Derivatives Trading

Portable alpha and hedge funds: Legal issues

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Practical applications

The hedge fund sector continues to enjoy considerable growth worldwide. Increasingly, attention is being directed at how hedge funds can be used to create portable alpha strategies that can consistently deliver above-index returns. This is of considerable interest to pension fund trustees and other fiduciary investors whose investment performance is measured against major market indices. It is therefore important for these trustees and fiduciary investors to be familiar with the legal structures through which portable alpha strategies are implemented and also the core legal issues that arise in connection with those strategies.

Abstract

Hedge funds are a principal source of excess returns, or 'alpha', in the portable alpha strategies that are now gaining in popularity among pension fund trustees and other fiduciary investors. This paper examines two matters of importance to trustees and other fiduciary investors intending to adopt portable alpha strategies. The first is the legal structure of a portable alpha strategy under which the alpha generated by a hedge fund is combined with an index-tracking strategy, with the objective of delivering returns in excess of the relevant index. The second is the interaction of the fiduciary investor's legal duty of prudence with the implementation of a portable alpha strategy.

INTRODUCTION

The exponential growth of hedge funds worldwide and the pervasiveness of hedge fund trading activity in the global financial markets have focused attention on how the investment returns generated by these funds can be deployed in 'portable alpha' strategies. Portable alpha strategies can be viewed as a further progression on the theme of enhanced indexing, where the managers of portfolios that are benchmarked against a major market index seek above-index returns through combining or overlaying their portfolios with the excess return, or 'alpha', created by a hedge fund. These strategies are being

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viewed with increasing favour by fiduciary investors, such as the trustees of pension funds, who are dissatisfied with the returns produced by conventional investment strategies but are constrained in their asset allocation decisions by the fact that the performance of their portfolios is measured against major market indices such as the FTSE 100.

This paper examines the legal structure of a generic portable alpha strategy and discusses the legal implications for the trustees of pension funds and other fiduciary investors who are considering the adoption of a portable alpha strategy.

PORTABLE ALPHA: THE PRINCIPAL SOURCE OF 'ALPHA'

'Alpha' is a measure of the difference between the actual return generated by a portfolio and the portfolio's expected return, taking into account the portfolio's exposure to the market or markets in which it is invested.¹ A portfolio that displays a positive alpha suggests that the portfolio has generated returns in excess of what its mere exposure or sensitivity to the underlying markets would indicate (that is, the portfolio's 'beta'), while a negative alpha suggests underperformance relative to such market exposure. Accordingly, alpha can be viewed as the measure of a portfolio's return that is attributable to the skill of the portfolio manager.

A principal source of alpha for portable alpha strategies has been the returns derived from 'long/short' equity funds.² Alpha can, in principle, be sourced from any type of fund or asset class, but it is hedge fund

strategies such as long/short equity strategies that have, to date, received the greatest attention as potential sources of alpha.

Portable alpha strategies, most of which are centred around hedge fund returns, can be viewed as another avenue of distribution for hedge funds in an analogous manner to 'funds of hedge funds' and the newer 'collateralised fund obligations'.³

Long/short strategies comprise the dominant strategy employed by hedge funds.³ A hedge fund that follows a long/short equity strategy is fully invested in a combination of long and short equity positions.⁴ These positions are created by buying or selling equity securities and transacting equity options and other equity derivatives. The fund switches between net long and net short positions, depending upon the hedge fund manager's view of the future direction of the broad market in which the fund is invested. Thus, in a bull market, a long/short equity fund will display a long bias while, in a bear market, it will display a short bias.

The hedge fund manager seeks positive returns by exploiting disparities in the pricing relationships between similar securities: the manager will establish long positions in securities to be undervalued relative to other securities of a similar type and short positions in the latter securities. By holding these positions, the manager seeks to generate a profit from a convergence in the prices of the securities. The fact that the aggregate long and short positions of the fund only partially offset one another means that the fund is able to participate in directional movements in the broad market in which those securities are

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traded without being wholly exposed to such movements.

PORTABLE ALPHA: GENERIC STRUCTURE

A portable alpha strategy, at its core, involves two steps. The first is identifying a consistent source of alpha (typically, hedge funds that follow a long/short equity strategy) and extracting the alpha from that source. The second step involves combining the 'ported' alpha with an index-tracking strategy. If the selected alpha source continues to generate positive alpha, the end-result should be a portfolio that delivers returns in excess of the index being tracked.

The construction of the index-tracking component of the portfolio in a portable alpha strategy is markedly different from the way in which the portfolios of conventional index-tracking funds are created. Here, exposure to a major market or sector index is created not by investing in the physical constituents of the index, but synthetically, through transacting equity derivatives; for example, exchange-traded index futures (such as LIFFE FTSE 100 Index futures) or over-the-counter (OTC) equity swaps. In the case of an OTC equity swap, exposure to the index (eg FTSE 100) is achieved by the portfolio manager making payments pegged to an interest rate benchmark (eg London interbank offered rate [LIBOR]) over a notional principal amount to a swap counterparty in exchange for the swap counterparty making payments linked to the

performance of the index (as if that notional principal amount had been fully invested in the index).⁵

A portfolio that adopts a portable alpha strategy can thus obtain the same exposure to the broad market or a sector of the market as a conventional index-tracking fund of a comparable size, by allocating only a relatively small proportion of the portfolio to index futures or other equity derivatives. The balance of the portfolio (usually 90–95 per cent) can then be allocated to an external hedge fund or an internal strategy that has consistently generated positive alpha. In this manner, the alpha derived from that fund or strategy is combined with the index-tracking component of the strategy.

Where the alpha is ported from an external source, such as a long/short equity hedge fund, the portable alpha strategy is implemented by allocating the balance of the portfolio to the hedge fund. Where the alpha is being sourced internally, the portable alpha strategy is created by the portfolio manager investing the balance of the portfolio in that particular strategy (again, this is usually a long/short equity strategy of the type followed by hedge funds).

A direct investment in a single, external hedge fund may not always be a viable course of action; for example, where that hedge fund is closed to new money or where the minimum investment required by the hedge fund is an amount greater than that which the portfolio manager wishes to allocate to an individual hedge fund or a particular hedge fund strategy. In that situation, the selected alpha can be sourced through an investment in a fund of

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hedge funds, which is itself an existing investor in the closed hedge fund.

Obtaining exposure to hedge funds via funds of hedge funds carries additional risks. First, these funds of funds are invested in multiple hedge funds. This raises the risk that the fund of hedge funds may be over-diversified or spread across too many hedge funds which may, despite the past performance of the fund of hedge funds as a source of positive alpha, lead to the dilution of individual performance contributions of the underlying hedge funds and thus declining or flat returns for the fund of hedge funds. Conversely, if the fund of hedge funds is overly concentrated in a small number of hedge funds or in a single hedge fund strategy, there is the risk of duplication of investment positions within the various hedge funds. This may lead to whatever alpha is attributable to those hedge funds being 'swamped' by their betas, attributable to their exposure to the same equity securities or the same equity markets.

An alternative course of action is for the portfolio manager to enter into an equity swap under which the manager makes payments pegged to an interest rate in exchange for payments linked to the return of a designated hedge fund. Such swaps are routinely employed in the creation of retail funds of hedge funds.⁶

In many instances, the source of alpha may be not a 'pure' source, in that part of the return generated by that source is attributable to its exposure to the market in which it is invested (as, for example, in the case of a long/short equity hedge fund which maintains a net long or net short

position). Here, it will be necessary to separate the alpha of the fund from its beta, a step that is normally implemented through the use of derivatives, before combining that alpha with an index-tracking strategy.⁷

The implementation of a portable alpha strategy with the objective of delivering returns in excess of the FTSE 100 can be illustrated by the following generic structure. The source of alpha in this example is a long/short equity hedge fund that is primarily invested in US equity securities. The index-tracking component of the portable alpha strategy can readily be implemented by investing in FTSE 100 Index futures or OTC equity swaps (where interest rate-linked payments are exchanged for FTSE 100-linked payments). Simply acquiring exposure to this hedge fund via a direct investment or an equity swap would, on its own however, result in both the alpha and the beta of the hedge fund being combined with FTSE 100-linked returns.

The alpha component of the hedge fund's return can be isolated through the introduction of further derivatives. The portfolio manager can strip out that portion of the hedge fund's return attributable to its exposure to the US equity market or its beta, by entering into an equity swap under which S&P500-linked payments are exchanged for interest rate-linked payments (eg US LIBOR). The US LIBOR payments would, in turn, be swapped for LIBOR payments under a currency swap, thus enabling the portfolio manager to implement the index-tracking component of the portable alpha strategy by swapping the LIBOR payments for FTSE 100-linked

Table 1: Swap transactions for a portable alpha strategy

Swap	Purpose	Cashflows
Equity swap	Swap out US index return (to strip out US beta)	Pay: S&P500 Receive: US LIBOR
Currency swap	Exchange interest rates in different currencies	Pay: US LIBOR Receive: LIBOR
Equity swap	Swap in UK index return (to create index-tracking component of strategy)	Pay: LIBOR Receive: FTSE 100

payments. The aggregate effect of the swaps, which is illustrated in Table 1, is first to isolate the alpha of the hedge fund (by making S&P500-linked payments) and then to combine that alpha with a FTSE 100 index-tracking strategy.

LEGAL ISSUES: INVESTMENT AUTHORITY

A typical portable alpha combines an investment in a discrete source of alpha (such as an external hedge fund) or the implementation of an alpha-generating strategy with synthetic exposure to an index created by using derivatives. This raises the fundamental question of whether the trustee of the pension fund or other portfolio manager seeking to implement the portable alpha strategy, in fact, possesses the legal authority to make such an investment and employ derivatives in this way.

It is essential that the investment mandate containing the terms on which the pension fund or portfolio is to be managed explicitly permits investments in hedge funds or hedge fund-style strategies and the use of derivatives to create index exposure (and, if necessary, also to create exposure to an external hedge fund or to strip out beta). If, for instance, the mandate limits the use of derivatives by the trustee or

manager to hedging, it is doubtful whether, as a matter of law, the trustee or manager would have the authority to transact derivatives as part of a portable alpha strategy. The purpose of the derivatives component of the portable alpha strategy is to create exposure to an index (and, in some instances, to a hedge fund as well), in contrast to hedging the existing investment exposures of the pension fund or portfolio.

The absence of the requisite legal authority means that any derivatives entered into by the pension fund trustee or portfolio manager will be void — even in circumstances where the derivatives in question have been fully performed — and the net payer (irrespective of whether this is the trustee/manager or swap counterparty) will be entitled to recover all payments made by it under the derivatives.⁸ In addition, the pension fund trustee and the portfolio manager will be personally liable for any losses incurred in connection with the derivatives. An equivalent result follows where there is no legal authority to invest in the hedge fund or other designated source of alpha.

LEGAL ISSUES: DUTY OF PRUDENCE

The mere fact that the pension fund trustee or portfolio manager has the legal authority

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to implement a portable alpha strategy does not, however, necessarily mean that such a course of action is a legal one. Pension fund trustees, portfolio managers and other persons entrusted with the power to manage investments on behalf of others must, when deciding to implement a portable alpha strategy, have regard to the suitability of that strategy and the need to ensure portfolio diversification. This is the ‘prudent investor rule’. It applies to pension fund trustees and all other fiduciary investors in markets governed by laws based on English common law.

The strictures of the prudent investor rule are usefully encapsulated in the Uniform Prudent Investor Act of 1994, which has been adopted in the majority of US states (including New York). Equivalent principles govern the conduct of trustees and other fiduciary investors in the UK, Australia and the majority of the Canadian Provinces.⁹ The 1994 Act summarises the prudent investor rule as follows:¹⁰

- A fiduciary investor must, in investing and managing fund assets, consider the purposes, terms, distribution requirements and other material circumstances of the fund;
- Decisions made by the fiduciary investor concerning individual assets must be ‘evaluated not in isolation but in the context of the trust portfolio as a whole and as a part of an overall investment strategy having risk and return objectives reasonably suited to the [fund]’;
- Among the factors that the fiduciary investor must consider when making an investment decision are ‘the role that

each investment or course of action plays within the overall [fund] portfolio’, ‘the expected total return from income and the appreciation of capital’ and ‘needs for liquidity, regularity of income, and preservation or appreciation of capital’; and that

- The fiduciary investor must ‘diversify the investments of the [fund]’.

The prudent investor rule, accordingly, requires a pension fund trustee or other fiduciary investor who is considering implementing a portable alpha strategy to:

- Assess the structural advantages and disadvantages of a portable alpha strategy; and
- Assess the risk and return profile of the source of alpha and the impact of implementing the portable alpha strategy upon the collective risk and return profile of the existing investments held by the fiduciary investor.

PORTABLE ALPHA: STRUCTURAL ISSUES

A key component of a portable alpha strategy is the use of derivatives to create synthetic exposure to an index. The exposure to the index is, in this situation, created by employing only a relatively small fraction of the assets in the portfolio and thus at a fraction of the cost associated with conventional index-tracking strategies. Nor is there any need to rebalance portfolio holdings to match changes in the composition of the relevant index.

Conventional index-tracking funds seek

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to match index returns by replication (investing in substantially all of the index constituents, in approximately the same proportions as those constituents are represented in the index) or sampling (investing in a substantially smaller number of securities which are a representative sample of the index and have a similar risk and return profile to the index), but, in both cases, through the investment of substantially all of the fund in the physical index securities. That is also true of enhanced index funds that seek above-index returns; again, substantially the entire fund is invested in the physical index securities but the fund manager may overweight or underweight some of those securities relative to their representation in the index.

Portable alpha strategies substitute index or other equity derivatives for direct investments in physical index securities. Here, the crucial fact is that, where OTC derivatives are employed, the pension fund trustee or portfolio manager has replaced the market and issuer-specific risks associated with the index securities with the credit risk (the risk of default or bankruptcy) of the swap counterparty. In discharging his/her duty of prudence, the fiduciary investor must therefore have regard to this credit risk, and assess whether some form of credit risk mitigation (eg cash collateralisation of the derivative or the provision of third-party support such as a letter of credit) is required when implementing a portable alpha strategy.

In terms of external sources of alpha, such as long/short equity hedge funds, the key structural issue relates to the limited

liquidity of such investments. Investments in hedge funds are typically subject to 'lock-up' periods, during which investors cannot redeem their investments in the hedge fund. Even following the expiry of the lock-up period, hedge funds strictly regulate the redemption of investments: investors must give advance notice of their intention to have the hedge fund manager redeem their investments and redemptions will normally only be effected during specified exit 'windows'.

PORTABLE ALPHA: PORTFOLIO IMPACT

Where the designated source of alpha is a hedge fund, the pension fund trustee or other fiduciary investor must assess the risk and return attributes of the hedge fund and the likely impact upon the existing investments in the trustee's or investor's portfolio of sourcing alpha from that hedge fund. Of foremost concern is the risk that the designated source of alpha will fail to generate the expected returns, which may mean that the combined alpha/index returns will underperform the benchmark against which the portfolio's performance is assessed, and therefore abrogate the very rationale for adopting the portable alpha strategy.

The trustee or investor must therefore:¹¹

- (1) Understand the long/short equity strategy (or other investment strategy) of the hedge fund, including the risks inherent in that strategy, the extent to which that strategy permits the hedge fund to take concentrated or short

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positions and the extent to which leverage is employed by the hedge fund;

- (2) Understand the composition of the hedge fund's own portfolio, including the market and issuer-specific risks of the securities and other assets in the portfolio, the liquidity of those portfolio constituents and the extent to which the portfolio is diversified;
- (3) Monitor the returns generated by the hedge fund and the extent to which the investor's portfolio is exposed to the hedge fund;
- (4) Monitor the hedge fund's portfolio composition. (In particular, changes or 'style drifts' in the hedge fund's investment strategy which may undermine its efficacy as a source of positive alpha.); and
- (5) Monitor withdrawals (which can adversely affect the returns generated by the hedge fund, as hedge funds do not normally maintain cash buffers and may be invested in illiquid assets).

Equally, when selecting an index for the index-tracking component of the portable alpha strategy, the pension fund trustee or other fiduciary investor must:¹²

- (1) Assess the appropriateness of the index in the context of the investment mandate for the pension fund or portfolio;
- (2) Assess competing indices (the major index vendors cover the same major markets and also similar market sectors);
- (3) Understand how the index is constructed, including the survivorship

and other biases inherent in the index, and the impact on the index of illiquid index constituents and stale prices;

- (4) Monitor changes to the composition of the index, and
- (5) Assess the correlation and tracking error of the returns on the derivatives position with the performance of the index (the use of derivatives should minimise the basis risk arising from imperfect correlation with the index being tracked; however, establishing and rolling-over derivatives positions entail costs and those costs, if not monitored, could create material variations between the derivatives return and index returns).

CONCLUSION

Portable alpha strategies seek to outperform an index by combining a source of alpha (typically, a long/short equity hedge fund or strategy) with an index-linked derivatives position. These strategies carry with them significantly different risks to conventional index-tracking and enhanced index strategies which involve directly investing in index securities.

This paper has laid out the core elements of a generic portable alpha strategy and examined the key legal issues facing pension fund trustees and other fiduciary investors who are considering implementing such a strategy. In particular, the use of portable alpha strategies is constrained by two legal requirements. First, the investment mandate must confer upon the trustee or other fiduciary investor the legal authority to implement the two key

components of the portable alpha strategy; namely, the creation of exposure to an index using derivatives and the allocation of portfolio assets to a hedge fund or hedge fund strategy.

Secondly, the trustee or other fiduciary investor is required, as a matter of law, to have regard to the 'suitability' of the portable alpha strategy and the need to ensure portfolio diversification. This requires a clear understanding of the structure of the portable alpha strategy, the risk and return attributes of the strategy, and the impact on existing portfolio investments of the adoption of the strategy.

This paper sets out, in detail, the specific matters to which trustees and other fiduciary investors must have regard when assessing compliance with the above suitability and diversification requirements.

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