CIBC ASSET MANAGEMENT

INSTITUTIONAL

STRATEGIC CURRENCY HEDGING

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Summary

- Inherited foreign currency exposure is an important component of institutional investor portfolios.
- The most important decision in managing inherited currency exposure is the choice of the strategic (or passive) hedge ratio.
- There is no single optimal strategic hedge ratio for all investors, and the choice will be affected by a number of competing criteria.
- It is important to choose a strategic hedge ratio proactively, even if the most appropriate choice is to remain unhedged.
- Once a strategic hedge ratio is selected, its appropriateness should be regularly reviewed along with expectations of currency risk, returns and correlation.

Introduction

Exposure to global assets diversifies investment portfolios. Every allocation to a foreign asset inherits an associated, passive exposure to foreign currency. This currency exposure is not the primary motivation behind the allocation decision—the underlying asset investment is. The passive exposure to foreign currency mostly has no associated expected return.

The choice of hedge ratio to manage this inherited currency exposure is a key, strategic portfolio decision. It is important to make this choice proactively, even if the most appropriate decision is to remain unhedged. Many investors determine an optimal currency hedging policy as a component of their Investment Policy Guidelines. Other investors with global assets do nothing at all with their inherited currency exposure. Ultimately, inaction is action, and this approach leaves these investors with an unhedged benchmark, whether or not this choice is appropriate.

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The optimal strategic currency hedge ratio will be specific to each investor. There are several, competing criteria that determine an appropriate hedging policy:

- **Minimization of portfolio volatility.** The optimal hedge in this case depends upon asset volatilities and correlations (see below).
- **Matching of asset and liability currency risk.** This criterion will often require a full passive hedge of inherited currency exposure, assuming liabilities are denominated in domestic currency.
- **Minimization of hedging costs.** This criterion would imply zero hedging, particularly for inherited Emerging Market currency exposure.
- **Minimization of embarrassment risk due to currency fluctuations.** This criterion would imply a full hedge of strategic currency exposure.

Reflecting the complexity of this decision, investors often select a generic, rather than specific, hedge ratio: fully unhedged; 50% hedged; or 100% hedged, perhaps with some differentiation between public and private market equity-centric asset classes and those with attributes more similar to fixed income.

The following discussion is most pertinent to investors seeking to select an optimal strategic currency hedging policy to minimize portfolio volatility.

Currency volatility

If left unmanaged, inherited passive currency exposure can contribute meaningfully to total portfolio risk.

Reflecting the relative stability of fixed income cash flow streams, the historical annualized risk of an unhedged fixed income portfolio passively exposed to the FTSE World Government Bond Index is substantially higher than the currency-hedged alternative for many developed market (DM) base currency investors (Chart 1).

Chart 1 – Currency contribution to annualized fixed income volatility

Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Date Range: January 1985 – May 2022. Data labels report annualized volatility. Fixed income represented by the FTSE World Government Bond Index.

The impact of passive currency exposure on total equity portfolio risk is lower, and depends much more upon the correlation of local asset and spot currency returns (Chart 2).

Chart 2 – Currency contribution to annualized equity volatility

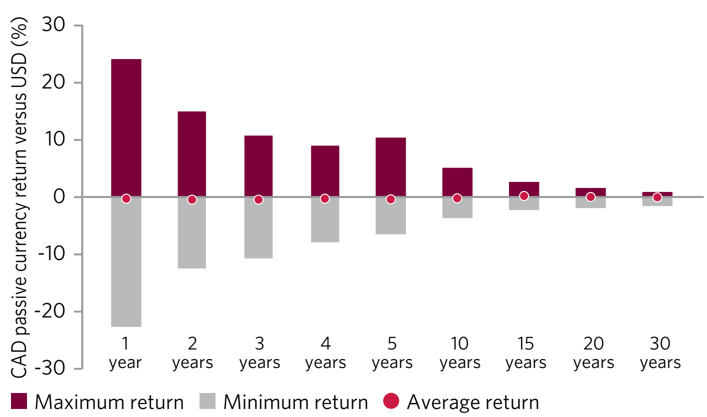
Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Date Range: January 1985 – May 2022. Data labels report annualized volatility. Equity represented by the MSCI World Index.

Currency expected returns

The long-term expected return associated with inherited DM currency exposure, and with the passive hedging of these exposures, is zero. Inherited DM currency exposure is an unrewarded risk (Chart 3).

This lack of positive expected return reflects the broad similarity of economic characteristics across DM countries. Two very similar assets—in this case, two DM currencies—should not be expected to perform differently to one another on a sustained basis.

Chart 3 – Canadian dollar (CAD) versus U.S. dollar (USD) spot exchange rate annualized return by holding period



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Date range: January 1971 – June 2022.

Correlation

Correlation is an important determinant of the optimal currency hedge, assuming portfolio volatility minimization is the primary objective.

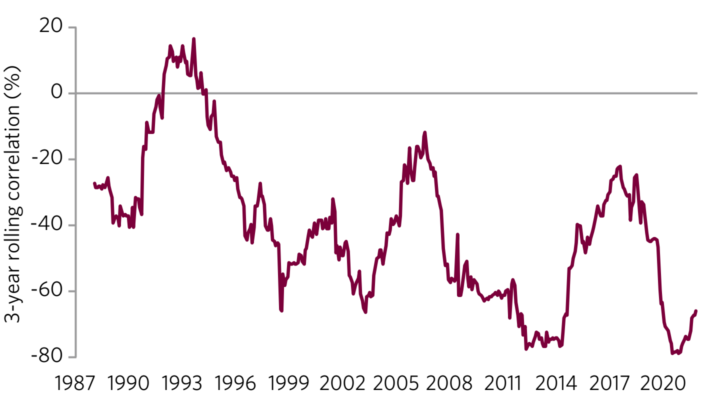
The correlation between local asset and spot currency returns is determined by the prevailing macroeconomic outlook for, and political and legal structure of, countries encompassed by a portfolio.

The currencies of countries with a high dependence upon commodity exports—for instance, Australia and Canada—are expected to exhibit a positive correlation with global equity returns. Commodity demand and prices, and commodity-related currencies tend to rise in value during periods of economic growth, as do global equity markets.

From the perspective of investors with these base currencies, returns to inherited foreign currency exposures should, on average, be negatively correlated with local foreign asset returns (Chart 4).

By contrast, currencies of countries considered by investors to be safe havens in times of risk aversion—for instance, the U.S. dollar—are expected to rise in value concurrent to declining equity prices. This has been the experience of the 2022 equity drawdown. From the perspective of investors with these base currencies, local foreign asset and spot currency returns are expected to be positively correlated, again on average.

Chart 4 – 3-year rolling correlations between local asset and spot currency returns for a 60/40 equity / bond portfolio from a CAD base currency perspective



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Date Sample: January 1987 – April 2022.

Pulling it all together – choosing an optimal strategic hedge ratio

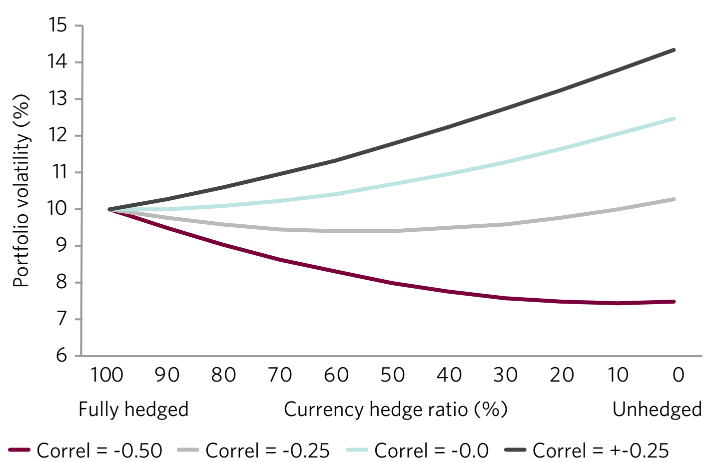
The optimal strategic hedge ratio depends upon currency and asset volatilities and correlations.

Chart 5 illustrates the importance of correlations between local asset and currency returns to the volatility of a portfolio that includes a global allocation.

We arbitrarily assume an initial annualized portfolio risk of 10%, and a fixed, unspecified allocation to foreign assets. The horizontal axis encompasses currency hedge ratios in the range 100%—for which all passive currency exposure is systematically hedged—to 0%—for which passive currency exposure is left unhedged.

Each line of Chart 5 assumes a different correlation between between local asset and spot currency returns, ranging from -0.5 to +0.25, and traces the volatility impact of different passive hedge benchmarks. As the red (lowest) line indicates, with an assumed correlation of -0.5 an unhedged passive benchmark is the optimal choice to minimize portfolio volatility. For all other assumed correlations, at least some amount of passive currency hedging is optimal.

Chart 5 – Hypothetical portfolio volatility assuming different passive currency hedge ratios and correlations between local asset and spot currency returns



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Date Range: January 1971 – June 2022. Illustrative example.

Chart 5 also emphasizes the inherent imprecision of optimal currency hedge ratio analysis. Assuming a correlation between local foreign asset and spot currency returns of -0.25, total portfolio risk is similar for all choices of passive hedge ratio in the range 20% to 80%. And even for an expected correlation of -0.5, portfolio volatility is similar for hedge ratios between 0% and 30%.

Along with uncertainty regarding the magnitude and sign of expected correlations, this lack of sensitivity often motivates plan sponsors to select 'round number' passive hedge ratios: for instance, 0%, 100%, or 50%. This latter choice is commonly referred to as the 'minimum regret' hedge ratio; it represents a compromise that minimizes both losses from passive currency exposure when a plan's base currency is relatively strong, and the opportunity cost associated with passive hedging when the base currency is relatively weak.

This imprecision also explains why investors typically choose a uniform hedge ratio for all passive currency exposures within an asset class, rather than a customized ratio for each individual currency exposure, or, say, one passive hedge ratio for safe haven currencies, and another for all other foreign currency exposures.

In principle, customization offers the potential for additional risk-adjusted returns. In practice, the time variability of correlations and the insensitivity of portfolio risk across a range of potential hedge ratios minimizes the value of this approach, given also the additional operational complexity it implies.

Conclusion

Inherited foreign currency exposure is an important component of institutional investor portfolios. The key decision in managing inherited currency exposure is the choice of the strategic (or passive) hedge ratio.

There is no single optimal strategic hedge ratio for all investors, and the choice will be affected by a number of competing criteria. Once a strategic hedge ratio is selected, its appropriateness should be regularly reviewed along with expectations of currency risk, returns, and correlation.

Let's connect

Should you have any questions about this report or anything else, please do not hesitate to connect:

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Hedging: the offset or reduction of the risk associated with all or a portion of an existing investment or group of investments. Cross-hedging is permitted as long as there is a high degree of correlation between changes in the market value of the investment or group of investments to be hedged and the hedging instrument; Creating effective exposures to certain markets: replication of equity, fixed income, money market, currency or other indices or securities, in order to reduce transaction costs and achieve greater liquidity; Facilitating the investment management process: increase the speed, flexibility and efficiency in the investment management operation of the client account; Enhancing returns: benefiting from a lower cost or locking-in of arbitrage profits, except for private client accounts.

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