AllenbridgeEpic
investment advisers

REPORT ON
CURRENCY HEDGING
PREPARED FOR

London Borough of Islington

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Note on Currency Hedging

Background

When a pension fund invests in foreign-denominated assets, inherent in the investment is an element of currency exposure. By entering into forward foreign exchange contracts and futures contracts, it is possible for a pension fund to eliminate that currency risk. This can be advantageous during periods when sterling is appreciating.

Example:

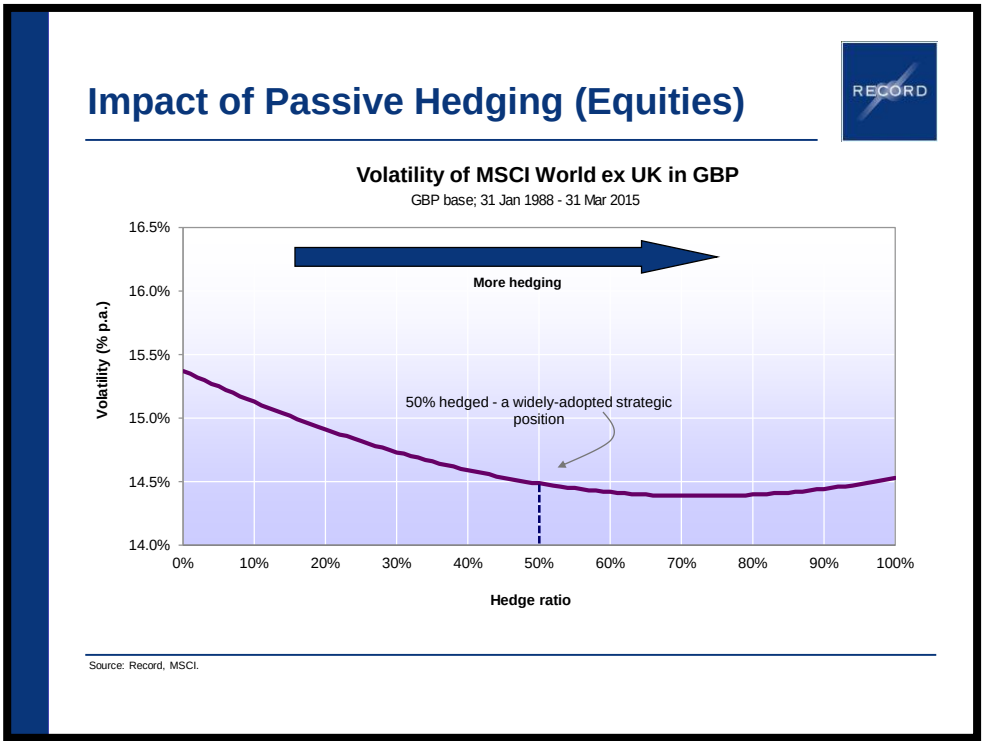
A manager has a £100 million investment in US equities. The exchange rate is $1.60, which equates to a dollar value of $160 million. If sterling appreciates to $1.70 (and assuming the equity market stays flat), the sterling value of that portfolio now falls to £94.1 million. By hedging the currency exposure, the portfolio would still be worth £100 million, because the sterling loss in value would be offset by a gain on the forward foreign exchange contract.

However, if sterling were to depreciate to $1.50, the sterling value of the holding would increase to £106.7 million. In this case, the currency hedging strategy would make a loss, offsetting the gain in the equity portfolio.

What is the investment case for currency hedging?

Traditionally, academics used to recommend that pension funds unilaterally hedged around half of their currency exposure on risk diversification grounds. This, they argued, would lead to a more efficient risk adjusted return stream. Record Currency Management Limited, for example, have analysed the volatility of the MSCI World ex UK in sterling for different levels of currency hedging and the results are shown in Chart 1.

Chart 1



Source: Record Currency Management Limited – reproduced with their permission

Chart 1 confirms that hedging 50% of currency (as in London Borough of Islington's portfolio) did indeed result in lower volatility for a sterling investor, based on returns from January 1988 to March 2015.

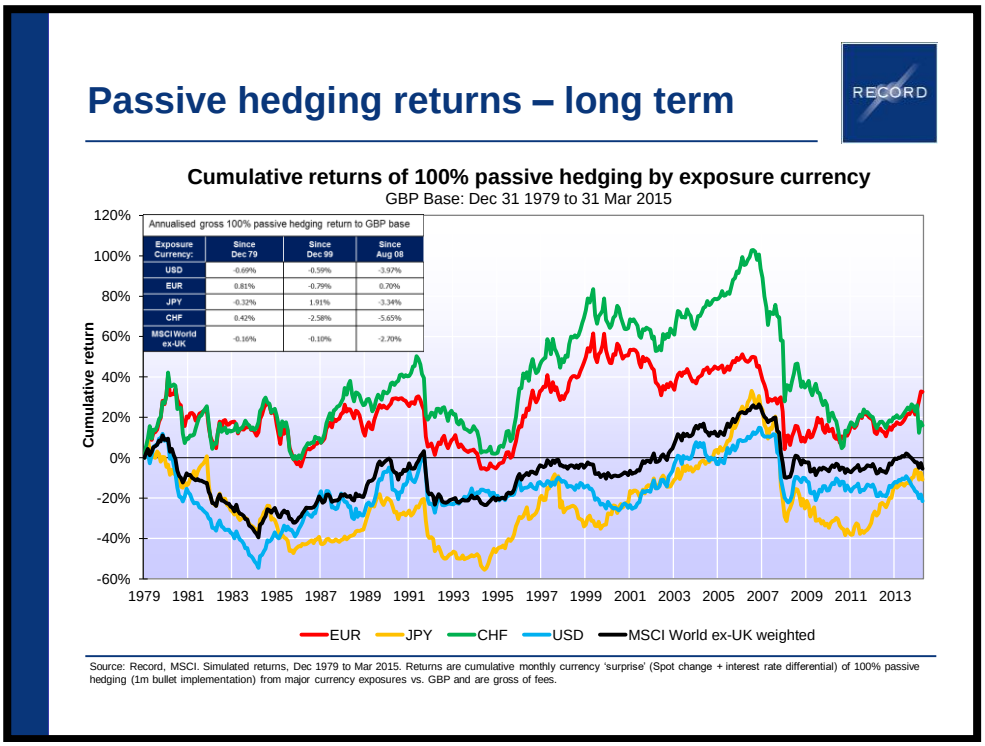
However, research by Elroy Dimson, Paul Marsh, and Mike Staunton of the London Business School published in 2012, has concluded the following:

- Overseas equities perform best after periods of currency weakness. As the example above demonstrates, investors gain when a foreign currency appreciates (and sterling depreciates) and suffer losses when that currency depreciates (and sterling appreciates). Because of this diversifying relationship between equity performance and currency performance, the authors concluded that un-hedged exposure was most effective at reducing the volatility of the portfolio.
- For bonds the picture was much less clear. Overseas bond investment added to portfolio risk primarily through currency exposure. Short-term currency hedging was found to be beneficial although these benefits were reduced with longer investment horizons.

Record Management's response to the Dimson, Marsh and Staunton research is that, whilst they agree with the long term conclusion drawn by the authors, it masks a wide array of outcomes over shorter time periods.

Chart 2 shows the returns of a 100% passive hedge for some of the main currencies in a typical global equity portfolio. This chart is interesting because it demonstrates that there are shorter term divergences in the returns on currency hedges for different currencies at different points in time, some of which can be quite significant.

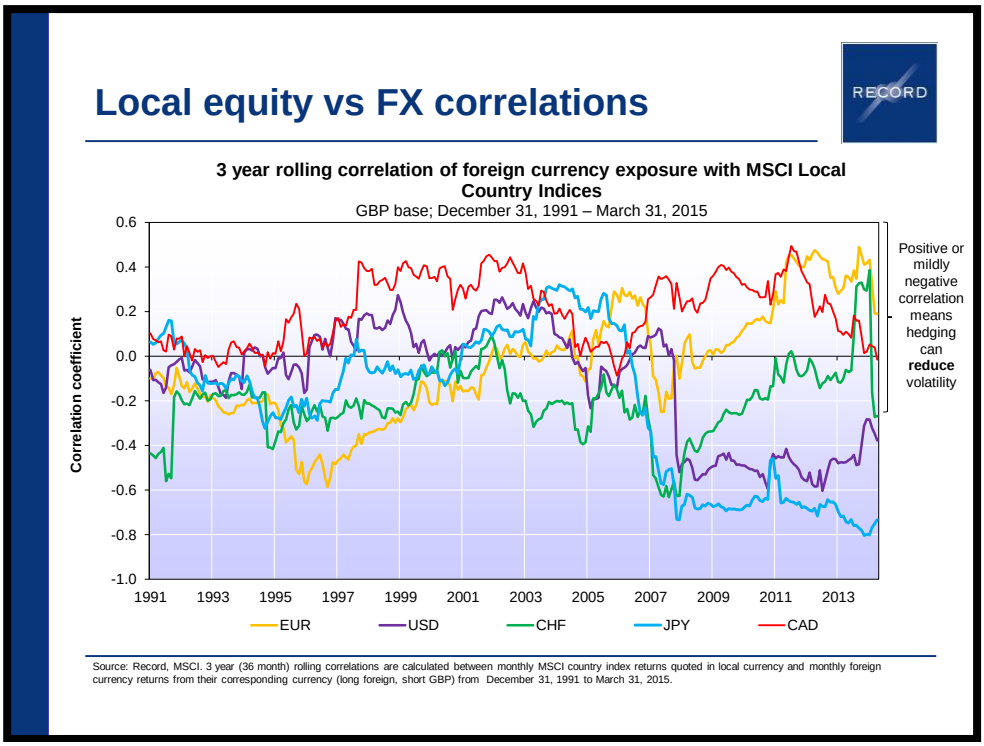
Chart 2



Source: Record Currency Management Limited

Record also argue that the correlations between the currency and the local equity market are far from static. Chart 3 shows the three year rolling correlations of foreign currency exposure with the MSCI Local Country Index for five key currencies.

Chart 3



Source: Record Currency Management Limited

When a currency is going through a period of more positive correlation with its equity market, hedging is likely to reduce volatility. When the currency is negatively correlated, however, an unhedged position is likely to be better. So the answer is: "It depends".

How can strategic currency hedging be implemented by a pension fund?

There are several ways a pension fund can introduce a strategic currency hedging programme into the portfolio:

- **Passive hedging.** In this case, an investment manager, or the pension fund's custodian, routinely hedges a pre-agreed, fixed percentage of the currency exposure in the portfolio, typically by entering into forward foreign exchange contracts with rolling three-month periods. At the end of each three months, the changes in currency values are cash settled and new currency forward positions are put in place.

  If sterling appreciates, the cash settlement on the forward currency is positive (this offsets the loss on the underlying portfolio). If sterling depreciates, the forward exchange contract settles at a loss and this is offset by the gain in the value of the underlying portfolio.

  Note that this means that there are occasions when the Fund will be asked to pay across cash. Although this is offset by an equivalent book gain in the underlying portfolio, in periods of continued sterling depreciation, the cash calls could become significant.

- **Dynamic hedging.** In this case, the fund manager will vary the amount hedged according to sterling's strength or weakness. The more the foreign currency appreciates, the less the manager hedges, and vice versa. The effect of this strategy is to generate an option-like payoff that captures most of the benefits of foreign currency strength but offers some protection in periods of domestic currency strength.

  Note that this strategy has similar cash payment flows as for a passive hedging approach (although the amounts will differ).

- **Active currency overlay management.** This is where a fund manager uses active skills and judgement to anticipate when currencies are appreciating and when they are weakening. Managers use fundamental and/or quantitative analysis to assess whether currencies are over- or under-valued, and position the portfolio accordingly.

  Arguably this is not a strategic currency hedging approach, as such, yet in the past some funds have argued that this approach offers them the twin benefits of both reducing portfolio risk and increasing potential return (because of the active selection decisions). Unfortunately, the poor performance of many active currency managers during the credit crunch earned active currency overlay management a bad name, and has led to a considerable number of pension funds withdrawing from this approach.

- **Tactical currency hedging as part of the underlying portfolio.** A final option is to delegate responsibility for currency hedging to the investment manager responsible for the overseas investments. Typically, managers will be happy to take tactical decisions to hedge currencies in the short term, as part of their investment decisions. Bond managers are more inclined to do this than equity managers. A major advantage of this approach is that the cash settlement on any forward foreign exchange contract must be dealt with by the investment manager as part of their portfolio administration.

What do other LGPS Funds do?

According to WM research, less than a quarter of LGPS funds in their universe now have a strategic currency hedging mandate in place. Active currency mandates remain relatively few and far between, and have fallen significantly from around twenty mandates, five years ago, to just two as at year end in 2014.

Currency hedging in the London Borough of Islington portfolio

At present, half the currency exposure of the overseas equity allocation is hedged. This is a strategic overlay hedging strategy, implemented by BONY Mellon using forward foreign exchange contracts. The bond portfolio invests in sterling-denominated corporate bonds, so there is no currency exposure in this part of the portfolio. The global property and private equity allocations are unhedged.

The committee is advised to consider whether it has the appetite to live with the shorter term impact of currency volatility on the fund's valuation. Whilst these effects may well wash out over time, the shorter term effect could be significant and if this is a concern, I would argue in favour of maintaining the 50% currency hedging programme, notwithstanding the longer term conclusions drawn by Dimson, Marsh and Staunton.

If the short term impact is not a concern, then I would recommend an unhedged equity allocation, on the basis that research indicates that the currency effects wash out over time, so not hedging would save the (modest) costs associated with implementing the strategic currency hedge.

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