

Hedge Fund Research Reconsidered

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February 17, 2021

Executive Summary

- Recent academic research using confidential regulatory data finds that the hedge fund industry is much larger than commercial datasets suggest. In addition, “non-reporting” funds are larger, better performing, and have lower risk than “reporting” funds.
- In response to the challenges this non-reporting bias presents to conducting objective unbiased analysis of the hedge fund industry, PivotalPath and the Institute for Private Capital have formed a partnership to address shortcomings of commercial datasets.
- This analysis discusses how PivotalPath’s data provides coverage of many non-reporting funds that are otherwise unobserved in commercial databases. We examine activist funds as a specific example and quantify differences in size, return, and risk and show the differences correct biases consistent with those reported in prior research.

On January 29th, PivotalPath and the Institute for Private Capital (IPC) announced a research partnership that would provide access to PivotalPath datasets for academic research purposes. This research note explains why this is an important development for both academics and practitioners and is a vital step in developing a better understanding of the hedge fund industry.

A recent working paper by a team of respected academics and government economists (Danny Barth, Juha Joenvaara, Mikko Kauppila, and Russ Wermers) has caused a stir among researchers working in the alternative investments area. The title of the paper, [“The Hedge Fund Industry is Bigger \(and has Performed Better\) Than You Think,”](#) cuts to the chase. The analysis utilizes confidential SEC Form-PF filings in combination with SEC Form-ADV data and commercial datasets to undertake the most comprehensive analysis of hedge funds to date.

The finding that the hedge fund industry is considerably larger (by at least 40%) than the largest previous estimate is just the tip of the iceberg. More importantly, the researchers document systematic biases in both the return and risk estimates inferred from commercial datasets which serve as the basis for almost all academic research on hedge fund returns. In particular, the study documents that hedge funds not reporting to commercial datasets have significantly higher returns than those funds that do report. Of course, one possible explanation for this finding is that non-reporting funds are riskier (and thus are

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earning higher risk premia), but the researchers actually documented the opposite. Non-reporting funds are less volatile and have lower risk-factor exposures than reporting funds. In fact, most non-reporting funds have positive alphas and most reporting funds have negative alphas. A stunning conclusion.

The results pose a serious problem for anyone (academic or practitioner) trying to use commercial datasets to better understand the role of hedge funds in markets and portfolios. Most troubling is that the biases run counter to what many have been assuming based on prior research. Namely, backfill and other reporting biases contaminating commercial databases have been assumed to make hedge funds look on average better, not worse, than they really were.

So what is happening? About two years ago, IPC began a process of mapping out the hedge fund universe (including working with the authors of the paper cited above) using publicly available data. We looked closely at commercial datasets, government filings like Form-ADV, and industry lists of hedge funds. What we found was surprising. Relatively few of the large “institutional quality” hedge funds were showing up in commercial databases. While many of the commercial data sources advertised having tens of thousands of funds, a very high percentage of those funds were small. Discussions with industry experts led us to the conclusion that commercial databases were littered with non-institutional quality funds, many of which were effectively being incubated without outside investors. As the result of these revelations, we have been forced to rethink how empirical researchers should approach statistical analysis of the industry. In short, investigators must somehow gain access to information about the funds not reporting to commercial databases, or else biases in the data could severely affect the conclusions of research.

This is where the partnership between PivotalPath and IPC comes in. Primarily, PivotalPath partners with large institutional investors to provide hedge fund consulting and research. As a byproduct of those engagements, the firm accesses and structures data otherwise unavailable in commercial datasets. While IPC is still in the process of its ‘universe mapping’ project, the preliminary results are exciting. It appears that PivotalPath covers a large number of important funds unavailable from other sources. Here we provide an overview of a specific strategy (activists) to make this concrete, but preliminary results suggest these findings are indicative of other strategies.

Activist funds are heavily studied in research literature because their corporate actions can be observed via Schedule 13D filings and other publicly available, regulatory documents. However, the experience of investors in activist hedge funds is largely unknown because so few of the larger funds show up in commercial datasets. Using regulatory filings, we identified 96 hedge funds whose primary strategy is activist investments. We then looked to identify these funds in one of the largest commercial databases (we will call it “CDB” for short) to see what differences in coverage would be. We report the results in Table 1.

Of the 96 activist funds, we find that CDB covers 47 funds (49%) while PivotalPath covers 55 funds (57%). While this may not seem too different, there is a vast discrepancy in the types of funds covered. When we tabulate fund-level gross asset values from Form-ADV, PivotalPath covers more than 90% of

GAV compared to just 35% for CDB. We also note that the 19 funds unique to CDB are quite small in terms of GAV (average of \$129 million) and are likely below the level most investors would consider “institutional quality.” On average, the 27 funds unique to PivotalPath are more than an order of magnitude larger, with a mean GAV of about \$1,677 million. Clearly, these results are consistent with the findings of the Barth et al. paper.

Table 1. Data Coverage of Activist Funds

Data Source	Number of Funds		Gross Asset Values (\$MM)	
	N	Coverage	Fund GAV	Coverage
All Activists	96		\$ 77,027	
Commercial Database	47	49.0%	\$ 26,968	35.0%
PivotalPath	55	57.3%	\$ 69,515	90.2%
PivotalPath & Commercial Database	28	29.2%	\$ 24,525	31.8%
Only Commercial Database	19	19.8%	\$ 2,443	3.2%
Only PivotalPath	27	28.1%	\$ 44,990	58.4%

But, what about the risk and return characteristics? We have also done some preliminary return analysis on the two samples using custom-made composite indices.³ Table 2 below shows that the returns and alphas are higher for PivotalPath funds. Given these findings, it is natural that the Sharpe Ratio of PivotalPath funds is higher—and significantly so. Other risk characteristics (Standard Deviation, Skewness, Kurtosis) are more favorable for the PivotalPath funds, though most of these differences are not statistically significant.

Table 2. Activist Fund Return and Risk Characteristics

Panel A. Return Characteristics

Data Source	Return (annualized)	Std-Dev (annualized)	Skewness	Kurtosis	Sharpe Ratio
Commercial Database	14.4%	12.4%	-0.46	5.54	0.92
PivotalPath	15.0%	12.3%	-0.32	5.38	1.02

Panel B. Risk Factor Loadings

Data Source	Alpha (annualized)	Beta	SMB	HML
Commercial Database	6.3%	0.53	0.32	0.28
PivotalPath	7.9%	0.48	0.16	0.27

³ We create equally-weighted indices using all available funds in a given month from 1998 to 2020. Presumably, results from value-weighted indices would be even stronger, but we are unable to calculate such an index early in the sample period because of insufficient GAV or AUM data.

Finally, we examine results from estimating the 3-factor model of Fama and French (1993) which is the work-horse model for examining risk and return in academic finance. In this model, SMB is the “small-cap” factor and HML is the “value” factor. The results again show that, on average, PivotalPath funds have somewhat lower risk (especially for SMB) and much higher alpha. Both of these are results consistent with the findings of the Barth et al. analysis.

So, it is easy to see why we are excited about the partnership with PivotalPath as a means to solve the problem of biases inherent in commercial databases. But it is more than just the coverage and return data that are promising. The hedge fund industry is notoriously opaque, and the commercial datasets have very limited information on each fund. In contrast, PivotalPath captures a wealth of fund data and generates proprietary analysis that contextualizes differences across funds in terms of strategy, process, and operations. Analysis of these richer and more granular characteristics are sure to lead to new insights for both academics and investors.

References:

Barth, Daniel and Joenvaara, Juha and Kauppila, Mikko and Wermers, Russell R., (2020). The Hedge Fund Industry Is Bigger (and Has Performed Better) Than You Think. OFR WP 20-01, Available at SSRN: <https://ssrn.com/abstract=3544181>.

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About:

PivotalPath is a hedge fund consultant, providing research and intelligence to its clients. The firm’s suite of apps empowers hedge fund allocators and managers with peer group-driven analytics, industry insights, transparent indices, manager meeting notes and customizable visualization tools not found anywhere else. PivotalPath's clients include asset managers, endowments, foundations, pensions, family offices and RIAs.

The Institute for Private Capital facilitates public understanding of the role that private capital, including hedge funds and private equity, plays in the global economy. IPC is a multi-university research consortium that fosters collaborations between academic and industry experts who work together to generate new knowledge about private capital markets based on objective academic research.