Performance Measurement of Currency Allocation Decisions – A new perspective for Institutional Investors

Currency hedging has always been a topic of vigorous debate for institutional investors globally and in Australia. Discussion on the amount to hedge i.e. full or partial and the investment term (short to long) are just two areas of this debate. Add to this, the fact that investor's gain is actually derived in currencies with higher relative interest rates (e.g. Australia) relative to the currency they are wishing to hedge. It's little wonder that currency hedging draws its fair share of attention.

In light of the above, this article explores the challenges institutional investors may face in measuring their decision to hedge from an investment performance and analytics perspective and presents solutions to address this issue.

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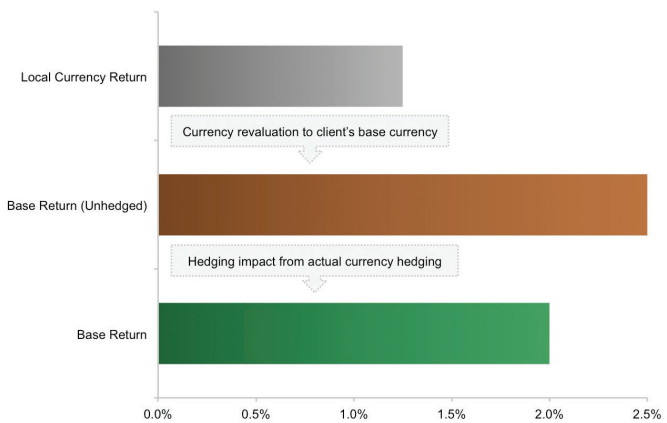
THE ISSUE

Where an investment portfolio invests into underlying assets based in a foreign currency, the investment return outcome experienced by the investor (otherwise known as the base currency investment return) is effectively a function of a number of underlying effects. These being:

- The investment return on any underlying assets in local currency terms;
- The return impact of revaluing foreign currency assets back to the investor's base currency; and
- The contribution to base currency returns from any currency hedging derivatives.

Therefore, irrespective of whether a base currency return is hedged or unhedged, it will always include some underlying component attributable to currency effects as can be seen in Graph 1. Furthermore, this remains the case even when a portfolio is supposedly "fully hedged" because of the practical difficulties associated with achieving a perfect hedge. These considerations highlight the challenges in accurate measurement of currency management decisions for institutional investors.

Graph 1:



A NEW PERSPECTIVE

One option to consider in measuring currency management decisions is to measure the contribution from unhedged currency exposures to the base return. The contribution from unhedged currency exposure can be derived by calculating the difference between a "with currency" measure of investment performance and an appropriate "without currency" measure of investment performance.

As illustrated above, the base currency return is a "with currency" measure of investment performance. As for a "without currency" measure of investment performance, there are multiple types of measures which might be described using the concept of a local currency return. A local currency return is a measure of investment performance that represents investment returns based on returns of the underlying assets within the portfolio in their respective currency of denomination and/or currency of risk. It excludes all types of underlying currency effects and on this basis could be described as a "without currency" measure of investment performance. It is a theoretical measure of investment performance that is never actually experienced by the global investor because currency revaluation effects are an unavoidable consequence of investing in foreign currency assets.

Increasingly investors are using a new type of "without currency" measure of investment performance that does provide a relevant context with which to measure currency management decisions as well as other investment management decisions on a "without currency" basis. This new type of measure is probably best described as a theoretical "fully hedged" currency return which we will refer to as "**cur-**

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rency hedged return" in this article. It provides a "what if" estimate of a portfolio's returns on the basis that the portfolio had been "fully hedged". While theoretical in nature, unlike a local currency return, a currency hedged return provides a measure of investment performance that would be achievable in a practical sense. A currency hedged return can meet the above mentioned criteria by including the performance impact associated with the cost of hedging as well as any performance impact associated with imperfect hedging. The former can be achieved by using actual spot and forward rates to derive the spread between the current spot and forward rates and including this as appropriate within the currency hedged return measure. The latter can be achieved by applying a calculation methodology that recognises the true nature of any compounding effects between the currency hedging overlay and the underlying portfolio of assets. Furthermore, it is also important that from a relative performance perspective, the methodology applied is as consistent as possible with the methodology typically used by index vendors. Otherwise, any attribution of active investment decisions relative to hedged benchmark returns will include some unidentifiable amount which is actually the result of methodology differences as opposed to the specific investment decision under measurement.

A currency hedged return provides a reference point from which the contribution of the unhedged currency can be calculated. As noted above, the contribution of the unhedged currency can be calculated as the difference between the base return (with currency) and the currency hedged return (without currency). See Graph 2:

A similar approach can be applied when calculating active management investment decisions using hedged benchmark returns and currency hedged returns on the portfolio side where appropriate. Furthermore, hedged benchmark returns and currency hedged returns can also be used to calculate other management investment decisions such as the active asset allocation, beta tilt and manager/stock selection decisions where it is necessary to calculate these investment decisions separately from any currency allocation decisions.

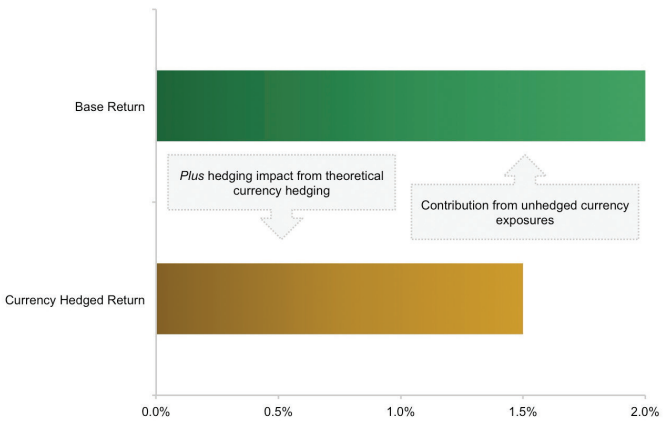
In deciding whether the impact of currency management decisions should be calculated separately from other investment decisions, this will depend on the types of specific investment decisions being made, the investment strategies employed and/or the granularity of analytical information required.

SUMMARY & CONCLUSION

The performance impact of currency "allocation" decisions have traditionally been measured by using the currency "hedging" decision. However, as argued above, while the "allocation" and "hedging" decisions are related, they are not necessarily the same type of investment decision nor even a symmetrical inverse of each other. This brings into question whether traditional measurement of currency allocations is being done in the appropriate context for the investment decision undertaken. This can be extended when looking at attribution analysis and whether a clear distinction is made in the breakdown of returns between allocation and currency decisions. Currency allocation decisions can be measured within an appropriate context by using an appropriate "without currency" measure of investment performance. Where the investment strategy and/or the benchmark against which investment performance is being compared employ currency hedging, the most appropriate "without currency" measure would be one that consistently recognises the cost of hedging and imperfect hedging effects. Where currency hedged returns meet this criteria, they can be used to effectively measure currency allocation decisions by referencing the actual investment return achieved back to the "without currency" investment return. Hedged currency returns also allow other investment management decisions to be measured on an appropriate "without currency" basis. Therefore, the measurement of these investment decisions can be isolated without being blurred by performance impacts which are effectively the result of currency allocation decisions. Reducing the risk of incorrect conclusions about the implementation of an investment strategy allows for more accurate attribution results of the total portfolio investment return to specific investment decisions.

It also reduces the risk that incorrect conclusions about the implementation of an investment strategy might be drawn based on misleading analytic feedback. Institutional Investors seeking to improve the analytical quality of their currency allocation decisions may wish to consider adopting the above approach when measuring their investment returns.

Graph 2:



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