THE SWAP MARKET BUBBLE

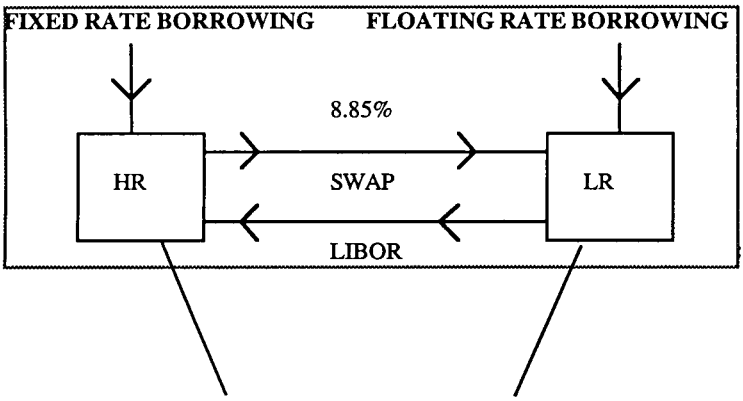
by Tadhg Flood

A financial swap is a derivative security by means of which you exchange one financial liability for another which exhibits different characteristics. Swaps are traded worldwide and are used as a financial tool to hedge and to diversify risk. With about six trillion dollars in contracts outstanding worldwide, the size of the international swap market now exceeds the combined value of all shares on the New York and Tokyo stock exchanges. The swap market has grown to this size over the past twelve years, and this increase has been largely unregulated and unchecked. Regulators are increasingly worried about the world financial system's exposure to swaps, and how a disaster in this area could do what junk bonds, third world debt and collapsed property markets have failed to do. Here, I intend to explain the rationale behind swaps, their main characteristics and advantages and examine the history of their growth. I will then focus on the cause of worry for regulators and how a crash in the swap market could pose severe economic problems.

WHAT IS A "SWAP"?

The swap market has not been created out of a response to a particular market condition. It has been developed to meet a long unsatisfied demand. The basis behind swaps is the concept of comparative advantage. Different companies in different financial markets are treated in different ways. Take for example; a fixed for floating swap, known as a plain "vanilla". A highly rated company and a lowly rated company both raise funds in the fixed and floating rate markets. It is obvious that the highly rated company would receive a more preferable rate in absolute terms in both markets. However the lowly rated firm may hold a comparative advantage in the floating rate market. If both firms raise funds in the market in which they hold a comparative advantage and then swap the interest stream, then cheaper funding rates can be achieved by both parties. The diagram below illustrates the benefits of swaps.

	HIGHLY RATE	LOWLY RATE
FIXED RATE BORROWING	8.6%	9.6%
FLOATING RATE BORROWING	LIBOR	LIBOR+ 50BP



0.25% — Net cost: LIBOR — 9.35%
9.60% — Alternative: LIBOR — 9.60%
0.25% — Savings: — 0.25%

In theory this represents a significant cost saving for both companies, however in practice the situation becomes more complex. The swapping needs of different parties are often not widely known, nor are potential partners in a position to evaluate the credit risk of a counter party. The timing and funding sizes may also differ. These conditions allow room for a swap market maker to appear and to provide a two way market in swaps. The market maker makes his profit on the spread between the bid and ask prices, which is usually dependent on the degree of liquidity and the level of risk involved. The nature of the competition between these market makers is probably the driving force in shaping the swaps market.

The History of the Development of the Market

Swaps started to be traded in the late seventies as firms tried to avoid government restrictions on British firms using dollar financing and non-British firms using sterling financing. In 1981 only $100 million of swaps were traded, as previously mentioned the current figure has grown to approximately $6 trillion. The swap market has no doubt benefited from the recent volatility that seems to have become a permanent characteristic of Capital Markets. A swap allows companies to lock in present profits, to hedge exchange rates, interest rates and many other financial exposures. The use of other substitute derivative products requires servicing margins and rebalancing, the swap requires no such care and has hence become a prominent tool in the management of risk and of finance. The future growth of the swap market will be dependent upon the level of imperfection in international capital markets, after all it is this imperfection which creates the opportunity to achieve a more optimal financial structure(i.e. by means of swaps in the first place).

Another advantage of the swap lies in the fact that, as a privately negotiated instrument, it can be customised to meet the needs of a company.. As the Economist Merton Miller has pointed out; "...you can make almost anything out of anything." The perfect hedge can be created , resulting in a risk free exposure for a company. However as with most financial markets a zero sum game must emerge. Someone must take on the risk and herein lies the inherent weakness of swaps.

THE PROBLEMS WITH SWAPS

Swaps involve two way payments and hence both parties are open to each other's credit risk. The fact that only payments are exchanged and that principals are held by the original fund raiser reduces the risk, but now that the swap market is growing at a frightening pace the interest payments have become a considerable sum in themselves. Allied to this is the fact that a large proportion of swaps involve zero coupon exchanges where one party makes all the payments up front.

This is where the potential for disaster can first be seen. If one company involved in a swap cannot meet interest payments then the other party will cease to do so as well. This collapse of a single two sided swap is in itself no danger to the financial system. However a problem has begun to emerge. The complexity of swap deals is growing exponentially. This means that any amount of principals may be involved in achieving the perfect hedge. A recent swap involved 240 separate transactions. If one party falls through then the whole deal may collapse resulting in a shock wave being sent through the world's capital markets. To understand why this complexity has arisen, one must look at the catalyst for change, the market maker.

Ten years ago only a handful of bids would have been received for a $100 million swap. This illiquidity or market risk was reflected in the spread rates, which resulted with higher profits for the participating market makers. Today a similar trade could receive over a hundred bids and the ensuing yield to the market maker would be small, as is to be expected in any competitive market.

The market maker, however, realises that by differentiating his swap a higher spread can be achieved. This differentiation comes in the form of creating more complex and longer term instruments. While this increase in complexity may achieve higher efficiency in terms of hedging risk, it also introduces a higher level of credit risk. So, rather than reducing risk, new swaps may in fact be introducing new forms of risk in to the market place. This is perfectly rational behaviour for a market maker to engage in, after all, he or she is in business to maximise profits in the same way in which an industrial company strives to. It is up to the end user company to realise that the increased credit risk of a complex swap may not be worth it just in order to achieve the perfect hedge.

Conclusion

Swaps will continue to grow, as long as the opportunity to gain exists within the market place. A financial disaster could occur in theory, as a bubble grows in search of higher profits and better hedges. The danger could be insulated to a certain degree by improving the capital bases of the swap market makers and thus enabling them to shoulder the risk of default. However, the superior solution lies with the end user company in realising that perfection comes at a price.

Notes

LIBOR: London Interbank Ordinary Rate

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