain information in accordance with their fiduciary obligations and on Form ADV at least annually. Some of the information, including details about the RIA’s organization and assets under management, is disclosed publicly. Other information must be furnished only to

¹²¹ 15 U.S.C. §80b–6; Rule 206(4)-8; Leor Landa, Nora Jordan, Yukako Kawata, and Gregory S. Rowland, *Advising Private Funds: A Comprehensive Guide to Representing Hedge Funds, Private Equity Funds and their Advisers* at §§8:19-20 (2023).

¹²² *Id.* at §8:2 (citing SEC v. Capital Gains Research Bureau, Inc.).

¹²³ SEC, *Commission Interpretation Regarding Standard of Conduct for Investment Advisers*, IA REL. NO. 5248 (June 5, 2019), <https://www.sec.gov/files/rules/interp/2019/ia-5248.pdf>.

¹²⁴ *Id.*

¹²⁵ *Id.*

clients.¹²⁶ Form ADV must be updated at least annually, or more frequently in connection with certain events.¹²⁷

Registered investment advisers to private funds¹²⁸ with at least \$150 million in assets under management must also file Form PF at least annually.¹²⁹ Form PF information is collected to aid in the monitoring of systemic risk and is kept confidential, although it may be used in examinations and enforcement actions.¹³⁰ For hedge funds, the information required to be reported includes, “information on each fund, including gross and net assets, aggregate notional value of derivative positions, borrowings, concentration of the investor base, value of the fund’s investment in other private funds, [and]... investment strategies used.”¹³¹ Large hedge fund advisers (i.e., those with at least \$1.5 billion in assets under management) must file quarterly and report additional information. Beginning in December 2023, the SEC implemented expanded and more detailed information collection under Form PF to allow for enhanced monitoring of potential systemic risk, regulatory oversight, and investor protection.¹³² And in June 2024 a new rule (Form PF – Current Report) came into effect that requires large hedge fund advisers to report certain events at large funds they manage, including “extraordinary investment losses, certain margin events, counterparty defaults, material changes in prime broker relationships,” and certain significant operational and redemption events, all within 72 hours.¹³³

b. Compliance Program Requirements

RIAs are required to establish a compliance program, including adopting “policies and procedures reasonably designed to prevent violation” of the IAA and SEC rules thereunder.¹³⁴ In creating its program, an RIA must consider and address “conflicts of interest and activities that create compliance risk for [that specific] firm.”¹³⁵ The RIA must review the adequacy and effectiveness

¹²⁶ *Id.* at §7:9.

¹²⁷ *Id.* at §7:12.

¹²⁸ As defined in the IAA, any fund that is excluded from the ICA by virtue of 3(c)(1) or 3(c)(7).

¹²⁹ 17 CFR §275.204(b)-1

¹³⁰ SEC, *supra* note 117.

¹³¹ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §9:82.

¹³² SEC, *SEC Adopts Amendments to Enhance Private Fund Reporting* (2024), <https://www.sec.gov/newsroom/press-releases/2024-17>.

¹³³ *Id.* at §§9:81-82. Hedge fund advisers must make these reports with respect to funds having at least \$500 million in net asset value.

¹³⁴ 17 C.F.R. §275.206(4)-7(a).

¹³⁵ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §9:46.

of the policies and procedures on an annual basis, and must also appoint a chief compliance officer to administer the compliance program.¹³⁶

c. Custody Requirements

RIAs are subject to robust custody rules to ensure the safekeeping of client funds and securities. The definition of “custody” is expansive, covering direct or indirect possession, or even the authority to obtain possession of client funds or securities by the adviser or a related person in relation to the adviser’s services.¹³⁷ Any client funds or securities of which an RIA has “custody” are required to be kept with one of a specified list of “qualified custodians,” who must maintain the assets in separate accounts by client or by investment adviser.¹³⁸ Generally, qualified custodians must send account statements to clients at least quarterly, and client funds and securities are subject to annual surprise examination by an independent public accountant.¹³⁹ However, hedge funds that distribute independently audited financial statements to all investors on an annual basis do not need to provide quarterly reports and are not subject to these surprise inspections. An RIA or its related person that meets the required criteria may itself serve as a qualified custodian, but is then subject to additional requirements, including obtaining a periodic “internal control report” by an independent public accountant.¹⁴⁰ The SEC can examine records and information relating to custody at any time.¹⁴¹

d. Code of Ethics Requirements

Registered investment advisers must adopt a code of ethics requiring supervised persons (personnel such as officers, directors, and employees) to adhere to their fiduciary obligations and federal securities laws.¹⁴² The code of ethics must include mechanisms to monitor potential conflicts of interest between supervised persons and the RIA’s clients.¹⁴³ RIAs are required to include certain mandatory provisions in their codes, but must also consider their own unique compliance risks and incorporate additional provisions to address them.¹⁴⁴

¹³⁶ 17 C.F.R. §275.206(4)-7(b), (c).

¹³⁷ 17 CFR §275.206(4)-2(d)(2).

¹³⁸ *Id.* at 2(a)(1), 2(d)(6).

¹³⁹ *Id.* at 2(a)(3), (4).

¹⁴⁰ *Id.* at 2(a)(3), (4)(6).

¹⁴¹ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §9:24.

¹⁴² 17 C.F.R. §275.204A-1(a).

¹⁴³ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §9:50.

¹⁴⁴ *Id.*

e. Recordkeeping Requirements

RIAs are required to maintain comprehensive books and records, covering the business, client-related matters, and compliance activities.¹⁴⁵ Such records are subject to retention, storage, and retrieval standards, and the SEC must be provided access promptly on request.¹⁴⁶ The sweep of the recordkeeping rules are such that, in practice, most RIAs preserve records of all of their electronic communications.¹⁴⁷

(2) *The Investment Company Act of 1940*

To protect retail customers who invest in pooled investment vehicles, Congress subjected registered investment companies (“RICs”) to extensive regulation under the ICA. The ICA governs virtually every aspect of their operations, including placing limits on a RIC’s capital structure via limitations on the types of securities issued and debt incurred,¹⁴⁸ restricting investment activities,¹⁴⁹ and requiring periodic public disclosure of a RICs investment portfolio,¹⁵⁰ among other requirements.

Congress decided that private funds—entities designed to pool money from sophisticated investors—should be afforded more flexibility to operate than funds offered to retail investors. To this end, the vast majority of hedge funds make use of Section 3(c)(7),¹⁵¹ which excludes issuers whose outstanding securities are acquired exclusively by “qualified purchasers.”¹⁵² By statute, “qualified purchasers” under the ICA are persons who hold significant amounts of investments – at least \$5 million for individuals, and at least \$25 million for companies.¹⁵³ As the SEC staff report recommending this exclusion explained, the exception is “premised on the theory that ‘qualified purchasers’ do not need the [ICA’s] protections because they are able to monitor [for

¹⁴⁵ 17 C.F.R. §275.204-2; Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §9:66.

¹⁴⁶ 17 C.F.R. §275.204-2(e), (g).

¹⁴⁷ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §9:72.

¹⁴⁸ *Id.* at §3:50.

¹⁴⁹ *Id.* at §3:52.

¹⁵⁰ 15 U.S.C. §80a-29(e).

¹⁵¹ INVESTMENT ADVISER ASSOCIATION, *Investment Adviser Industry Snapshot 2023* at 66, https://investmentadviser.org/wp-content/uploads/2023/06/Snapshot2023_Final.pdf.

¹⁵² 15 U.S. Code §80a-3(c)(7). In addition, the issuer may not be making nor proposing to make a public offering.

¹⁵³ 15 U.S.C. §80a-2(a)(51).

themselves] such matters as management fees, transactions with affiliates, corporate governance, and leverage.”¹⁵⁴

Thus, to be excluded from the ICA, hedge funds are generally only offered to persons meeting the definition of “qualified purchaser” or must otherwise operate within another exclusion from the ICA.

(3) *The Securities Act of 1933*

Investments in hedge funds are securities.¹⁵⁵ The Securities Act of 1933 (“**Securities Act**”) sets out registration and disclosure requirements for offers and sales of securities. Hedge funds use exemptions and safe harbors that allow them to forgo registration. However, these carve-outs limit the ways in which hedge funds can offer their interests. The Securities Act’s anti-fraud provisions also apply regardless of the need to register.

Hedge funds primarily rely on safe harbors to Securities Act registration under Regulation D, and more specifically on Rule 506 thereunder, which does not limit the value of securities offered.¹⁵⁶ State regulators are prohibited from requiring state registration of offerings made in reliance on Regulation D, and hence hedge funds commonly also avoid state registration.¹⁵⁷

Under Rule 506, an issuer’s securities may be purchased in an initial offering by any number of “accredited investors.”¹⁵⁸ An “**accredited investor**” is defined in Regulation D, and includes persons who are, or who the issuer “reasonably believes” at the time of sale are,¹⁵⁹ institutional investors such as “insurance companies, banks, pension funds as defined under ERISA, mutual funds, savings and loan associations, and corporations generally.”¹⁶⁰ “Accredited investors” also includes individuals with a net worth (individually or jointly with a spouse) of more than \$1 million or annual income of more than \$200,000 (or more than \$300,000 jointly with a spouse) in the last two years and a “reasonable expectation of reaching the same income level in the current year.”¹⁶¹

¹⁵⁴ SEC DIVISION OF INVESTMENT MANAGEMENT, *Protecting Investors: A Half Century of Investment Company Regulation* at 104–05 (May 1992), <https://www.sec.gov/divisions/investment/guidance/icreg50-92.pdf>.

¹⁵⁵ *Id.* at §13:1.

¹⁵⁶ *Id.* at §13:5.

¹⁵⁷ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §14:2.

¹⁵⁸ 17 CFR §230.506(b)(2)(i) (there may be no more than 35 non-accredited investors in any 90-calendar day period); 17 CFR §203.501(e); 17 CFR §230.502(c). Under 506(b), securities may also be purchased by up to 35 non-accredited investors, and general solicitation is not allowed.

¹⁵⁹ 17 CFR §230.501(a).

¹⁶⁰ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §13:5.

¹⁶¹ 17 CFR §230.501(a).

Further, in 2012 the Jumpstart Our Business Startups (“**JOBS**”) Act directed the SEC to amend Rule 506. Now, if an issuer “take[s] reasonable steps to verify” that all purchasers are accredited investors, the issuer may also make general solicitations and advertisements of the offering.¹⁶² However, in practice, private funds usually do not make general solicitations.¹⁶³

The Securities Act framework thus limits the offering or sale of a hedge fund’s interests to accredited or sophisticated investors. Further, as mentioned, the anti-fraud provisions of the Securities Act apply to all offerings, which ban fraud, deceit, and the use of “any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements... not misleading,” to obtain money in a securities offering.¹⁶⁴ In addition to the SEC, state regulators also have antifraud enforcement powers over all securities offerings.¹⁶⁵

(4) *The Securities Exchange Act of 1934*

The Securities Exchange Act of 1934 (“**Exchange Act**”) imposes limits on the number of investors in hedge funds and provides an additional source of liability for fraud. The Exchange Act regulates activity in the secondary markets and requires publicly traded companies and issuers that exceed a threshold number of shareholders to register with the SEC and file periodic reports.¹⁶⁶ Hedge funds are not publicly listed. Thus, so long as they remain below the maximum number of shareholders of record, then hedge funds are not required to register. Under Section 12(g), issuers are not required to register if they (i) have less than \$10 million in assets, or (ii) if each class of the issuer’s equity securities is held by either (a) less than 500 unaccredited investors, or (b) less than 2,000 accredited investors.¹⁶⁷ As a result of the Exchange Act’s limitations, even hedge funds

¹⁶² 17 CFR §506(c)(2)(ii); Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §2:7. Under 17 CFR §506(c), purchasers are limited to accredited investors. Further, issuers relying on 506(c) may still leverage the ICA registration exemptions described above, notwithstanding the ban in those exemptions on “public offerings” (*Id.* at §13:8).

¹⁶³ SEC OFFICE OF THE ADVOCATE FOR SMALL BUSINESS CAPITAL FORMATION, *Annual Report* (2023), <https://www.sec.gov/files/2023-oasb-annual-report.pdf> (from July 1, 2022 to June 30, 2023, \$2.7 trillion was raised pursuant to 506(b) while \$169 billion was raised pursuant to 506(c)); *see also*, Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §2:7 (“Although the SEC’s rulemaking... was initially expected to alter the way that private fund sponsors raise capital, relatively few private equity managers have made use of Rule 506(c) of Regulation D, preferring instead to rely on Rule 506(b)”).

¹⁶⁴ 15 U.S.C. §77q(a).

¹⁶⁵ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §14:2.

¹⁶⁶ CONGRESSIONAL RESEARCH SERVICE, *Federal Securities Laws: An Overview* (Feb. 5, 2020), <https://crsreports.congress.gov/product/pdf/IF/IF11422>.

¹⁶⁷ 17 CFR §240.12g-1.

relying on the uncapped “qualified purchasers” exclusion to ICA registration tend to limit their offerings to less than 2,000 accredited investors.¹⁶⁸

The Exchange Act’s anti-fraud provisions and Rule 10(b)-5 passed by the SEC thereunder apply to “the purchase and sale of *any* security”¹⁶⁹ and therefore capture hedge fund activity. These provisions have been construed broadly – “Courts have held that Section 10(b) and Rule 10b-5 apply to a wide range of fraudulent conduct, such as false statements, insider trading, and market manipulation.”¹⁷⁰

B. Regulation under Other Federal Laws

(1) *The Commodity Exchange Act*

Many hedge funds are regulated under the Commodity Exchange Act (“CEA”), which requires funds and advisers transacting in “commodity interests” to register with the CFTC and follow the rules thereof. “**Commodity interests**” cover a range of instruments commonly utilized in hedge fund strategies, including futures, options on futures, and swaps.¹⁷¹ Generally, any hedge fund trading in commodity interests is a “**commodity pool**.”¹⁷² Persons engaged in the business of a commodity pool and who receive assets from others for the purpose of trading in commodity interests must register as commodity pool operators (“CPOs”), while paid persons advising on the value or advisability of trading in commodity interests must register as commodity trading advisers (“CTAs”).¹⁷³

Registered CPOs and CTAs are subject to disclosure, reporting, and recordkeeping requirements and must become members of the National Futures Association and adhere to its rules.¹⁷⁴ Certain exemptions from registration are available for limited or incidental trading in commodity interests.¹⁷⁵ Registered CPOs and CTAs may be eligible for limited relief from certain requirements provided that they do not make public offerings and transact only with certain types of sophisticated investors.¹⁷⁶

¹⁶⁸ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §2:3.

¹⁶⁹ 15 U.S.C. §78j(b); 17 CFR §240.10b-5 [Emphasis added].

¹⁷⁰ CONGRESSIONAL RESEARCH SERVICE (Feb. 5, 2020), *supra* note 166.

¹⁷¹ *Id.* at §4:3; 7 U.S.C. §1a(11)(A)(i), 7 U.S.C. §1a(12)(A)(i).

¹⁷² 7 U.S.C. §1a(10); *see also* Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §4:13.

¹⁷³ 7 U.S.C. §1a(10)-(12).

¹⁷⁴ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §4:26.

¹⁷⁵ 17 C.F.R. §4.13, 4.14

¹⁷⁶ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §4:27; CFTC Rule 4.7.

Hedge funds with commodity interest investments are bound by the antifraud provisions and rules under the CEA, whether they are required to register or not.¹⁷⁷ All CPOs and CTAs are banned from perpetrating fraud and deceit on current and prospective participants or clients.¹⁷⁸ CFTC rules elaborate on these restrictions in the context of advertising, and require most testimonials and hypothetical performance results to be accompanied by prominent warnings against relying on such statements.¹⁷⁹

(2) *The Employee Retirement Income Security Act of 1974*

The Employee Retirement Income Security Act of 1974 (“ERISA”) applies numerous substantive restrictions on the activities of registered private pension and benefit plans, in recognition that the beneficiaries of these plans need protection.¹⁸⁰ In order for hedge funds to operate in compliance with ERISA, they would need to “trade solely in liquid, market-quoted investments and charge fees or allocations computed on a net asset value... composed of reliable and readily available quotes on their portfolio positions.”¹⁸¹ Despite the fact that pension funds are an important source of capital for private funds,¹⁸² such limitations on strategies and costs lead many hedge funds to avoid ERISA registration by meeting the “25% Test.” The 25% Test provides an exemption where less than 25% of the value of each class of the hedge fund’s equity is held by defined “benefit plan investors.”¹⁸³

C. Indirect Regulation and Market Practices Applicable to Hedge Funds

Apart from direct, entity-based regulation, hedge funds are also indirectly subject to regulations that apply to their counterparties and intermediaries and the marketplaces in which they transact. The result is that important market protections apply *de facto* to hedge fund activity. While not the primary focus of this report, an example regarding leverage illustrates the point. First, hedge funds use prime brokers for a variety of services, including securities execution, settlement, clearance, and custody, and margin and securities lending. Such brokers are generally required to register

¹⁷⁷ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §4:85.

¹⁷⁸ 7 U.S.C. §60; 17 CFR §4.41.

¹⁷⁹ 17 CFR §4.41.

¹⁸⁰ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §§1:2, 5:1.

¹⁸¹ *Id.* at §5:4.

¹⁸² *Id.* at §5:1; *see also* Nell Mackenzie, *Pension Schemes’ Share of Hedge Fund Investments Hits Lowest in 5yrs – Goldman*, REUTERS (Feb. 15, 2023), <https://www.reuters.com/business/finance/pension-schemes-share-hedge-fund-investments-hits-lowest-5-yrs-goldman-2023-02-15/>

¹⁸³ Amy Gordon, Zachariah Robert, and Sharon Mori, *ERISA Fundamentals for Fund Managers*, WINSTON & STRAWN PRESENTATION (Oct. 29, 2020), <https://www.winston.com/a/web/222591/7Y3mUL/erisa-fundamentals-for-fund-managers-website.pdf>.

with the SEC pursuant to the Exchange Act and become members of the Financial Industry Regulatory Organization (“FINRA”), a self-regulatory organization. They must also comply with the Exchange Act and the rules and regulations thereunder, including FINRA rules. Thus, for example, Regulation T under the Exchange Act and FINRA Rule 4210, which regulate margin lending in securities by broker-dealers, set outer bounds on the amount of credit hedge funds can obtain through their prime brokers for trading in securities.¹⁸⁴ Second, derivatives markets enforce rules on margin requirements in swaps, futures, and options transactions, which apply to hedge funds when they transact in such markets.¹⁸⁵ So, although hedge fund leverage is not limited directly under the ICA, it is effectively bounded by other means.

Furthermore, the hedge fund industry has developed a set of market standards which guide practices. A fund’s offering materials specify the fund’s investment strategy, and the amount of discretion retained by the manager.¹⁸⁶ The operative documents of a hedge fund also specify the rights and obligations of the fund’s investors. As discussed above in Part III, standard terms have developed, including lockup periods (when an investor may not withdraw), typically ranging from one to three years;¹⁸⁷ other redemption restrictions, including limitations on liquidity thereafter, typically limiting investors to quarterly, semiannual, or annual withdrawal rights;¹⁸⁸ and “gate” provisions, which allow fund managers to suspend withdrawals under certain conditions in order to protect remaining investors in the fund.¹⁸⁹ There is also market practice around minimum investments and fees. Typically, hedge funds require a minimum initial contribution in the range of \$100,000 to \$2 million¹⁹⁰ to ensure participation is limited to sophisticated investors. Hedge funds often charge monthly or quarterly management fees of 1% to 2%, and performance fees based on a fund’s profits, normally ranging from 15% to 20%.¹⁹¹

¹⁸⁴ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §22:13; 12 C.F.R. §§220-21, 224; FINRA Rule 4210.

¹⁸⁵ CME GROUP, *Futures and Options Margin Model* (Sep. 20, 2023), <https://www.cmegroup.com/solutions/risk-management/performance-bonds-margins/futures-and-options-margin-model.html>.

¹⁸⁶ Bao Nguyen, *Catching the Drift: Legal and Practical Considerations for Hedge Fund Managers Who Deviate from Their Stated Investment Strategy*, KAUFMAN ROSSIN (Dec. 16, 2016), <https://kaufmanrossin.com/news/catching-the-drift-legal-and-practical-considerations-for-hedge-fund-managers-who-deviate-from-their-stated-investment-strategy/>.

¹⁸⁷ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §20:10.

¹⁸⁸ *Id.* at §20:11.

¹⁸⁹ *Id.* at §20:12.

¹⁹⁰ Kat Tretina and John Schmidt, *How to Invest in Hedge Funds*, FORBES ADVISOR (Jan. 11, 2023), <https://www.forbes.com/advisor/investing/how-to-invest-in-hedge-funds/>.

¹⁹¹ Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §§20:15-16.

Certain investor rights and obligations may be varied by “side letters.” However, side letters represent private negotiations between hedge funds and sophisticated investors and therefore exist to allow for flexibility depending on individual needs. For instance, institutional investors may require increased information rights to meet their own legal and fiduciary obligations.¹⁹²

¹⁹² Landa, Jordan, Kawata, and Rowland (2023), *supra* note 121 at §20:9.

VI. Conclusion

Hedge funds play an important role in U.S. financial markets. Their pursuit of active investment strategies involves fundamental research about securities issuers, monitoring the activities of corporate managers, and complex analysis of market conditions, with the goal of identifying mispriced assets. These activities produce significant positive effects on price efficiency, capital allocation, and liquidity which lower trading costs and improve corporate governance across the market. Hedge fund engagement in shareholder activism as well as short selling strategies are also important channels for their contribution to financial markets because they involve close monitoring of the activities of corporate management and, in the case of activist strategies, directly initiating value-enhancing changes at the corporate level. Investors of all types, including institutional and retail investors, benefit from these positive effects.

Importantly, certain hedge fund characteristics are instrumental in enabling this beneficial role in financial markets. Hedge funds have wider discretion with respect to their investment and trading strategies. In addition, they are able to tailor their redemption terms to ensure a stable capital base and appropriately calibrate the liquidity they offer to the investors with the liquidity of their investment portfolios. Moreover, hedge funds must comply with a multitude of federal and state regulations that provide important guardrails on hedge fund activity.

There have been frequent discussions and efforts on the part of regulators to increase the regulation of hedge funds, citing concerns about transparency, financial stability, and the treatment of investors.¹⁹³ For example, in 2023 the SEC finalized a major overhaul of the regulation of private funds that would have subjected hedge funds to a raft of new regulatory restrictions including restrictions on hedge fund terms with respect to investor redemptions, allocations of fees, and other matters.¹⁹⁴ The courts struck down this rulemaking as exceeding the SEC's statutory authority.¹⁹⁵ Future policy and regulatory discussions should bear in mind the vital role hedge funds currently play in U.S. financial markets. The path forward for prudent regulation must be premised on an accurate and comprehensive picture of the contribution of hedge funds to financial markets and an understanding of the current regulatory landscape in enabling those benefits.

¹⁹³ *US Regulatory Authorities Look to Increase Hedge Funds' Transparency and Stability*, JDSUPRA (Feb. 27, 2024), <https://www.jdsupra.com/legalnews/united-states-hedge-funds-regulation-1615386/>.

¹⁹⁴ SEC, *Private Fund Advisers, Documentation of Registered Investment Adviser Compliance Reviews*, 88 FED. REG. 63206 (Sept. 14, 2023), <https://www.govinfo.gov/app/details/FR-2023-09-14/2023-18660>.

¹⁹⁵ *Nat'l Ass'n of Private Fund Managers v. SEC*, No. 23-60471, slip op. (5th Cir. June 5, 2024).

Appendix – Hedge Fund Data

This appendix briefly overviews the current hedge fund data landscape. Hedge funds' transactions in public securities are subject to the same regulatory reporting obligations as other market participants and are incorporated to the same extent into public databases and data feeds of those activities. Hedge funds are also, along with other market participants, subject to certain obligations to report their investment positions to regulators. This data is then in some cases publicly disseminated on an aggregated or anonymized basis. In addition, many hedge funds voluntarily self-report information on their investment activities to private databases that aggregate the data and provide it to their customers. These data sources are detailed further below.

As explained in Part II, hedge funds' investment activity provides market benefits. Mandatory reporting of hedge funds' investment positions may impose significant costs and diminish the profitability of certain confidential investment strategies in such a manner as to curb this activity. Examination of data and disclosure requirements must always be conducted with this consideration in mind.

A. Public Filings

Hedge funds must periodically disclose aggregate information about the fund and certain specific holdings. First, hedge fund advisers must file **Form ADV**, which provides general identifying information about the advisers (e.g., key personnel, location, fees, business practices, etc.) and their gross assets under management. Form ADV information is filed with the SEC and publicly disseminated.

Second, hedge fund advisers must file **Form PF** with the SEC, which includes detailed information related to the specific strategies, positions, and size of each of an adviser's funds. This information includes fund type, total assets under management, fund strategy, historical gross and net investment performance, securities trades, risk metrics, diversification, liquidity, leverage, redemption terms, and asset class exposure, among other information. Form PF also includes information on each fund's investors, counterparties, and creditors. Beginning in December 2023, the SEC implemented expanded and more detailed information collection under Form PF to allow for enhanced monitoring of potential systemic risk, regulatory oversight, and investor protection.¹⁹⁶ This includes a new set of reporting obligations known as Form PF – Current Report, which requires hedge fund advisers with at least \$1.5 billion in assets under management to notify the SEC within 72 hours of the occurrence of certain adverse events (e.g., extraordinary investment

¹⁹⁶ SEC, *SEC Adopts Amendments to Enhance Private Fund Reporting* (2024), <https://www.sec.gov/newsroom/press-releases/2024-17>.

losses, counterparty default).¹⁹⁷ Importantly, Form PF is filed with the SEC but is not publicly available. Rather, the SEC provides industry-wide aggregated summary statistics in their quarterly “Private Fund Statistics” reports published by the SEC Division of Investment Management.¹⁹⁸ Also, the Office of Financial Research aggregates and publishes monthly data on hedge funds, including their portfolios, trading strategies, and counterparties based on information reported to the SEC, CFTC, Federal Reserve, and Fixed Income Clearing Corporation.¹⁹⁹

In addition to periodic filing of Forms ADV and PF, hedge fund managers – like all other institutional investment managers – with at least \$100 million in assets under management must file **Form 13F** on a quarterly basis, which provides information about their U.S. equity holdings. Form 13F provides data on specific stock names held by hedge funds as of the end of the quarter (filed within 45 days of the end of the quarter). Like Form ADV data, Form 13F data is publicly disseminated. And like other investors in public securities, hedge funds must publicly disclose their acquisition of more than five percent of the equity securities of a publicly traded company on SEC Schedule 13G, and more detailed information on Schedule 13D if the acquisition is for the purpose of acquiring control of the company.²⁰⁰

Hedge funds’ short positions are also subject to public reporting obligations. First, short positions that hedge funds hold with broker-dealer counterparties that are FINRA members form part of the bi-monthly aggregate short-position volume data that FINRA collects from its members and publicly disseminates.²⁰¹ Furthermore, beginning in 2026, the SEC will require large institutional investment managers, including hedge fund managers, to report certain large short sale positions to the SEC.²⁰² The SEC will aggregate and publicly disseminate the anonymized data on a delayed basis.²⁰³ These new SEC requirements are, however, the subject of an ongoing legal challenge.²⁰⁴

¹⁹⁷ SEC, *Form PF; Event Reporting for Large Hedge Fund Advisers and Private Equity Fund Advisers; Requirements for Large Private Equity Fund Adviser Reporting* 88(12) FED. REG. 38,146 (June 12, 2023), <https://www.govinfo.gov/content/pkg/FR-2023-06-12/pdf/2023-09775.pdf>.

¹⁹⁸ See e.g., SEC DIVISION OF INVESTMENT MANAGEMENT ANALYTICS OFFICE, *Private Fund Statistics, Third Calendar Quarter 2023* (Mar. 31, 2024), <https://www.sec.gov/files/investment/2023q3-private-funds-statistics-20240331-accessible.pdf>.

¹⁹⁹ OFFICE OF FINANCIAL RESEARCH, *Hedge Fund Monitor*, <https://www.financialresearch.gov/hedge-fund-monitor/>.

²⁰⁰ SECURITIES EXCHANGE ACT OF 1934, §13(d), (g).

²⁰¹ FINRA, *Rule 4560 (Short-Interest Reporting)*, <https://www.finra.org/rules-guidance/rulebooks/finra-rules/4560>.

²⁰² SEC, *Short Position and Short Activity Reporting of Institutional Managers*, 88 FED. REG. 75,100 (Nov. 1, 2023), <https://www.federalregister.gov/documents/2023/11/01/2023-23050/short-position-and-short-activity-reporting-by-institutional-investment-managers>.

²⁰³ *Id.*

²⁰⁴ *Nat’l Ass’n of Private Fund Managers v. SEC*, No. 23-60626 (5th Cir. 2023).

B. Private Company Databases

Given the interest among investors and other financial market participants in data on hedge funds and their strategies and performance, private companies also collect and compile hedge fund data. However, unlike data mandated by the SEC, the data provided to private company databases is voluntary. Thus, one potential concern with private data is that it may suffer from a degree of reporting bias. Nevertheless, private databases remain an important source of hedge fund data.

The most prominent private hedge fund databases include Hedge Fund Research (“HFR”), Lipper TASS, Preqin, BarclayHedge, Eurekahedge, Morningstar, and eVestment.²⁰⁵ These databases generally include information on fund characteristics (e.g., investment style, compensation structure, and liquidity provisions) as well as self-reported returns.²⁰⁶ Importantly, specific positions and trades are not available in these databases as hedge funds generally do not voluntarily report such proprietary information. Despite the prevalence of private hedge fund databases, the fragmented nature of this industry data leads to discrepancies and gaps in the available data. These issues are examined empirically in Barth et al. (2021), which studies the discrepancy in data on the size of the hedge fund industry, including aggregate assets under management and data on individual strategies.²⁰⁷

C. Data on Hedge Fund Strategies

Data on hedge fund strategies can be found in the SEC’s Private Fund Statistics reports, which provide aggregated Form PF data on self-reported hedge fund strategies. However, as noted in Barth et al. (2021), significant challenges are associated with the imprecision of Form PF data. In particular, Form PF requires hedge funds to report their main investment strategy by selecting from a list that does not capture the full range of hedge fund strategies. As a result, many funds that do not pursue a strategy that is specifically identified on Form PF must identify their strategy in the catch-all “Other” category, which has become the largest category reported on Form PF. While private hedge fund databases may also suffer from imprecision, academic literature typically relies on strategy data from companies such as HFR and BarclayHedge to analyze assets under management (“AUM”) data for specific strategies.

²⁰⁵ See Daniel Barth, Juha Joenvaara, Mikko Kauppila, and Russ Wermers, *The Hedge Fund Industry is Bigger (and has Performed Better) Than You Think*, OFFICE OF FINANCIAL RESEARCH WORKING PAPER (Mar. 8, 2021), https://www.financialresearch.gov/working-papers/files/OFRwp-20-01_the-hedge-fund-industry-is-bigger-and-has-performed-better-than-you-think-revised.pdf.

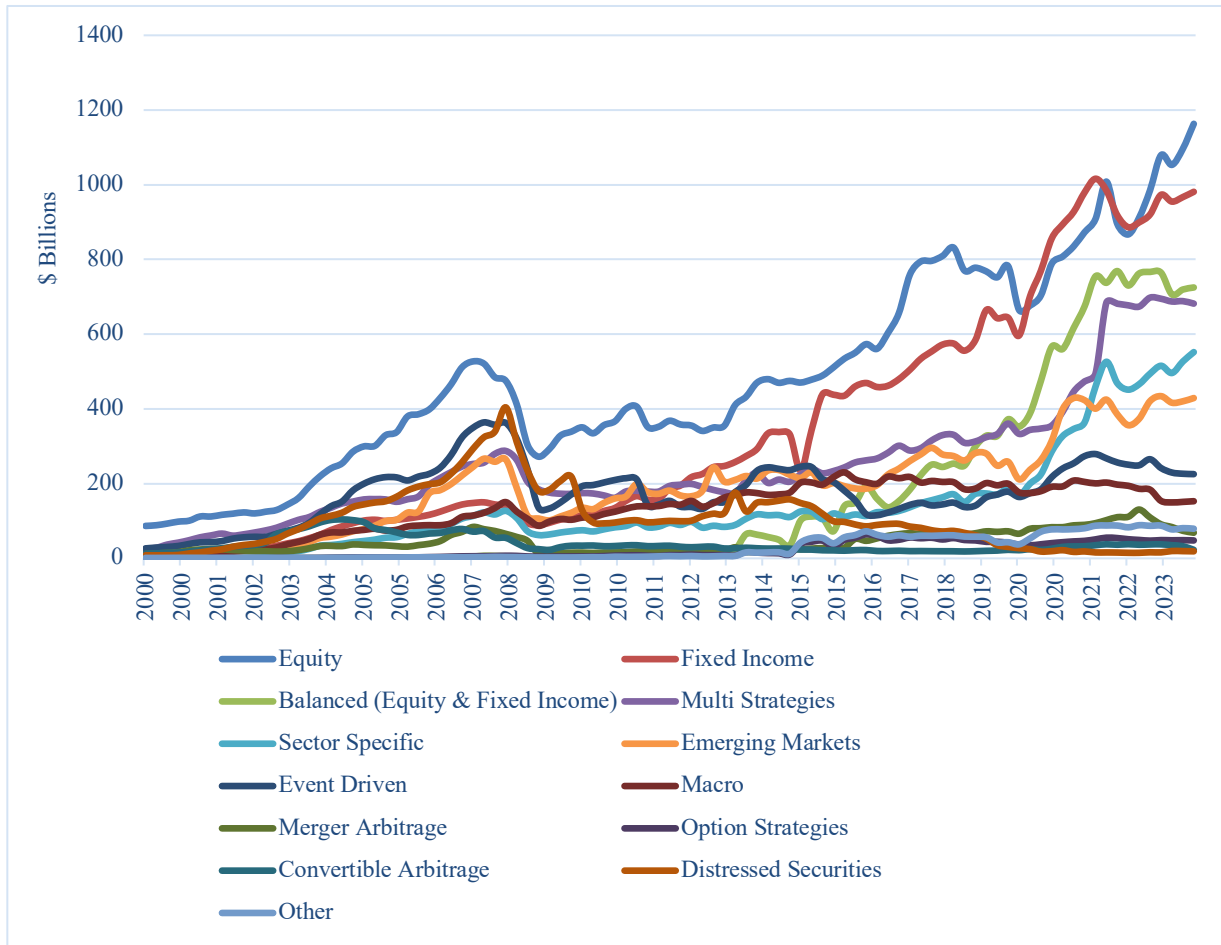
²⁰⁶ *Id.*

²⁰⁷ *Id.*

Figure 1 on the following page illustrates hedge fund strategies by AUM as aggregated by the private database BarclayHedge. Equity strategies generally constitute the largest category, followed by fixed- income and balanced approaches (i.e., a balance between equity and fixed-income). As illustrated in the figure, hedge funds engaged in multiple strategies have grown significantly over the past five years.

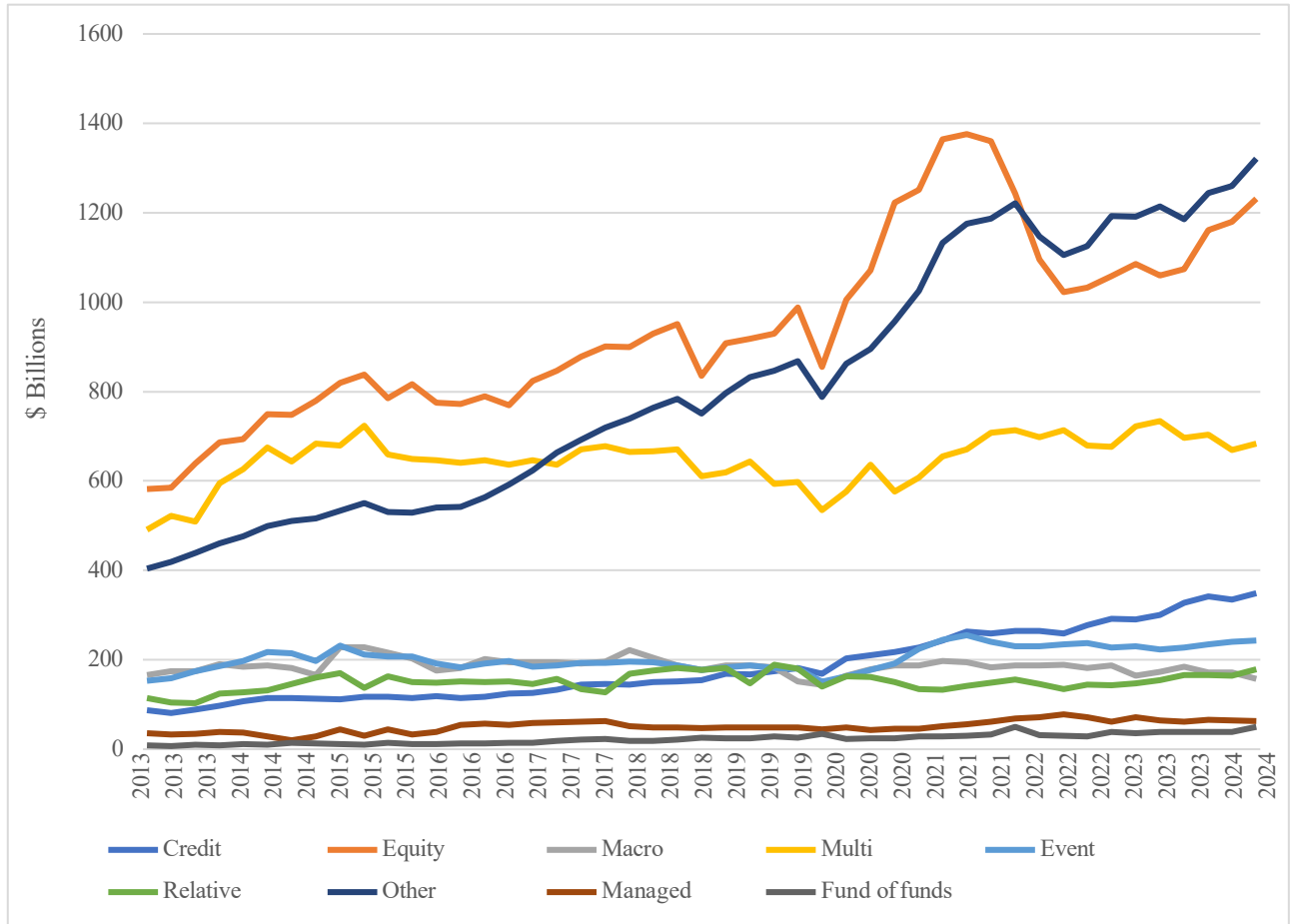
Figure 2 presents the same measure based on Form PF data, as aggregated and disseminated by the Office of Financial Research. These data also show the predominance of equity strategies among specifically named strategies. However, the chart also illustrates how the “Other” category has recently grown to become the most commonly selected option on Form PF, reflecting the wide variety of strategies that Form PF does not specifically identify.

Figure 1 – Hedge Fund Net Assets by Strategy (BarclayHedge)²⁰⁸



²⁰⁸ BarclayHedge.

Figure 2 – Hedge Fund Net Assets by Strategy (Form PF)²⁰⁹



²⁰⁹ OFFICE OF FINANCIAL RESEARCH, *Hedge Fund Monitor* “Net Assets by Strategy”, <https://www.financialresearch.gov/hedge-fund-monitor/categories/size/chart-4/>.

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