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Do Superior Managers Ration Capacity?
or
Why Investable Indices are Poor Investments

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Research Paper

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A key question for investors is whether managers can consistently add value (create alpha) and if so, whether these managers are identifiable. Furthermore, these high quality managers would be expected to have limited capacity, leading to rationing. Analysing the performance of managers who ration their capacity relative to those who do not can therefore provide significant insights into these questions.

An analysis of the returns of managers in “Investable Hedge Fund Indexes” shows that quality managers do ration their capacity, and that this behaviour has been a reliable guide to predicting their ability to add value. The key issue for investors thus becomes how to gain access to these managers.

1. Introduction

That alpha is “valuable but hard to find” is an axiom of the investment industry. Similarly, managers able to consistently generate alpha are regarded as rare, and it is accepted that these superior managers will have limited capacity, which will be rationed. This paper analyses the evidence available from the universe of hedge fund managers to assess whether superior managers do in fact ration their capacity as anticipated.

Unlike traditional long-only asset classes, where managers’ total returns are typically dominated by the market return (or the beta exposures in their portfolios), hedge funds have the advantage of having a greater proportion of their returns derived from manager skill. (Indeed, a reasonable working definition of an “absolute return” strategy is one in which the managers skill component dominates the market component.) Thus hedge funds provide an ideal population for analysing managers’ skills at generating alpha.

This analysis assesses the difference in performance between managers who do and don’t ration their capacity by analysing the performance of hedge fund managers who make their capacity available to “investable” hedge fund indices.

2. Investable vs Non-Investable Hedge Funds

Investors can diversify their portfolios by investing in absolute return funds (or hedge funds). Absolute return funds provide diversification by generating return from manager skill rather than from purely directional market exposures.

Two ways of establishing a diversified portfolio of absolute return managers are by:

1. Investing in a Fund of Hedge Funds: Fund of fund managers construct portfolios based on their analysis and selection of various hedge fund managers. Funds of funds managers carry out their own research and are directly responsible for choosing which funds to invest in. In addition, fund of fund managers perform crucial due diligence and oversight of underlying



funds as well as managing absolute return fund styles within the portfolio. Importantly, fund of fund managers establish a network of relationships that is important in the process of gaining access to desirable managers who may restrict access to their capacity.

2. Investing in an 'Investable Hedge Fund Index': Investable Hedge Fund Indices are constructed to represent the broad 'investable' hedge fund market. Recently there has been significant interest in the hedge fund index arena, with 'Investable Hedge Fund Indices' (which are actually offered as funds) seen as a means of establishing a diversified portfolio of hedge funds with a lower cost than using a fund of fund manager. Investing in an 'Investable Hedge Fund Index' is effectively the same as investing in a portfolio of managers created by a fund of funds; however, the manager selection process is driven by a specific set of pre-defined rules. These rules are often portrayed as being the hedge fund market equivalent of the rules applied in the selection of stocks included in an equity index.

3. Methodology of Hedge Fund Indices

As noted above, 'Investable Indices' have been created relatively recently and generally provide detailed performance data on the relevant sub-indices the index captures. As a benchmark, we will use the CSFB Tremont Investable Hedge Fund Index (Investable Index) as representative of 'investable hedge fund' performance. (It should be noted that there are numerous Hedge Fund Indices and while each differs in their coverage and methodology, we believe the CSFB Tremont Hedge Fund Index to be a reasonable proxy.)

Whilst there is an 'Investable Index', there is no equivalent index that can be seen as a direct representation of the performance of managers not included in the Investable Index (i.e. the 'non-investable' managers). The CSFB Tremont Hedge Fund Index (the Total Index) however, provides a representation of the combined 'non-investable' and 'investable' hedge funds and can be used as a proxy to the 'non-investable index', as managers in the Investable Index make up only a relatively small component of the Total Index.

There are significant issues involved in applying indices to hedge funds. Although having some superficial similarities to an equity index, there are a number of characteristics of hedge funds that are significantly different. These include:

1. Representation Biases: Not all hedge funds disclose performance figures and therefore hedge fund indices may not capture accurately the return of the universe of hedge fund managers.
2. Unlike exchange traded equities, not all hedge funds can be purchased at will. Many hedge funds have strict criteria on allowing investments and often limit access to their funds.

Nonetheless we will take the Total Index and Investable Index as reliable in providing a snapshot of the 'non-investable' and 'investable' universe and we will examine the performance of each index.



Let us now look at the major characteristics of the Total Index and the Investable Index. Each index is broadly diversified, encompassing a large number of funds, with both indices separating the funds into ten primary subcategories based on their investment style. These are:

1. Convertible Arbitrage.
2. Dedicated Short Bias.
3. Emerging Markets.
4. Equity Market-Neutral.
5. Event-Driven (includes Distressed Securities and Risk Arbitrage).
6. Fixed-Income Arbitrage.
7. Global Macro.
8. Long-Short Equity.
9. Managed Futures.
10. Multi Strategy.

Each index has their own distinct set of rules and characteristics:

- **Relevant Rules for Hedge Funds that are included in the Total Index**
 - Funds are drawn from a database of approximately 4500 funds. The Index represents at least 85% of the assets in the selection universe for each sector.
 - A minimum of US\$50 million assets under management ('AUM'), minimum one year record, current audited records and timely and accurate NAV reporting (i.e. monthly).
 - Excludes fund of funds but includes closed funds for most of the representative universe.

Therefore includes both 'investable' and 'non-investable' hedge funds.

- **Relevant Rules for Hedge Funds that are included in the Investable Index:**
 - The Index was launched in August 2003.
 - Member funds generally represent the 6 largest eligible funds in each of the 10 major sectors. The Investable Index therefore includes 60 funds.
 - Funds are accepting new investments and redemptions.
 - Funds have no investment lock-up period.
 - Funds allow investments no less frequently than monthly.
 - Funds allow redemptions no less frequently than monthly or, in the case of funds in the Event Driven and Convertible Arbitrage sectors, no less frequently than quarterly.
 - Funds require notification of redemptions of one month or less or, in the case of funds in the Event Driven and Convertible Arbitrage sectors, three months or less.

These rules imply that the Investable Index will have a bias towards more open and liquid managers relative to the Total Index.

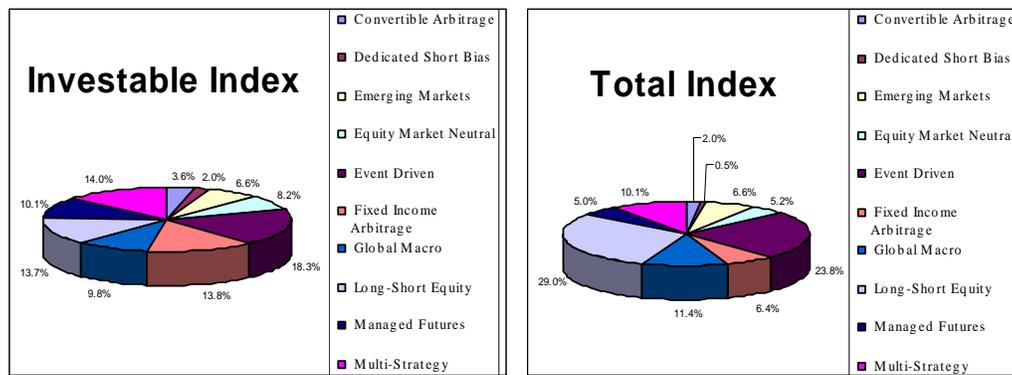


4. Manager Differences

As a result of the manager selection biases noted above, ‘investable’ and ‘non-investable’ managers differ in the following ways:

- Whereas ‘investable’ funds accept new investment on a regular basis, ‘non-investable’ funds restrict equity that is available and are not regularly open to new investments.
- ‘Investable funds’ allow redemptions on a regular basis, and are thus more likely to favour more liquid investments; whereas ‘non-investable funds’ limit redemptions through the use of lock-ups and extended redemption notice periods so as to ensure alignment of liquidity terms with less liquid investments or as a filter on the type of investor.
- Funds in either index may ration capacity on the basis of price (i.e. higher fees). Those managers who ration on the basis of price alone, without restricting capacity or liquidity, may be expected to have a greater representation in the Investable Index.

Similarly, due to the differing nature of ‘investable’ and ‘non-investable’ hedge funds, it follows that the two types of indices vary in their weighting to the different absolute return strategies. As expected, significant divergence can be seen in the Event Driven, Long/Short Equity, Managed Futures and Fixed Income Arbitrage categories. This is illustrated in the pie charts below, which shows strategy weightings as at September 2006:



The Investable Index allocates a far smaller proportion of total investment to Event Driven (5.5% less) and Long/Short Equity (15.3% less) than the Total Index. This can be seen as a direct influence of the longer time horizons that the non-investable hedge funds employ, in particular non-investable hedge funds managers’ allocating a large proportion of assets to less liquid Event Driven strategies. The bias away from Long/Short equity would appear to be the result of limiting the number of managers in each strategy to only 6.

On the other hand, the Investable Index (and hence ‘investable’ funds) ascribes a far greater weighting to Fixed Income Arbitrage (7.4% more) and Managed Futures (5.1% more) when compared to the Total Index. These are highly liquid strategies and these allocations reflect the bias the Investable Index has towards more liquid investment strategies.



5. Performance

Over the 49 month period since its inception in August 2003 through to August 2007, **the Investable Index has underperformed the Total Index by 4.8% pa.** The Total Index has returned 11.1% pa while the Investable Index returned 6.3% pa.

In reality, these figures somewhat *understate* the performance difference between the ‘investable’ managers in the Investable Index and ‘non-investable’ managers, in that the Total Index returns represent the combined return of both the ‘non-investable’ and ‘investable’ hedge fund managers, and therefore understates the actual return that the “non-investable” managers actually achieved on a stand-alone basis. As a result we would expect the ‘investable’ managers to have actually underperformed the ‘non-investable’ by a figure larger than the attributed 4.8% pa.

This underperformance by the Investable Index has been relatively consistent, with the Investable underperforming the Total Index by 5.9% over the last year and 4.7% pa over 3 years.

6. Attribution Analysis

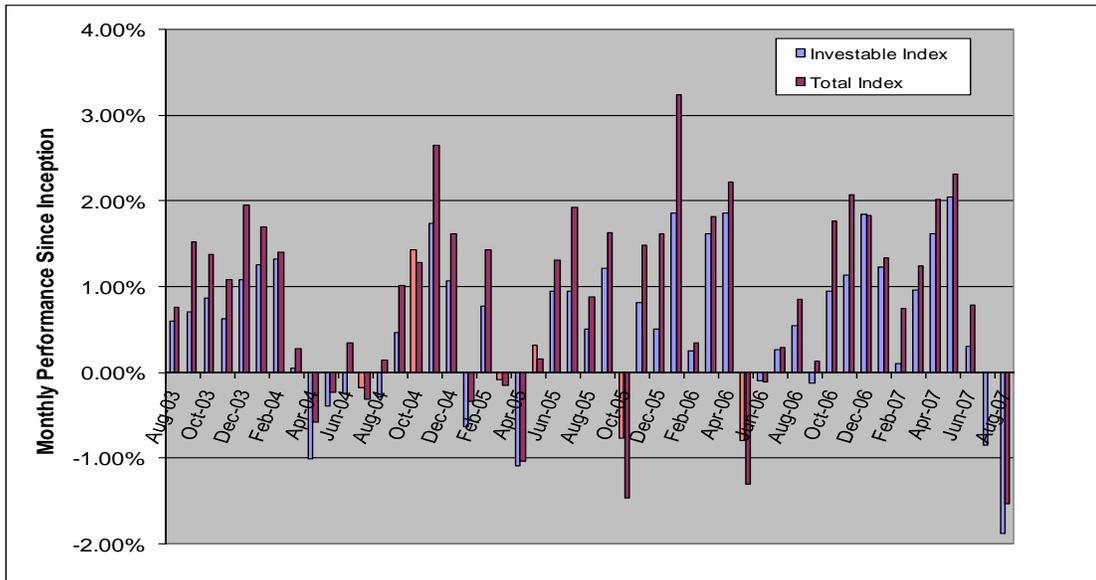
The sub-index returns for both the Total Index and Investable Index allow the performance difference to be attributed between the (i) contribution from the managers’ performance and (ii) the different weightings to the 10 investment strategies. The results, for periods to August 2007, are summarised in the following table.

| | Manager Performance Contribution % pa | Strategy Allocation Contribution % pa | Interaction Term % pa | Actual Difference % pa |
|--------------------------|---------------------------------------|---------------------------------------|-----------------------|------------------------|
| 1 Year | -3.9 | -1.5% | -0.7% | -5.9% |
| 3 Years | -3.2% | -1.3% | -0.4% | -4.7% |
| Since Inception (Aug 03) | -3.4% | -1.4% | 0.2% | -4.8% |

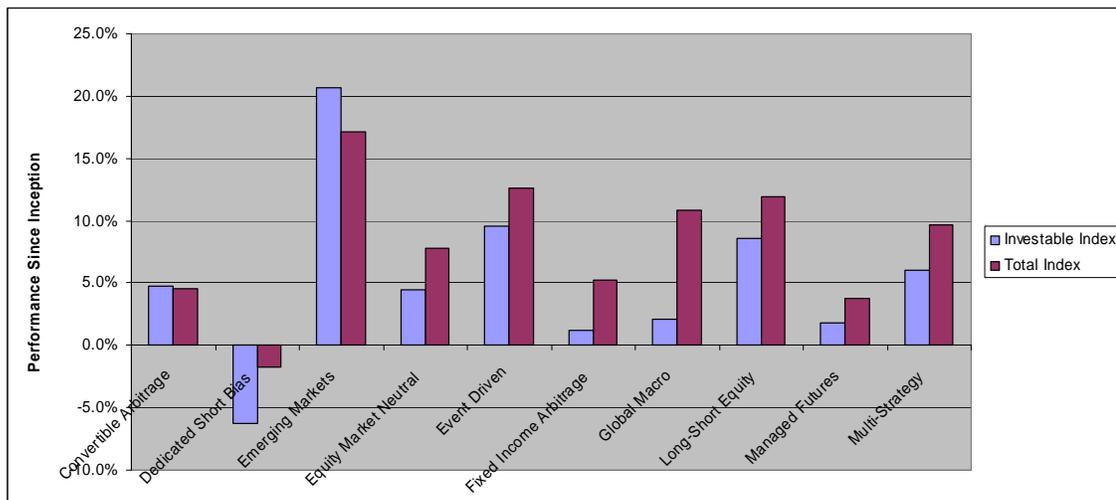
While the different allocations to hedge fund strategies has contributed to the underperformance of the Investable Index, **by far the largest contribution has come from the ‘investable’ managers - who freely offer capacity and liquidity - significantly underperforming their ‘non-investable’ peers.**



Comparing the monthly performance of both indices since August 2003 illustrates the consistency of this underperformance. Over the 38 month period, the Investable Index has underperformed the Total Index on 32 occasions. The Investable Index has therefore outperformed the Total Index only 16% of the time, with it underperforming 84% of the time. The monthly performance of each Index is illustrated in the graph below.

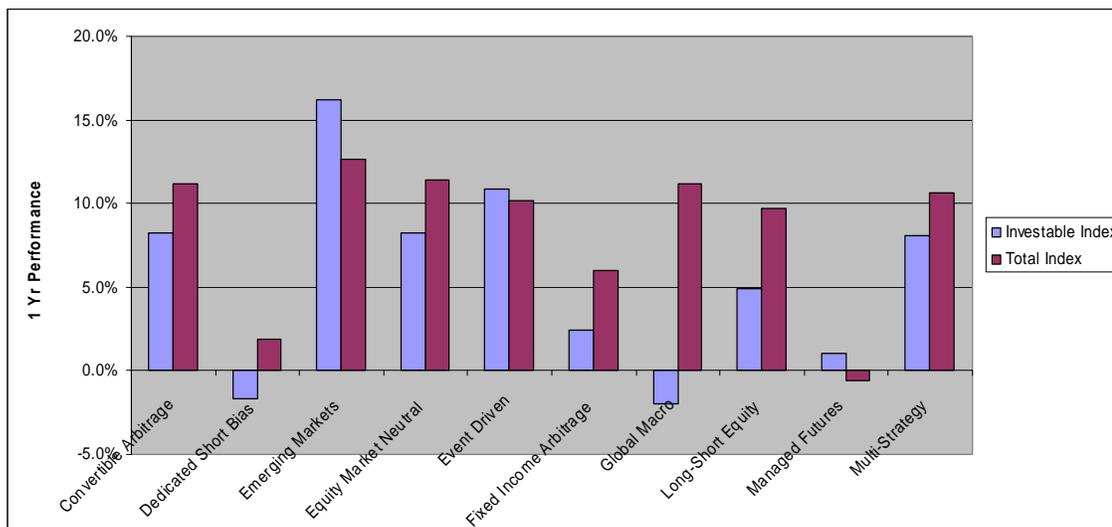


We can also look at the manager’s performance for each investment strategy over the 38 month period. In only 2 of the 10 investment strategies did the managers in the Investable Index outperform those in the Total Index, (i.e. they underperformed in 8 of the investment strategies). Only in Convertible Arbitrage and Emerging Markets strategies did the Investable Index managers outperform their “non-investable” peers; however these strategies only made up 3.6% and 6.6% respectively of the Investable Index’s total assets.





If we look at performance over the last year, the results are consistent. Comparing the performance of the two indices, we see that only in the categories of Event Driven, Managed Futures and Emerging Markets did the Investable Index managers outperform those in the Total Index. It could therefore be concluded that the ‘investable’ hedge funds have been generating far lower returns than their capacity rationing ‘non-investable’ counterparts.



7. Conclusions

Firstly, from the data available on hedge fund performance, it can be determined that the most successful hedge funds in terms of overall performance fall into the ‘non-investable’ category. It could therefore be concluded that the most skilful managers are excluded from the Investable Index because they either:

1. Restrict investments by not making capacity freely available; and/or
2. Limit redemptions through investment lock up periods.

This, in turn, implies that **the more skilful managers are rationing their capacity.**

(While this analysis and conclusion applies specifically to hedge funds, because hedge funds are simply investment management organisations with fewer investment constraints and a lower exposure to markets risk than traditional long only managers, it could be expected that this result would apply to superior managers generally.)

Secondly, it follows from the first conclusion, that if managers who outperform are able to restrict their capacity **in advance** of subsequent outstanding performance, then their **outperformance was predictable** - at least by the managers themselves. While there is insufficient evidence to explore this further at this stage, it provides some evidence that manager outperformance is sustainable.



Thirdly, while 'investable' hedge funds may be somewhat cheaper to invest in through an Investable Index - as the management fees charged by the managers of Investable Indices *should* be lower than those of fund of fund managers - **the opportunity cost of not having access to superior managers who are rationing their capacity clearly dominates any fee difference.** As a result of this performance lag, which has been in the order of 300 basis points per annum, Investable Indices are unlikely to be good long-term investments.

Finally we can conclude that **strategy biases work against the Investable Indices.** The Investable Index is relatively underweight Event Driven and Long/Short Equity strategies and overweighting the more liquid Fixed Income Arbitrage and Managed Futures strategies. The attribution analysis suggests that the liquid nature of 'investable' hedge funds is directly affecting performance, in that it forces a bias to more liquid investment strategies and thus limits opportunities for greater return. The fact that the less liquid 'non-investable' hedge funds have far greater choice in their investment decisions allows for an allocation of investments that has produced greater returns than 'investable' hedge funds.

8. Implications

The Implications of this analysis are threefold:

Firstly, as the study has shown, there appears to be a gulf between the open/accessible managers and the best managers, with **the most desirable and successful managers rationing their capacity.** Managers with superior skills limit investments and redemptions, in order to fully capitalise on their expertise, experience and foresight. Within the hedge fund industry, manager skill is something which is limited and, as a result, rationed.

Secondly, the shortage of high quality capacity is significant for both manager of fund of hedge funds and investors in hedge funds. It reinforces the **importance of focusing on manager skill**, and those factors that support the successful application of that skill, in manager selection.

Note that while it can be concluded from the above analysis that managers who do not ration capacity - or who only ration by price - underperform their peers, it would be a fallacy of composition to argue the reverse - i.e. that rationing capacity in and of itself improves performance. We strongly believe, based on our years of investment experience, that there are a range of factors, such as organisational structure, proprietary ownership and investment, and risk management that are critically important determinants of a manager's ability to consistently add value.

Thirdly, it follows that these **differences are likely to be reflected in the approach and results achieved by fund of hedge fund managers.** Managers who are continuously open to new investments and/or provide easy redemption terms are more likely to have to invest with 'investable' hedge fund managers, and hence deliver lower returns. On the other hand, fund of fund managers who adopt a longer term investment approach and create an alignment of interest with like-minded investors, will be more likely to be able to access the higher returns available from superior hedge fund managers.



Finally, this analysis has significant implications for how investors access hedge funds. As the data suggests, **investors need to ensure that they are gaining access to the most skilled managers.** However, with manager skill limited and rationed, it makes it difficult for most investors to identify and gain access to hedge fund managers that are likely to add value. Fund of fund managers have an important role to play in providing this access.

In carrying out their research, fund of fund managers perform crucial due diligence and oversight of underlying funds, in order to identify superior manager skill. Importantly, in addition to due diligence, quality fund of fund managers also establish a reputation and network of relationships that is critically important in gaining access to skilful managers.

This study suggests that quality fund of hedge fund managers, who are able to take a longer-term approach to investing, are likely to provide a superior solution for investors looking to access the most skilful, and high alpha generating, hedge funds.

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