

Our approach to currency hedging

There is nothing passive about passive currency hedging

Currency hedging of foreign assets is an activity often seen as purely mechanical and as adding little value to portfolio management. CFSGAM believes that managing currency risk – even passively to a fully hedged position – requires significant upfront investment, in-depth understanding and adequate resources to be efficiently implemented. This is to ensure that the currency overlay not only meets the hedging objectives of the portfolio but also satisfies the liquidity, distribution, tax and credit requirements.

This paper outlines the nature of currency risk in offshore assets, the issues that currency hedging raises, an examination of the types of hedges available and the management task involved in determining the appropriate hedges for an asset class.

The issues

The issues surrounding currency management can be reduced to a few major themes, namely translation risk, tax, cash flow, transactions costs, credit risk and 'the basis'.

Objective: managing translation risk

Currency risk is predominantly an issue of translation. Fund valuations require two steps for foreign currency assets: (1) the valuation of the asset in the foreign currency and (2) translating this into the base currency (AUD).

The key to reducing foreign currency risk is to create as small a net foreign asset revaluation as possible, thus minimising the impact of the translation. Thus foreign currency liabilities need to be created to offset the foreign currency assets. In a simple example below the foreign asset is offset with a foreign liability and no matter what happens to the level of the currency, the asset will offset the liability creating a perfect hedge.

	USD	AUD
Foreign currency asset	100	
Hedge:		
Sell USD	-100	
Buy AUD		160

There are naturally a few complications with this simple example. These are:

- Asset value volatility
- Cash flows

Asset value volatility

Asset values change. Assume the market value of the asset moves up from 100 to 101, resulting in a net position of US\$1. The asset is still predominately hedged and we can simply adjust the hedge to USD \$101 and return to a fully hedged position. Thus volatility in the asset value could result in more transactions and thus costs. There is, therefore, a need to set sensible tolerances/net position ranges outside of which the hedge is reset.

Other questions to be asked are:

- What would be the impact of a 1 standard deviation move in the currency?
- Can the fund accept this amount of currency risk performance impact?

With this information, appropriate limits can be set.

Thus for every fund that invests offshore the following questions require answering:

1. How volatile are the offshore assets (in local currency valuation terms)?
2. How volatile is the currency pair?
3. What is the acceptable amount of performance attribution that can come from currency impacts in a month/quarter for this fund?
4. How big should the limits be?

Cash flow

The next complication arises from the fact that assets usually generate cash flows. Using the above example, let's assume that the asset pays a dividend of \$5 per annum.

	USD	AUD
Foreign currency asset	95	
Foreign currency bank account	5	
Hedge:		
Sell USD	-100	
Buy AUD		160

The asset cash flow is irrelevant to the hedge in local currency terms. However converting the cash flow into AUD, reduces the required size of the hedge to \$95.

Thus all that is required for an efficient hedge is an asset value. It:

- does not require minute accuracy for an efficient hedge to be implemented;
- does not require known cash flows;
- does not require a known maturity date.

Hedges available

There are three simple methods of hedging foreign assets:

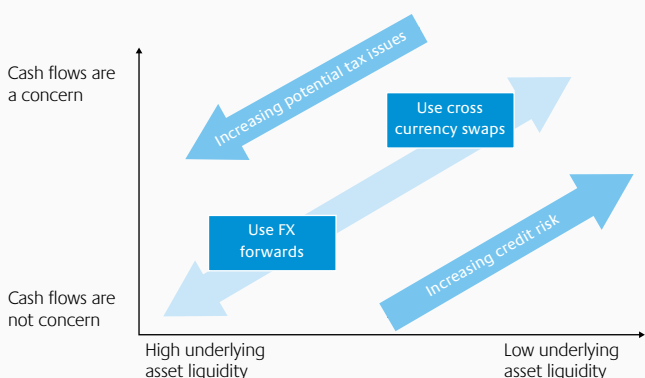
- Borrow in the foreign currency to create a foreign currency liability OR
- Sell the currency of the foreign asset using the FX forwards market OR
- Undertake cross currency basis swap

Economically these are identical alternatives.

They all involve becoming 'short' the foreign interest rate and 'long' the domestic (AUD) interest rate.

It is at this stage that analysis needs to be undertaken on the product or client's structure, and capacity or requirements for tax and cash funding. Depending on the need for or availability of liquidity in the asset class, different hedging strategies can be devised.

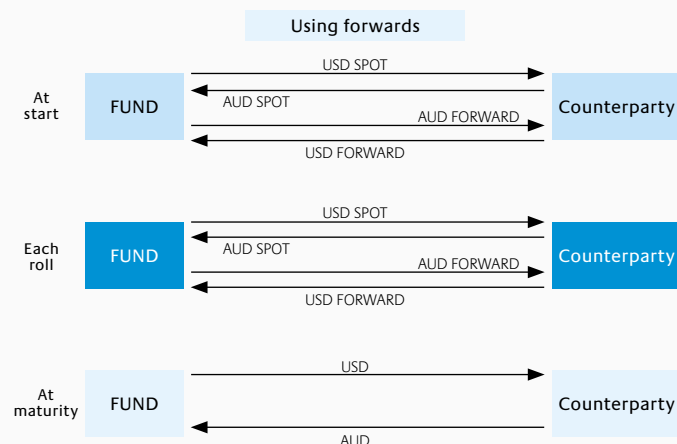
The diagram below demonstrates the trade-offs between the various factors that need to be considered when deciding on the appropriate mix of F/X forwards and cross currency swaps in a hedging strategy.



FX forwards and currency swaps

An **FX forward** is a 'single leg' transaction where an agreement is made to exchange one currency amount for another currency amount on a specific date in the future, usually within 3 months time. The rate at which this exchange is done is the current (spot) FX rate plus or minus the forward points for the term to the maturity date of the contract. The forward points are a function of the interest rate in the two currencies for the time period to maturity.

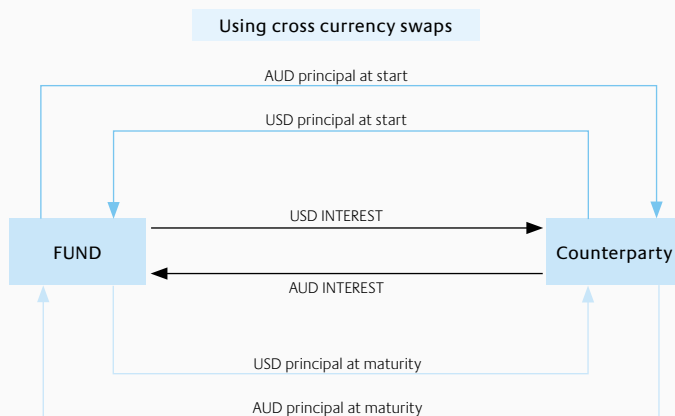
Funding and hedging foreign currency



A **cross currency swap** (or basis swap) is also an agreement to make an exchange of one currency amount for another in the future, but it differs from a forward in that

- It is longer term in nature (usually 1 – 5 years);
- It makes payments through the life of the contract (usually quarterly but negotiable);
- It incorporates interest rate differentials, not by setting forward points, but by setting the regular payments explicitly off the interest rate levels in the two currencies. This has the same economic impact but is more explicit in the currency swap; and
- It also includes an extra element, being the 'basis' which is explained below. For Australian investors hedging foreign assets, the basis is usually positive which means that the hedge is cheaper than a series of rolling forward contracts.

Funding and hedging foreign currency



Note: For point of clarity quite often the combination of an FX spot transaction and a FX forward transaction is also called a 'swap'. This is not what we refer to here as a currency swap or basis swap.

Considering the right mix of hedges and the most appropriate tools

Asset class liquidity

One of the key considerations for currency hedging is the liquidity of the underlying asset class. This is important, especially for passive hedging, because any mismatch in the cash flows associated with the asset and the hedge require funding, if the foreign asset falls in value or reinvestment if the foreign asset rises in value.

In a passive hedge using FX Forwards, the investor is required to fund any realised losses with cash as the value of the local currency depreciates. Where the underlying asset pool is highly liquid (global sovereign bonds for example) this funding can easily be achieved by selling some of the underlying assets (which have risen in value in local currency terms). However, if the underlying assets cannot be easily liquidated, issues may arise whereby cash has to be raised from alternative asset classes, potentially reducing the liquidity of the whole portfolio and impacting the investor's asset allocation. By using cross currency swaps cash funding issues and liquidity constraints can be overcome.

Long-term assets are also often best hedged with long term currency swaps. Here the cash requirement of the hedge is offset with the cash flow profile or maturity profile of the asset, so cash management is relatively simple.

Another factor that needs to be considered is actual turnover in the underlying portfolio. A portfolio that is actively managed will naturally be buying and selling assets frequently. This means that cash becomes available through this process naturally, allowing the currency hedge cash flow to be more easily funded.

Tax/distributions

For some investors (especially those managing unit trusts) the issues of income distributions and tax are also important. Australian Unit Trusts distribute coupons/ interest/ dividend income plus realised gains and losses. Realisation of gains or losses occur on the sale or maturity of an asset or hedge. Thus if the fund buys a 5 year maturity asset and hedges it with rolling forward contracts:

ASSET: FX gain /loss is realised on maturity of the asset

HEDGE: FX gain /loss is realised on maturity ie EVERY ROLL

If the realisation of the asset's gain/ loss can be aligned with that of the hedge's loss/gain, then there is no impact on distributions and no cash flow mismatch forcing liquidations. Thus if the fund buys a 5 year asset, it can then implement a 5 year cross currency swap as a hedge. This aligns the realisation of gains and losses (both cash and tax) of the asset with the hedge. Then if the fund sells the asset before it matures (and realises the gain or loss) it can then terminate the hedge at the same time and similarly realise the offsetting gain or loss on the hedge.

Active managers always have some degree of turnover, hence if the fund sells one USD asset to buy another (even if the cash never converts into AUD), this leads to an FX gain/loss being realised on the asset. Our suggested approach to overcome this would be to broadly align hedge maturity to asset turnover. Thus if annual turnover is approximately 20%, the fund manager would set maturities for 1,2,3,4 & 5 years and roll/ realise 20% of the hedge gain or loss each year. If there is uncertainty about expected turnover, the hedge should be lengthened as it can more easily be shortened in the future if needed.

Unit trusts are required to distribute their taxable income, the gains/ losses realised on the hedge but not on the underlying asset, and this is likely to lead to a distribution that is significantly different to its economic return. Indeed, it may distribute substantial levels of income when the fund has generated negative returns or may make no distribution despite positive returns. Matching the asset with the currency liability reduces the likelihood of this happening.

A number of decisions therefore need to be made in determining the guidelines for the currency overlay:

1. What currency limits should be applied to the portfolio?
2. What is the likely requirement for liquidity for each type of hedge? Does the underlying portfolio have this liquidity available?
3. What is the likely impact of the realisation of tax gains and losses?
4. What is the level of natural underlying turnover in the asset class?

With these questions answered a hedging strategy which incorporates the appropriate mix of forwards and swaps can be implemented. It is also then possible to determine the degree to which an 'active' allocation between these two types of hedges is appropriate for the client.

Other issues to be considered

Credit risk

All derivative transactions, both forwards and swaps, incorporate a degree of credit risk. The longer the term of a transaction, the greater the potential for change in the market value of the hedge, thus credit risk, resulting from transactions.

Whether a portfolio uses forwards/ swaps or borrowing, to implement hedges, it is essential that appropriate documentation is in place to protect the fund from default by its counterparties. When dealing in forwards and swaps, the most common form of documentation is the ISDA master agreement.

Under CFSGAM's Risk Management policies, we ensure that a fully executed ISDA master agreement is in place prior to dealing in over the counter derivative transactions. While The ISDA master agreement is, in concept, a simple document, it is critical that it is fully understood and negotiated to protect the best interests of the fund/ client.

CFS GAM's prime goal in negotiation of ISDA agreements has been to retain control of assets and investments decisions at all times, but particularly in time of crisis or distress for a market or a specific fund.

As a matter of policy we do not give the counterparty rights to terminate the transactions or make margin calls other than for a material change in a fund constitution or the replacement of the Responsible Entity.

We have been able to achieve this result because the vast majority of our funds are considered low risk in that they are not geared and do not undertake speculative investments. We also engage with our counterparties so that they understand the hedging requirements, fund structure and investment parameters of each individual fund or client.

We take this approach because we believe that this is in the best interest of our clients and unit holders. It is essential that we do not 'give up' our ability to make investment decisions (directly or indirectly) under any circumstances. We acknowledge that credit risk is a two way street and that counterparties need to gain comfort with the risks they are taking. In order to reassure counterparties, we undertake to:

- Provide full disclosure of constituent documents and financial statements;
- Provide extensive fund information monthly; and
- Strictly apply a 'No Better Terms' policy, whereby if we give any better terms to another counterparty, all counterparties will be given the same term.

In order to manage our own counterparty risk we:

- Use our extensive and experienced credit team to conduct a full credit review on both counterparty and any guarantor;
- Establish credit limits for both the mark-to-market position (MTM) and potential MTM risk based on credit quality;
- Have a monthly overview by the Credit Committee of our counterparty exposures; and
- Have the ability to negotiate transaction terminations or buy default protection on counterparties in the credit default swap market.

Absolute hedging vs. index hedging

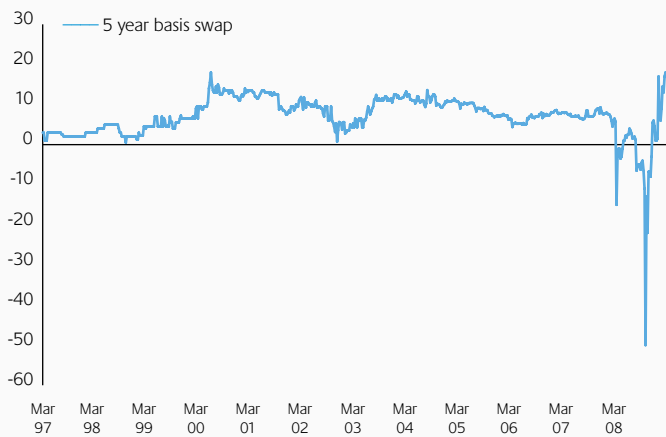
Many foreign asset portfolios are managed against benchmarks (equity or debt). It is critical, when using these benchmarks to understand the hedging rules of the benchmark. Many indices hedge their index value monthly (at the end of each month). This means that as the underlying market prices move during the month, a net currency position is generated equal to the return for the index – even in 100% hedged indexes. Thus the client needs to decide whether to minimise its currency position relative to the benchmark or in an absolute sense. If the objective is to minimise tracking error relative to the benchmark, then a 10% move in portfolio value due to the market moving would not require hedging, but a 10% move in relative return vs the index (positive or negative) would give rise to a net currency position and depending on the risk appetite might require re-hedging.

The value of the basis swap

Australia is a net borrower in global capital markets as we run a negative balance of payments position on the current account. This means that there is generally more interest in the market for domestic borrowers to borrow offshore than for offshore borrowers to borrow in Australia. This imbalance gives rise to what is known as the ‘basis’.

The basis is the ‘price’ at which foreign interest rates and domestic interest rates can be converted. It can be seen in the foreign currency swap market where a swap that pays USD LIBOR will receive the Australian Bank Bill rate PLUS a margin. This margin is known as the basis. The basis does move and can at times go negative, but it is predominantly positive, which means that investors who hedge using the basis swap market rather than the FX forward market normally get paid this basis, thus enhancing returns.

The following chart shows the AUD/USD basis swap over the last 12 years.



Source: Bloomberg.

As can be seen, apart for the extreme volatility experienced as a result of the Global Financial Crisis, the basis (in this case the 5 year basis) generally averages approximately 7 basis points. This represents an annual pick up for hedgers who use this instrument rather than using rolling forwards.

The recent volatility in the basis swap has offered fund managers the ability to add value through actively managing hedges between rolling FX forwards and basis swaps.

Transaction costs

The hedging strategies discussed above have assumed that markets are liquid and therefore the transactions costs are not a major factor in determining which hedging strategy should be used in the portfolio. This may be the case for major currencies but currency overlays may include assets in emerging markets or other restrictions, which need to be considered.

In order to reduce the transaction costs associated with emerging markets, smaller currency positions in the emerging market currency may be grouped together and hedged with a major currency. For example, a long Mexican Peso position may be hedged by selling USD. In this case the individual exposure is not hedged, rather there is a process to ‘bucket’ currency risk.

In these cases transactions are dealt in the major currency that is most closely correlated with the investment currencies. The stability of these relationships is critical and cross-hedges which involve different currencies are somewhat unstable over time.

Whether the portfolio is ‘fully hedged’ if currency risk is bucketed into major currency bucket is a decision which needs to be considered both with the currency overlay and the underlying asset mandate.

Summary

Managing currency risk passively to a fully hedged position requires significant expertise and resources to ensure that the currency overlay not only meets the hedging objectives of the portfolio, including liquidity, distribution, tax and credit but that it implements the best and most efficient solution for the client/fund.

CFSGAM has experience in assisting clients in making the decisions that need to be made in determining the guidelines for the currency overlay and then constructing a currency overlay appropriate for the client.

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