



Quantifying Fund-of-Funds Performance Drag

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INTRODUCTION

Funds-of-Funds (“FOF”) and/or Separately Managed Accounts (“SMA”) are typical investment forms used by a variety of investors to gain exposure to the private equity market. The reasons for employing this form of investment are as diverse as the investors themselves. However, there is a single universal reason for *not* using a FOF or SMA: the drag on performance caused by the imposition of an additional layer of fees, i.e. the dual layer of fees. This paper quantifies the amount of performance drag caused by the imposition of these additional fees and the requisite amount of additional performance at the portfolio level needed to offset the drag.

DATASET

For this brief, we analyzed the funds in Thompson Publishing’s Venture Economics US database. As of 12/31/2003, there were 1,676 stand-alone private equity funds included in the US database. We computed the times money earned¹ratio (“TME”) for each fund and then grouped the results into percentiles. For our research purpose, we used funds from the 1994 vintage year and earlier as these funds were substantially fully invested and realized. There were 848 such funds in total, with the 50th percentile, i.e. median, fund exhibiting a TME of 1.71X.

METHODOLOGY

We began by assuming the cash flows of a portfolio of private equity funds model. The model’s cash flows² resulted in an internal rate of return (“IRR”) of 15.0% and a TME of 1.57X, net of all fund-level fees. This TME was in the 43rd percentile (7 percentiles below the median). We then used the same cash flow model burdened with an additional fund

¹Times money earned = (cash distributed + remaining valuation)/cash invested. A TME of 1 = return of capital; TME less than 1, a loss; TME greater than one, a gain. We focused on TME and not IRR because TME is expressed in dollars and is therefore an exact measure of the additional burden of the dual layer of fees. IRR is not expressed in monetary terms, nor is it a reliable measure of the return multiple of any given investment.

² The GP portion of the model included a 2% management fee, decreasing by 0.2% per year after year 6; a 20% carried interest; an 8% preferred return and a requirement of return of all capital contributed prior to participation in the carried interest. The FOF portion of the model incorporated a fee during the acquisition period, decreasing by 0.1% per year after year 5; an 8% preferred return; and a requirement of full payback of contributed capital prior to participation in the carried interest.



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of funds fee ranging from 0.50% (50 basis points) to 1.0% (100 basis points). As noted in footnote 2, after the acquisition period the fund of funds management fee decreased annually by 0.10% increments. We calculated two levels of carried interest in each case: no carry and a 5% carry.

RESULTS

Exhibit 1 shows the performance burden of the fund of funds fee, expressed as a negative TME multiple, relative to the unburdened portfolio. Note that most of the performance drag is caused by the management fee alone (the 0% carry case).

<i>Management Fee</i>	<i>0% Carry</i>	<i>5% Carry</i>
0.50%	-0.055	-0.071
0.60%	-0.071	-0.086
0.70%	-0.087	-0.101
0.80%	-0.103	-0.116
0.90%	-0.119	-0.131
1.00%	-0.135	-0.147

Exhibit 1: TME Drag

Source: Alignment Capital Group

Exhibit 2 below is a graphical representation of the data presented in Exhibit 1. It is apparent from this graph that increasing the overall fee burden has a linear negative effect on TME

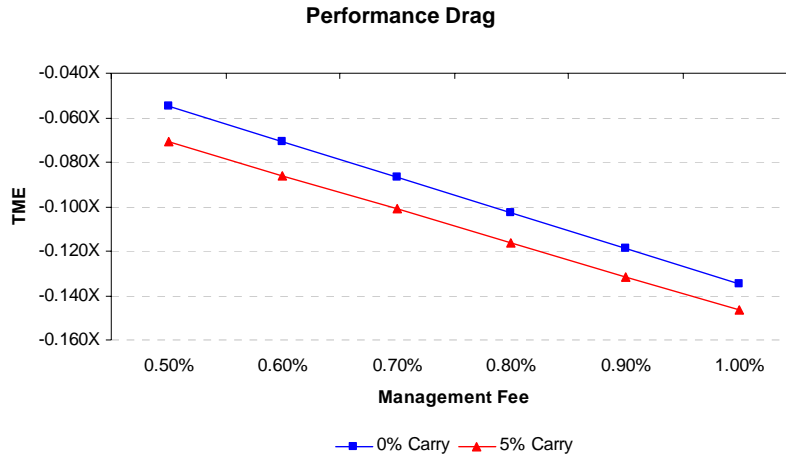


Exhibit 2:

Source: Alignment Capital Group

Exhibits 3 and 4 are graphical representations of the TME ratios of funds in the dataset. The x-axis represents percentiles; the y-axis represents TME. The secondary y-axis, on the right in both graphs, represents the change in TME from one percentile to the next. Exhibit 3 loses a great deal of resolution due to the extreme change in TME from the 97th to the 100th percentiles. Exhibit 4 shows the gray box area in Exhibit 3, rescaled to show only the 25th to the 75th percentiles in order to reveal the details in that range.

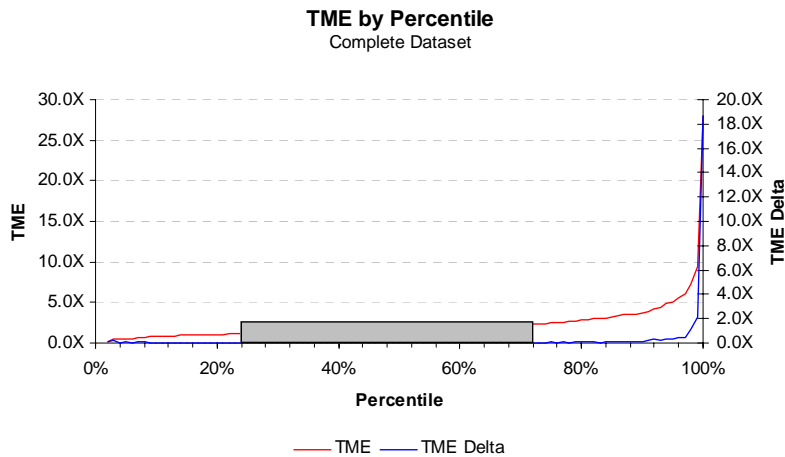


Exhibit 3

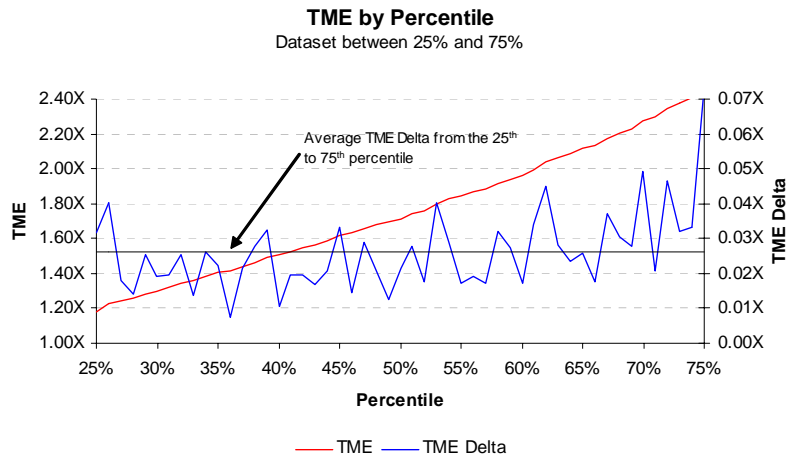


Exhibit 4:

Exhibit 4 shows that the change in TME from one percentile to the next (the red line) is approximately linear in this percentile range. Exhibit 4 also shows that the TME delta (the blue line, the amount of change required to move from one percentile to the next) has a fairly narrow range of 0.01x to 0.07x. The mean TME delta required to move from one percentile to the next is 0.024x.

Given the linear relationships demonstrated in Exhibit 2, in which performance drag is a linear function of the fund of funds management fees and carry; and Exhibit 4, in which the TME is a linear function of the performance percentile, we can adjust the table in Exhibit 1 to show the decrease in performance percentiles represented by the performance drag. This is accomplished by dividing the TME drag shown in Exhibit 1 by the mean TME delta (0.024x, the average change of TME required to move from one percentile to the next as shown in Exhibit 4). The results are shown in Exhibit 5.

<i>Percentile Drag</i>		
Mgt Fee	0% Carry	5% Carry
0.50%	2	3
0.60%	3	3
0.70%	3	4
0.80%	4	4
0.90%	5	5
1.00%	5	6

Exhibit 5:



The results in Exhibit 5 can be read either as 1) the number of performance percentiles by which the additional fee burden has decreased portfolio performance; or 2) the number of percentiles by which portfolio performance must increase in order to offset the drag imposed by the fund of funds fee and carried interest.

It is therefore possible, using the contents of Exhibit 5, to construct a portfolio management rule with regard to the economic desirability and/or feasibility of hiring an FOF/SMA manager. If a portfolio manager believes that a particular FOF/SMA manager with a given fee and carried interest can perform at a level in excess of that shown in the exhibit (e.g., given a 50 basis point fee and no carried interest, the FOF/SMA manager can perform in, say, the 48th percentile or better, 2 or more percentiles in excess of the median), it makes economic sense to retain that FOF/SMA manager since the FOF/SMA's out-performance covers the expense of the fee and the carried interest, thus eliminating the drag.

Put a different way, if a portfolio manager believes that a particular FOF/SMA manager with a given fee and carried interest can achieve the desired level of return after subtracting the relevant figure from the exhibit (e.g., given a 60 basis point fee and a 5% carried interest, the FOF/SMA manager, net of the 3-percentile drag of its fees, can return the desired 55th percentile), it makes economic sense to retain that FOF/SMA manager.

CONCLUSION

The performance drag of an FOF or SMA management fee and carried interest can be quantified in terms of both TME multiples and performance percentiles. Both measures are linear with respect to FOF/SMA performance and the relationship between the two enables the investor to evaluate the feasibility of fund of funds or separate account management on a net performance basis using the rules developed in this research brief:

1. Invest if a particular FOF/SMA manager with a given fee and carried interest can perform at a level in excess of that shown in Exhibit 5; or,
2. invest if a particular FOF/SMA manager with a given fee and carried interest can achieve the desired level of return after subtracting the relevant figure from Exhibit 5.



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Alignment Capital Group is a full-service private equity consulting firm based in Austin, Texas. The firm's mission is to understand private equity as an asset class in a portfolio context, and thus to assist our clients in making optimal investment decisions.

Mr. Nickels is a partner with Alignment Capital Group.

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