

Swaps market, development of

The development of swaps market has been tremendous from its creation in the early 80's to its leader position in the derivatives market, with over 60 trillion dollars notional value of transaction for the year 2001 out of a total of 180 trillion dollars market (source BIS).

Although the first swap was a currency swap between the World Bank and IBM, the swap market has been mainly driven by the fixed for floating interest rate swaps market. Swaps are Over the Counter instruments involving the exchange of one stream of payment liabilities for another.

The first swaps were motivated by the difficulty to exchange big sum of cash between two currencies. In the early 80's, although the Bretton Woods agreements had already collapsed and there were no official foreign exchange controls (abolition in the US in 1973, and in 1979 for the UK), it was still expensive for a company to exchange funds between two currencies.

In august 1981, IBM and the World Bank agreed to exchange the future liabilities associated with borrowings in the Swiss Franc and the US Dollar bond markets. This swap was to exploit the comparative advantage of the two counterparties.

IBM enjoyed a very good reputation in Switzerland, perceived as one of the US best name. In contrast, the World Bank suffered from a bad image since it had used several times the Swiss market to finance risky third-world

countries. Consequently, the World Bank would have to pay an extra 20 basis points compared to IBM.

At the same time, the World Bank, with an AAA rating, was a well established credit name in the US and could get a lower financing rate (compared to IBM) in the US Dollar bond market because of the backing of the US, German, Japanese and other governments. It would have to pay the Treasury rate + 40 basis points. It became very advantageous for IBM and the World Bank to borrow in the market in which their comparative advantage was the greatest and swap their respective fixed-rate funding obligation.

The swap market had a scarce existence before 1985. By the middle of the 80's, swaps transactions started to grow as issuers and investors could lower their cost of financing or raise the yield on bond investments, by exploiting comparative advantage and arbitrage via swap transaction.

Originally, banks and other financial institutions were merely acting as middleman between the two counterparties of the swap, pocketing huge commission. But gradually, as the swap market grew, banks and other financial institutions started using swap to risk manage their interest rate and currency exposure, using the flexibility of swaps, to transform fixed-interest rate payment obligation into floating ones, or dollar denominated payment into an other currency. Swaps up to the coming of the FAS 133, offered the additional advantage to be off-balance sheet instruments and involved mostly counterparties of high creditworthiness

Swaps have become popular because they can be used to transform either:

- a liability from one currency into another one, or from fixed to floating rate or vice versa. For the exchange of floating rate in one currency versus a floating rate in another currency, one refers to as a basis swap. For the exchange of a fixed rate against a floating rate, one refers to as a vanilla interest rate swaps, payer or receiver depending whether if we pay or receive the fixed rate.
- or an asset paying fixed to floating or the opposite. In the case of a bond, this is referred to as an asset swap.

The main argument that have been put forward to explain the spectacular growth of the swaps market has been the comparative advantage arguments. It basically says that different companies should take advantage from their comparative advantage to borrow at a low rate (either at a fixed rate or a floating rate). They should subsequently swap their financial obligation with a companies that has just the opposite comparative advantage (can borrow cheaper at a fixed rate than a floating rate for instance if the company could borrow cheaper at a floating rate than a fixed rate).

A typical example would be the one of a weak credit name like a BBB institution that would have to pay as much as 70 basis points extra compared to an AAA-rated institution for a 5-year bond issue. In contrast, it would only pay 30 basis points extra for a 5 year bank loan indexed on LIBOR. The company would then be able to use the comparative advantage via a swap. Suppose that the company were interested in borrowing at fixed rate. The company would be better off by borrowing at a floating rate and swapping the

floating-rate obligation with a Japanese bank for a stream of fixed-rate interest payments at a total cost of 50 basis points. The BBB company would save 20 basis point when using this synthetic 5-year fixed-rate loan.

The comparative advantage argument is still open to question as the spread between the rates offer to companies are more a reflection of the market and in particular the credit perception of the companies than anything else. A comparative advantage at one point in time may dramatically change in the case of a credit downgrade or upgrade.

Last but not least, the swap market has also developed tremendously in terms of products offered, although the mainstream ones are still a fixed floating interest rate swap. Financial engineers have also created various forms of exotic swap like:

- forward swap starting in the future
- amortising swap: the notional reduces in a predetermined way
- CMS or CMT swap: one of the leg pays either a swap rate or a treasure yield
- Quanto swap: the payment is done in another currency than the one in which the swap is denominated
- Equity swap: the swap is between the dividend and capital gain realised on an equity index and a floating (or fixed) leg
- Credit Default swaps: one pays a fixed spread to be protected against certain credit event and in particular default of a specified bond.

Last but not least, with the growth of swap, the concern about the credit risk involved in such transactions has been growing. However, there exists in the credit derivatives market, swap that enables to swap the default risk against a fixed payment. These are referred to as credit default swaps.

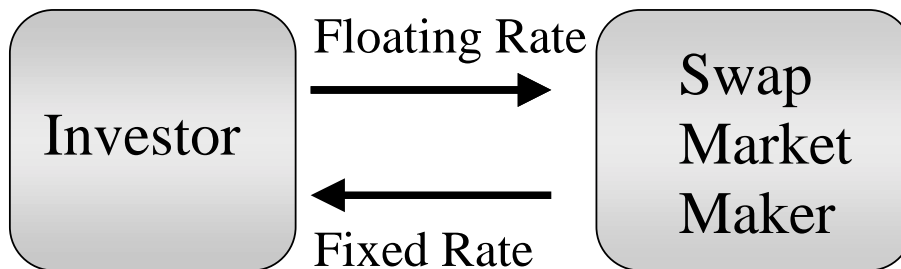


Figure 1: Summary of a fixed floating interest rate swap

Eric Benhamou¹

Swaps Strategy, London, FICC,

Goldman Sachs International

Entry category: swaps

Scope: reasons for innovation; nature of risks/problem; IBM-IBRD swap; precursor structures; rationale: information, market impact, etc.

Related articles: Swaps types, taxonomy of; Swaps: interest rate swaps (IRS);

Swaps: cross-currency swaps (CCS); Commodity swaps; Equity swaps;

Complex swap structures

¹ The views and opinions expressed herein are the ones of the author's and do not necessarily reflect those of Goldman Sachs