

Using derivatives in active funds management

Derivatives are an efficient and generally liquid risk management tool which, when used properly, can enhance the ability to deliver specific tailored risks/return profiles and hedge out unwanted risks.

This paper explains how the Wholesale Global Credit Income Fund (the Fund) uses key derivatives transactions within the broader universe of the Global Fixed Interest & Credit portfolios of CFS Global Asset Management (CFS GAM). It will also explain how derivatives are used as part of the risk management and investment strategy of the portfolio, having regard to the risk/return of all assets within the Fund.

What is a derivative?

A derivative is a financial instrument whose value depends on, or is derived from, assets, liabilities or indices (the underlying asset). A range of derivatives are traded within the Fund, including currency forwards, currency swaps, interest rate and bond futures, cross currency and interest rate swaps and credit derivatives. Some are exchange traded – such as futures contracts – and some are over the counter (OTC) – such as interest rate swaps. The Fund may also use options and warrants if they increase efficiency and improve the risk/return profile of the overall exposure.

Using derivatives is part of the investment strategy of the Fund

Derivatives are an integral component of both the investing and the hedging activities of our fixed interest and credit funds. Credit derivatives are used to manage exposure to credit risk, while interest rate and currency swaps are used to hedge interest rate and currency positions. Because we aim to isolate, manage and maximise the credit spread of each credit investment within the portfolio, the impact of both currency movements and duration are managed through the use of derivatives. We actively hedge interest rate and currency exposures to allow excess performance to be generated primarily from credit decisions.

What are the restrictions on the use of derivatives?

Derivatives are used as part of the overall investment process in accordance with internal investment policies and procedures. Recognising that the use of 'over the counter' derivatives introduces additional elements of credit and market risk into the portfolio, derivative counterparties are subjected to the same level of assessment as all other credit investments. Fully executed ISDA Master Agreements must be in place between the Fund and the counterparty prior to dealing. Furthermore, a set of investment parameters signed off by the Chief Investment Officer specifies rules for derivative exposures. The rules are monitored by the Compliance team based on daily mark to market of the exposures.

The Fund does not use derivatives to achieve investment positions or exposures that are inconsistent with the investment strategy. There

are risk controls in place to monitor compliance with the objectives, investment strategy and limits of the Fund.

Restrictions on the use of derivatives are imposed by our legal and compliance department according to the disclosure documents, ISDA agreements, Derivatives Risk Statement Part B and internal investment disciplines. The investment disciplines provide a framework of controls and restrictions consistent with the Fund's investment strategy and objectives. They outline policies and impose controls to manage and monitor all assets in the Fund, including derivatives.

In addition to investment disciplines, CFS GAM has additional restrictions in place on the use of derivatives:

Derivatives will not be used for speculation:

- where the net exposure of the portfolio to an asset class is outside the limits for the Fund's investment strategy; and
- where the use of derivatives results in the portfolio being geared and the investment strategy of the portfolio does not specifically permit gearing.

What are the objectives for using derivatives in the Fund?

Derivatives may be used for the following purposes:

- for the modification of duration, credit risk and yield curve exposure;
- to adjust the risk characteristics of individual security positions or the overall Fund;
- to manage market exposure;
- to hedge the Fund;
- to achieve transactional efficiency;
- to rebalance currency exposures;
- to take advantage of perceived mispricing between related securities; and
- to generate income for the Fund.

What types of derivatives are used in the Fund?

The Fund uses a range of derivatives, both exchange traded and OTC to manage and hedge its risk positions including futures, swaps, forwards, currency swaps and credit derivatives.

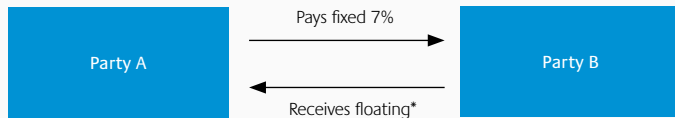
Futures are contracts to buy or sell a specified commodity at a certain date in the future for a market determined price. Futures contracts are available on a wide range of commodities, securities and currencies. Within the Fund we only use futures contracts which are regulated and transacted on a futures exchange. We use futures with an interest-bearing instrument as the underlying asset eg. bonds. Bond futures are typically used to adjust duration positions, implement yield curve positioning, and hedge physical bond positions by creating offsetting positions.

In summary, futures contracts are mainly used for transactional efficiency to manage duration risk until the transacting of a hedge more aligned with the individual bond characteristics can be transacted.

A **swap** is an agreement between two parties to exchange cash flows over a set period of time. The most common swaps used within the Fund include:

- Interest Rate Swaps (exchange fixed for floating interest rates);
- Cross Currency Swaps (exchange two streams of payments in different currencies); and
- Credit Default Swaps (exchange premium for default protection).

Interest rate swaps are simply an exchange of two sets of interest rate payments on a specified principal amount. The diagram below is a simplified example of an interest rate swap.



Year	Pays Fixed Amt.	Receives Floating Amt.
1	7 Million	floating rate* X 100 Million
2	7 Million	•
3	7 Million	•
4	7 Million	•
5	7 Million	floating rate* X 100 Million

Source: CFS GAM, only illustrative purposes.
 * Australian Bank Bill Index Rate and margin.

In the Fund, interest rate swaps are mainly used to swap the fixed payments received from a bond into floating rate payments. Only the difference between the two payment amounts is exchanged on payment dates, but not the notional principal amounts, as shown below.

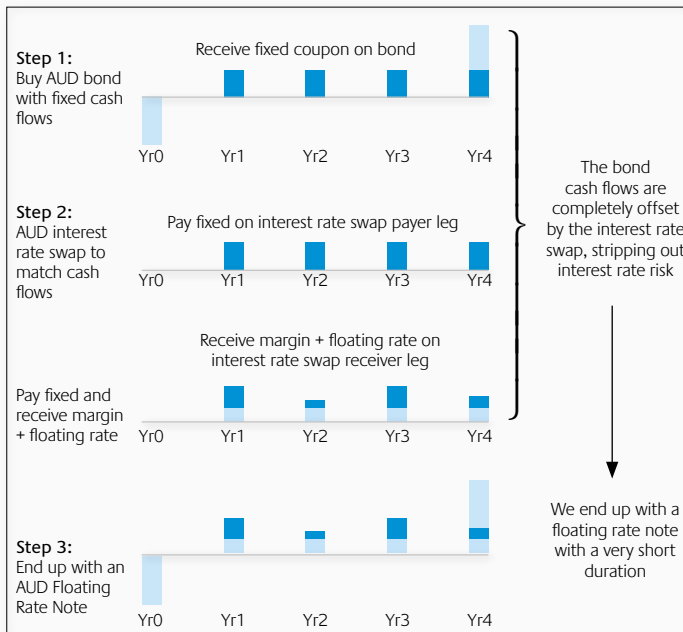
Swapping the cash flows:



Source: CFS GAM, only illustrative purposes.
 * Australian Bank Bill Index Rate and margin.

An example of where bond cash flows are matched with an opposite cash flow stream on a swap is shown on the below diagram. It demonstrates how we create a floating rate exposure.

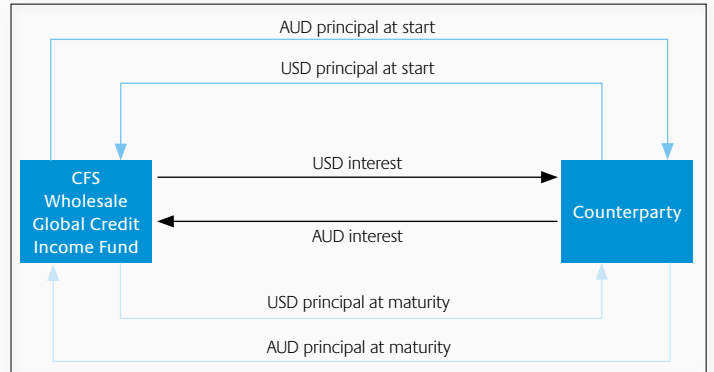
Creating a floating rate note:



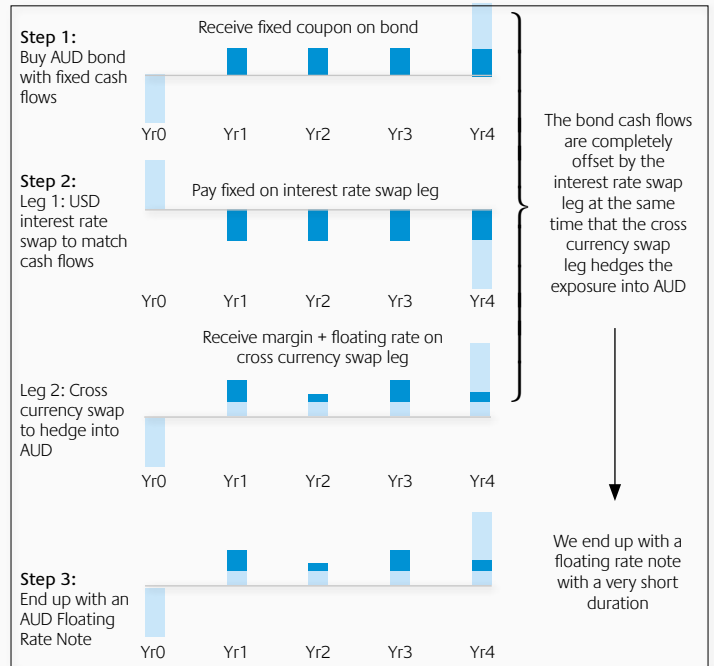
A **Cross Currency Swap** is an agreement to make an exchange of two streams of interest payments in different currencies, over an agreed period. In a cross currency swap, the counterparty and the Fund exchange:

- the principal amounts of different currencies at the prevailing spot rates at the time the swap is contracted (eg. USD into AUD when buying USD denominated securities);
- the two streams of interest payments on the initial cash flows in different currencies (eg. USD into AUD).
- At the maturity of the swap, the principal amounts are exchanged back at an exchange rate agreed at the start of the swap.

The mechanics of the transaction is shown below.



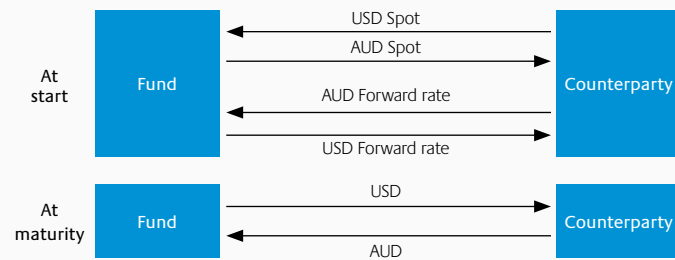
Cross currency swaps allow the Fund to switch foreign currency assets into AUD and at the same time switch the interest rate exposure into the short term floating rate exposure in the Australian market (ie BBSW rate), as shown in the diagram below.



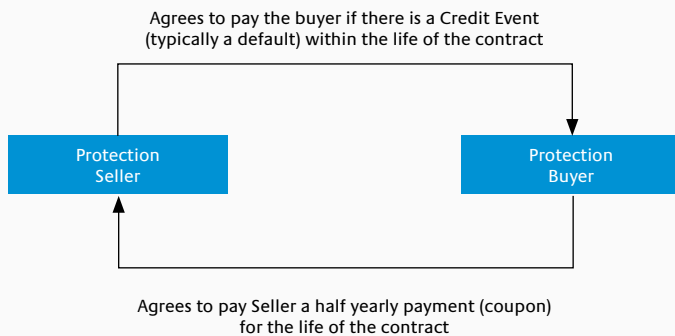
A **Foreign Currency Forward** is a 'single leg' transaction where an agreement is made to exchange one currency amount for another currency amount on a specific date in the future, usually within 3 months time. The rate at which this exchange is done is the current (spot) FX rate plus or minus the forward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

Currency forwards are used mainly to rebalance, reduce, or remove currency exposures as a result of market movements in the underlying portfolio. A currency swap is a combination of a spot and a forward transaction entered into simultaneously to maintain a constant hedge and it is not to be confused with a cross currency swap.

The diagram below demonstrates the cash flows of a currency swap.

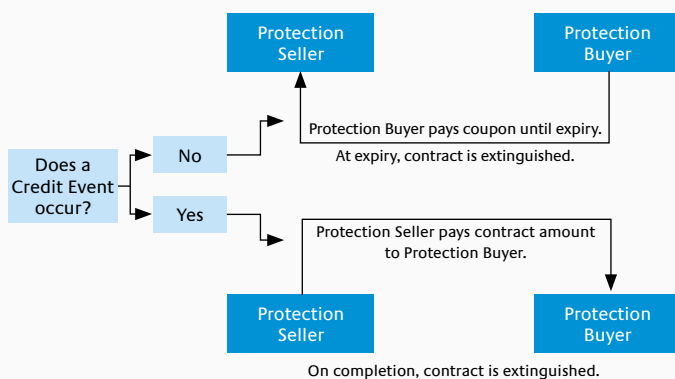


A **Credit Default Swap (CDS)** is a contract between two parties whereby the buyer makes periodic payments to the seller, and in return receives the contracted amount if there is a Credit Event (such as a default). The buyer of protection is the 'seller' of credit risk, who may own the underlying credit asset, and pays a periodic fee to the seller of protection (the 'buyer' of credit risk). In return, the seller of protection agrees to pay the buyer of protection a set amount if there is a default. CDS are designed to offset risks such as defaults and bankruptcies. A protection buyer is similar to a buyer of insurance, who buys protection against a future unknown event. A visual representation of this is shown on the diagram below.



CFS is a protection seller if it wants to gain exposure to the underlying name/index. CFS is a protection buyer if it wants to reduce exposure to or short the underlying name/index.

In other words, CDS are used to manage credit exposure without buying or selling the underlying securities outright. Writing a CDS increases credit exposure ('selling protection'), obligating the seller to pay the contracted amount following a Credit Event. Purchasing CDS decreases exposure ('buying protection'), as it entitles the buyer to the contract amount following a Credit Event. At the expiry of the contract, or a Credit Event occurring, the contract is extinguished. The possible outcomes and steps of action are shown below.



It is not necessary to own the underlying bond to trade these contracts, and gaining credit exposure does not require all the capital to be paid up front, as opposed to physical bonds. Another big advantage of using CDS contracts is liquidity due to the size of the CDS market (almost three times larger than the physical corporate and high yield bond market at the end of June 2009). Disadvantages include counterparty risk, the risk of becoming 'orphaned' (when companies break up and

the responsibility for the CDS contracts become ambiguous), and the 'cheapest to deliver' option being built into the price of the CDS contract (this only applies to the seller of protection).

Using CDS can be one of the most efficient ways to trade credit when risk is properly managed.

We use CDS in three ways in the Fund:

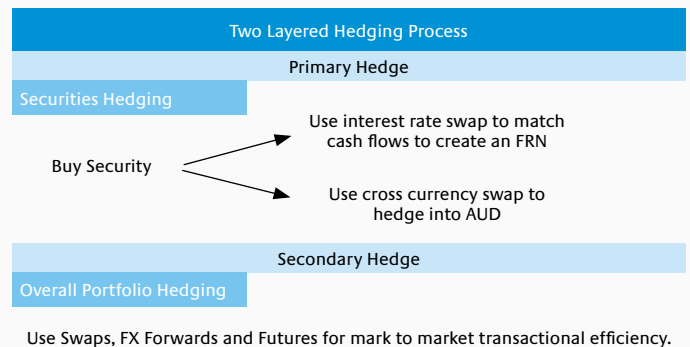
1. When we want to hedge credit exposure on a bond we own. This may occur where we are no longer compensated for a specific risk and we wish offset this risk by buying protection, thereby reducing exposure to the issuer's default risk. We may also choose this option when the cost of protection is below the yield we earn on the underlying bond (negative basis trade) and hence we take advantage of different pricing fundamentals between these instruments.
2. When we want to gain exposure to the credit risk of an issuer. The Fund can go long credit risk (be a seller of protection) or short credit risk (the buyer of protection).

When we take exposure to a company, we look for the best way of gaining exposure to that bond by comparing the various returns available (in various currencies), as well as looking at the CDS contracts available on that bond. For example, when we wish to reduce our position, we will assess whether it is better value to sell the physical bond position (where we own the bond), or to buy protection in the CDS market on that bond.

3. When we want to manage portfolio risk by gaining exposure to a particular segment or region of the credit market via CDS contracts on a basket of issuers (credit index).

Hedging in practice

In reality, a perfect hedge is hard to attain as asset/hedge prices are often not perfectly correlated and existing hedges need to be adjusted regularly as asset prices change. To manage the fact that hedges require continual monitoring and management we employ a two layered process, hedging the Fund at the security level as well as at the overall portfolio level.



The two layered hedging process ensures that the entire portfolio is hedged as efficiently as possible and that market movements do not allow inadvertent positions to develop as markets move.

Conclusion

Our primary objective in the Fund is risk management while adding value via the most efficient use of a wide range of securities. Hence using derivatives which are compliant with the strategy, objectives and limits in the Fund improves efficiency at a security level as well as in the Fund overall. Thus the common misconception that derivatives add risk to a portfolio is not valid, as long as their usage is well understood, managed and monitored. The Fixed Interest and Credit team uses derivatives across a range of funds to add value via hedging and via outright positions where they offer the most efficient and best value for risk.

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