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Emerging market currency risk for Australian investors

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Managing currency risk means managing change

There are not too many topics in currency risk management that are as polarizing as the most basic question: whether one should hedge currency risk or not. Much less controversy exists about the need to hedge emerging market currencies. Many analysts and investors believe that hedging emerging market currencies is unnecessary. They offer various reasons: currency return is zero over the long term; currency trading costs are expensive; the cost of carry is too high; and collateralization of some currency positions encumbers cash or securities that could be used for other investment purposes.

This article examines the management of currency risk associated with an emerging market international equity portfolio from the perspective of an Australian dollar-based investor. Using the MSCI Emerging Markets Index[1] to represent exposure to emerging market equities, we examine the effect currencies had on that portfolio during the period January 2001 to July 2020.[2]

Analysis

Currency markets are dynamic. That dynamism is reflected in changes in currency rates which, in general, change slowly. However, in periods of heightened volatility in other asset markets or when geopolitical events occur, the moves in currency can be abrupt and significant; these moves may take investors by surprise.

Some investors use a passive hedging strategy to manage this currency risk.[3] Whether the investor decides to leave the portfolio unhedged (0% hedge ratio) or completely hedges the portfolio (100% hedge ratio) or chooses a hedge ratio in between, the chosen static hedge ratio is not likely to be the optimal strategy in all market conditions.

To demonstrate this, Figure 1 presents the cumulative returns of currencies comprising the MSCI Emerging Markets Index since April 2005. The red line shows the return of one-month forward currency contracts (to represent a hedged position), and the blue line shows the spot currency returns (to represent an unhedged position).

Should Australian investors hedge emerging market currencies?

Mesirow Financial Currency Management's view is that, for Australian dollar-based investors, leaving Emerging Market currencies unhedged makes sense in the current environment.

However, investors may consider an active currency risk management program to ensure their hedging strategy keeps pace with currency market changes.

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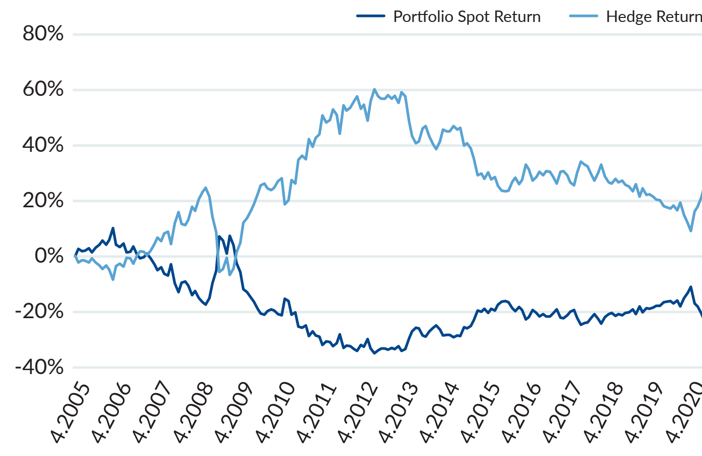
Many investors and analysts observe that the benefit of hedging is dependent, in part, on when the hedge is initiated and terminated. The graph below presents one scenario beginning with the availability in April 2005 of complete forward return results for the currencies comprising the MSCI Emerging Markets Index. A hypothetical Australian investor would have experienced a cumulative return of 25.31% for the 100% hedged currencies during the analysis period. However, if the currency exposure had been left unhedged, the return would have been -23.29%.

FIGURE 1. **CURRENCY RETURNS FOR MSCI EMERGING MARKETS INDEX**



Source: Bloomberg and Mesirow Financial Currency Management. April 2005 to July 2020. Simulated performance. Past performance is not necessarily indicative of future results; actual outcomes may differ. This graph does not illustrate actual client experience or results.

When to hedge

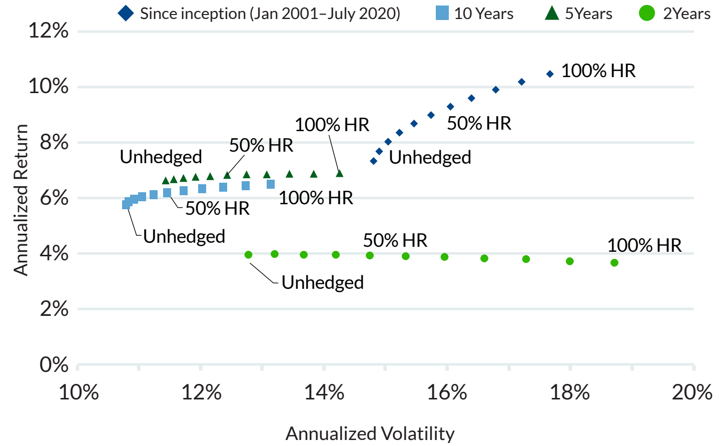
During the analysis period, the hedged return eliminated most of the negative return effects of the portfolio currencies.

Some investors point out that implementing the hedge at a different time could result in substantially different outcomes.

Many investors face the dilemma of when to begin a currency hedge. They are concerned that they'll implement the hedge just as the value of foreign currencies has bottomed and begun increasing. Choosing a different time to implement the hedge could result in a different outcome. It's this uncertainty – how well the hedge will perform – that can result in indecision and inaction.

Figure 2 presents the efficient frontiers for various hedge ratios and shows quite clearly how the choice of hedge ratio and period (various times between January 2001 and July 2020) results in remarkably different combinations of risk and return. Table 1 presents information ratios (return to risk) results for some of the hedge ratios presented in Figure 2.

FIGURE 2. **EFFICIENT FRONTIERS FOR HEDGING MSCI EMERGING MARKETS INDEX**



Source: Bloomberg and Mesirow Financial Currency Management. Past performance is not necessarily indicative of future results; actual outcomes may differ. This graph does not illustrate actual client experience or results.

When's the best time to hedge?

The best time to hedge changed based on the period evaluated. Investors need to be ready to make hedge ratio adjustments when market conditions change.

FIGURE 4. **MSCI AWCI WEIGHTS-EX USD**

Currency	Duration	0%	20%	50%	80%	100%
August 2018 - July 2020	2 years	**0.30**	0.28	0.26	0.23	0.21
August 2015 - July 2020	5 years	**0.58**	**0.58**	0.55	0.52	0.49
August 2010 - July 2020	10 years	0.53	**0.55**	0.54	0.52	0.50
January 2001 - July 2020	~20 years	0.50	0.54	0.58	**0.60**	**0.60**

Data in bold type indicates the highest (best) return to risk ratio for each period. Source: Bloomberg and Mesirow Financial Currency Management | Past performance is not necessarily indicative of future results; actual outcomes may differ. This graph does not illustrate actual client experience or results.

Figure 2 demonstrates how the optimal hedging strategy changed depending on the period. The highest returns and maximum information ratio for the 10-year and full-analysis (approximately 20 years) period occurred when the currency portfolio was completely hedged. That outcome contrasted

with the recent periods of August 2018 to July 2020 and August 2015 to July 2020 when an unhedged position provided the best returns and information ratios. The hedge ratio achieving the highest information ratio was either 0% hedged or 100% hedged, depending on the analysis period.

In other words, a static hedging policy is not likely to be the best plan for managing currency risk if the investor wants to maximize the information ratio. Investors must be ready to adjust their currency strategy (i.e., hedge ratio) whenever market conditions change.

While some investors have adequate staff to keep abreast of market moves and streamlined internal processes to quickly change the hedging policy, many investors do not. Investors are often under-staffed and grapple with many investment issues that compete for senior management or investment board attention. Currency risk management is often a lower priority and can languish for many quarters, or even years, unaddressed. This often means the investor misses out on some (or all) of the benefits that a hedging strategy can potentially contribute to the underlying portfolio.

Objections to hedging emerging market currencies

Investment professionals often cite hedging philosophy, the cost of carry, transaction costs, and collateralization requirements as reasons not to hedge emerging market currencies. The next part of this article considers each of these points.

PHILOSOPHY – TO HEDGE OR NOT TO HEDGE, THAT'S REALLY THE QUESTION

An argument for not hedging emerging market currency risk is the view that, over the long-term, the impact on the portfolio of leaving currencies unhedged is negligible; the return from currency exposure is zero. Because many investors consider themselves long-term investors in the underlying international assets (for example, bonds or equities), they can often adopt a similar philosophy to currencies and conclude they can ignore currencies' short-term volatility.

The long-term view syndrome can be a symptom of the fear of getting things wrong. However, having the wrong hedging policy may not only contribute to underperformance of the underlying portfolio, but may mean not participating in favorable moves in the currencies. Hedging strategy requires careful consideration.

COST OF CARRY

If an Australian investor is exposed to fluctuations in the dollar resulting from an investment in a Brazilian security, the investor could sell Brazilian reals and buy Australian dollars 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.[4]

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 (CIP). Investors in countries with relatively low interest rates (such as Australia) that hedge currency risk of countries with higher interest rates (Brazil) will sell Brazilian reals at a discount and incur a carry cost at the inception of the hedge. Carry is a realized cost and the wider the interest rate differential the more material this cost is to portfolio performance. When covered interest parity doesn't hold, the difference between CIP and market rates is cross-currency basis.

Figure 3 below presents the cost of carry for an Australian based investor in the currencies which make up the MSCI Emerging Markets Index. While the average carry is a gain of 0.72% over the analysis period, carry has been a cost (average 0.60%) for Australian investors since 2014.[5]

Because the cost of carry can be high in certain instances, especially when hedging emerging market currencies, many investors chose not to hedge. This might make sense from a direct cost basis but leaving the currency exposure unhedged means the portfolio now faces a far greater potential cost in terms of performance if the foreign currencies depreciate significantly.

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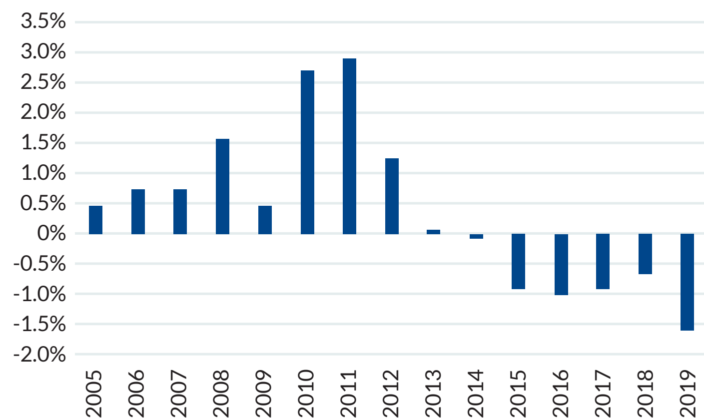
FIGURE 3. ANNUAL COST OF CARRY BASED ON MSCI EMERGING MARKETS INDEX FOR AUSTRALIAN INVESTORS



Source: Bloomberg and MFCM. | Past performance is not necessarily indicative of future results; actual outcomes may differ

Carry

From 2005 to 2013, hedging resulted in a carry gain for Australian investors. Since 2014 hedging resulted in a carry cost.

TRANSACTION COSTS

Based on volumes through July 2020, MFCM estimates it will trade $185.4 billion in 2020 on behalf of its Australian currency risk management clients. This includes about $12.3 billion for hedging emerging market currency exposure. Based on third-party transaction cost analysis results of MFCM trading, we estimated transaction costs for trading currencies in the MSCI Emerging Markets Index and presented those costs in Table 2 (see Appendix A for cost details and other information).

The table contains two estimated cost columns. The first column presents year 1 transaction costs that include the initiation of the hedge, rebalancing the hedge monthly and rolling the forwards quarterly. The second column shows subsequent year estimated transaction costs which involve monthly rebalancing and quarterly rolling. It's clear from Table 2 that the initial launch and annual estimated transaction costs are not excessive: costs over a two-year period are under 20 basis points.

TABLE 2. PRINCIPAL COMPONENTS AND CORRESPONDING EIGENVALUES

Hedge feature	Year 1	Year 2+
Program launch	5.28bp	–
Quarterly rolls	6.15bp	6.15bp
Monthly rebalancing (3% of notional exposure)	0.72bp	0.72bp
Total	**12.15bp**	**6.87bp**

Source: MSCI Emerging Markets Index and ITG. See Appendix A for how the values in Table 2 were calculated.

COLLATERALIZATION

An obstacle for managing emerging market currencies has been the global regulatory requirement to collateralize non-deliverable forwards. An NDF is a cash-settled forward contact in which the gain or loss on settlement date is paid in a deliverable currency such as the US dollar. Because of legal, operational or other restrictions, some emerging market currencies cannot be freely exchanged (traded). In these instances, investors can hedge that currency exposure using NDF contracts. Table 3 presents those currencies in the MSCI Emerging Markets Index that are traded using NDFs and their index weights.

TABLE 3. MSCI EMERGING MARKETS INDEX – CURRENCIES REQUIRING NDFS

Currency code	Currency name	Index weight
BRL	Brazilian Real	5.4%
CLP	Chilean Peso	0.6%
CNY	China Renminbi	4.9%
COP	Colombian Peso	0.2%
IDR	Indonesian Rupiah	1.4%
INR	Indian Rupee	8.1%
KRW	Korean Won	11.4%
PHP	Philippines Peso	0.7%
RUB	Russian Ruble	2.4%
TWD	Taiwan Dollar	12.9%

Source: MSCI Emerging Markets Index as of 31 July 2020. This graph does not illustrate actual client experience or results.

Due to regulatory requirements, NDFs require collateral. Collateral management can reduce counterparty risk but posting collateral can tie up funds or securities that could be used for other investments. Additionally, managing collateral can be administratively burdensome. For these reasons some investors choose to avoid currency trading or risk management situations requiring collateral. In other words, these investors avoid hedging emerging market currency risk.

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The weights for some non-deliverable currencies in the MSCI Emerging Markets Index (such as Chilean peso and Colombian peso) requiring collateral are small, less than 2%. One solution for addressing the disadvantages of collateral management, at least for these small exposures, is to leave those low-weight currencies unhedged.

For other currencies, the weights are significant enough to require attention. Currently, while NDFs require investors to post variation margin, most counterparties do not require initial margin, lessening the collateral burden. It is important to emphasise, however, that offsetting the disadvantages of collateralization is the benefit from the reduction in counterparty risk, a key risk to manage in over-the-counter currency transactions.

Conclusion

If there's anything constant about the currency market, it's change. Exchange rates are in endless flux, and those investors interested in managing currency risk need to match that change with appropriate currency risk management strategies. Passive hedging policies that employ a static hedge ratio will address today's market conditions but can result in suboptimal outcomes if the policy isn't revised to reflect adjustments in exchange rates.

MFCM's analysis demonstrated that the optimal hedging strategies changed during the last 20 years for the MSCI Emerging Markets Index. Analysis of the full period in Figure 2 showed that a fully hedged position was optimum based on information ratio results. Analyses of more recent periods revealed that the maximum information ratio occurred when the portfolio was unhedged.

Some traditional reasons for not hedging are no longer obstacles. Transaction costs are not overly significant, and the inconvenience of collateralizing currency positions is offset with a reduction in counterparty risk. In addition, the current cost of carry is not large compared to the magnitude of recent annual values (both positive and negative).

The main barrier to currency hedging is overcoming the uncertainty that accompanies a tough investment decision: is the domestic currency near its peak or its nadir? If a hedge is implemented, what is the optimal hedge ratio?

These concerns might be best addressed with an active currency program. Active currency programs use systematic and discretionary inputs to decide when to hedge and at what hedge ratio. An active hedging program can reduce the risk that the initiation of the hedge is at the wrong time and, in addition, it can assist with reacting promptly when market conditions indicate that a hedge ratio adjustment is appropriate.

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For further information on Mesirow's currency management solutions available in Australia, please contact:

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1 The MSCI Emerging Markets Index consists of 23 economies including Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and the United Arab Emirates. The MSCI is a float-adjusted market capitalization index.

2 The availability of data affected the analysis period. Data for the MSCI Emerging Markets Net Total Return Index was first available on 29 December 2000. Currency return data for Figure 1 was limited by the Malaysian Ringgit 1-month non-deliverable forward points which became available in April 2005. The MSCI Unhedged EM Index was converted to Australian dollars using WM/Reuters rates. The MSCI Hedged EM Index was calculated by taking the monthly return of the MSCI EM 100% USD Hedged Index plus a one-month AUD/USD currency forward return. The carry on the EM Index was created using the WM/Reuters spot rates and Bloomberg forward points. The currency weights are static as of 7/31/2020 and are based on iShares MSCI EM ETF.

3 One way to manage currency risk in an international portfolio is to convert the currency exposure to the investor's domestic currency: the investor sells foreign currency and buys the domestic currency. The currency sold can range from a small amount: say 15% of the portfolio's currency exposure, up to the entire exposure (100%). This percentage is called the hedge ratio. When the hedge ratio remains unchanged, or changes infrequently, the currency risk management technique is known as passive.

4 Cross-currency basis is beyond the scope of this article. For more information on cross-currency basis, see Borio, C. et al, Covered interest parity lost: understanding the cross-currency basis, BIS Quarterly Review, September 2016 for an excellent description of cross-currency basis.

5 Simple cost of carry average for each period.

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