

THE INVESTOR

FEBRUARY 2002

Thought of the Month – Should fund managers be judged on arithmetic or geometric returns?¹

It may seem like a strange question. Some will immediately say "Of course it is necessary to judge a manager on geometric returns!" Perhaps the answer should be "none of the above". But let's first take a closer look at this issue before jumping to conclusions. Let's say a hedge fund manager starts with an NAV of \$100 per share on day 1, and increases the NAV, after fees, to \$150 per share by year's end – an increase of 50%. In the second year, the manager loses 40% so the NAV goes down to \$90 per share. The arithmetic average return is simply $(50\% - 40\%) / 2 = 5\%$. The geometric return is $(1.5 \times 0.6)^{.5} - 1 = -5.1\%$. Should investors be upset at the manager for earning a negative geometric return over the two year period, and bringing their NAV down to \$90 after two years? Or should the investors be upset at themselves for not redeeming a few shares in order to take some profits at the end of the first year, in which case the return to the investors might have been positive over the two year period? Or should there be better ways of judging and compensating fund managers? Read "Nourishment" below to see what we think.

¹ See our August 2001 newsletter for a discussion of arithmetic and geometric returns

Why is the Sky Blue? - Are hedge fund managers paid fairly relative to long-only managers?

Let's take a long-short manager first. Let's be skeptical and assume that the long-short manager used to be a long-only manager and jumped on the hedge fund band wagon and now runs a long-short fund. Let's also assume that the manager uses the same analysis and discount cash flow models that he or she used in the past while at the long-only fund. Only now, when the model results say "share price is overvalued, do not purchase", the manager phones the broker and places an order to sell short, after making the necessary stock borrowing arrangements. In the past, the long-only manager received a management fee of 1.5% based on the NAV. Should this manager now receive additional compensation, typically 20% of profits, over and above the management fee of 1.5%?

Now let's consider the more mathematically advanced strategies such as relative value trading, convertible arbitrage, etc. Does greater strategy complexity justify higher fees? In other words, does the fact that these more mathematically advanced strategies require quantitative personnel to run them mean that they should command higher fees than long-short managers? Taking this to the extreme, one could laughably assume that the greater the complexity, the higher the performance fees!

In fact, Ben and I have spent most of our careers working with OTC and listed derivatives in some form or another, which makes us biased towards quantitative strategies. Accordingly, our initial response might be to favor those managers running complex strategies and reward them at a higher rate than other managers. But wait! Not only is it ludicrous to consider rewarding managers differently based on the complexity of their strategies, but even if we wanted to, it may not be justified: the blood and sweat put in by fundamental stock pickers (i.e., both long-

only and long-short managers) visiting companies, poring through annual financial statements subject to various accounting and tax regimes, determining the integrity of management w.r.t. minority shareholders, predicting the future for a range of different industries, etc., is often more painful than the work of mathematicians who lock themselves in their rooms with their Bloomberg and Reuters terminals as they build mathematical models, run regressions, create and manage complex hedging strategies, etc., designed to exploit tiny market inefficiencies. This brings us to the following conclusions:

- o Relatively speaking, surely the solid long-only manager deserves to be paid proportionately as much as the solid long-short manager, who in turn deserves to be paid as much as the solid quantitative manager. Yet you still need to differentiate between the passive and active fund manager where the former may only be required to track a particular index that requires far less effort.
- o Conversely, surely there are hedge fund managers who simply take views on the market without thinking much about fundamental or technical factors, nor quantitative analysis. Despite their rocket science image, quantitative managers running hedge fund strategies such as relative value and convertible arb could be simply taking a view that yield curve spreads, swap spreads, volatility levels, etc., will revert to their long-run averages without actually performing any quantitative analysis! Then again, if such managers consistently outperform, perhaps they are worth the extra fees even though it takes them only a few minutes a day to take a view and/or check their positions.
- o Therefore, the strategy employed (e.g., long-only mutual fund, long-short hedge fund, etc.) should not be the primary factor in determining manager compensation – it is merely the means to generate returns and a way of differentiating one fund from another. Fund managers select the strategies employed based on their particular skills and experience, and because they believe that they either found a niche market or that they can generate higher returns by using their particular strategies.

Without a better measure, who's to say that hedge fund managers are over paid relative to their long-only counterparts

Nourishment – The case for geometric returns: case closed?

As discussed above under "Thought of the Month", some could debate whether hedge fund managers should be judged on arithmetic or geometric returns, and whether hedge fund investors could calculate historical returns by combining a fund's performance with an investor's individual investment strategy (e.g., disciplined redemptions of some or all of the profits earned from a hedge fund in profitable years, and topping up investments in down years). Adding further complexity to this issue: i) the short-term nature of hedge fund strategies makes it difficult to place great reliance on historical returns and ii) the optionality of hedge fund performance fees – that is, the fact that hedge fund managers are rewarded for positive performance but are not penalised for negative performance - means that strategy returns are distorted by performance fees. Combining all of these points together with risk considerations into a coherent framework for judging and compensating hedge fund managers is clearly a major challenge. In next month's issue we explore these ideas further.

Feedback

As always, we greatly appreciate your comments and feedback. We realize that our ideas and information might be cutting edge, futuristic kind of stuff or mysterious in some ways. E-mail us anytime at help@financialcontrollimited.com if you would like a) for us to clarify anything, b) to recommend improvements to us, or c) to just debate with us – we like philosophy especially as it relates to financial services!