

Using interest rate swaps to increase commercial loans and fee income

By Chad McKeithen

Changing landscape

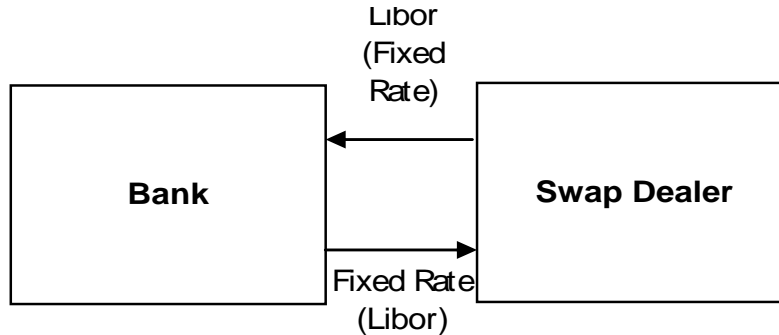
There is a growing dilemma between banks nationwide. Some banks are increasing their commercial lending portfolios while other banks are struggling or at best maintaining a status quo position. Over the past 15 years, larger banks have been growing their commercial loan portfolios at a faster pace than community banks. In 1992 banks larger than \$5 billion made 54% of the outstanding commercial loans (C&I, Commercial R/E, Commercial Construction) with banks under \$5 billion accounting for 46%. As of December 2006, banks over \$5 billion in assets have increased their share to 66% leaving community and small regional banks with 34% of the production. While developing relationships will continue to be very important in building commercial business, it is becoming a commodity business as attractive alternatives are developed. As competition is increasing, banks and even non-traditional financial institutions are becoming creative in their approach to maintain and boost business. Every bank must decide whether or not they want to compete in this environment. Should they accept the challenge then adapting to the changing landscape will be critical to their success.

The purpose of this research piece is to demonstrate how to create a commercial lending platform combined with interest rate swaps to offer competitive pricing, reduce interest rate risk, increase loan production, retain your best customers, and build fee income. Implementing this program will take a complete effort from a bank's board of directors and senior management. We will also review some of the steps for proper implementation. For institutions that are losing business to competitors or that want to grow their commercial portfolio, this is one of the most effective methods of doing so for all bank sizes. And even if this is not the program for your bank, you will find it helpful as most of your lenders have already seen it from their competition.

Interest rate swaps

Before digging into the specifics of the loan hedging platform, it is essential to understand the basics of an interest rate swap. Interest rate swaps are contracts between two parties to exchange future interest rate payments for a specified period of time. There is no actual exchange of principal. The rates to be swapped are derived, hence derivatives, from notional balances set forth in the contract. One party agrees to exchange a variable income stream in exchange for a fixed income stream from a counterparty. Traditionally, interest rate swaps have been used to hedge a liability- or asset-sensitive balance sheet position.

Generally there is no out of pocket expense (premium) like there is with an interest rate floor or cap. So, this makes interest rate swaps a very attractive tool for institutions trying to manage interest rate risk and keep their non-interest expenses down.

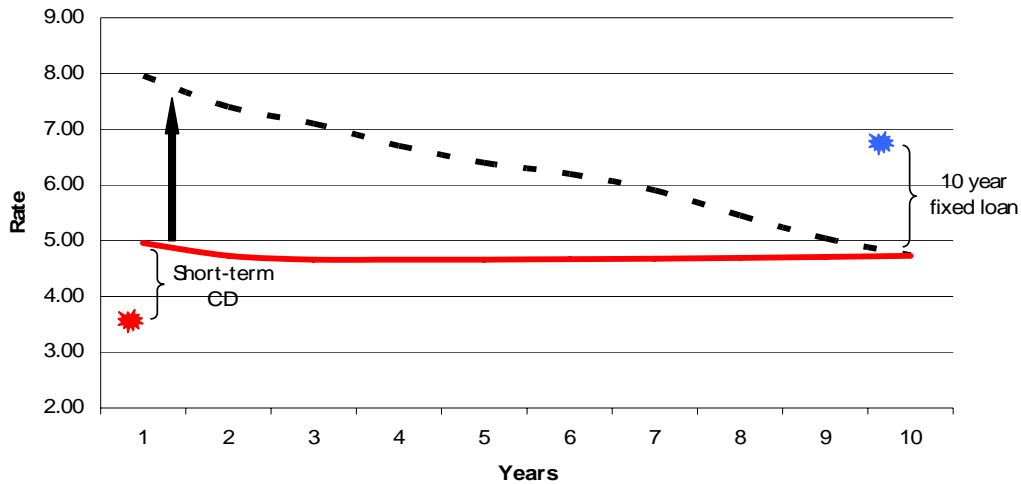


In most cases, interest rate swap contracts require some collateral. There can also be an economic gain or loss if they are unwound or terminated prior to maturity. A perceived risk of using interest rate swaps is the accounting required under FAS 133. If the interest rate swap is constructed and documented properly at inception, the accounting is straightforward and should allow for minimal amounts of earnings volatility. It is when “shortcuts” are taken that problems normally arise with interest rate swaps or any other off-balance sheet derivatives.

The lending dilemma

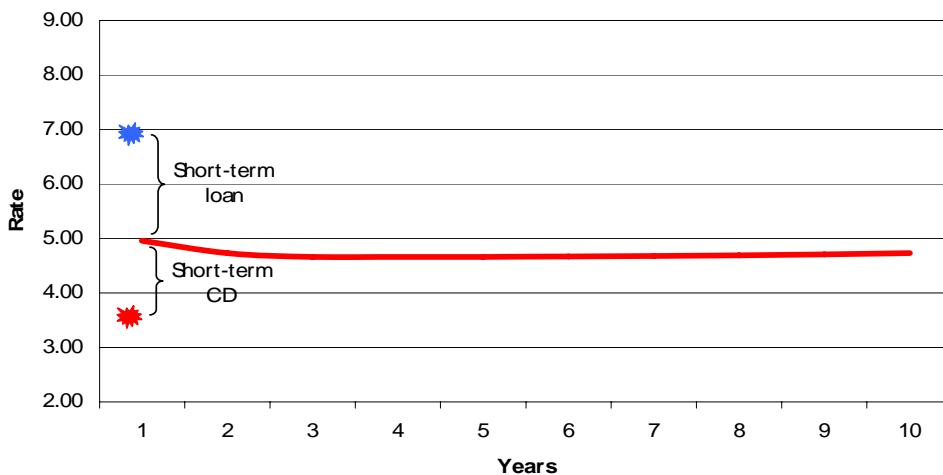
Today more banks are offering long-term fixed rate financing to their customers or they are beginning to see it from competitors. While it may fit the customers’ needs, offering long-term fixed rate loans goes against everything an experienced balance sheet manager practices. If we observe an average bank, the majority of their funding comes from core deposits (MMDA, Savings, and CD’s). These core deposit prices typically correlate with movements in a short-term interest rate like Fed Funds or 1 year CMT. There is too much interest rate risk if the bank lends its core deposits out as long-term fixed rate loans. The full extent of this risk was realized by many of the Savings and Loan institutions during the 1980’s. Thrifts typically would lend their short-term CD’s out as long-term fixed rates. As short term interest rates increased to historically high levels, so did short-term CD rates. Many of the long-term loans were ultimately being carried at negative spreads causing insolvency for some of these institutions. A visual depiction of the situation can be seen from a typical bank pricing curve (Treasury) below. A bank that funds a 10 year fixed rate loan with a 1 year CD exposes itself to infinite amounts of earnings volatility. As short-term rates increase, the 1 year CD will have to be re-priced to maintain the funding for the previously booked 10 year loan.

Pricing Curve



Since the S&L problems of the 1980s, regulators have monitored this exposure much more closely and it is one of the driving forces behind the increased regulatory scrutiny on internal interest rate risk management. Banks have responded with robust asset and liability models to monitor their mismatch exposure. Through prudent interest rate risk management, most banks have opted for a matched duration profile similar to the graph below. They give up the spread earned from a duration mismatch (above), opting instead for shorter-term loans or loans with variable interest rates to match up the sensitivity of the loans pricing to the sensitivity of the short-term deposits. This provides less earnings volatility and a smoother future stream of income.

Pricing Curve



Due to growing competitive pressure, banks have developed programs to provide long-term fixed rate financing without the interest rate risk. There are two reasons a borrower will choose a long-term fixed rate loan. First, there is risk aversion. A borrower who does not want the ups and downs of interest rate cycles will opt for stability by locking in financing with a long-term fixed rate. Borrowers who are financing construction projects fall into this category. Their

payback period will be over a long period of time, so to cut down on the risk, most will opt for 3 year fixed rates or longer. Second, there is an attractive long-term rate. In the 1990s, large banks were looking for a competitive edge. They discovered that by combining an interest rate swap with a long-term loan they could provide their customer long-term fixed rate financing without the associated interest rate risk that posed problems for banks in the past. And, depending on the shape of the yield curve, banks could sometimes offer a long-term fixed rate loan at a more attractive rate than a competing bank offering only short-term loans. This gave these banks more flexibility and a competitive advantage by satisfying the two needs of the borrower, an attractive rate with risk aversion.

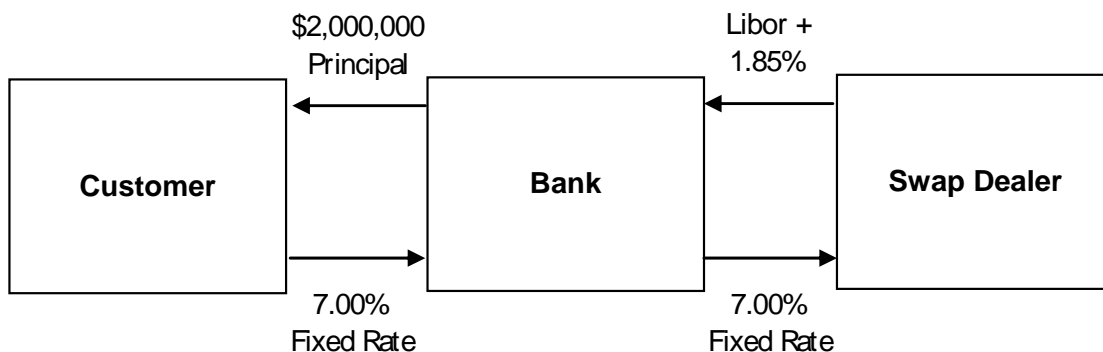
Loan hedging platform

The economics of a loan hedging platform are relatively straightforward. A bank makes a fixed loan to its customer. The bank then pays out the fixed interest rate payment that it receives from its customer, to a contracted counterparty, in exchange for a variable interest rate payment in return. The diagram below depicts the cash flow of the program:

Example:

Term: 10 year
 Principal: \$2,000,000
 Rate: 7.00% fixed rate

Floating Equivalent: Libor + 1.85% (*Libor* = 5.32%)



In this example, the bank makes a \$2,000,000 loan to its customer for 10 years at a 7.00% fixed interest rate. The bank simultaneously enters into an interest rate swap agreement with a counterparty that allows the bank to shift the fixed interest rate exposure in exchange for variable interest rate exposure of Libor + 185 basis points. Once everything is netted out, the bank essentially has loaned its customer principal for 10 years that will effectively pay the bank Libor + 185 basis points over 10 years. There is no exchange of principal between the bank and the swap counterparty. It is merely a transfer of interest rate exposure.

Banks' national average Money Market Deposit Account (MMDA) rates are 3.67% (April 19, 2007). If we assume that rate is a typical funding source for this loan and assume the MMDA rate correlates to short-term interest rates, we

would effectively lock in a spread of 3.50% (The net loan rate of 7.17% [5.32+1.85] - 3.67%). As interest rates move up and down, the MMDA rate and the loan rate will move in tandem maintaining an approximate 3.50% spread over the life of this transaction. In contrast, if the bank lent the money for 10 years at a fixed rate of 7.00% and did not swap the rate, the bank would have an initial spread of 3.33% (7.00% - 3.67%). But, should rates rise in the future, the spread could deteriorate rapidly. Under either situation, you have given the customer what they want, 10 year fixed rate financing, but with the interest rate swap you have eliminated the interest rate exposure for the bank.

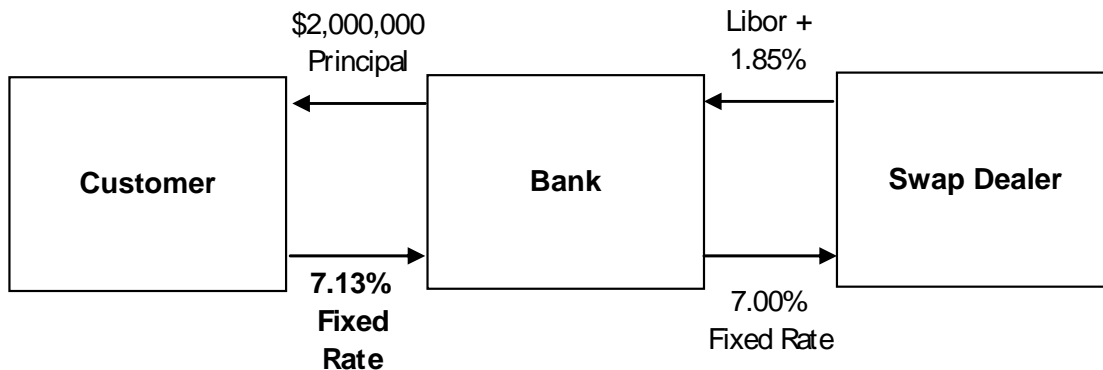
Fee income potential

In addition to the interest income that the swap program creates, it can also increase fee income when it is marketed and structured properly. Banks can increase fee income substantially. Let's continue with the example above with the only difference being the fixed rate we make to the customer. Instead of 7.00%, we make the 10 year fixed rate loan at 7.125%. We have increased the loan by 12.5 basis points. The change can be seen in the diagram below between the fixed payment from the customer and the bank.

Example:

Term: 10 year
 Principal: \$2,000,000
 Rate: 7.13% fixed rate

Floating Equivalent: Libor + 1.85% (*Libor* = 5.32%)



There is no change in what the swap counterparty requires because the market for this type of interest rate swap is unchanged. Accordingly, the swap counterparty still requires 7.00% fixed in exchange for Libor + 185 basis points in return. The change comes from the bank understanding its local market and that a 10 year fixed rate financing is worth 7.125%, not 7.00%. As a result, the bank can add 12.5 basis points over what is paid to the swap counterparty. These additional basis points can be monetized and paid in the form of fee income. To estimate the fees generated, the 12.5 basis points are multiplied by the term of the agreement (10 years) and then by the principal balance (\$2,000,000). This product is discounted back for an upfront payment of approximately \$18,000 or

\$9,000 per million of production. A bank that produces \$30 million of loans using this platform could increase fee income by \$270,000 per year.

The key is having lenders who understand their markets and do not rely on national pricing to dictate their local market pricing. In addition, some banks choose to share fee income production with their lenders as a way to entice them to continue to prospect this business and as a retention tool for good lenders.

Covering the bank

What if the borrower wants to pay off the loan before maturity? Should this occur, the bank will need to terminate the interest rate swap with the swap counterparty prior to maturity. The interest rate swap does have market value exposure. In the loan example from before, generally if rates increase there will be a gain in the swap--and likewise if rates decrease, there will be a loss. This program should be set up so the borrower bears this market value gain or loss if they choose to terminate the loan prior to maturity. A properly designed platform will be accompanied by a "make-whole" loan clause and full disclosure at inception. This agreement lays out the responsibilities of the borrower if there is an early pay-off of the loan. Normally, a "make-whole" will state that the borrower will be obligated to make the bank economically whole should the loan be terminated prior to maturity. The amount to make the bank economically whole should exactly mirror the market value gain or loss on the interest rate swap. Under a "make whole" disclosure, if rates fell and there is a 1% loss for the bank to terminate the swap, then the borrower would pay 1% to terminate the loan. Likewise if rates rose and there was a 2% gain in the swap, then the borrower would receive a 2% gain. If the bank does not want to bear the market exposure, it is critical that this agreement and disclosure is in place at inception.

Documentation, accounting, and education

The documentation and proper accounting treatment are critical factors to making sure the program runs smoothly. The accounting, often a deterrent when analyzing derivative programs, should be well understood, planned for, and documented. It is complex but when administered correctly, there shouldn't be any problems. There are firms that provide third party support. If this is a new program for your bank it may be in the bank's best long term interest to consult with one before beginning.

Before any transaction, the first step has to be education. This should begin with top management and/or board of directors. While top management is not required to have a technical understanding of interest rate swaps, they should have a good understanding of the reason that interest rate swaps are being used at the institution. This will include a primary understanding of the relationship between the hedge (interest rate swap) and the hedged item (loan).

Hedging and derivative policies should be in place before entering into any transaction. It is important that the hedging policy clearly states the bank's objective and limits, for using derivatives. They should also outline operational procedures, authority, documentation requirements, and accounting procedures.

The bank should review and get approval for the accounting methods with its auditors and independent accountants before any transaction takes place. FAS 133 is the applicable accounting standard for derivatives. With our clients, we always walk through a hypothetical transaction with their accountants and auditors and have them sign off on the procedures to be used before entering into the first transaction. The key is to structure the transaction properly upfront and document the hedging relationship from the beginning. Proper structuring should result in a hedge that is highly effective by FAS133 standards which will qualify it for preferred accounting treatment.

Under this type of loan program and with proper structuring, a bank should elect Fair Value Hedge Accounting. Interest rate swap gains and losses, together with offsetting gains and losses of the loan, are reflected in current period income. The net result is that reported earnings reflect only the ineffective amount of the hedge. In order to qualify for Fair Value hedge accounting, a bank must elect FV hedge accounting at inception. At that time, they must provide formal documentation that includes the hedging relationship, the objective and strategy, and a reasonable basis to assess hedge effectiveness. At inception and on an ongoing basis, the bank must expect the hedge to be highly effective and must assess and retest hedge effectiveness throughout the life of the transaction.

There are two main alternatives of implementing hedge accounting: “short-cut” and “long-haul.” The “short-cut” method assumes that the hedge will be 100% effective in offsetting changes in the hedged item over the life of the transaction. This means that as interest rates move, it is assumed that the swap will be 100% effective in offsetting the gains or losses in the loan. The problem is that there are routinely exceptions that lead to the interest rate swap not being 100% in compliance with the requirements to use the “short-cut” method. If this happens the bank could have to restate past earnings and account for the full volatility of the interest rate swap. This is why we suggest to our clients that the “short-cut” method not be used and that banks choose the more conservative “long-haul” method. The “long-haul” method requires periodic testing to measure the FV gains and losses in both the swap and loan to assess effectiveness. When the interest rate swap is structured properly at inception there should be little ineffectiveness. The ineffectiveness that does occur will be reported in current earnings. The difference is that the “long-haul” method does not assume 100% effectiveness whereas “short-cut” does. When using the “long-haul” method, it will be up to the bank to measure and evaluate effectiveness.

Overview of steps

- Internal education of senior management and directors
- Train lenders
- Institute hedging and derivative policies
- Preview accounting methods with auditors, accountants, and regulators
- Institute internal documentation
- Set up swap counterparty documentation
- Execute a transaction with loan customer

- Manage the accounting requirements that were designated by the bank under FAS 133

Conclusion

The loan hedging platform allows banks the ability to increase the menu of options to their customers. It expands the bank's opportunity for growth by reducing the lending decision to credit risk and eliminating interest rate risk. It allows community and regional banks the ability to compete against larger competitors. And it can supplement non-interest income. The accounting, documentation, and structuring of the swap are critical to the programs success.

Chad McKeithen is Managing Director at Echo Partners where he advises and arranges derivative transactions and interest rate risk solutions for banks. Prior to joining Echo Partners, Chad spent ten years in the capital markets division at one of the 50 largest banks in the country where he developed the Asset and Liability Advisory Division which consulted over 400 banks on interest rate risk management techniques and strategies.

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