

Total return swaps (TRS)

DEFINITION

Total return swap is the generic name for a bilateral financial contract where one party, the total return payer, agrees to make floating payment equal to the total return on a specific asset or index to the other party, the total return receiver. In return, the total return payer receives cashflow amounts generally equal to its total cost of holding the specified asset or index on its balance sheet plus some additional transaction fees. The total return is inclusive of any coupon, interest, dividend and net price appreciation. Usually the total return payer receives a stream of Libor plus a spread cashflows. Although a total return swap could apply to any underlying asset, it is most commonly used for equity stock indices, single stocks, bonds and defined portfolios of loans and mortgages. If we ignore counter-party risk and other detail legal details, a TRS is simply a sale of the underlying asset by the payer in return for a floating rate note which pays libor plus spread. This is in an important sense different from other credit derivatives, such as credit default swap, which may only be exposed to the credit event risk of the reference asset.

MOTIVATION FOR THE RECEIVER

The main reason for the receiver is leverage. For a non-inverted yield curve, and an asset paying high coupon, the net payment for the receiver is typically positive, i.e. positive carry. Therefore the receiver gains exposure to the underlying asset without any capital, other than the collateral requirement. This is a prime reason for the popularity of TRS among hedge funds. In

addition, TRS allows the receiver to synthetically buy assets such as loans which are difficult to manage. In short, a TRS gives all the economic benefits of an asset without actually purchasing it. Other advantages of TRS include synthesising assets with maturity not currently in the market, and gaining exposure to a wide spectrum of asset by entering a TRS on an Index or basket.

MOTIVATION FOR THE PAYER

The payer effectively sells the underlying asset when entering a TRS. This allows the payer to lay off unwanted risk and possibly diversifies the portfolio. This is especially important for assets with low liquidity and technically difficult to sell. For example, for a bank to actually sell a loan, the borrower may have to be informed and in certain cases, may have to agree on the transactions. This may damage a relationship which is strategically important but may not be advantageous in the sense of risk management. Under certain accounting regime, though not the case in US, paying a TRS is not considered as a sale of the underlying asset. This allows deferred recognition of the capital gain or loss which can have significant tax advantages. It may also be advantageous for banks with low funding cost to purchase an asset and enter into a TRS with a counter party with higher funding rate. The transaction can be beneficial to both parties. Furthermore TRS is on the trading book rather than the banking book which has to comply with the 8% BIS requirement. TRS can be used for certain capital requirement adjustment. This is a rather involved area and depends on the treatment of the local regulator.

EXAMPLES

- 1) Loan and high yield total return swap

Traditional investment are bonds, equity and real estate. However, an investor may be interested in a new type of assets to diversify her risk. Although the loan market is traditionally dominated by banks, the investor may enter the loan market with a total return swap. In return for the total return of a portfolio of loans, including any default and shortfall, the investor may agree to pay a bank Libor plus a spread. The bank would be better off using this transaction to offset its credit exposure to the pool of risky loan, while the private investor would achieve exposure to the risky but quite lucrative in good time loan market. A similar transaction may be done using risky high yield bond.

2) Stock equity Index total return swap

An investor wants to match the performance of the FTSE 100 index. She has many ways of tracking the index. Naively, she could trade the 100 underlying shares with the corresponding weightings, or more realistically trade the FTSE 100 futures. However, these two strategies would require some ongoing active management, either by rebalancing frequently the stock portfolio and reinvesting the dividends or by rolling the futures contract close to maturity. Alternatively, the investor may decide to enter into a total return swap providing the FTSE 100 index total return every six months for the next 5 years. In exchange, the investor would agree to pay GBP LIBOR plus let say 40bp per annum. By this way, the investor would had achieved to match the return of the FTSE 100 index at a cost of 40bp

PRICING AND RISK MANAGEMENT

A replicating strategy for the total return swap simply consists in buying the underlying asset or liability and using part of the balance sheet to fund it. In a non-arbitrage economy, the total return swap should have the same cost as the replicating and hedging strategy. Obviously the cost of the use of the balance sheet should depend upon the current situation of the total return payer balance sheet, the asset nature and its tax accounting and regulatory capital treatment as well as more general trade detail like the credit rating of the swap counterparty, and the tenor of the swap.

TARGET MARKET

Any investor looking for leveraged off-balance sheet alternatives may be interested in total return swaps. Investors may also decide to enter in a total return swap to avoid on going daily portfolio and funding risk management.

Total return swaps are also very flexible as they can be customized to use any underlying, any maturity. Investor can also unwind total return swap at any time at the then prevailing market rate. However, the off-balance sheet advantage and the no upfront premium cost should be balanced by the Libor premium as well as the requirement of legal ISDA based documentation.

Overall, total return swaps are flexible products that should attract many investors by their simplicity.

Entry category: Credit Risk Management

Scope: structure and market for TRS

Related articles: credit derivatives

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¹Eric Benhamou. Swaps Strategy, London, FICC, Goldman Sachs International.

²Jack Wong, Credit Derivatives Quantitative Research Group, Morgan Stanley.

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