

TWO Solitudes

Replication and short extension bridge the pension and hedge fund gap.

BY TRISTRAM LETT AND CHRISTOPHER HOLT

Hugh MacLennan's 1945 landmark novel *Two Solitudes* casts early twentieth century Canada as two separate societies—French and English—with very little overlap, yet sharing a common nationhood. Sometimes it seems that the hedge fund and institutional investing communities have taken a cue from MacLennan's work. Notwithstanding the notable early adopters of hedge funds, most pensions and endowments remain in exploration or education modes. As a result, the hedge fund and pension fund worlds co-exist, yet rarely interact. They are together, yet alone.

But as with MacLennan's Anglophones and Francophones, hedge funds and pension funds share common fundamental objectives: risk management, flexibility, and of course, alpha. Thankfully, new investment techniques are now providing a framework for both sides to interact. Short extension funds provide a bridge between the long-only tradition favoured by many pensions, and the so-called alpha-centric world of hedge funds. At the same time, synthetic funds with hedge-like attributes, although lacking in true alpha, provide a liquid and transparent foray for conservative institutional investors into the world of alternative investments.

Both of these emerging strategies address many of the hurdles that have stymied the adoption of hedge funds,

mainly because neither of these strategy classes are truly hedge funds, but rather the adoption and modification by institutional investors of appealing features of hedge strategies. Taken together these short extension and hedge fund replication strategies represent a sea change in asset management that will allow these two sides—pension funds and hedge funds—to integrate and yet, perversely, differentiate. The inevitable result will be more opportunity for both institutions and hedge funds.

SOLITUDES EXPOSED

Nowhere is this reality of two solitudes more evident than in the perennial rankings that dot the media landscape. In May of this year, *Alpha Magazine* published a list of the world's 100 largest hedge fund firms. Their top 10 were JP Morgan Asset Management, Goldman Sachs Asset Management, Bridgewater Associates, D.E. Shaw Group, Farallon Capital Management, Renaissance Technologies, Och-Ziff Capital Management, Barclays Global Investors, Man Investments and ESL Investments (Source: *Alpha Magazine*, July 2007)

Within days of the release of *Alpha's* list, *Pensions & Investments*, a trade newspaper covering the world of investing from the institutional investor's perspective, released its own ranking—this one of the largest managers of U.S. tax-exempt institutional mandates (i.e. pensions and foundations). The *Pensions & Investments* top 10 read as follows: Bridgewater

Associates, Barclays Global Investors, Grantham, Mayo & Otterloo, AQR Capital Management, Goldman Sachs Asset Management, Mellon Financial, UBS, AIG Global Investment, Morgan Stanley, Oppenheimer Capital (Source: *Pensions & Investments*, May 28, 2007).

Notably, only three names appear on both lists (Bridgewater, Barclays & Goldman Sachs). In fact, U.S. tax-exempt institutions count among their managers several firms that did not even make the *Alpha Magazine* list of the world's largest hedge funds. Clearly, these institutions have steered hedge fund investments towards traditional money managers with established reputations such as State Street, Mellon, AIG, and Oppenheimer and have shied away from what might be referred to as hedge fund managers such as D.E. Shaw, Farallon and Renaissance Technologies. The question is, why?

The answer can be found in the decision criteria used by a typical institutional investor. Absolute performance aside, institutions have always judged investments against the following list of fundamental criteria:

Transparency: Institutional investors have satisfied their fiduciary obligations by demanding position-level transparency. Recently, they have begun to demand exposure-level transparency and a greater understanding of investment methodology and strategy.

Liquidity: Investors have demanded, and in many cases, regulations have supported, high levels of liquidity. While liquidity is often demanded at the portfolio level, few institutions have ever exercised their right to liquidate an entire portfolio, opting instead for long-term relationships with their managers.

Volatility: Policy asset allocation requires the identification of asset classes first and investment strategy second in a risk-budgeting framework. As a result, the volatility expectations of institutional investors are derived from the deviation of volatility (tracking error) of each strategic mandate's underlying policy asset class volatility.

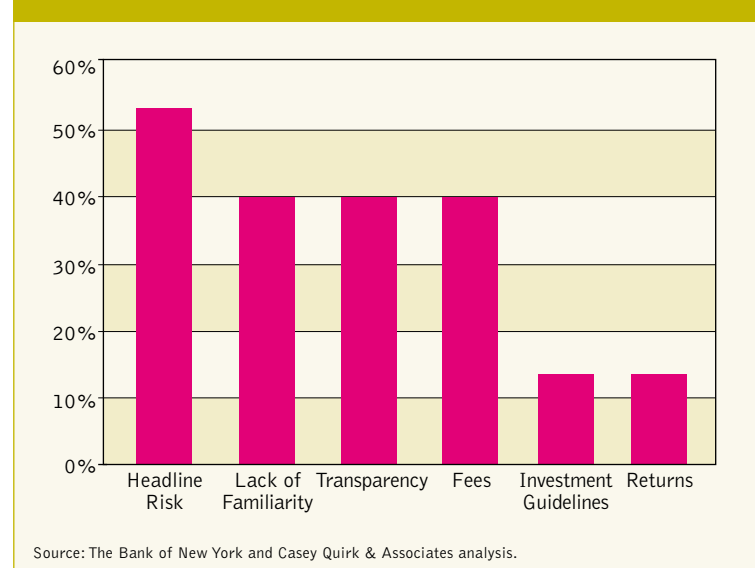
Headline Risk: Similarly, institutions have implicitly sought to reduce headline risk by investing in asset classes and strategies that were correlated with, well, headlines. After all, there would be no headline if a fund fell in value along with the overall market. On the other hand, if a fund were to fall modestly in a bull market, headline writers would have a field day.

Fees: Cognizant of their ability to buy in bulk, institutional investors have pressured managers to reduce fees to a level commensurate with the expenses of a typical supplier. Rarely, if ever, did this involve any form of performance-based compensation.

Reputation: While headline risk can be mitigated by selecting common strategies, the selection of established suppliers provided further cover for those institutions concerned about maverick risk.

How do hedge funds stack up to these criteria? The prototypical hedge fund exploits market anomalies, not broad market movements. While this has been a blessing for their performance records, it has been a curse for their attempts to solicit the typical pension or endowment. While many exceptions exist, hedge fund transparency is generally considered to be low. For better or worse, liquidity has typically been lower than it is for long-only funds. While lower in aggregate, the volatility of individual hedge funds is more idiosyncratic than it is for traditional long-only mandates. Along with a general lack of market correlation, headline risk is considered to be relatively high for hedge funds. Unlike traditional mandates, hedge fund fees are driven largely by performance, not by assets under management. And, finally, as the new kids on the block, hedge fund managers have often been branded as investment mavericks. Indeed, Figure 1 shows results of a survey of institutional investors that have thus far avoided making their maiden investment in hedge funds. It shows that hedge funds have so far fallen flat on a number of key dimensions.

KEY IMPEDIMENTS FOR NON-INVESTORS Fig. 1



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MEASURING UP

Short extension or 130/30 strategies (or 120/20, or more generically 1X0/X0) simply involve the addition of short-selling to a traditional long-only mandate. Proceeds from this short-selling is notionally applied to leveraging up long positions to re-establish a dollar-neutral portfolio. Students of long/short portfolios may recognize this as analogous to a long-only portfolio with a deleveraged 30/30 market-neutral overlay. Not that they are necessarily operated this way—in fact, most are optimized over the whole long and short portfolio, subject to a beta of 1.0 and tracking error constraints.

While this simple equity short-extension strategy may appear to have little in common with the more quantitative approach taken by providers of hedge fund replication strategies, it actually provides many of the same benefits. For this reason, 130/30 funds have also attracted the attention of institutional investors—much to the bafflement of many hedge fund managers. But while 130/30 can be conceptually described as a long-only fund and a hedge fund, traditional asset managers see it as the simple removal of the short constraint implicit in any long-only portfolio. Academic studies illustrate that when a manager has the ability to add value, the removal of this constraint has a positive effect on the information ratio.

But regardless of manager ability, 130/30 funds have a number of qualities that have attracted the interest of institutional investors. First and probably most importantly, they are a benchmark-based strategy with a beta of 1.0, enabling their easy insertion into the active equity bucket for classification and measurement purposes. Like hedge fund replication strategies, 130/30 funds are generally very transparent. In fact, as simple extensions of pre-existing long-only mandates with position-level transparency, these funds are often provided on a separately managed account basis. It's worth noting here that the strategy transparency demanded of 130/30 funds is often actually lower than that of stand-alone hedge funds, since investors are apt to view 130/30 funds as simple extensions of familiar traditional mandates.

As extensions of liquid equity strategies, 130/30 funds tend to provide a comparable level of position liquidity, recognizing that the short positions may add a measure of relative illiquidity. To compensate, more issues are held on the short side to provide the same level of investor liquidity. Although 130/30 funds effectively deliver leverage of 1.6x $[(130+30)/100]$, they

do not add a commensurate amount of volatility. This is because the incremental positions generally have a very low correlation to the original long-only portfolio. Ergo, a 130/30 may have an ex ante volatility that is only marginally higher than that of the original 100 portfolio and, ex post, it is often lower.

Headline risk may be higher for a 130/30 fund than for a traditional long-only mandate due to the idiosyncratic nature of the added positions. But headline risk is lower than what might be faced by an investor owning both a long-only fund and a separate market-neutral hedge fund. While this may seem like a cosmetic difference to suppliers of stand-alone hedge funds, it amounts to a critical—albeit superficial—enabler for many institutions.

Even though they offer many of the benefits of hedge funds, 130/30 funds tend to have fees that are more similar to traditional long-only mandates than they are to hedge funds. While the market continues to grope for an equilibrium price, early indications are that fees will be a multiple of gross exposure—that is, 1.6 times the typical long-only fee for a fund that has 160% gross market exposure (e.g. a 130/30 fund). Notably, some suppliers have also adopted the performance-based compensation common to bona fide hedge funds.

Large, well-established asset managers have been quick



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to oblige institutions' newfound interest in 130/30 funds. Cynics suggest that this amounts to an endorsement of hedge funds and that these traditional managers are just offering a hedge fund-light. But as the divergent rankings presented above illustrate, institutional investors place significant value in names they trust and companies with which they already conduct much business.

Like hedge fund replication strategies, 130/30 funds are too new to accurately assess. Proponents suggest that good managers will necessarily benefit from removing the short constraint while critics charge that short-selling is a distinct skill set that cannot be found in traditional long-only firms. Only time will tell. But for now it's clear that 130/30 has the potential to clear many of the hurdles faced by hedge funds over the past decade.

SIZING UP REPLICATION

The late 1990s saw the emergence of a field of research that aimed to explain the apparent free lunch provided by hedge funds. Early iterations of this research benignly sought to explain this paradox. But soon after the turn of the century, several academics began to take a more prescriptive tone, suggesting that if hedge fund returns could be explained by a set of factors, they could also be replicated using those same factors. Thus was born the field of hedge fund replication. Today, three broad methodologies have been applied to replicating baskets of hedge funds. One picks up on the early factor research above (factor replication). A second attempts to recreate the volatility, correlation and skewness of hedge fund return distributions, without attempting to match the month-to-month returns of those hedge funds (distribution replication). And a third, less common, approach aims to replicate hedge fund returns using a set of trading rules (mechanical trading replication).

There is currently much debate among academics and practitioners about the merits of each approach and even about the fruitfulness of the enterprise itself. For all its flaws, however, hedge fund replication has the potential to clear several of the hurdles faced by the hedge fund industry as it attempts to court institutions. Regardless of the methodology employed, hedge fund replication strategies are more transparent than their real-life hedge fund cousins. Individual factors and mechanical trading rules can be easily shared with investors. And, while the nuances of the distributional replication approach have been at the centre of some controversy, the broad elements of this strategy are self-evident to the seasoned institutional investor familiar with option replication strategies.

Unlike true hedge funds, hedge fund replication strategies are highly liquid. While investors in a fund of hedge funds will generally face liquidity parameters that are similar or more stringent than those of the underlying hedge funds, investors in hedge fund replication strategies face no such constraint. While avoiding the drawbacks of transparency and lower liquidity, hedge fund replication strategies share one positive attribute with portfolios of real hedge funds, a lower volatility-level than that of equity markets. In addition, hedge fund replication strategies have the potential to mitigate institutional investors' concerns about headline risk since, by design, they lack the idiosyncratic risk inherent in actively managed portfolios of hedge funds.

At the same time, because of their passive construction, hedge fund replication strategies generally do not charge performance fees. Management fees for funds based on the factor-based strategies are typically in the 1% range (0.75% index licence fee + 0.25% structuring fee). Distribution replication strategies are currently available for around 0.60% (0.40% software licensing fee + 0.20% management fee). Due, in part, to this passive approach, hedge fund replication is also a volume business with a substantial level of capacity. As a result, suppliers tend to be large firms with established reputations and a breadth of business that enable them to offer a product that seems, on the surface, to compete with their own actively managed fund of hedge funds.

For the reasons stated above, institutional investors have begun to kick the tires of the new replication models. While the features above represent undeniable benefits for institutional investors, the big question remains: can they produce alpha? Or, more appropriately (since they are passive), can they deliver hedge fund alternative beta? And therein lies the source of the often rancorous debate between advocates of hedge fund replication and defenders of traditional hedge funds and funds of funds. Suffice to say, however, the performance has been close enough to place hedge fund replication firmly on the radar screens of the institutional investors that have so far been reticent to invest in hedge funds.

BRIDGING THE GAP

Hedge funds have often expressed frustration over the hesitancy of mainstream institutional investors to allocate capital to alternative investments. To them, it seems as if the institutional community is in a perpetual cycle of education and re-education. But institutions have not been idle as the hedge fund revolution progresses. Indeed, many institutional investors have expressed a desire to invest in hedge funds, but are simply unable to overcome key technical hurdles. As a result, both parties remain together, but alone.

It appears that at least two new developments, short extension and hedge fund replication, will finally bridge the gap between these two solitudes—but in an unexpected way. On the one hand, they essentially represent institutional investors cherry-picking what, to them, are the key features that fiduciaries require in order to implement hedging strategies. On the other hand, they are unique enough to constitute a new genre of hybrid strategies that hail from neither of the two pension and hedge fund solitudes. ■