

INTEREST RATE SWAPS AND FINANCIAL INSTITUTIONS

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INTRODUCTION

Interest rate swap transactions began in 1981, with Eurobonds being the principal security employed in these transactions. In a span of only seven years, interest rate swaps have developed into a fully operative market with an annual volume estimated to be over \$300 billion and outstanding swaps with a value over \$1 trillion. Although swaps were originally devised to deal with interest rate volatility, a wide variety of new uses has evolved for this unique instrument. This paper will explore many of these new and innovative uses of swaps.

Any instrument undergoing the rapid growth that swaps have experienced will encounter critics. In particular, some financial commentators fear that the rapid and uncontrolled growth of this market will pose serious problems for the financial security of the credit markets. Swaps are criticized for masking an institution's true interest rate exposure and for increasing overall credit risk. A discussion of accounting issues and credit risk is covered later in this paper. However, it does seem rather ironic that an instrument which was born out of deregulation is now coming under considerable pressure for increased industry control.

Swaps allow users to lock-in their cost of funds, rapidly alter their asset-liability structure, create synthetic

securities, access cheaper credit markets, and speculate on interest rate movements (even though existing regulations prohibit such speculation). The growth in swaps has resulted in a relatively broad secondary market and the standardization of the underlying contracts and conventions among instruments. In fact, many of the changes which have occurred in the swap market are identical to the ones experienced during in the development of futures markets.

## OVERVIEW TO INTEREST RATE SWAPS

### THE BASICS

The concept of an interest rate swap is relatively simple: two parties agree to exchange interest payments for a certain period of time, based upon some agreed upon or "notional" amount. For example, a swap participant may agree to pay a fixed rate of 10% on \$10 million every year for the next five years. In exchange, the participant will receive a six-month LIBOR rate for the same amount of money for the same period of time. In effect, the swapper has traded a fixed-rate payment for a floating-rate payment.

Note that the two parties simply agree to exchange interest payments; there is no exchange of principal, nor is there any physical exchange of securities. In fact, there may not even be an actual security on either side. The "notional" amount upon which the participants agree to base their payments may be an

arbitrary figure, with no tangible asset underlying the transaction.

Interest rate swaps may be either asset-driven or liability-driven. For example, Sears & Roebuck has been very successful in using interest rate swaps to change its floating rate debt into fixed-rate debt in order to lower its interest rate exposure. During the volatile interest rate period of 1979-1981, Sears found its variable-rate debt costs were increasing significantly, which adversely affected the company's otherwise respectable earnings. Sears' management decided to set a goal of restructuring its fixed-rate debt position from 3.5% to 50% of total borrowings by 1985. Sears proceeded to issue long-term bonds, until it discovered interest rate swaps. Sears soon determined that it could convert its debt faster and cheaper by employing the swap market. By 1984, Sears had swapped over \$2.5 billion of debt, at a rate below the Treasury rate. Thus, whereas previously a 100 basis point increase in interest rates would decrease earnings by 12 cents per share, after restructuring such a change in rates would only impact earnings by 6 cents per share.

#### HOW SWAPS EVOLVED

The swap market evolved because of the differing needs of its participants. Large European banks could obtain funds relatively cheaply because of their triple-A credit ratings. In particular, they could issue Eurobonds at a relatively low fixed-rate cost. However, their ability to invest funds in securities

issued in Europe was typically restricted to floating rate instruments; this dichotomy creates reinvestment and earnings problems in periods of declining interest rates.

On the other hand, United States institutions, particularly those with lower credit ratings, faced the exact opposite situation. The cost of funds to lower rated U.S. firms of issuing fixed-rate bonds was generally prohibitive; instead, they were better able to borrow at variable rates by employing short-term commercial paper or using bank lines of credit. However, longer-term U.S. investments, such as corporate or Treasury bonds, usually carried fixed-rates.

These institutional constraints for European banks and U.S. institutions resulted in serious mismatches between their assets and liabilities when repricing occurred. The potentially disastrous affects of such mismatches are well known, particularly in regard to the thrift industry in the U.S.

An obvious solution to the above problem would be for the European banks to swap their liabilities with the liabilities of the U.S. corporations. Since the European banks could borrow at lower interest rates, U.S. firms would be willing to pay the banks a premium for the privilege of obtaining the fixed-rate financing that these banks could access. As long as the total cost to the U.S. corporations was lower than what it would cost them to obtain fixed-rate financing on their own, the U.S. companies would still benefit. Meanwhile, the European banks would earn a premium and obtain dollar-denominated floating-rate financing. This type of transaction enables the European banks

to "lock-in" a spread between the fixed-rate cashflow obtained from the swap and their fixed-rate liabilities. Similarly, it would provide the U.S. institutions with a locked-in spread between their floating-rate liabilities and their newly acquired floating-rate cashflow.

Example #1 illustrates such a U.S.-foreign swap which accomplishes the goals discussed above:<sup>1</sup>

	fixed-rate of 11%	
U.S. ----->		European
Corp. <-----		Bank
	6-month libor	
issues:		issues:
6-month		10.75% fixed-rate
libor + .375		

#### Eurobond

The net effect of such a swap might be as follows:

U.S. Corporation:	European Bank:
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from bank line of credit:

	-libor + .375
issues Bond:	-10.75%
inflow:	libor
inflow:	11.00%
outflow:	-11.0%
outflow:	-libor

	-----		-----
NET:	11.375%		
		libor-.25	
ALTERNATIVE:	11.7%		
		libor+.25	
	-----		-----
SAVING	.325%		.50%

Assuming that a fixed-rate bond issuance would cost the U.S. corporation 11.7%, the U.S. firm would save .325% in the example. Furthermore, assuming that the best alternative available to the European Bank was to borrow at libor plus 25 basis points, the bank would benefit by 50 basis points. In fact, these were the market rates available for such transactions in 1982, and this type of transaction is still in effect today.

#### THE SWAP MARKET TODAY

##### PRICING AND MARKET CONTROL

As the swap market evolved, investment bankers and money center banks were quick to offer their services as financial intermediaries. Initially, these intermediaries charged fairly lucrative fees for their services. Aside from the initial "up-front" fee, these intermediaries could extract a spread as high as 50 basis points over the life of the transaction. As the



market grew, the up-front fee was dropped and the spread narrowed. Most swaps are now traded much like a security, with bid-ask spreads running from 5 to 10 basis points.

The competition over control of the swap market between the investment bankers and the money center banks has played an important role in the development of swaps. The investment bankers want swaps to be a standardized instrument which is treated as a tradeable security. They would like to set up trading exchanges for swaps once the market matures. Not only would the market have greater liquidity, but the brokerage firms which maintain inventories of swaps would not have to carry these swaps as long-term transactions on their books.

The next step in the swap market will likely be the development of a clearinghouse to facilitate the trading of swaps. Efforts are underway to standardize the credit rating system in the market, but it is unlikely that participants will accept any generic treatment of risk. By grouping individual companies into generic risk categories, there would be no distinction between investment grade risk and speculative risk. Similar problems were major causes of the failure of the bank CD futures market.

#### CREDIT RATINGS AND COLLATERAL

The biggest obstacle to an exchange is the lack of standardization among credit ratings. Initially, if two parties wished to engage in a swap transaction, they first had to conduct full credit checks on the counter party. This is precisely why

the large money center banks see the swap market as part of their domain: while the brokerage firms specialize in trading securities, the money center banks specialize in credit analysis.

To help develop a market in swaps, intermediaries began assuming one side of the swap position instead of merely acting as a go-between for other institutions. This way, instead of constantly having to approve new credit lines each time a new swap is negotiated, an institution could transact a number of swaps through one particular brokerage firm. By taking an active position in these markets, these brokerage firms have added substantial liquidity to the market. Some of the larger market-makers thus far have been Salomon Brothers, Citicorp, First Boston, Bankers Trust, and Morgan Guaranty.

Not all firms are willing to act as principals in a transaction, particularly when a great number of the participants in this market are lower-rated firms. Therefore, every time a swap is proposed, it is important first to determine the party that is acting as principal. If the brokerage firm is not acting as the counterparty, credit checks must still be conducted, and the deal may take several days to complete. Otherwise, the deal can be finalized in minutes.

This practice reinforces the potential market risk problems inherent in this market. In order to facilitate trading, these intermediaries often agree to swaps without having a counterparty on the reverse side of the swap. Essentially, these firms build inventories of open swaps. As long as these firms can hedge these inventories, the risk is probably minimal; however, the

degree of exposure which these firms may be accumulating is unknown by outsiders.

As an added degree of precaution, swap terms sometimes call for some amount of collateral to be posted to guard against default. The exact amount of the collateral depends on the credit of the party entering into the swap; generally, this amount is 2-6% of the notional amount for each year the swap is outstanding. Alternatively, other forms of collateral may be acceptable (such as a letter of credit), with the exact requirements being determined by the parties engaging in the transaction.

Swap payments may be made on either a "gross" or "net" basis. Under a gross agreement, the full amounts of the payments are exchanged. Net agreements, on the other hand, merely exchange the net differences in the periodic rates. This tends to reduce the default risk, since either party would simply stop sending payments in case of a default by the counterparty.

Even though the default risk may seem minimal, since only interest payments are involved, other problems exist with defaults. For example if a swap agreement were terminated because of a default, then a party might find itself with considerable market risk problems. Thus, if a participant was receiving a fixed rate of 15%, and comparable rates fell to 10%, it would be unable to recapture the 15% yield if a default occurred by the counterparty. The collateral postings are intended to avoid such market losses.

SWAPS AND EFFICIENT MARKETS

The question naturally arises as to why the European Banks could not either access the U.S. market on their own or find some other means to obtain variable rate financing. Similarly, what factors prevented U.S. institutions from accessing the less expensive markets without having to resort to swaps? Commentators argue that if markets are economically efficient globally then swaps should not be necessary.

The contention is that these two parties are not merely swapping interest payments, but are essentially swapping their credit differentials. The European banks are able to exploit their high credit rating and then swap this advantage to the lower-rated U.S. corporations. When viewed in this context, it becomes clear that the economic incentive behind such a transaction is not simply access to new markets, but also involves a type of hidden credit risk shift within these markets. Thus, many experts believe that swaps merely exchange interest rate risk with credit risk, and that swaps offer no real economic value to society. Furthermore, since these transactions do not need to be disclosed in financial statements (no securities have been exchanged), many experts argue that there is no method to determine whether the additional premium paid to the European banks sufficiently compensates them for their risk-taking. They believe this risk gets anonymously shifted from debtholders to equity holders.

Others argue that markets are not efficient in any case.

For instance, there are corporations which possess a prime-1% commercial paper rating but only have a Baa bond rating. Obviously, if swaps enable such corporations to better utilize their commercial paper credit facilities, then these firms are better off. In one instance, a corporation with the above-mentioned credit ratings was successful in swapping into a rate below that offered to the highly-rated World Bank. In fact, by exploiting these differences in the way credit quality is viewed, swaps may be helping to create a more efficient market.

Today, not all swaps rely on European banks, but the market is still partly driven by the Eurobond market. Much of the activity in both the Eurobond market and in the commercial paper market over the last few years is believed to be a result of the development of a viable swap market.

## USES OF SWAPS

### A "PLAIN VANILLA" SWAP

With a single swap transaction an institution may quickly transform its floating rate liabilities into fixed rate debt, or vice-versa. This basic type of swap is what is generally referred to as a "plain-vanilla" swap, and has been an effective tool for gap management. Approximately 60-70% of the swaps executed are estimated to be "plain-vanilla" swaps. The following example demonstrates how an institution may execute such a trade.

With interest rates at low levels, many businesses want to

refinance their prime-based variable-rate loans into intermediate term fixed-rate loans. Although First of America is reluctant to lend at such low rates, competition in the market forces them to offer some type of attractive package in order to retain their customers. The commercial lending department believes it can renegotiate by offering \$40 million in 5-year fixed-rate loans currently paying prime.

First of America would like to match these assets with 5-year CD's, but recognizes that it would have a great deal of difficulty attracting long-term deposits given the flatness of the yield curve. Furthermore, if interest rates rose, CD holders would be inclined to cash in their certificates despite the penalties. Past experience has shown that the institution can readily attract funds using their 6-month certificates.

The swap specialist for the institution contacts several brokers and obtains bids on interest rate swaps which would exchange a fixed-rate for 6-month libor. The lowest offer is quoted as "Treasury plus 96" basis points. The specialist then calculates the effective spread between the fixed rate and the floating rate to determine the net cost of the swap.

Assume that the current 5-year Treasury rate is 6.753% (the Bond Equivalent Yield). The current 6-month libor rate is 6.75%. Libor is paid on an actual/365 day basis. Fixed rates from Treasury curves are paid on a 30/360 day basis.

The spread-to-Treasury is added to the yield curve:

$$6.753\% + .96\% = 7.713\%$$

The rate is adjusted for the differences in payment calculations:

$$7.713\% \times 360/365 = 7.607\%$$

and finally the rate is compounded to an annualized basis:

$$7.607\% \rightarrow 7.752\%$$

The libor rate is similarly compounded:

$$6.75\% \rightarrow 6.864\%$$

and the net difference is:

$$7.752\% - 6.864\% = .89\%$$

If this 89 basis point spread between 6-month money and 5-year money is less than the comparable spread which the institution would have to offer on CD's, then the institution can save money by swapping down the 5-year rate (without considering collateral costs).

First of America offers fixed rate loans to its customers. This rate is then passed on to the counterparty in the swap in return for the six-month libor rate. The fixed-rate is now locked in. If interest rates rise, First of America will benefit by receiving a higher libor rate. This higher 6-month rate will offset the higher cost of 6-month CD's which are being used to finance the loans. If interest rates decline, the lower libor income will be offset by the lower 6-month CD rate. Of course, if rates decline substantially, borrowers may renegotiate their fixed-rate loans, which would adversely affect First of America's earnings. However, this risk would also exist without the swap. Locking-in the fixed rate liability on the swap is no different than locking in the liability using 5-year CD's.

#### FREQUENCY MATCHING

Aside from attempting to match fixed rate liabilities with fixed rate assets, and variable rate liabilities with variable rate assets, an institution may also want to better match the frequency with which its assets and its liabilities rollover, i.e. it may wish to bridge their asset/liability gaps. For example, a savings and loan association may be funding its one-year adjustable loans with 3-month CD's. If interest rates rise rapidly, the thrift stands to lose its interest margin. In this case, the institution could swap its one-year mortgage interest with a comparable rate which is reset every three months. This way, its assets and liabilities would be repriced at the same time. Such a match need not be perfect: the institution may be willing to settle for either a prime-based or a libor-based swap. In such a case the institution would be affected by the "basis risk" between the underlying liability (the 3-month CD) and the swap asset (such as 3-month libor). However, this basis risk would be much smaller than the current maturity gap risk. Hence, one creates a cross-hedge with swaps.

#### FLOATING TO FLOATING SWAPS: BASIS RISK SWAPS

An institution also may use swaps to reduce any basis risk that already exists between their assets and liabilities. For example, a bank which is currently receiving a prime rate from their commercial loans, but which is paying its depositors CD rates based on libor, is a candidate for a swap. More specifically, since the prime rate is an administered rate and does not rapidly adjust to shifts in the yield curve, the bank



could encounter reduced earnings if rates increase rapidly. By entering into a swap whereby the bank pays prime but receives libor, the bank can lock-in a spread regardless of any differences in the movements between the prime rate and libor.

#### REDUCING HIGH RATE DEBT COSTS

Assume a company needs to borrow funds for five years but finds that current rates are relatively high. Management believes that rates will decline, but wishes to obtain the necessary funds as soon as possible. In this situation the company could issue the fixed rate debt and then "swap it down" by agreeing to pay a floating rate in exchange for receiving a fixed rate. The fixed income from the swap offsets the debt cost, and the firm is left having to make floating rate payments on the swap. If rates decline, the firm's financing cost falls commensurately. Of course, if management is wrong and rates go up, the company will be paying more for the variable rate swap than if it had held on to the fixed rate debt.

This particular type of swap activity is especially interesting for thrift institutions. Speculating on lower interest rates essentially equates to going long in the futures market, which is prohibited by the Federal Home Loan Bank Board for most thrift institutions. However, because interest rate swaps are "hidden" transactions, institutions can successfully circumvent Bank Board regulations via the swap market. The Bank Board has not yet made any ruling on this type of activity, although it has approved swaps for hedging liabilities and as an

asset\liability tool.

#### FIXING FLOATING RATE DEBT

If a party believes that interest rates have reached a trough, they can swap floating-rate debt for fixed-rate debt. This effectively locks-in the lower interest rate.

#### SWAPPING ASSETS

Interest rate swap transactions may be asset-driven in order to lock in favorable yields on investments. By entering into a swap whereby a party receives a fixed rate, they are going long in the market and may be able to reduce the market risk associated with declining rates. This may be particularly useful for mortgage institutions concerned about prepayments on high coupon mortgages during periods of falling interest rates.

#### SWAP ARBITRAGE

One of the more creative innovations of the swap market is an investment structure known as a "risk-controlled arbitrage" or "3-way swap arbitrage". The concept behind a swap arbitrage is to create a self-funding transaction which locks-in a spread for a wide range of interest rate scenarios. The transaction involves repurchase agreements, mortgage-back securities, and a series of swaps in order to balance cashflows and durations.

A typical example should clarify this concept:

A savings and loan association purchases \$100 million of mortgage-back securities and simultaneously funds the purchase by

using the securities in reverse repo agreements. Normally, this transaction would be subject to substantial interest rate risks: higher rates would increase the costs of the repos, while lower rates would boost prepayments on the mortgage-backed securities and thereby reduce their yield. These effects are mitigated with interest rate swaps.

The savings and loan agrees to enter into a series of swaps whereby it pays fixed rates in exchange for Libor. The incoming Libor rates should offset the reverse repo rates with a basis risk of only a few basis points. The fixed rate on the swap is a intermediate term rate, e.g. a 5 - 7 year rate. With an upward sloping yield curve, these rates should be below the fixed rates on the mortgage-backed securities.

This transaction thereby enables the institution to fix its financing rate and thus purchase high-yielding fixed-rate securities. The gaps, prepayment rates, and reinvestment rates are all modeled to minimize risk over a wide variety of interest rate environments. The transaction may be closely matched on both a cashflow and on a duration basis; this enables the institution to earn a positive spread despite a relatively high volatility in interest rates. If interest rates decline and prepayments rise on the securities, the institution can rebalance the transaction by either structuring new swaps or trading down into lower coupon securities. Swap arbitrages can be structured with terms from 18 months to ten years, and can "lock-in" returns ranging from 30 to 130 basis points, depending on the actual interest rates in existence over the life of the transaction.

### NEW INNOVATIONS

Recently, the market has offered some new versions of swaps which represent further attempts to develop new products. Among the latest innovations have been swaps with amortization, swaps with options (also known as "swaptions"), and Eurobond offerings equipped with warrants. Moreover, many swaps are now included as part of a "package deal" at the time a bond is underwritten.

### REVERSING A SWAP

An institution may want to reverse a swap if the institution is earning a high rate from a swap and would like to lock in this gain. Once a transaction has been agreed upon, there are three ways in which a party may reverse its obligations:

- 1) The firm may swap into an exact opposite or reverse position.
- 2) The firm may "sell" the swap.
- 3) The two parties to the transaction may agree to cancel the swap.

If a firm has a position in a swap it may effectively cancel the position by taking an opposite position. Suppose an institution is receiving a fixed rate of 15% and is paying libor. Interest rates decline, and comparable swaps pay fixed rates of only 10%. If the firm agrees to enter into a second swap whereby it pays this fixed rate of 10% and receives libor, it can effectively lock-in a spread of 500 basis points. Thus, the income from the swap will continue to accrue over the remaining

life of the transaction.

Second, the firm may "sell" the swap for a profit and book the gain immediately. The profitable swap would be sold for the present value of the 500 basis point gain. Any swap which has been sold to another party is referred to as a "seasoned" swap. Seasoned swaps may be purchased at a lower cost than a new swap, since there is no need to find opposite parties or to work out any new terms to the agreement. In fact, a secondary market for seasoned swaps has developed and is currently estimated to have a volume of about \$30 billion per year. Since most of these agreements are privately arranged, it is not possible to know the exact size of the secondary swap market.

The major problem with selling a swap is that the two initial parties had approved each other's credit status, and the buyer of the swap may not be acceptable to the original counterparty. The counterparty may agree to review the buyer's credit, but such an analysis raises the cost of the swap. Furthermore, the counterparty having to review the buyer's credit is already on the "losing" side, and has no incentive to expend additional effort. Consequently, swap transactions may assess a penalty for selling the swap, or they may specify a given credit rating be required of any buyer. Efforts are underway to standardize a credit system for the secondary swap market, but such an undertaking is difficult because most institutions want to retain control of choosing their customers.

A third way to reverse a swap is for the two parties to mutually agree to cancel the transaction. There may be some

advantages in the tax system which would favor canceling a transaction (for a "fee") rather than selling the swap, although accountants have not yet settled this issue.

#### SWAP MECHANICS: QUOTING SWAPS

There has been some confusion among swap participants as to the quoting and structure of swap agreements. Most swaps are quoted on the basis of the spread over the Treasury curve for the fixed rate payment. However, an odd first period can affect the relative costs on each side. Furthermore, different rates are quoted for different day counts. Libor rates use an actual/360 basis, while fixed rates use an actual/365 or 30/360 day count. The frequency with which either rate is paid will also impact the true cost of the swap, as will the frequency with which payments are made. With all of these considerations, the mathematics involved in evaluating the "true" cost of any swap can be complicated.

One of the ways to express the cost of a swap is to reconstruct the contractual cashflows, make whatever adjustments are necessary to equalize the cashflows from an analytical perspective, and then calculate an IRR on the hypothetical cashflows on the fixed rate side. The IRR is referred to as the "all-in-cost" and can facilitate quotations. Thus, a libor/fixed rate swap may be quoted as a libor swap with an all-in-cost to the fixed payer of 9.32%.

There are various ways to analyze the cost of a swap.

Hence, there continues to be some disagreement as to the "correct" way to evaluate the true costs involved in a transaction. Attempts at standardizing the methodology are progressing; most notably, analysts at Salomon Brothers issued a report in June of 1985 describing the mathematics, terminology, and conventions used in the swap industry. This approach was quickly accepted as the industry standard. About the same time, the International Swap Dealers Association (ISDA) issued a "Code of Standard Wording, Assumptions and Provisions for Swaps", which serves as a master code for swap agreements throughout the industry. Virtually all of the major players in the swap market have since incorporated this code into their contracts. These efforts have contributed significantly to the standardization of swaps and the development of a viable secondary market.

As further evidence of the growing liquidity in this market, swap quotations are available on Telerate. These quotations are provided by Prebon Fulton, U.S.A. Since Prebon Fulton does not act as principal in any of its swaps, these rates are not always indicative of the true rate levels available in the market. However, they do provide a benchmark rate, and the quotes show how the market is becoming increasingly competitive.

#### ADVANTAGES AND DISADVANTAGES OF SWAPS VERSUS FUTURES

Since many swaps participants are using these instruments as a substitute for futures, it is worth noting the relative advantages and disadvantages of swaps versus futures

transactions:

Advantages of swaps over futures:

- Swaps are privately placed; there is no SEC registration or public access to any information.
- Swaps may be arranged for periods up to ten years; futures contracts only trade maturities of two to three years, with most of the liquidity concentrated in the nearby contracts.
- Swaps may better match underlying asset or liability pricing characteristics and hence avoid the basis risk found in futures.
- Swaps may be tailored to the specific needs of the participants, much like a forward agreement is sometimes preferable to a standardized futures contract.
- Economic benefits may be enhanced in periods of wide quality spreads.
- Institutions can take advantage of the lack of regulation: currently they are able to speculate on interest rate movements.
- Hedge losses from swaps do not have to be disclosed in financial statements, while futures losses must be disclosed.

Disadvantages of swaps in comparison to futures:

- Safeguards are missing in swaps, i.e., there is not always a marking-to-market of collateral and there does not have to be any up-front margin (letters of credit can sometimes be substituted for collateral).
- Swaps offer infinite leverage and risk.



- Participants must individually negotiate a settlement or reversal.
- There is a general lack of standardization in the market, although strides have been made to overcome this difficulty.
- There is significant potential for credit risk within the swap market.
- High-rated participants may be sacrificing their relative worth by exploiting their credit ratings and entering "generic" markets.

#### A CREDIT FAILURE

There has only been one "serious" incident in the swap market. In 1983, Beverly Hills Savings and Loan entered into a \$12 million swap agreement with Renault car manufacturers. Following the typical procedure, the thrift posted \$2 million in collateral.

In April of 1984, the Savings & Loan was taken over by the FSLIC. Renault, concerned about the thrift's reorganization, wanted to exercise its option to cancel the deal. It contended that since the swap was non-transferable, the thrift had breached its contract when the swap was re-assigned to the newly organized savings and loan. Renault requested half of the collateral as compensation. The FSLIC went to court, claiming that it needed the collateral to limit the thrift's losses, that no default had yet occurred, and that breaking the deal would hurt the agency's

efforts to reorganize the association. Furthermore, FSLIC was concerned about the precedent this case would set: they did not want other swappers calling in their swap agreements. The court agreed with FSLIC and froze the collateral.

While this case did not create chaos in the swap industry, it may have notified many swap participants to the unresolved areas still facing this market. Consequently, since the Renault court case, lower-rated thrifts may have found some difficulty in negotiating swaps under the same terms which existed prior to the court's decision.

#### ACCOUNTING ISSUES

A Financial Accounting Standards Board draft report concerning swaps is now under consideration which models the treatment of swaps as a hedging vehicle after FASB 80. Meanwhile, one of the major advantages of using interest rate swaps is that they do not affect the balance sheet. Since the underlying liabilities do not change hands, there are no balance sheet entries required. Meanwhile, the income or expense is identified with the underlying security. However, if the transaction is considered material to operations, or if the contingent liabilities of an institution increase because it is "warehousing" swaps in order to make a market, then the transactions may need to be disclosed in footnotes to the financial reports.

This off balance sheet use of swaps is considered to be an

important advantage of swaps over futures. If futures are set up as a hedge, and the market moves against the futures position, then the loss on the futures position must be explicitly disclosed. Even if the hedge is effective, this reported "loss" may be criticized by the directors or the stockholders. Alternatively, if a hedge is established with an interest rate swap, it is doubtful whether anyone outside of management would even know of the transaction.

This capability of "hiding" swap transactions also affects the perceived risk of the swap market. In particular, it is possible for an institution to speculate in the swap market without disclosing its actions. Unless a regular asset-liability report is generated (and audited and disclosed), an institution's interest rate exposure will not be adequately represented in its financial statements, since only the underlying assets or liabilities are reported. Furthermore, all of these transactions are private placements: no one is sure just how large the market has become, nor does anyone know to what degree interest rate exposure has changed.

If an institution has an existing swap which can be sold at a profit, the gain from the sale would be recognized at the time of sale. This has fueled concern that institutions may sell a floating rate swap prematurely in order to book early profits. For example, it is believed that Continental Illinois prematurely sold some of its more profitable swaps in order to "postpone the inevitable". These profits would have been reported under normal operating income, and might have disguised the true status of the

institution.

FOOTNOTES

<sup>1</sup> This example is based on an example in "How to do Interest Rate Swaps", Tanya S. Arnold, Harvard Business Review, Sept-Oct 1984.

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