

Economic Aspects of Hedge Funds*

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Arbitrage, Information, and Hedge Funds

Hedge funds are an important topic of broad interest in our capital markets.¹ I wish to begin by emphasizing the importance of the efficiency of America's capital markets. The relatively efficient price signals that prevail in the marketplace are important for enhancing productive efficiency and economic growth through superior capital allocation and facilitating the ability of relatively uninformed investors to make suitable portfolio choices.² Consequently, these uninformed investors benefit from the arbitrage process and enhanced competition in the financial markets. While the asset valuations in our marketplace reflect considerable information, at the same time it is important for there to be strong incentives to engage in the costly analytic and trading activities that result in such information being embodied in prices. In my view, the high-powered incentives possessed by many hedge fund managers serve to enhance the quality of asset valuations by encouraging such activities.³ While economists tend to focus upon the efficiency of the marketplace and the competitive paradigm, in recent years there has been more attention paid to the arbitrage process and the limits to arbitrage,⁴ emphasizing the role of arbitrageurs and hedge fund investors with high-powered incentives. Even my own experience as an academic economist who strongly believes in the efficiency of America's capital markets has pointed to potential violations of efficient markets pricing.⁵ Given the seeming abundance of hedge fund capital, it would seem surprising if attractive investment opportunities were not substantially competed away. One especially interesting impediment to the arbitrage process and risk taking is the desirability to many limited partners of precise benchmarks to control agency problems.

¹In addition to the customary disclaimer by Securities and Exchange Commission (SEC) staff, I further wish to emphasize that I am not going to address the registration requirements for certain hedge fund advisers adopted by the Commission or related implementation issues. Instead, as an economist who happens to hold a senior position with the SEC, I want to offer an economic perspective on the role of hedge funds in our capital markets and also comment on why there are policy issues associated with hedge funds.

²A formal analysis of the Capital Asset Pricing Model under rational anticipations by investors who learn from asset prices in equilibrium is provided in Biais, Bossaerts, and Spatt (2005).

³A recent analysis of the value of costly information acquisition by investors that builds upon the rational expectations framework is Van Nieuwerburgh and Veldkamp (2005).

⁴For example, Shleifer and Vishny (1997).

⁵For example, Dammon, Dunn, and Spatt (1993) documents large mispricings among high-yield RJR Nabisco debt during 1989-1991.

A key ingredient in producing relatively efficient prices is the competitive market forces of large investment pools and the tremendous sums of capital in the marketplace. The ability of “hedge funds” to operate across different market sectors makes hedge funds useful for ensuring the fairness of prices across different market contexts and various margins for pricing.

Managerial Compensation and Performance

While the competitive pricing paradigm is a very useful and powerful one in financial economics, hedge funds and arbitrage capital play a crucial role in the process through which relatively efficient prices emerge. High-powered incentives are crucial to ensuring sufficient search and analysis to limit the extent of mispricing prevailing in the marketplace. Indeed, to the extent that there are some sophisticated asset managers who can predictably earn superior risk-adjusted returns, those managers should be able to earn much of the associated economic rents. An interesting theoretical analysis that focuses upon (mutual) fund flows, competition in the managerial labor market, and the ability of managers to capture the rents from superior skills was recently offered by Berk and Green (2004).⁶ Competition among investors for the manager’s services on an ex ante basis prevents the investor from benefiting at the margin from the manager’s identifiable skill under this theory. While these authors focus upon mutual funds, the same paradigm is applicable to hedge funds and potentially even more relevant there due to the focus in this arena upon managerial skill. Of course, in practice, the structure of hedge fund compensation allows the general partner to share significantly in the economic rents that it creates. The limited downside (floor) on the general partner’s compensation reflects his limited wealth and risk aversion about his performance compared to the capital market as a whole.

One of the factors that limits in practice the ability of managers to collect the economic rents from their strategies is the difficulty of determining and documenting truly superior risk-adjusted performance. As a result of the considerable variability (noise) in the cross-section

⁶This paper was co-recipient of TIAA-CREF’s 2005 Paul A. Samuelson Award for the best publication on Lifelong Financial Security.

of fund returns, it is well known in some contexts, such as for mutual fund investing, that it is difficult to detect truly superior performance—in technical parlance, there is insufficient “power” to distinguish superior performance.⁷ To a degree this limits the ability of a manager to appropriate his past track record—does the superior historic track record simply reflect chance variation?⁸ Even if the manager’s skills were stationary, a large number of years of data would be required to detect realistic skill differences. The discussion of statistical power and historic track records also emphasizes the importance of “selection” and “survivorship” effects in interpreting historic returns. Empirical estimates of historical hedge fund returns substantially overstate prospective investible returns as a result of such effects. A similar theme is emphasized in a column by Malkiel and Saha (2005) on the editorial page of the *Wall Street Journal*. The precise magnitude of such biases depends upon how returns are being measured and the underlying data generation process, but this does suggest, even apart from the importance of properly adjusting for risk, the need for caution in interpreting historical returns.⁹ This conclusion complements the observation in a paper by Getmansky, Lo, and Makarov (2003) that liquidity issues in the underlying holdings of hedge funds tend to smooth their returns and, consequently, understate their risk and overstate their attractiveness.

The discussion above relates to the economic question of why hedge fund managers are compensated as they are. For example, what is an optimal contractual structure? What are the cross-sectional characteristics of the observed contracts? Of course, the dramatic difference in orientation between the typical mutual fund and hedge fund manager reflects the differences in the fee contract, such as the substantial incentive fee of most hedge fund managers.

Agency Problems

⁷For example, see Harris (2003), pages 454-457.

⁸Hence, many managers articulate their “story” to explain how they add value and the sources of their superior skill.

⁹Indeed, individuals participating on investment committees are struck by the disconnect between the historic and prospective managerial presentations and realized performance.

One of the important reasons for concern about hedge funds by some policymakers is the presence of a variety of incentive conflicts in which the incentives of the principal and the agent who acts on his behalf diverge. Of course, only in certain instances does the resulting behavior violate acceptable norms and become problematic. There are several natural illustrations of the divergence in incentives and the principal-agent conflict that seem relevant in the case of hedge funds.¹⁰ For example, the asset manager receives option-like payoffs (he shares in the upside above a basic contractual return, but not the downside) and in that sense has incentives to assume relatively more risk than limited partners (and perhaps too much incentive); of course, this helps overcome the manager's natural risk aversion.¹¹ Given the investment adviser's interest in the fees that he might receive over time, many advisers are quite naturally very interested in growing their businesses, possibly beyond the size that their investment ideas might support. Of course, the form of the general partner's compensation can limit this incentive. Along related lines, financial economists have often observed that the relationship between investment flows and therefore, also both the size of a mutual fund and the total fees paid by a fund are convex in the investment performance [e.g., Chevalier and Ellison (1997) and Sirri and Tufano (1998)]. In other words, the marginal benefit and payoffs to a mutual fund adviser of improved performance is especially great when the base level of a manager's performance is already strong.

However, a strong implication of this perspective is that advisers may possess incentives to substantially add to the risks that their funds bear if those risks are not fully understood or detected in the marketplace. This reflects the value in the competitive marketplace for new investments and assignments to those whose performance wins the tournament among funds of various types. It also illustrates the importance and value of trying to create "track records" for new products, why some advisers discard less successful ones, and why the track record of products being evaluated by institutional clients often exceeds substantially the subsequent realized performance.¹²

¹⁰The principal-agent framework paradigm was applied to asset management by the author in a keynote address in Spatt (2005).

¹¹These option-like payoffs are analogous to features of the typical executive compensation structure as discussed in Spatt (2004), reflecting somewhat analogous tradeoffs induced by the manager's limited wealth.

¹²Note that the phenomenon of the track records of products being evaluated often exceeding substantially the subsequent realized performance reflects (in part) what statisticians term "regression to the mean."

An additional dimension to the agency problem with fund management is that in some contexts the fund adviser, i.e., the agent, works for many principals at the same time. In particular, there often is an allocation problem when the same securities are being purchased or could be purchased for many different vehicles. In a situation with separate accounts this can arise as a byproduct of the separate account structure if the accounts are not treated equivalently. For example, in a situation with identical incentives, proportionate allocation would be appropriate. However, in some contexts, such as the example of a fund manager working for a variety of products in the same fund family there can be situations in which there are different sensitivities to various accounts due to such factors as incentive compensation, differential management fee rates as in the case of a manager investing for both a hedge fund and a traditional mutual fund, the effect of past performance within a particular product and the convexity of the flow for performance relationship, and spillovers from “Star” funds. In such circumstances it is very important for the manager to have an objective and well-defined as well as a fair process for allocating positions, because the potential for problematic conflicts of interest is considerable.

At the same time I want to emphasize that it is often very appropriate for the asset manager to have multiple clients or work with multiple funds. There are natural scale economics in the generation of information and in portfolio decision-making.¹³ A key issue is the role of the manager’s self-interest in such decisions across clients. One does have concern to the extent that academics have identified situations, even at times using relatively aggregate data, in which the agent’s self-interest appears to drive decisions.

For example, Massa, Matos, and Gaspar (2006) document strategic cross-fund subsidization of “high family value” funds from lower value ones within a mutual fund family. Their study links the differential performance within a fund complex to both preferential allocation of IPOs and the extent of cross-trading within a complex. Of course, there are other illustrations of potential types of incentive conflicts in asset trading. For example, even on an ex ante basis the early trades in a program will tend to obtain more favorable executions and less

¹³Of course, these scale economies may be limited because of the price impact in acquiring mispriced positions.

price impact. Perhaps more fundamentally, it is important for managers to avoid exploiting the (illegal) “look back” option they possess in trade assignment and instead make contemporaneous assignment to avoid inherent conflicts of interest.

Of course, there are not only agency issues that arise through the hedge fund’s performance contracting environment, but hedge funds can help resolve agency aspects of corporate governance. Due to their concentrated ownership stakes, hedge funds can overcome the free-rider problem that often paralyzes shareholders seeking to restrict an entrenched management. Another potential manner in which hedge funds can enhance governance is by potential ownership of financial claims that provide estimates of the fair value of a firm’s potential financial liabilities (e.g., Dumas and Syz (2005) discuss the trading of pension claims, and Spatt, Alexander, Nimalendran, and Oldfield (2005) discuss market-based approaches to employee stock option valuation).

Concluding Comments

While in the prior portion of my remarks I have focused upon issues associated with conflicts of interest, systemic risk or the possibility of correlated defaults across the economy is another facet of why hedge funds have received attention from policy makers.¹⁴ Despite the name, “hedge funds” often follow aggressive rather than hedged strategies. Many hedge fund managers often invest on the same side of a position. For example, they tend to be on the long side of the credit spread across markets. As the example of Long-Term Capital illustrates, there can be strong external effects across hedge fund investors due to price effects when a major player needs to liquidate significant positions. Of course, hedge funds undertake a broad range of strategies reflecting their diverse expertise.

In conclusion, I want to observe that the preferences of the general partner and limited partners about additional monitoring can diverge and that the perspective of the limited partners may depend upon the context. The limited partners would bear much of the cost and derive much of the benefit for monitoring focused upon conflicts in incentives between the

¹⁴Chan, Getmansky, Haas, and Lo (2005) suggest that systemic risk has been increasing.

general and limited partners. Such monitoring might be attractive to the limited partners to the extent the associated monitoring costs are below the benefits of the conflicts of interest that are avoided. Of course, other reasons for enhanced monitoring, such as the externalities associated with the systemic effects, could make enhanced monitoring desirable from a policy perspective due to the external benefits, while the limited partners, who ultimately bear much of the cost, would not be favorably inclined.

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