Business risks come in many forms. Purchasing competitively priced tools to manage these risks, such as property/casualty insurance, is standard operating procedure for most enterprises. Likewise, many companies that finance their operations with floating-rate loans may be able to take advantage of a bank tool designed to limit their exposure to a rise in the cost of credit: an interest rate swap.

Just as it’s impossible to predict when a fire or flood will disrupt your business, knowing when interest rates and debt service costs will rise is not predictable. While it is not inevitable you’ll sustain fire or flood damage, it may be probable that today’s low-interest rate environment is not sustainable. An interest rate swap allows you to synthetically convert a floating-rate loan obligation to a fixed rate and offers flexibility in how you accomplish that conversion. Swaps also allow you to synthetically convert fixed-rate debt to a floating rate.

**How a Swap Works**

A swap is a contract entered into along with the original loan agreement. It involves no up-front fees. The borrower’s specific obligations under the original floating-rate loan remain, including the regular payment of interest according to the periodically adjusted rate. No principal is exchanged in the swap, and the original principal repayment terms of the loan remain intact.

The size of the swap contract, pegged to the loan principal balance, is referred to as a “notional” amount.

Although the loan and swap contracts are distinct, they are tied together by offsetting payments, cross-collateralization and cross-default provisions.

So how does a swap effectively turn a floating-rate loan into a fixed-rate obligation?

Under the swap, payments from the bank mirror the borrower’s interest payment under the loan. The borrower then pays the net fixed-rate interest payment to the bank.

An interest rate swap transaction is illustrated on Page 2.
Who Might Use Swaps?

What kind of corporate borrowers can take advantage of swaps? Here are some general criteria:

- **Loan size:** As a rule of thumb, loans should be in principal amounts of at least $1 million with maturities of at least three years.
- **Rate sensitivity:** Borrowers who are sensitive to changes in interest rates based on their business model could remove the rate volatility through interest rate swaps.
- **Stable debt service:** Borrowers who prefer to budget for a stable monthly debt service may benefit from a hedging strategy.
- **Construction loan or future funding:** Borrowers anticipating a future funding can protect the associated future rate risk by entering into a swap. The most common example is a construction loan that will fund up over a certain period of time and be fully funded in the future.
- **Balance sheet:** Borrowers must qualify as an "eligible contract participant" under federal regulatory guidelines. Generally, that means having at least $10 million in assets or a net worth of at least $1 million.
- **Credit strength:** Execution of an interest rate swap requires credit approval by the bank providing the swap.

A Swap Transaction Illustration

Suppose ABC Inc. has a $1 million floating-rate loan pegged at LIBOR plus 2.25% and enters into a swap agreement with its lender to, in effect, “lock in” a 5.25% rate.

When LIBOR is at 2.50%, ABC’s interest rate on its underlying floating $1 million loan would be 2.50 + 2.25 = 4.75%, translating to an interest cost of about $3,960 per month. Through the interest rate swap contract, ABC would also owe the lender the difference between 4.75% and the fixed 5.25% swap rate (i.e., 50%). That translates to an additional interest payment of $680, which would be invoiced separately by the lender, for a total month’s interest cost of $4,375.

Suppose LIBOR moves up a full 1.00% the next month. That would push the borrower’s interest rate under the floating-rate loan to 5.75%, which is .50% higher than the 5.25% fixed swap rate. In this scenario, ABC’s new interest charge on the floating-rate loan would be about $4,790. But under the swap agreement, the lender would credit an amount equal to a .50% monthly interest charge on a $1 million loan, or $415. The lender’s $415 credit reduces ABC’s net monthly interest charge to $4,375, as it was in the first scenario.
Swap Market Value

Once executed, swap contracts have market value, and that value can be negative as well as positive to the borrower. This matters because if the swap agreement is terminated for any reason prior to the maturity date of the swap and the market value is positive to the borrower, the value will be paid upon termination by the bank to the borrower. However, if the swap has a negative market value to the borrower, then the market value will be owed to the bank upon termination.

The primary determinants of a swap contract’s market value are the:

1. “Notional” amount of the swap
2. Time remaining in the swap contract
3. Anticipated market interest rates for the duration of the contract (known as the replacement rate), relative to the client’s executed swap rate.

Customized Swaps

Interest rate swaps can be customized to fit almost any interest rate hedging strategy. Here are some examples of customized swaps:

**Partial Hedge.** Suppose a borrower has a $7 million floating-rate loan with a seven-year term. Instead of hedging the entire $7 million, the borrower could execute a swap covering only $4 million of the principal amount, fixing the interest rate on that $4 million and leaving the remaining $3 million floating.

This arrangement accomplishes two goals. First, it allows for a blended overall cost of borrowing that would fall some point between the fixed and floating components. Second, the borrower retains the freedom to prepay the floating portion of the loan while leaving the swap intact.

**Varying Terms.** It is possible to vary swap duration for different “pieces” of the existing floating-rate loan. For example, an $8 million loan with a 10-year term could be subdivided into four $2 million segments, three covered by swaps for different time periods and one not hedged at all. The borrower could hedge $2 million for a five-year term, another $2 million for seven years, and another $2 million for the full 10-year duration of the loan term – and leave the remaining $2 million segment unhedged.

Assuming a typical positively sloped bond yield curve, the longer the swap duration, the higher the fixed rate, resulting in a tiered rate structure. The borrower would have the freedom to execute new swap agreements to replace those that expire, subject to credit approval for the new swaps at that time.

**Forward Swaps.** Borrowers can execute swap agreements that begin at a fixed future date at a rate determined today. Thus, a borrower with a $5 million floating-rate loan and a 10-year term, who is not terribly concerned about the prospect of a significant jump in interest rates over the next two years, could execute a swap for some or all of the principal amount, taking effect in two years. Notwithstanding the foregoing, there is still a market value for the swap.

Borrowers anticipating a future funding can protect the associated future rate risk by entering into a swap. The most common example is a construction loan.
Other variations include amortizing hedges, in which the hedged portion of the loan diminishes over time, as well as the opposite— an accreting hedge. Also, in principle it is possible to purchase an option to terminate a swap contract without penalty at a fixed future date, which amounts to hedging a hedge.

**Analyzing the Opportunity**

As has been illustrated, interest rate swaps are a highly flexible financial risk management tool. Borrowers can apply several criteria in determining whether a swap strategy is appropriate, but that decision essentially boils down to one’s degree of exposure to interest rate risk and one’s risk tolerance. Risk exposure is a function of one’s degree of leverage, profitability and ability to offset higher borrowing costs through raising prices.

A highly leveraged commercial real estate investment company whose cash flow is largely fixed by long-term lease contracts is more vulnerable to interest rate volatility than, for example, a minimally leveraged manufacturer of non-discretionary consumer goods that dominates its market.

In addition, even companies that can withstand increasing borrowing costs from a purely financial perspective might prefer to hedge if their shareholders don’t like to see significant variability in earnings.

Of course, executives are best equipped to analyze the potential benefits of swaps based on the factors that make their situations unique. That analysis begins with an awareness of the many ways interest rate swaps can be structured to meet borrowers’ widely varying needs to manage their risks.

The borrower should ensure, in conjunction with its legal, tax and accounting advisors, that it fully understands and is capable of assessing and assuming the terms of the swap transaction, the relevant risks, the nature and extent of its potential costs, and any additional obligations the borrower will incur should it wish to unwind the swap transaction prior to its stated maturity.