Background

The hedge fund industry has seen enormous growth as institutional investors pour money into this area. This has led to the proliferation of “hedge funds” and in turn, fund-of-funds (FoFs). Since many institutional funds feel that they do not have the ability to evaluate managers themselves or could not get access to all the managers they would want to, the FoF becomes a useful intermediary. However, these institutions add on their fees to the fees of the hedge funds. In many cases, the have a fixed fee and a performance fee in addition to similar fees paid to the managers. As a former plan sponsor, I feel it is incumbent on clients to explore whether the fees justify the value-added. However, the term value-added in this business is a little fuzzy. In short, in this note we attempt to address this issue and to lay out an analytical process by which clients can better understand how value is added by FoFs as there is clearly a need for a methodology both for clients as well as senior management at such organizations. Critically, it is important to know (a) how well a FoF has done relative to peers; and (b) important to know the sources of return. It is interesting that two recent articles in the AIMA Journal, April 2004, address some of these issues and all of this is likely to stir up more controversy than it resolves, but if nothing else it will start the debate on the sources of value-added and how they are captured and discussed with clients.¹

There are many difficulties in doing such analyses and peer comparison, even for pension funds and endowments, is tough in general. Muralidhar (2001) highlights the difficulty in comparing pension funds or endowments as each fund has a different strategic allocation to assets.² However, performance attribution (i.e., how the total return breaks down) is relatively easy as a pension fund’s performance can be broken down by the key decisions made by the fund; namely: (a) strategic allocation to broad asset classes; (b) tactical deviations from these asset classes; (c) benchmark risk taken by pension staff to assign benchmarks different from those at the fund level to those assigned to managers (e.g., the fund will be measured to the Russell 3000, but staff assign a Russell 2000 benchmark to a manager); (d) manager selection; and (e) manager allocation.³ In addition, Muralidhar (2001), Chapter 14, shows that often such analyses have low information content and hence any performance comparison needs to be qualified by how confident one can be that any positive performance contribution is truly from skill and not from luck. The skill versus luck analysis is conditioned on the track record of the decision relative to a clearly

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articulated benchmark and the length of data history. Given the short histories in the hedge fund industry, this is likely to be a problem.\(^4\)

The case of Fund-of-Funds

Hedge fund FoFs present a totally different set of challenges to the analyst that seeks to establish the sources of return and compare one fund to another. First, there are many types of FoFs that have entered the arena and not all overlap in what they cover (e.g., multi-strategy or specialized FoFs). Second, they all adopt different degrees of leverage and hence this needs to be controlled for. In comparing two different portfolio managers, it is important to normalize performance for risk taken, and the question is whether the risk measure is an absolute one or relative to some benchmark.\(^5\) Third, clients and FoFs often have not established marketable, replicable benchmarks to which they can be measured. Often, at the behest of the manager, the FoF is measured relative to a cash benchmark such as LIBOR (with often the client not realizing that they are bearing the risk that LIBOR collapses as was the case between 2001 and 2004).\(^6\) Fourth, even if such benchmarks exist, very few FoFs (or clients) have “strategic allocations” to hedge fund sectors and often FoFs are a collection of the bottom-up selection of managers. Finally, many investments in this area are very illiquid because of lock ups. Hence peer comparison and attribution are very difficult. As a result, we only focus on “attribution” in this note and address risk adjustment and peer comparison in a separate note.

Attribution

The value-added in an attribution analysis has got to be relative to some passive numeraire, so let us start with the assumption that while a client would like to receive LIBOR + 4 or 5%, since all performance fees are paid for performance in excess of LIBOR, the de-facto strategic allocation is 100% to LIBOR. From here, the key decisions that add value in a FoF are (a) “a strategic allocation to various hedge fund sectors” – probably non-existent for most FoFs in this business (but recognize that even a 0% allocation can be strategic)\(^7\); (b) tactical allocations relative to the strategic – most FoFs claim to add value through knowing which sector will do well and want a cut of performance – therefore, this should be a dominant component of performance for such FoF; (c) manager selection/manager allocation – or was the best manager given the appropriate amount of money and this component should dominate for bottoms-up FoFs;


\(^7\) This comment is based on extensive discussions with fund-of-funds.
and finally (d) manager outperformance – or did the manager deliver more than the “benchmark” for that sector.

It is clearly not just enough to do attribution, but then to be able to show that in each of these areas the chosen FoF dominates their peers, or at least dominate in some in a significant way that may compensate for other weaknesses. Moreover, such an analysis will be useful to clients to either establish ex-ante targets against which a FoF can be measured or to know what areas FoFs are likely to be competitive. The tough questions are: (a) can you truly attribute performance to choice of sectors (as there is no norm to compare to)? (b) since it does not seem as if FoFs have a strategic allocation to hedge fund sectors (at least not stated), hence can one think of TAA value-added given the liquidity issues? and (c) even if you can solve the above, what benchmarks to use given the problems with the HFRI/CSFB-Tremont indices? The biggest challenge posed by these benchmarks is that they are nothing but manager composites in a sector; namely, they are the “benchmark” weighted average of manager performance and this will raise interesting challenges in trying to establish manager value-added. In the pension fund world, a manager’s performance can be easily measured relative to a passive benchmark, because both are composites of securities and the performance of a manager never enters the performance of the benchmark. In the hedge fund world, the need to come up with benchmarks has led to the creation of these manager composites, which means that a manager’s performance can affect the performance of a benchmark as well.  

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A Simple First Solution

Let us start with the notion that the benchmark against which value-added will be determined is 100% US 1-month LIBOR (and this translates into currency risk for non-US investors and a big question as to whether the FoF should manage the currency risk). We ignore the fact that one additional source of value-added for non-US investors should be the ability of a FoF to manage the currency risk to different base currencies (or at least outsource the same). Should a FoF have internal processes in place that articulate a “strategic allocation” to various sectors, then the value-added in every period can be the static weighted sum of any of the benchmark returns for the relevant sector (HFRI/Tremont) relative to 100% LIBOR. If a FoF has no clear stated policy, then this component will be zero and the next component will be large. To compensate for illiquidity, these strategic weights can drift with the performance of the sector indices (i.e., if a sector does well, assets in that sector as a proportion of total assets will drift up unless rebalanced). The tactical value-added of drifting in and out of sectors based on cash flows or conscious decisions to overweight/underweight sectors, will then be equal to the tactical weight relative to the strategic weight of these sectors, multiplied by the benchmark. The manager selection value-added will be equal to the difference between the actual weight given to a manager relative to the benchmark weight in the benchmark index and finally, manager outperformance will be the manager’s outperformance relative to the benchmark performance. For the interested reader, we provide a more formulaic approach in the mathematical appendix.

Implications of Such an Approach

The benefit to doing such detailed attribution (and there will be many improvements to the naïve approach proposed above) is that it allows the Chief Investment Officers of both FoFs and institutional clients establish their return expectations effectively. For example, the client will be able to get a feel for whether the manager value-added is the largest or smallest component of total value-added thereby giving them a clue of the skill set inherent in a FoF. As far as the author can tell from talking to FoFs and clients is that this clarity is currently lacking in the industry.

Having worked for a pension fund and effectively run a FoF, and subsequently headed up the research function for asset managers who must make periodic tactical decisions, I have biases about which activities are more difficult and need to be compensated more. When one thinks back as to which of these activities is the hardest and potentially most intellectually challenging, one could make the case that manager selection is relatively easier than sector selection (strategic and tactical). In fact, the paper by M. Howell (2004) in AIMA April 2004 shows how one can think about adding value by rotating across hedge fund sectors based purely on evaluations of market risk and credit risk. Using data from some generic managers for convertible arbitrage, fixed income arbitrage and equity

market neutral, this author was able to show that their rules (using proxies of the VIX index for market risk and an spread measure over Treasuries for credit risk) could generate meaningful alpha over a static allocation, with relatively infrequent changes to manager allocations. This is one of the most controversial statements and will be hotly debated but the basis of this statement is simple – there is no dearth of manager data available to FoFs as managers are constantly bombarding FoFs with this data and even banks and data distribution services are willing to provide the same. The much harder task is to figure out which of the sectors is likely to be in play and when, and thereafter, manage the liquidity constraints of these markets and managers. As a result, innovative clients would probably split the fees they paid to the manager based on the source of value-added rather than just a generic fee regardless of what activities generated value. For example, suppose a client hired two FoFs and rewarded them more heavily on the tactical/strategic positioning, then one would see greater emphasis put on these activities. Further, clients may want to diversify across FoFs based on their relative strengths.

Conclusions

The institutional asset management business for traditional mandates has evolved to the point where processes are clearly articulated by the managers and detailed performance attribution is conducted to understand sources of value. This analysis is helpful in allowing clients to hire multiple managers to optimally manage their portfolios. This note shows that the same discipline and analysis can be imposed on the absolute return world to allow clients and FoFs to have a better understanding of the sources of value. For the CIOs of FoFs, this has the advantage of allowing them to correct processes that are not performing to expectations. For the clients, this has value as it sets ex-ante expectations clearly, but more importantly, allows clients to combine FoFs with complementary skills. We take this analysis a step further to suggest that there is the potential to use such information to partition the existing fee structures to reward FoFs based on the source of value-added. While there are many problems with attributing performance to certain activities given the challenges in terms of process and benchmarks, that should not be a cop out to do nothing, but instead should be motivation to improve these analyses and ideally establish an industry standard. In future research, we will examine how peer comparisons and normalizing for risk can be undertaken as pure performance analysis without conditioning the same on risk taken can give incorrect insights.
Mathematical Appendix

Define the following subscripts for weights: \( a = \text{actual; } b = \text{benchmark} \)
Define the following subscripts for sectors = 1, 2, 3 (e.g., fixed income arbitrage, global
macro, equity market neutral)
Define \( w = \text{sector weight; } v = \text{manager weight (both quoted as a percent of 100).} \)
Define the superscripts \( i,j,k \) to be various managers in a particular sector.
Define \( R = \text{return for the period} \)

Hence \( aW_1 \) is the actual allocation to sector 1; while \( aV_1^i \) is the actual allocation to
manager \( i \) in sector 1.

For simplicity assume 2 sectors and 2 managers in each. The extension to more sectors
and managers is trivial.

**Benchmark** = 100% LIBOR
**Strategic Value Added** = \( [bW_1]bR_1 + [bW_2]bR_2 - 100\% \text{ LIBOR} \)
**Tactical Value Added** = \( [aW_1 - bW_1]bR_1 + [aW_2 - bW_2]bR_2 \)
**Manager Selection** = \( aW_1 *[aV_1^i - bV_1^i]*R_1^i + [aV_1^j - bV_1^j]*R_1^j \) + \( aW_2 *[aV_2^i - bV_2^i]*R_2^i + [aV_2^j - bV_2^j]*R_2^j \)
**Manager Value Added** = \( aW_1 * aV_1^i * (R_1^i - bR_1) \) + \( aW_1 * aV_1^j * (R_1^j - bR_1) \) + \( aW_2 * aV_2^i * (R_2^i - bR_2) \) + \( aW_2 * aV_2^j * (R_2^j - bR_2) \)

Where, the sum of all \( bV_1^i - R_1^i \) for a sector = \( bR_1 \). Also, the sum of all \( bV_1^i, aV_1^i, bW_1, aW_1 \)
for all sectors = 100%. For the interested reader, the value-added of a manager, when the
manager’s return is itself a component of the benchmark yields very interesting results.