# Risk management focus:

## MONITORING STYLES

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# Managing currency hedging costs

**Joseph Hoffman discusses three ways to manage the increasing cost of currency hedging**

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Currency hedging programmes are intended to minimise unwanted currency risk in an international portfolio and a one-size-fits-all approach is not appropriate for all investors. Risks unique to the region can help guide hedging programmes in selecting and structuring cost-effective instruments tailored for the portfolio's currency exposure profile. One unique risk is the cost of carry. This article describes the components of the cost of carry, highlights how carry has increased the cost of hedging for some investors, and identifies three strategies for investors who hedge their currency risk and experience prolonged periods of carry cost.

If a European investor is exposed to fluctuations in the dollar resulting from an investment in a US security, the investor could sell US dollars (and buy euros) to eliminate some or most of the currency risk. The quoted forward rate will differ from the spot rate, and the difference between the quoted rate as a percentage of the spot rate is called carry. Carry can be either positive or negative for the passive hedger and is based on two factors: interest rate differential and cross-currency basis.

When quoting a forward, the currency with the higher interest rate is priced at a discount to the currency with the lower interest rate in a no-arbitrage pricing relationship known as covered interest rate parity. Investors in countries with low interest rates that hedge currency risk of countries with high interest rates will sell the local currency at a discount and incur a carry cost at the inception of the hedge. Carry is a realised cost, the wider the differential the more material it is to total portfolio performance.

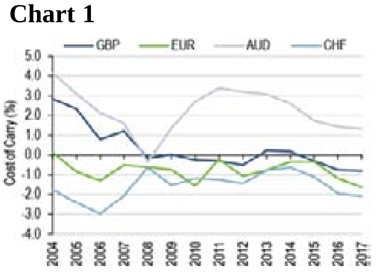
Interest rate differential is the difference between the interest rates along the forward curve for the two regions of the currency pair being priced. Covered interest parity (CIP) assumes the relationship between interest rates and the spot and forward currency values of two currencies are in equilibrium. In cases where this relationship doesn't hold due to other factors, the difference between CIP and market rates is known as the cross-currency basis.

Prior to the 2007-2008 financial crisis, the price of a currency forward was driven primarily by interest rate differentials of two currencies. Since the crisis, the cross-currency basis has influenced pricing during times of market stress. The primary drivers of the cross-currency basis have increased hedging demand and structural changes in banking regulation, limiting arbitrage activity.

Carry can be examined for each currency pair, but an analysis of carry may be more meaningful in a portfolio of many currencies. Chart 1 presents the comparison of estimated carry resulting from selling currencies in the MSCI World currency basket against four base currencies. Australian investors benefitted from positive annual carry for most years since 2004, while Switzerland and the Eurozone incurred negative carry costs when hedging currency risk in a typical developed international equity portfolio.

The most material currency exposure in the index, USD represents almost 60% of the MSCI World currency basket as of January 2018. This substantial exposure is

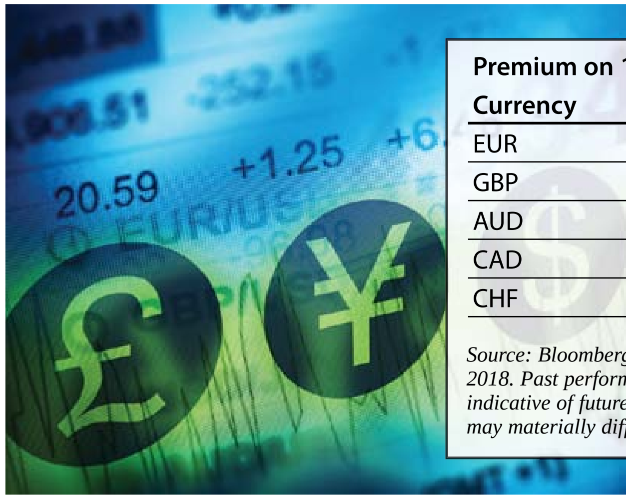
**Chart 1**




*Source: MSCI. Data as of 31 December 2017. Past performance is not necessarily indicative of future results. Actual results may materially differ.*

**Chart 2**


*Source: MSCI. Data as of 31 January 2018. Past performance is not necessarily indicative of future results. Actual results may materially differ.*




**Premium on 10% OTM Call**

| Currency | Premium (%) |
|---|---|
| EUR | 0.55 |
| GBP | 0.51 |
| AUD | 0.64 |
| CAD | 0.25 |
| CHF | 0.62 |

*Source: Bloomberg. Data as of 31 January 2018. Past performance is not necessarily indicative of future results. Actual results may materially differ.*

not unique to equities. For fixed income securities, as of January 2018, USD represented approximately 43% of the Bloomberg Barclays Global Aggregate Index. It is common for USD to represent a significant proportion in traditional asset class benchmarks.

Chart 2 illustrates the cost to hedge a US asset using one-year forwards from January 2014 to January 2018. In January 2018, investors were paying the highest cost of carry in the past five years due to US Federal Reserve rate hikes. As a result of those increases, the positive carry that some high-interest rate currencies enjoyed relative to USD, has decreased while the negative differential and carry costs for some low interest rate currencies has become more pronounced.

Investors experiencing a high cost of carry in their currency hedging programme may consider strategies to mitigate this cost. These strategies include tenor management, a capped forward strategy, and active currency management.

Many hedging programmes are benchmarked to an index or custom currency basket. In either case, one-month forward contracts are typically used to calculate benchmark return. Investors who are not held to fully replicating a basket of one-month forwards, tenor management may be an option. Tenor management allows the investor to adjust the duration (or tenor) of the currency forwards to benefit from the interest rate differentials across different periods. This is an effective strategy for those who do not want to materially deviate from their hedging policy but are interested in incremental return.

A second strategy involves combining a call overwriting strategy with an existing currency forward, known as a capped forward. In a capped forward strategy, an investor hedges currency risk using a forward contract in a conventional manner by selling the local currency and buying the base. Simultaneously, the investor also sells a call option on the base currency against the local exposure with a strike price set at a premium to the current spot price (an out-of-the-money call option). The investor participates in the appreciation of their base currency up to the strike on the call by receiving a premium from selling the call. That premium reduces the net overall cost of the hedge, which is illustrated by Table 1. This strategy can add 25-60bps of value on an annualised basis. However, investors need to be aware that gains on their hedge will be capped at the strike of the call.

Investors who have historically hedged their risk passively might consider dynamic currency management. Dynamic currency management involves adjusting the hedge ratio of each currency within a predefined limit and risk budget. This is designed to reduce risk compared to traditional passive hedging while adding value of 100-150bps per annum depending on the strategic ratio and volatility.
With hedging costs approaching approximately 3% for euro and over 3% for Swiss based investors, a dynamic hedging programme could reduce this cost by 50%. Mesirow Financial Currency Management has a global client base with $9 billion allocated to dynamic currency management. Our clients varying dynamic benchmarks by region, which is not a surprise given the different risk profiles and hedging philosophies across the globe.

As the cost of hedging acts as a headwind on plan returns going forward, investors should consider all appropriate methods to reduce these costs. The three strategies outlined provide different methods to mitigate hedging costs with varying degrees of potential value add for plans. For clients with material costs to offset, dynamic currency management may provide the greatest offset. In the current context of equity valuations near all-time highs and bond yields at structural lows, every basis point saved by asset owners will contribute to the future financial success of the plan and its beneficiaries. ■

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# A wealth of choice

Andrew Williams **explores the many currency investment strategies available to European pension fund investors**

**WRITTEN BY** ANDREW WILLIAMS, A FREELANCE JOURNALIST

When it comes to devising appropriate currency investment strategies, European pension funds can choose from a number of different alternatives. So, should managers consider currency as an asset class in its own right? What are the best strategies for pension fund managers to adopt when investing in currency? And what are likely to be the key innovations and trends in the attitudes and strategies adopted by pension funds in relation to currency investment over the next few years?

### Currency matters

Generally speaking, although Mesirow Financial Currency management's director of currency solutions, Michael DuCharme, believes currency as an asset class is an "interesting and worthwhile debate", he argues that such discussion "distracts investors from the key issue - that currency matters and investors need to take action".

He also observes that, because foreign exchange trading underpins all currency investment and risk management, it is crucial that investors measure their transactions and use that information to improve trading results.

"In an era where investment returns are expected to be historically low, investors can't allow poor trading to squander even a few basis points of investment return. Having addressed that basic requirement, investors can focus on reducing unrewarded currency volatility using passive hedging techniques and then consider the opportunity to benefit from currency returns," he says.

Elsewhere, Redington's managing director, Dan Mikulskis, doesn't consider developed market (DM) currency as an asset class or risk premia in its own right, but rather as part of a broader systematic (for example, trend following) or fundamental strategy. He also describes DM currency as a risk that arises in global portfolios and needs to be managed or hedged – ideally in a holistic way across all of the portfolio, and potentially an alpha or systematic beta tool for generating returns.

"DM currency exposure can make a big difference to outcomes, even over multiple year timeframes, but it is generally driven by macro political and economic drivers, which makes it hard to forecast and extract value from with confidence. Emerging market (EM) currencies are a bit different. They can be a systematic risk premia – take exposure to higher yielding currencies – but come with the risk of devaluations and drawdowns. They are usually picked up as part of exposure to EM equities or EM sovereign debt and can be a risk premium worth holding as part of a diversified portfolio," he says.

### Diversification benefits

Meanwhile, KBC's chief investment officer, Luc Vanbriel, distinguishes between an alpha and beta view of currency investment. As far as the beta view is concerned, if observers were to split experiences between matching and return investments – or bonds and equities – he believes that the currency risk in the matching part is relatively too high.

"The question for the matching part is then whether there is enough market cap or liquidity in the currency of the home country. If that is the case, I would avoid a strategic long-term benchmark for the matching part with investments in a foreign currency. Otherwise, I would consider investing in foreign currencies but with a currency overlay in order to reduce the volatility of the currency," he says.

For the return part of the portfolio, Vanbriel believes that currency hedging "doesn't make any sense" – and, although fund managers could consider a home bias, he argues that this "depends on the maturity of the home country equity market". From an alpha perspective, if currency investment is considered as an asset class in its own right, Vanbriel observes that it might be uncorrelated with other asset classes.

Ultimately, Mesirow Financial Currency Management's managing director and head of portfolio management and research, Uto Shinohara, believes that as an asset class currency "has a place in the stable of alternative strategies that an investor should consider to diversify their portfolio". In terms of diversification benefits, he also points out that currency has historically maintained low correlations to other asset classes, and importantly has shown uncorrelated behaviour during large market drawdowns.

"In a stable of alternatives, each funded vehicle has a small slice of the alternatives allocation, and thus the diversification benefit of each small slice is limited when considered in isolation," he says.

"However, an investment in currency can be unfunded in nature, allowing for a much larger allocation without having to fund the investment. Consequently, currency's portable alpha allows for its diversification benefits to be felt on a larger scale and can provide additional performance to return-starved pension funds without drawing upon the budget used to fund new investments," Shinohara adds.

### Investment strategies

When it comes to appropriate currency investment strategies, DuCharme advocates passive hedging "for starters". Because some investors are unfamiliar with currency, he believes a basic hedging programme can provide comfort and confidence with currency management and investment techniques. Compared to some global peers, he also observes European funds seem exceptionally aware of the unrewarded effects of currency in an international portfolio, and many hedge that risk passively.

"Given that familiarity, European investors likely have the experience and confidence to explore opportunities to benefit from currency return. That investment might take different paths such as active currency overlay. An investor might even have a portfolio of strategies as many currency investments can be unfunded," he says.

In Mikulskis's view, the key strategy is to be diversified and risk managed – and not end up with excessively large bets, either consciously or unconsciously.

"It is very important to be aware of what overall DM currency risk exposures actually are, as exposures to DM currency will be acquired by exposure to other assets such as equity and bonds," he says.

Looking ahead, Mesirow Financial Currency Management's vice president, Brad Schrage, predicts that emerging trends and strategies will occur on several fronts. To begin with, he thinks that regulations will frame how currency is most efficiently managed, as was seen in requirements of collateral in various regions since the global financial crisis.

"Transaction costs always should be under scrutiny, so seeking innovations to tighten spreads even more will be an important consideration of pension schemes, especially in passive hedging strategies," he says.

"Executing, allocating, and reporting at more granular levels will continue to augment current analytics and performance attribution of currency exposures for global portfolios. Finally various risk management strategies across the currency management spectrum will evolve with technology to help deliver more sophisticated solutions for pension plans," Schrage adds.

Meanwhile, Vanbriel again points to the clear split between the long-term 'beta view' and the short-term 'alpha view' – and expects that the asset management industry will find strategies to exploit the currency universe, "but the question is how sustainable these strategies are".

For Mikulskis, the differences in returns over recent years from hedged versus unhedged equities is prompting a bigger focus on foreign exchange (FX) hedging at an overall portfolio level.

"For pension schemes looking toward a cashflow-matched endgame approach, it is especially important to hedge FX – for example, exposure from USD bonds – to give certainty of actual cashflows. I expect this to become increasingly important and be a bigger theme in the future," he says.

In the coming years, DuCharme hopes that transaction cost analysis and strong consideration of passive hedging will become standard practice in the industry. With regard to innovation, he also believes that there perhaps might be room in a portfolio for an exposure to crypto-currencies, if the threats of fraud and manipulation can be addressed.

"Artificial intelligence might also find a place in currency investments because, if there's any field where volumes of data are tailor made for analysis and machine learning, it's currency," he adds. ■

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