



## CURRENCY HEDGING

### THE IMPACT OF EXCHANGE RATE VOLATILITY ON CURRENCY HEDGED CLASSES

How changes in exchange rates present liquidity issues for funds

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Many of the current challenges facing the hedge fund industry are well-known. With stock markets continuing to be affected by fears of a deepening global recession, hedge funds are struggling with poor performance and a strained liquidity environment, leaving investment managers fighting to retain investors.

The fund of hedge funds sector has been particularly affected. According to the Credit Suisse/Tremont Hedge Fund index, overall hedge fund performance was down 19% in 2008. Hedge Fund Research reports that during the course of 2008, investment losses and redemptions reduced hedge fund assets by 20% to US\$1.4 trillion, and fourth-quarter redemptions reached US\$152 billion. With new subscriptions dwindling, the task of raising sufficient cash to finance the wave of redemptions has been a challenge to funds of hedge funds. Many hedge funds are stemming exit flows by gating redemptions or taking the more extreme measure of suspending redemptions altogether. Morgan Stanley has estimated hedge fund assets under management could fall below \$1 trillion by the end of 2009, which would be a loss of half the industry's assets from its peak in mid-2008.

While these hedge fund struggles are well-known and portrayed frequently in the media, a lesser-known factor negatively impacting the liquidity of funds of hedge funds has been the overall appreciation of the dollar against other major currencies such as the euro and pound. From August 2008 to February 2009, the euro and pound have both depreciated significantly against the dollar.

### THE HISTORY OF CURRENCY HEDGING IN HEDGE FUNDS

Many funds of hedge funds, especially those managed in Europe, have used currency class hedging as a means of attracting additional capital. As many funds of hedge funds are managed in dollars with a primary investment objective of the accrual of a dollar-based return, many euro- or pound-based investors may be reluctant to invest because of the associated foreign exchange (FX) risk. Through investment in a hedged currency share class, an investor can gain exposure to the fund's base performance return while mitigating the effect of exchange rate fluctuations between the currency and the base currency. Funds that offer euro and pound-hedged currency share classes are therefore a more attractive investment opportunity to these clients.



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Hedged currency share classes are managed so class returns are closely correlated with the fund's base currency shares. This is typically arranged through the use of a forward FX contract, a deal to exchange currencies at a designated future time at a price agreed now. Forward FX contracts are an attractive method because of their comparatively low cost and the existence of a relatively liquid execution market. The profit and loss associated with the hedges will be attributed entirely to the respective hedged currency share class.

The most common dealing cycle for a fund of hedge funds is monthly, and FX contracts on the hedged classes therefore tend to be rolled on a monthly cycle. At the end of the month, the existing FX contract is closed out and a new forward FX contract with a value of the latest net asset value for the hedged currency class is executed with a settlement date of the following month end. Subscriptions and redemptions on the classes are treated similarly. For subscriptions, a spot deal is executed to convert non-base currency subscriptions to base currency and the base currency equivalent is sold forward. The exact opposite takes place for redemptions.

#### **THE IMPERFECTION OF CURRENCY HEDGING**

However, investors in hedged currency share classes, as a general rule, cannot expect the performance returns to match exactly those of the base currency share class. While interest rate differentials on the forward FX contracts will always cause a reconcilable divergence, other issues only allow investment managers to manage the hedged currency share classes on a best-efforts basis.

One of these is the effect of changes in the fund's market value. Consider a pound-hedged currency class with a US\$10 million share of the fund's assets. Selling US\$10 million to buy pounds perfectly hedges the exchange rate exposure for as long as the net asset value (NAV) of the assets remains the same. However, any movement in the dollar asset value will reduce the effectiveness of the hedge. For instance, if the value of the pound-hedged currency class's assets appreciates by 25% to US\$12.5 million, the share class remains hedged only for the original value of US\$10 million. The differential of US\$2.5 million (20% of the share class value exposure) is therefore left unhedged.

To keep the currency as fully hedged as possible, funds of hedge funds will assess the need for adjustments each time the NAV is prepared, including potential interim adjustments based on estimated valuations. However, because future movements of NAV are unknown, market value adjustments to hedges can only ever be considered in arrears.

#### **THE PARTICULAR IMPACT OF LIQUIDITY CONCERNS ON FUNDS OF HEDGE FUNDS**

Because they invest in less-liquid strategies, funds of hedge funds have been hit particularly hard by FX trade losses. Generally, funds of hedge funds are able to mitigate liquidity problems through the application of various restrictions and guidelines. For instance,



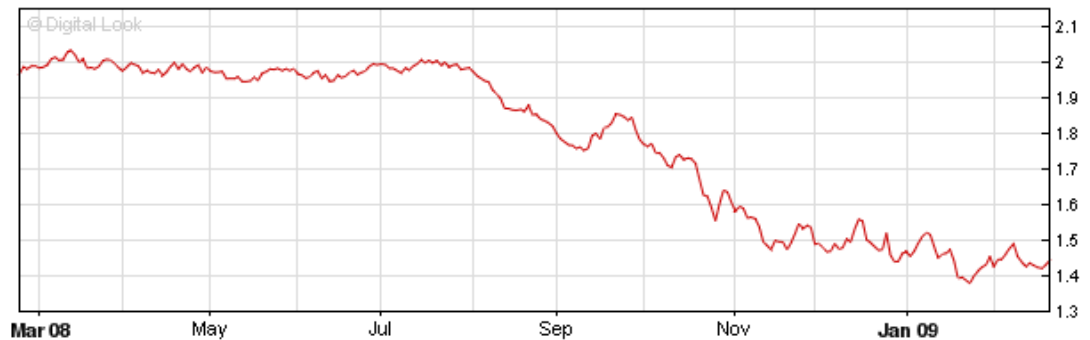
investors are required to give a period of notice for redemption requests, normally 30 to 90 days. This notice provides the fund manager sufficient time to raise the proceeds to finance the redemption and is essential to the effective functioning of the funds. However, because restrictions such as these cannot be applied to FX trading, realised losses on FX hedges are like having to accommodate a redemption request without any notice.

When hedges are rolled at month end, a realised gain or loss is generated on the closed forward FX contract. While FX contracts benefit hedged currency share class investors by preserving their capital in the share class currency, there is an effect on the full fund's value in base currency terms. A realised gain on a forward FX contract serves as an additional contribution to the fund, while a realised loss has the opposite effect. With the dollar appreciating and forward FX contracts on euro- and pound-hedged share classes going short on the dollar, the resulting realised losses also exacerbate dollar-based funds of hedge funds' liquidity difficulties.

***So, how has the appreciation of the U.S. dollar caused liquidity concerns to fund of hedge fund managers offering hedged currency classes?***

From August 2008 to January 2009 the euro and pound both depreciated significantly against the dollar.

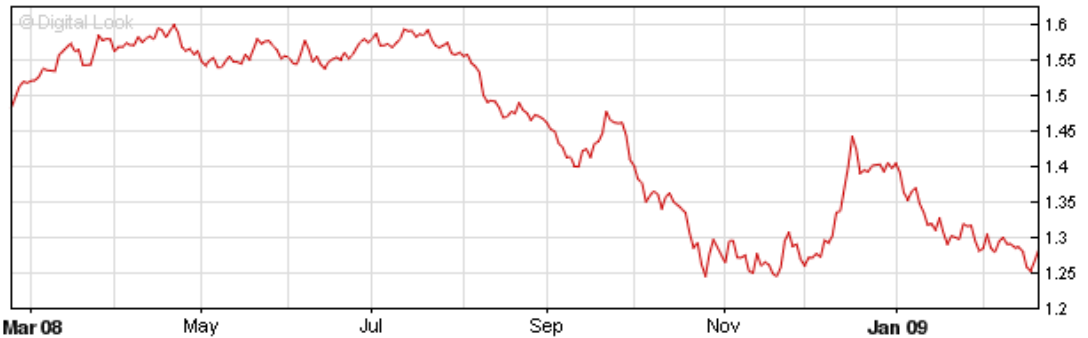
**POUND - UNITED STATES DOLLAR**



Source – BBC.CO.UK

**EURO - UNITED STATES DOLLAR**





Source – BBC.CO.UK

Movements have been volatile, particularly in the EUR/USD trade. In October 2008, the dollar appreciated nearly 10% against the euro and 9% against the pound, December 2008 showed a 10% depreciation against euro but a 5% appreciation against the pound, while January 2009 saw the dollar appreciate more than 8% against the euro.

Consider a US\$1 billion fund of hedge funds with 30% of assets attributed to euro-hedged class shares and another 30% to pound-hedged class shares. In October 2008, the dollar appreciated 10% against the euro and 9% against the pound. US\$57 million would need to be found to cover the losses ( [US\$300 million x 10%] plus [US\$300 million x 9%]). If a fund is fully invested or already overdrawn, that US\$57 million would be borrowed until the portfolio's hedge fund assets could be sold.

#### *What actions are managers taking in response?*

Because of the hedged currency class squeeze on liquidity requirements, fund of hedge fund managers have been analysing alternative means of managing these classes. While the management of hedged currency classes in more benign market conditions may have been seen as a mechanical exercise, the current economic climate has encouraged alternative approaches.

One is to stagger the settlement date of the forward FX contract. Rather than rolling 100% of the hedged class base currency exposure one month forward, the settlement dates are extended for a portion of the exposure. For example, three separate FX forwards could be executed, with 40% of the exposure due to settle in 30 days, 30% in 60 days and 30% in 90 days. While processing the FX contracts over a longer settlement period won't reduce potential realised losses, the manager has more time to manage the cash flows.

Capping the potential loss is also a possibility. As outlined earlier, a sharp rise in the strength of the base currency relative to the hedged currency can generate a significant loss that will require funding. Derivatives can be used to minimise any potential loss. Consider a currency put option (the right to sell a particular currency at a specified price within a specified period of time) with a maturity date set to coincide with the forward FX contract's

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settlement date. If the exchange rate movement exceeds the specified “strike” price of the option, the option produces a profit that offsets any further appreciation in the base currency, capping potential funding requirements resulting from a forward FX loss.

However, the use of a currency option may affect the hedged share class’s performance return relative to the base currency class. Because these options must be purchased, the amount of the purchase price causes the performance of the hedged currency share class to diverge from that of the base currency. However, if the exchange rate moves enough for the option to be “in-the-money,” further appreciation in the base currency against that of the hedged currency class is essentially unhedged, and would be a gain to the class instead of neutral.

In any case, depreciation of the base currency -- the risk investors in hedged currency share classes seek to avoid through their hedged share class investments -- will continue to generate realised profits on the FX contracts and have a positive effect on the fund of hedge funds’ liquidity. Should we enter a period of U.S. dollar depreciation, funds of hedge funds will therefore benefit from currency fluctuations.

#### *What can we expect from the future?*

While the current climate has presented additional challenges to the fund of hedge fund managers who offer them, hedged currency classes are here to stay. Attracting additional investment to a fund will always be a priority, and such classes open the fund to a wider investor base.

For now, fund of hedge funds managers are counting the costs of managing these classes. The effect these classes can have on a fund of hedge fund’s liquidity position has forced investment managers to question and review the way they manage these classes. No longer can the process be described as a mechanical exercise, and in the current climate, it is requiring greater attention.



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