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February 29, 2008

RECEIVED
MAR 03 2008
PUBLIC SERVICE
COMMISSION

Ms. Elizabeth O'Donnell
Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601

Re: PSC Case No. 2007-00556

Dear Ms. O'Donnell:

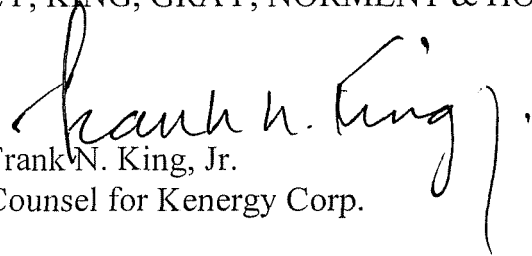
Enclosed herewith for filing please find the original and five (5) copies of Responses of Kenergy Corp. to First Data Request of Commission Staff.

Your assistance in this matter is appreciated.

Very truly yours,

DORSEY, KING, GRAY, NORMENT & HOPGOOD

By


Frank N. King, Jr.
Counsel for Kenergy Corp.

FNKJr/cds
Encls.

BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION

RECEIVED

MAR 03 2008

PUBLIC SERVICE
COMMISSION

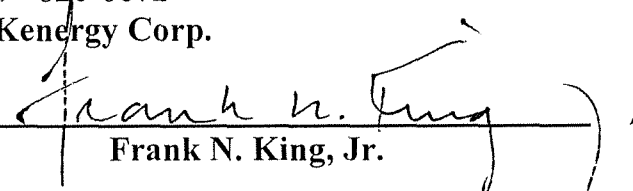
IN THE MATTER OF THE APPLICATION)
OF KENERGY CORP. FOR)
AUTHORIZATION TO ASSUME)
OBLIGATIONS OR LIABILITIES IN)
RESPECT OF EVIDENCES OF)
INDEBTEDNESS)

CASE No. 2007-00556

RESPONSES OF KENERGY CORP. TO FIRST DATA REQUEST
OF COMMISSION STAFF

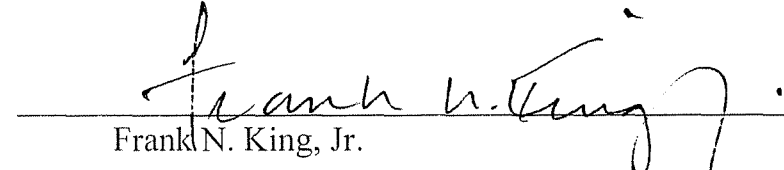
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counsel for Kenergy Corp.

By


Frank N. King, Jr.

CERTIFICATION

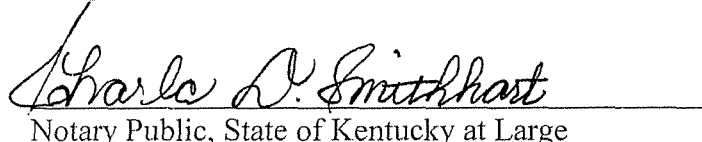
The undersigned hereby certifies that he is the preparer or the person supervising the preparation of this response on behalf of Kenergy Corp. and that each response is true and accurate to the best of the person named as witness' knowledge, information and belief formed after a reasonable inquiry.


Frank N. King, Jr.

STATE OF KENTUCKY
COUNTY OF HENDERSON

The foregoing was signed, acknowledged and sworn to before me by FRANK N. KING, JR., this 25th day of February, 2008.

My commission expires September 29, 2009.


Notary Public, State of Kentucky at Large

KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556

1
2 **Item 1)** Refer to the Application, page 1. Kenergy has identified interest rate swaps, caps,
3 floors, collars, treasury locks, and forward rate agreements as the types of interest management
4 products its Board of Directors have authorized to manage interest rate risk.

5 a. For each of the identified products, indicate whether the product is usually
6 utilized when the debt carries a fixed, variable, or floating interest rate.

7 b. Is Kenergy requesting authorization to use any of the identified products
8 irrespective of the type of interest rate on the debt, or are certain of the identified products to be used
9 only in conjunction with specific types of interest rates?

10
11 **Response 1a)** Interest rate **swaps** can be utilized for either floating or fixed rate loans. In most cases,
12 for companies like Kenergy, a swap will be utilized when the company has a floating rate loan and
13 wishes to convert the loan to a fixed rate.

14 An interest rate **cap** is utilized to put a maximum rate on a floating rate loan. An
15 interest rate cap is purchased with an upfront premium and effectively sets an upper limit on the
16 interest rate index of the floating rate loan. If the index goes above the strike rate of the cap, the
17 company purchasing the cap would receive the difference between the level of the index and the strike
18 level on the cap.

19 An interest rate **floor** is utilized mainly for floating rate investments and synthetically
20 sets a minimum rate on the investment. The floor is purchased with a one-time upfront premium and
21 the company purchasing the floor receives the difference of the index and the floor level if the index
22 falls below this index floor strike.

**KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556**

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An interest rate **collar** is a combination of an interest rate cap and floor. When entering into an interest rate collar, a company is buying an interest rate cap, and selling an interest rate floor to offset all or a portion of the cost of the interest rate cap. The company entering into a collar would do so to set a maximum and minimum interest rate on a floating rate loan.

Treasury locks and **Forward Rate Agreements** are used to lock in fixed rate financing which will price at a future date.

Attached, as Exhibit 1, is a brochure from CoBank explaining its Financial Risk Management Program and providing examples.

Witness) Jeffrey Milheiser

Response 1b) No. As noted in the response to Item 1a, certain products would be utilized only with fixed or floating rate debt.

Witness) Steve Thompson

**KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556**

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Item 2) Refer to the Application, page 2. Kenergy’s Board of Directors has limited the use of interest rate management products to debt no greater than \$5,500,000. Kenergy notes in the application that it has pending before the Rural Utilities Service (“RUS”) an application for a loan in the amount of \$31,622,000. How did Kenergy’s Board of Directors determine that \$5,500,000 was the reasonable limit for examination of interest rate management products?

Response) Kenergy expected to draw-down approximately \$5.1 million during January and July 2008. The Board decided to place a cap at \$5.5 million, near the value of the first expected amount.

Witness) Sandy Novick

KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556

1
2 **Item 3)** Refer to the Application, page 2. Kenergy states that if it is satisfied with its experience
3 managing interest rate risk, it may want to increase the amount of funds covered by interest rate
4 management products and to deal with entities other than CoBank in interest rate risk management
5 transactions.

6 a. Explain in detail how Kenergy plans to determine its “satisfaction” with
7 managing interest rate risk.

8 b. Provide citations to financial articles, texts, or other scholarly works which
9 endorse the types of analysis to be used by Kenergy to determine its “satisfaction” with managing
10 interest rate risk.

11
12 **Response a)** Kenergy’s primary goal in using interest rate risk management products will be to
13 obtain interest rates that are less than those factored into Kenergy’s budget and financial forecasts, or
14 as is sometimes said “to beat budget.” The process utilized to establish the budgeted interest rates on
15 new debt to be drawn down involves developing an interest rate viewpoint. This involves
16 consideration of the timing and magnitude of interest rate movements from current levels when the
17 budget is prepared. The original rate used for the 2008 budget new loan advances was 5.5%,
18 consistent with the 10 Year Long-Range Forecast. However, as the 30 year rate began to decrease
19 during November 2007, the budgeted rate was set at 5%. Once Kenergy locks in desired rates,
20 Kenergy will have obtained “satisfaction.” Moreover, after Kenergy has gone through its initial
21 transaction, Kenergy will be able to assess whether there were any unexpected events that would
22 adversely affect its satisfaction.

**KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556**

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Response b) To the best of Kenergy's knowledge there are no such materials. However, Kenergy's satisfaction will be measured as set forth in response to Item 3a and not by the content of any written authority.

Witness) Sandy Novick

KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556

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Item 4) Refer to the Application, Exhibit 2, page 6. The treasury lock example on this page shows when Kenergy would pay CoBank and when CoBank would pay Kenergy.

a. Are there any costs to Kenergy, other than those shown in this example, associated with the use of a treasury lock? Explain the response.

b. If the situation required a payment from Kenergy, does Kenergy anticipate any problems making the payment?

Response a) There are no upfront premiums or fees for entering into a treasury lock.

Witness) Jeffrey Milheiser

Response b) Kenergy's cash flow projection, in its ten-year financial forecast, indicates cash is available for this type of payment.

Witness) Steve Thompson

KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556

1
2 **Item 5)** Concerning the proposed treasury lock and the pending RUS loan:

3 a. Is the treasury lock specifically linked to the \$5,500,000 limit Kenergy's Board
4 of Directors has established or to the \$31,622,000 RUS loan? Explain the response.

5 b. If the Commission approves the proposed treasury lock and Kenergy's Board of
6 Directors agrees to raise the debt limit subject to interest rate management products to the full amount
7 of the pending RUS loan, does Kenergy believe the approved treasury lock could be applied to
8 additional loan drawdowns from the RUS loan? Explain the response.

9 c. At what point in the process would Kenergy initiate the treasury lock
10 agreements?

11
12 **Response a)** The treasury lock is specifically linked to the \$5,500,000 limit the Board has
13 established.

14
15 **Response b)** Yes. Kenergy believes it could then execute multiple treasury lock agreements for
16 varying amounts linked to the expected drawdown dates over the 3 or 4 year period.

17
18 **Response c)** Kenergy would likely wait until after RUS loan approval.

19
20 **Witness)** Steve Thompson

21

22

**KENERGY CORP.
RESPONSE OF KENERGY CORP.
TO DATA REQUEST OF COMMISSION STAFF
CASE NO. 2007-00556**

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Item 6) When does Kenergy expect to hear from RUS regarding its currently pending \$31,622,000 loan application?

Response) The latest estimate from RUS indicates the loan may be approved during the third quarter of 2008.

Witness) Steve Thompson



FINANCIAL

RISK

MANAGEMENT

PROGRAM





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This material is based upon information considered reliable, but is not guaranteed regarding its accuracy or completeness, nor is it intended to solicit any action. Certain transactions, including those involving futures and options, may produce substantial risk and are not suitable for all customers.

FINANCIAL RISK MANAGEMENT

Why should you care about financial risk management? Whether your business is large, small or somewhere in between, choosing the right financial tools can enhance your opportunities for success.

Capital markets globalization, enhanced information technology and increased interest rate volatility have motivated financial professionals to take a more proactive approach to balance sheet management.

Numerous risk management products have been created by the capital markets to meet these challenges. These products offer treasurers cost

effective and flexible means to control exposure to both interest rate and currency risk.

CoBANK's Financial Risk Management Program provides you with the tools to manage risk. Interest rate risk management products are available separately or in conjunction with our loan packages.

While CoBANK can't tell you specifically what to do when it comes to managing your financial risk, we can help you better understand the principles and the products available to help you. That's what this booklet is all about.

Our goal is to address various funding and hedging strategies while highlighting risk/reward and cost alternatives.

Of course, reading a booklet won't answer all your questions about these products. If you need more help in selecting the right tools, give your CoBANK relationship manager a call. We're committed to your success.

PROACTIVE FUNDS MANAGEMENT

The traditional approach to debt management has taken a course of interest rate risk indifference. A treasurer generally funded using one of three approaches:

- Arbitrary risk taking;
- Average life matched funding; or
- Barbell weighting

Under each approach, the treasurer was constrained by the interest rate environment and had limited opportunities to control interest expense.

Interest rate hedging products provide the framework for a more proactive funding approach which offers the opportunity to

increase profitability, balance your company's interest rate risk with the desired risk profile, and create opportunities to gain from expected interest-rate movements.

Implementing a proactive strategy requires a treasurer to make four key decisions:

- Determine the preferred proportion of fixed versus floating rate debt;
- Evaluate debt maturity preferences;

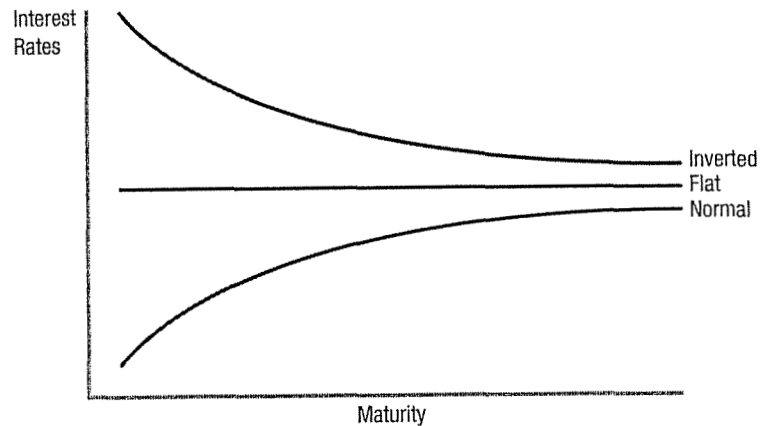
- Select financial instruments to use in implementing the company's strategic financial plan; and
- Time entry into the capital markets for favorable pricing.

The design and implementation of a successful financial risk management strategy is a dynamic process. Your financial goals must be balanced with changes in current and anticipated market conditions. CoBANK can assist you in addressing these key issues.

THE YIELD CURVE

The term structure of interest rates, usually called the yield curve, refers to the curve created by connecting the interest rate levels on debt securities as their maturities range from short to long term. Typically, interest rates on long-term securities are higher than rates on short-term securities. Long-term securities generally require a risk premium for inflation uncertainty, for liquidity, and for potential default risk. These factors create a yield curve that is usually upwardly (positively) sloped as inflation erodes the value of the securities and as default probabilities increase with maturity. Occasionally, however, long-term rates are lower than short-term rates, resulting in an inverted yield curve.

Theoretically, at the beginning of an economic cycle, the yield curve is positively sloped – longer-term interest rates are higher than shorter-term rates. This reflects market expectations that through



the economic cycle, inflationary pressures will pick up and investors will demand compensation for the eroding value of their investment. As the economic cycle peaks, short-term interest rates generally move higher as the Federal Reserve tightens the money supply in an attempt to head off inflation. As a result, the yield curve flattens.

As the economic cycle enters its mature phase, inflationary pressures have already eroded values.

Investors do not demand compensation for anticipated inflation and frequently settle for lower yields. The capital markets anticipate lower interest rates as economic growth stalls and the Federal Reserve attempts to stimulate business activity. Consequently, the yield curve becomes negatively sloped, or inverts.

THE FUNDING DECISION

Looking at a hypothetical Treasury yield curve, let's assume the yield difference between "the bill" (the three-month Treasury bill) and the "long bond" (the 30-year Treasury bond) is approximately 300 basis points, significantly above historical levels of approximately 225-250 basis points. Consequently, you pay a significant premium for extending debt maturities.

To evaluate the cost/benefit trade-off of extending debt maturities, a treasurer must develop an interest rate outlook for the next few years. A passive debt management approach, in which future interest rate movement is ignored, makes a statement about the direction of interest rates as much as taking a proactive approach. Either choice carries a cost, as interest rates will inevitably move.

A proactive approach allows you to position your organization to benefit from expected favorable movement. Alternatives include shortening debt maturities, hedging against expected unfavorable movements by lengthening debt maturities, or purchasing interest rate insurance.

Develop a Viewpoint

Developing an interest rate view requires consideration of two primary factors: the timing and magnitude of rate movements. To illustrate, let's assume you're

considering fixing a variable rate loan and today, the three-month bill yield is 4.50 percent while the three-year note yield is 6.25 percent. The difference between these two rates is 175 basis points.

If you believe short-term rates will increase linearly by less than 10 basis points per month, for a total of less than 350 basis points, and an average of less than 175 basis points over the next three years, there is little economic incentive to extend debt maturities out to three years. This is because a "premium" (higher interest rate) would be required to lock-in the rate which would be greater than the benefit (lower funding cost) expected.

However, it may still make good sense to lock-in longer-term interest rates, even if the cost is somewhat higher, if there is sufficient value placed on the certainty of knowing what interest costs will be.

Conversely, if you believe short-term rates will jump considerably more than 350 basis points over the next three years, there is a strong economic incentive to extend debt maturities and lock in current favorable rate levels.

The analysis becomes more challenging when timing is considered. For example, if you

expect interest rates to rise only 50 basis points in the next year, it may be more beneficial to wait to extend debt maturities and re-evaluate the decision in one year. In this case, relative interest savings are achieved upfront and any economic penalty in the form of a higher rate occurs at the end of the transaction. Net present value cost savings may be realized if your interest rate forecast is correct.

Alternatively, it may be better to take a more traditional approach and lock-in current attractive rate levels, especially if you believe intermediate-term interest rates may increase rapidly.

How We Can Help

You must make these decisions based on the best available information, analytical techniques and operational constraints.

Short-term rates move continuously. Your perceived timing and magnitude of increases and decreases will dictate the right decision. The correct answer depends on your risk/reward tolerance and corporate culture of your organization.

COBANK can't tell you whether or when to extend debt maturities, but we can help provide a framework for your decision.

IMPLIED FORWARD RATES

One tool financial managers can use to increase the likelihood of obtaining favorable interest rates is to incorporate interest rate forecasting into the financial planning process. Interest rate forecasting takes into account quantitative as well as qualitative factors. Depending on the interest rate forecast, it may prove beneficial to hedge future borrowing by forward fixing, purchasing a cap or collar, or by entering into an interest rate swap. Implied forward rates can be a valuable tool in the interest-rate forecasting and hedging decision process.

Implied forward rates represent current market expectations of interest rates at given points in the future. Long-term implied forward rates typically encompass expectations of long-term economic direction, whereas short-term implied forward rates reflect expectations

IMPLIED FORWARD RATE FORMULA

For forward issue dates less than 365 days and final maturities greater than one year.

$$\left[\frac{(1+R_2)^{(T_2/DB)}}{(1+(R_1 * (T_1/DB)))} - 1 \right] * \frac{DB}{(T_2-T_1)} = R_{1,2}$$

Where T_1 = days to forward settlement, from today
Where T_2 = days to maturity, from today
 R_1 = near rate
 R_2 = far rate
 $R_{1,2}$ = forward rate (T_1 to T_2)
DB = day count basis (365 or 360)

of near-term monetary policy changes. The rates can be derived from the current yield curve and futures market prices.

Implied forward rates are only as accurate as current market expectations. Keep in mind that they are merely one of several factors in the financial forecasting process.

ECONOMIC INDICATORS

Forecasts of key economic indicators made by market economists and participants prior to release of data are likely to affect market movements. The actual release of key economic data often has an impact on the financial markets and interest rate levels when they differ from expectations.

Most reports can be placed in one of two categories:

| 1 | 2 |
|--|---|
| Positive for growth and/or Increasing inflation. Effect: Bond prices fall and interest rates rise | Negative for growth and/or Decreasing inflation Effect: Bond prices rise and interest rates fall |
| <p>A report that signals strong economic growth or inflation indicates not only that the economy is growing or that prices are escalating, but that the Fed will be unlikely to lower interest rates, and may actually act to increase rates. Hence, the effect of economic strength puts upward pressure on interest rates.</p> | <p>A report that shows stagnant or negative growth or inflation indicates not only economic weakness or decreasing prices, but also that the Fed may act to reduce interest rates to stimulate the economy.</p> |

A particular data release may be widely expected by market participants to suggest a large increase in economic growth. If the actual report suggests only moderate growth (still growing although weaker than expected) it is likely to create downward pressure on interest rates (category 2).

Conversely, if a data release comes in much stronger than expected, even if the absolute level of the data reported isn't especially strong, it could have the same effect as in category 1, causing upward pressure on rates.

Quite often the financial markets may already have discounted the information provided by an economic release. In this case, the actual report may have little or not impact at all.

COBANK has developed the following chart to assist our customers in interpreting economic releases, a fundamental tool in forecasting interest rates.

| Indicator | Interest Rate Movement | Reason |
|---|------------------------|--|
| Consumer Price Index Rises | ▲ Up ▲ | Indicates rising inflation. |
| Consumer Price Index Falls | ▼ Down ▼ | |
| Durable Goods Orders Rise | ▲ Up ▲ | Pickup in business activity generally leads to increased credit demand. |
| Durable Goods Orders Fall | ▼ Down ▼ | |
| GDP Increases | ▲ Up ▲ | Reflects an expanding economy. Fed may tighten money supply prompting an increase in interest rates. |
| GDP Decreases | ▼ Down ▼ | |
| Housing Starts Rise | ▲ Up ▲ | Shows growth in economy and increased credit demand. Fed may be less accommodating and may tighten money policy. |
| Housing Starts Fall | ▼ Down ▼ | |
| Industrial Production Rises | ▲ Up ▲ | Indicates increasing economic growth. Fed may be less accommodating by increasing interest rates to slow down the economy. |
| Industrial Production Falls | ▼ Down ▼ | |
| Inventories Up | ▼ Down ▼ | Indicates a slowing economy since sales are not keeping up with production. |
| Inventories Down | ▲ Up ▲ | |
| Leading Indicators Rise | ▲ Up ▲ | Signals strength in the economy leading to greater credit demand and possibly higher inflation. |
| Leading Indicators Fall | ▼ Down ▼ | |
| Personal Income Rises | ▲ Up ▲ | The higher one's income, the more is consumed, prompting increased demand and higher prices for consumer goods. |
| Personal Income Falls | ▼ Down ▼ | |
| Producer Price Index Rises | ▲ Up ▲ | Indicates rising inflation. Demand for goods rises as well as prices. Investors require higher rates of return, pushing interest rates up. |
| Producer Price Index Falls | ▼ Down ▼ | |
| Retail Sales Rise | ▲ Up ▲ | Indicates stronger economic growth and possibly higher inflation. Fed may have to tighten. |
| Retail Sales Fall | ▼ Down ▼ | |
| Unemployment Rate Rises; Payrolls Decrease | ▼ Down ▼ | Indicates slow economic growth. Fed may ease credit, causing rates to drop. |
| Unemployment Rate Falls; Payrolls Increase | ▲ Up ▲ | |

LOAN RATE FIXING ALTERNATIVES

Forward Fixed Rate Loan

A forward fixed rate is a fixed loan rate on a specified balance for draw-down on or before a predetermined future date. Forward fixed rates enable you to establish fixed interest rates today for future borrowings or loan repricings. Generally, a forward fixed rate can be established as soon as a commitment is in place and a firm amortization schedule is established.

Advantages

- Provides protection against rising rates before drawdown/repricing date;
- Allows for predictable future interest expense; and
- Does not require an upfront fee.

Disadvantages

- Priced off of forward rates, which are generally above current rates in an upward sloping yield curve environment;
- Breakage costs collected if contract is broken; and
- You must be certain the loan will be drawn or repriced by forward settlement date.

| | |
|-----------------------|---|
| Minimum Amount: | \$100,000 |
| Maturity Options: | Forward period from overnight to two years |
| Pricing Determinants: | Forward period Loan tenor Yield curve slope |
| Fixes Rate? | Yes |
| Upfront Premium? | Embedded into loan rate |
| Penalties? | Breakage (cancellation) costs |

Example

Assume you have a loan repricing in three months but find current rate levels attractive. The loan repricing rate may be fixed today:

$$\begin{array}{r} \text{Loan rate} \\ + \text{ Three-month forward fixed premium} \\ \hline \text{All-in effective loan rate} \end{array}$$



Option to Fix a Loan Rate

An option to fix a loan rate provides you with the right, but not the obligation, to reprice or draw down a loan at a predetermined interest rate on a known future date (European option) or during a stated period of time (American option). Options offer protection against rising interest rates prior to funding while providing the flexibility to lower the contracted fixed loan rate if interest rates decrease. The option to fix a rate also enables a customer to walk away from a transaction with no breakage (cancellation) cost if funding is no longer needed.

Advantages

- Provides protection against rising interest rates; and
- Allows a customer to benefit from interest rate declines while maintaining protection from interest rate increases.
- No penalty if loan is never drawn.

Disadvantages

- Is expensive in steep positive yield curve environment;
- Is expensive for hedging long forward periods (over 180 days); and
- Requires upfront fee.

| | |
|-----------------------|--|
| Minimum Amount: | \$1 million |
| Option Period: | Overnight to two years |
| Pricing Determinants: | Option period Loan tenor Yield curve slope Interest rate levels Interest rate volatility |
| Fixes Rate? | Yes, but customer may decline loan advance during option period |
| Upfront Premium? | Yes, customer pays premium |
| Penalties? | None |

Example

Assume you would like the right, but not the obligation, to reprice or draw down a loan during the next three months:

$$\begin{array}{r} \text{Loan rate} \\ + \text{Annualized option premium} \\ \hline \text{All-in effective loan rate} \end{array}$$

RISK MANAGEMENT PRODUCTS

Interest Rate Caps

An interest rate cap sets a maximum rate on floating rate debt while allowing you to benefit from declining rates. Caps can be viewed as interest rate insurance. They allow customers to benefit from funding short in positively sloped yield curve environments while maintaining protection against rising short-term interest rates.

An interest rate cap provides a customer with a ceiling for a specific pricing index. COBANK pays the customer the difference between the

spot market index rate and the cap strike rate for periods when market rates exceed cap strike levels. For example, if the spot three-month LIBOR rate were 50 basis points higher than the cap strike rate on the reset date, then COBANK would pay the customer 50 basis points multiplied by the notional principal amount accrued for three months. Typically, this payment is settled in arrears.

Advantages

- Protects against rising interest rates;
- Allows benefit from interest rate decline; and
- Provides savings by staying short on the yield curve in a positive yield curve environment.

Disadvantages

- May be expensive, especially in positive yield curve environment; and
- Requires upfront fee (at times, amortization is possible).

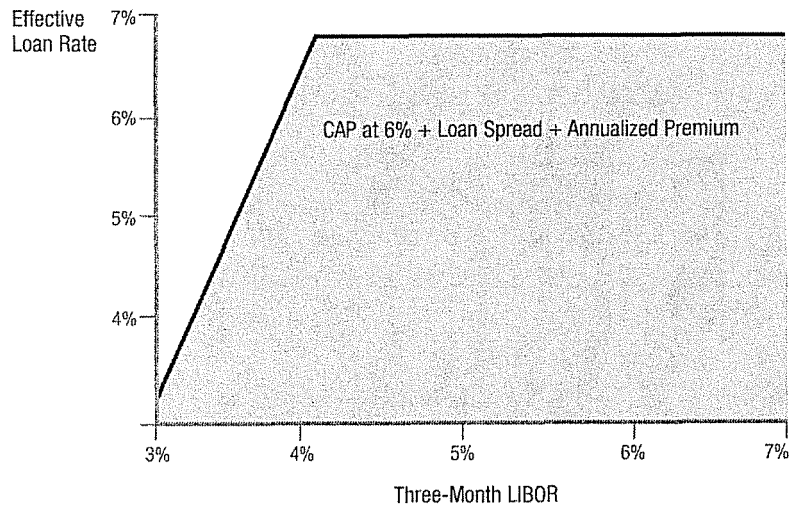
| | |
|-----------------------|--|
| Minimum Amount: | \$1 million |
| Maturity Options: | Overnight to ten years |
| Indices: | LIBOR Prime |
| Pricing Determinants: | Notional amount Cap tenor Cap strike levels Yield curve slope Interest rate levels Interest rate volatility |
| Fixes Rate? | Provides upper limit |
| Upfront Premium? | Yes, customer pays premium |
| Penalties? | Mark-to-market upon early termination |

Example

Assume you purchase a two-year cap at 6 percent based on three-month LIBOR:

Your maximum rate will be:

$$\begin{array}{l} \text{Cap strike level on index} \\ + \text{ Loan spread over index} \\ + \text{ Annualized cap premium} \\ \hline \text{Maximum effective interest rate} \end{array}$$



Interest Rate Collars

An interest rate collar involves the simultaneous purchase of a cap and sale of a floor, creating a band within which floating rate debt will reprice. The collar creates a maximum level which protects you from rising interest rates and establishes a minimum level below which your interest rate will not fall. The premium paid for the cap is offset by the premium received for the floor, thus reducing your upfront hedging cost.

Advantages

- Costs less than a cap;
- Provides a rate ceiling and allows some benefit from downward rate movement;
- May be customized to meet risk, cost and maturity parameters; and
- Zero cost collars may be constructed with no upfront fee.

Disadvantages

- Floor feature of dollar prevents full benefit of downward rate movement.

| | |
|-----------------------|--|
| Minimum Amount: | \$1 million |
| Maturity Options: | Overnight to ten years (credit dependent) |
| Indices: | LIBOR Prime |
| Pricing Determinants: | Notional amount Collar tenor Collar strike levels Yield curve slope Interest rate levels Interest rate volatility |
| Fixes Rate? | Rate floats within range |
| Upfront Premium? | Cap/floor premium netted |
| Penalties? | Mark-to-market upon early termination |

Example

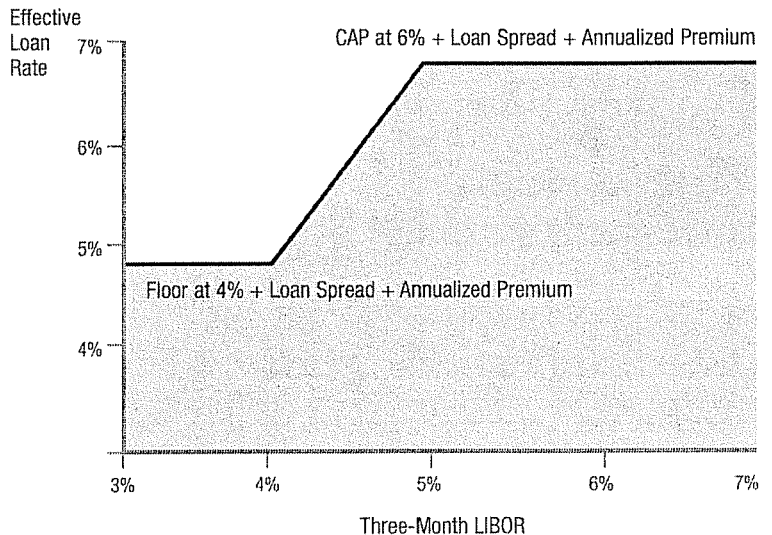
Assume you purchase a collar on three-month LIBOR with a two-year cap at 6 percent and a floor at 4 percent:

Maximum Interest Rate

$$\begin{aligned} & \text{Cap strike level on index} \\ & + \text{Loan spread over index} \\ & + \text{Annualized net cap/floor premium} \\ \hline & \text{Maximum effective interest rate} \end{aligned}$$

Minimum Interest Rate

$$\begin{aligned} & \text{Floor strike level on index} \\ & + \text{Loan spread over index} \\ & + \text{Annualized net cap/floor premium} \\ \hline & \text{Minimum effective interest rate} \end{aligned}$$



Interest Rate Swaps

An interest rate swap is an agreement between two parties to exchange future interest payments based upon different interest rate indices for identical notional principal amounts over a specified time frame.

Swaps are used to restructure balance sheet interest rate repricing characteristics. Restructuring interest rate characteristics can be desirable if either favorable or unfavorable

interest rate movements are anticipated. Swaps may be used to convert floating rate interest obligations into fixed rate obligations or fixed rate obligations into floating rate obligations. Principal is not exchanged.

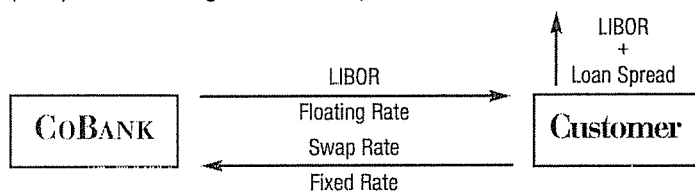
The diagrams below illustrate three primary swap structures. Each arrow represents a cash flow payment. The vertical arrow extending upward from the customer box shows the existing

underlying debt obligation.

The two horizontal arrows between the boxes represent the interest rate swap, exchanging one interest rate payment for another (fixed for floating, floating for fixed, or one money market index for another). Swap payments are generally netted, with the party owing the greater amount on the reset date making a net payment to the other. Typically, this payment is settled in arrears.

Interest Rate Swap - Synthetically Extend Liability

(Swap from Floating to Fixed Rate)

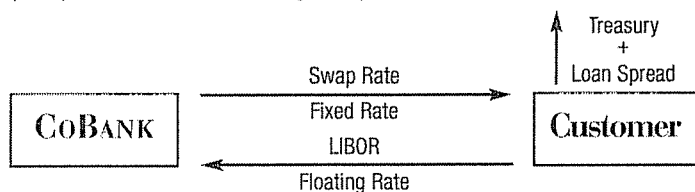


$$\begin{array}{l} \text{LIBOR} \\ \text{(Swap Rate)} \\ \text{(LIBOR + Loan Spread)} \\ \hline \text{(Swap Rate + Loan Spread)} \end{array}$$

Customer receives swap floating
Customer pays fixed swap rate
Customer continues to pay short-term loan interest rate
Effective fixed loan rate

Interest Rate Swap - Synthetically Shorten Liability

(Swap from Fixed to Floating Rate)

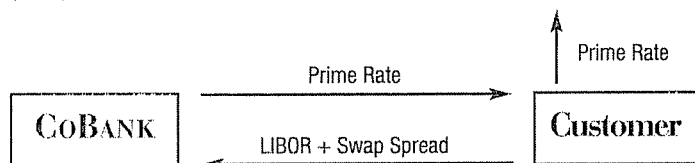


$$\begin{array}{l} \text{Swap Rate} \\ \text{(LIBOR)} \\ \text{Loan Rate} \\ \hline \text{(LIBOR - Swap Rate + Loan Rate)} \end{array}$$

Customer receives fixed swap rate
Customer pays swap floating rate
Customer continues to pay long-term loan interest rate
Effective short-term repricing loan rate

Interest Rate Swap - Change Floating Rate Interest Basis

(Swap from Prime to LIBOR Basis)



$$\begin{array}{l} \text{Prime Rate} \\ \text{(LIBOR + Swap Spread)} \\ \text{(Prime Rate)} \\ \hline \text{(LIBOR + Swap Spread)} \end{array}$$

Customer receives Prime on swap
Customer pays LIBOR + swap spread
Customer continues to pay variable loan interest rate
Synthetic LIBOR-based loan rate

NOTE: Cash flows which a customer pays are negative (bracketed), representing costs, while cash flows which a customer receives are positive, representing income


Advantages

- Acts as a hedge against rising interest rates for customers paying fixed;
- Allows benefit from interest rate decline if paying floating;
- May be customized to match maturities and amortization; and
- Requires no upfront fees.

Disadvantages

- Prevents benefit from rate decline if paying fixed;
- Exposes you to the risk of rising interest rates if paying floating; and
- Exposes you to counter-party credit risk.

| | |
|-----------------------|---|
| Minimum Amount: | \$1 million |
| Maturity Options: | Overnight to ten years (credit dependent) |
| Indices: | LIBOR Prime |
| Pricing Determinants: | Notional amount Swap tenor Yield curve slope Interest rate levels Swap market liquidity |
| Fixes Rate? | Yes, if paying fixed on swap |
| Upfront Premium? | No |
| Penalties? | Mark-to-market upon early termination |



Interest Rate Locks

Interest Rate Locks can be used as a way to protect against rising rates future fixed rate borrowings. If a known fixed rate borrowing is being planned in the future from private placements, bond issuance, syndicated loans, or other fixed rate financing, US Treasury Locks or Mandatory Cash Settled Swaps can be used to hedge interest rate risks.

US Treasury Lock

If a loan is going to be priced in the future off US Treasury Rates, a Treasury Lock can be used to lock in the rate today and remove the risk of rising interest rates. Treasury Locks can be used if a customer has a future Treasury based funding they know will occur in the future, but can't lock the rate until closing. By entering into a US Treasury Lock, a customer locks in the forward Treasury Rate that will correspond to their future settling loan. Then when the Treasury Lock settles, if rates have risen, COBANK pays the customer the difference between the locked rate and the current treasury to offset the higher loan cost. If rates fall, the customer pays the difference to COBANK to offset the lower interest rate.

Mandatory Cash Settled Swap

Much like a US Treasury Lock, a Mandatory Cash Settled Swap can be used to lock in rates for a future financing. In this case, instead of

| | |
|-----------------------|--|
| Minimum Amount: | \$5 million |
| Maturity Options: | Overnight to 10 years (credit dependent) |
| Pricing Determinants: | Notional amount Lock period Yield Curve Slope Interest Rate Levels Interest Rate Volatility |
| Indices: | 2, 3, 5, 10, 30 year U.S. Treasury Bonds LIBOR Based Swaps |
| Fixes Rate? | Yes |
| Upfront Premium? | No |
| Penalties? | Mark-to-market valuation at settlement. If rates rise, COBANK pays customer; if rates fall customer pays COBANK. |

using US Treasury rates, swap rates are locked in to hedge against rising rates. If a customer has an amortizing structure to their future financing, a mandatory cash settled swap can be used to match the cash flows of their loan and create a more perfect hedge. As with the treasury lock, if rates go up, COBANK will pay the difference in rates to offset a higher rate on a loan. If rates fall, the customer pays COBANK the difference in rates. Hedging with interest rate swaps gives customers a way to hedge against overall credit spreads increasing, as swap spreads tend to move in concert with credit spreads.

Advantages:

- Allows customer to lock in rates prior to receiving loan funds
- Provides hedge against rising rates
- Requires no upfront fee

Disadvantages:

- Does not protect against increased credit spreads
- Exposure to counterparty credit risk
- Prevents benefit from rate decline

ADDITIONAL FINANCIAL RISK MANAGEMENT TOOLS

Fundamental risk management products can be mixed and matched to offer numerous structuring alternatives. These combinations enable you to lower the cost of a hedge, alter risk parameters, or increase financing flexibility. While the following product examples tend to focus on hedging from a debt management perspective, they can also be effectively employed to hedge returns on assets such as investment portfolios.

Forward Swaps

Forward swaps allow you to lock-in the structure and pricing of an interest rate swap in advance of a predetermined start date in the future. Forward swaps are attractive if you anticipate future financing needs or the future repricing of existing debt.

A forward swap into a fixed rate is comparable to a forward fixed rate loan. You may find fixed rate pricing more attractive using an

interest rate swap (beginning with a floating rate loan and swapping into a fixed rate) than the pricing available for a fixed rate loan. Forward swaps protect customers from an increase in fixed rates both prior to funding and during the life of the loan.

A forward swap into a floating rate can be attractive if you anticipate future floating rate funding requirements and/or a decrease in interest rates. In this structure, you lock-in the ability to receive an attractive, high swap fixed rate that is used to subsidize the underlying fixed funding cost.

Similar to a forward fixed rate, forward swaps require you to know the specifics of the anticipated borrowing (principal size, amortization schedule and maturity) at the time the forward swap contract is established.

Spread Locks

Spread locks enable you to lock in specific swap spreads (over the comparable Treasury) in an interest rate swap. With this structure, you can take advantage of attractive swap spreads currently available while delaying the initiation of the swap transaction in anticipation of a more advantageous Treasury yield level.

For example, a customer wishing to swap a floating rate into a fixed rate may find that the swap spreads are very narrow but the Treasury yield is very high. You can lock in the swap spread for a predetermined period of time and wait until the Treasury yield decreases before initiating the swap. Note that the spread lock is not an option, and you are contractually obligated to initiate a swap transaction by the lock termination date.

Swaptions

Swaptions give you the right, but not the obligation, to enter into interest rate swaps within a predetermined time frame with specific terms and pricing. Swaptions provide enhanced flexibility if you anticipate future financing needs or debt repricing.

A swaption to pay a fixed rate is comparable to an option to fix a rate on a loan. You may wish to consider a swaption if the fixed rate pricing available in the swap market is more attractive than the pricing available for a fixed rate loan. Swaptions on fix rates provide protection against rising interest rates, while maintaining the flexibility to take a lower interest rate if rates have decreased by the time funding is required.

A swaption to receive a fixed rate allows the customer to benefit from an expected decreasing interest rate environment. If you anticipate floating rate funding needs, the ability to receive a pre-established fixed rate in the future will be beneficial if interest rates are expected to fall. In this case, the customer can benefit from a low floating interest rate on its debt as well as from the cash flow subsidy attributed to the relatively high swap rate received on the swap transaction. If interest rates have increased by the time funding is needed, you have the right to enter into a swap at current, more attractive levels.

Callable Swaps

Callable swaps, a common swaption structure, provide you with the right, but not the obligation, to terminate a swap transaction prior to maturity without being subjected to a mark-to-market termination payment.

Callable swaps are attractive to fixed rate swap payers that want to guard against being locked into a relatively high fixed swap rate in a falling interest rate environment. Conversely, a fixed rate receiver may find callable swaps attractive to avoid being locked into a relatively low swap rate in a rising rate environment.



FOREIGN EXCHANGE SERVICES

International trade and capital flows are the basis of foreign exchange transactions. Given increased globalization, you may occasionally require transactions denominated in foreign currencies. For example, if an American exporter sells a commodity to a Japanese buyer, yen may be converted into U.S. dollars to conclude the transaction.

Banks are natural intermediaries for foreign exchange supply and demand. The primary task of a bank's foreign exchange operation is to enable its customers to convert assets or liabilities held in one currency into funds of another currency. This conversion can take the form of a spot, forward, swap or option transaction.

The spot market is used for foreign exchange transactions which are settled two business days following the trade date. Transactions are executed at prevailing exchange rates which are a function of the global interest rate environment.

The forward market is used for foreign exchange delivered three or more days in the future (typically one, two, three or six months after the transaction date). Forward rates are a function of the interest rate differential between two currencies and may be either higher or lower than spot prices.

Forward rates trading at a premium to spot are found in currencies of countries where interest rates are lower than those in the U.S. Forward rates trading at a discount are found in currencies of countries where interest rates are higher than those in the U.S. Forward currency transactions require no upfront cash payments.

The options market is used when favorable exchange rate movements are anticipated by downside protection is still desired to manage potential unfavorable rate fluctuations. The option premium is the only cost associated with the currency hedge regardless of whether it is ultimately exercised. Option premiums are paid upfront and are based on the contract amount.

COBANK offers foreign exchange transactions in currencies of major industrialized nations. If you need more information, please contact your COBANK relationship manager.

COUNTERPARTY CREDIT RISK

When two parties enter into a swap, cap, collar or structured derivatives transaction, they assume the counterparty will perform for the life of the agreement. However, if a counterparty is unable to fulfill its obligations, the other party may be subject to loss.

For example, assume one swap counterparty agrees to pay fixed at 7 percent for two years and the other counterparty agrees to pay six-month LIBOR semi-annually. In six months, if the swap market for the one and a half year remaining life of the swap moves to 6.5 percent, the counterparty paying LIBOR has credit exposure to the counterparty paying fixed, because the fixed rate payor is paying an above-market rate which would be costly for the floating rate counterparty to replace if the fixed rate payor defaulted. Similarly, in a rising interest rate environment with one and a half year swaps priced at 7.5 percent, the counterparty paying fixed at 7 percent has credit exposure to the counterparty paying LIBOR because the fixed rate payor is paying a below-market rate and

the fixed rate counterparty could not replace the swap in the market at 7 percent. The fixed rate payer would be forced to pay 50 basis points higher to meet prevailing market levels.

The same philosophy holds for option-based products including caps and collars. The purchaser of a cap has exposure to the seller since the cap seller generally receives the premium upfront. This leaves the cap buyer with the risk that the seller will not fulfill its obligations to make payments on the cap if interest rates rise above the strike level. The seller of a cap has no credit exposure to the buyer of caps which have been paid for upfront.

A collar purchaser has the same exposure as a cap buyer. However, the seller of a collar also has exposure, given the risk that the purchaser will not fulfill its obligations to make payments on the floor if interest rates fall below the strike level.

In measuring credit exposure, risk management participants should consider the current market value of the hedging product as well as some measure of potential credit exposure as it fluctuates over time.

Listed below are guidelines to consider when evaluating the credit risk associated with interest rate hedging products.

- Know the counterparty;
- Ensure that proper documents have been executed;
- Establish dollar limits for counterparty risk;
- Monitor credit exposure regularly; and
- Establish procedures concerning circumstances in which limits are exceeded or in which counterparty credit worthiness changes materially.

COBANK can help you determine both interest rate and credit risk associated with financial risk management transactions.



DOCUMENTATION AND EXECUTION

At COBANK, financial risk management transactions are generally executed verbally via recorded phone and are confirmed in writing.

Loan rate fixing alternatives are covered by a side letter to COBANK's loan agreement outlining the terms and conditions of the specific loan transaction. You are required to sign the letter confirming transaction specifics and return it to COBANK within 24 hours of transaction execution.

Risk management products such as swaps, caps, and collars are documented by COBANK's Interest Rate Swap Agreement which must be executed prior to entering into any financial risk management transactions. The specific details covering individual transactions are addressed in faxed confirmation letters. You are required to sign and return confirmation letters within 48 hours of transaction execution. Risk management transactions may be terminated at any time, if both nondefaulting parties agree, at a cost based on current market values.

It is important to recognize quoting conventions and compounding frequencies when calculating all-in effective hedging costs.

Risk management transactions are subject to specific accounting and tax treatment which should be determined in consultation with accounting and tax professionals.

SUMMARY

The evolution of financial risk management products provides treasurers a dynamic approach to funding, hedging, and managing interest rate and foreign currency exposures. Products can be mixed and matched through creative structuring to achieve specific risk profiles and cost parameters. The

repricing characteristics of the balance sheet can be adjusted easily to meet the changing capital market environment without having to renegotiate loan agreements. COBANK can help you to design tailored hedging program to meet your financial goals.

FINANCIAL RISK MANAGEMENT PRODUCT OVERVIEW

| Product | Minimum Amount | Maturity Options | Floating Rate Indices | Pricing Determinants | Fixes Rate | Upfront Premium | Penalties |
|--------------------------------------|----------------|--|--|---|---|-----------------------------|---|
| <i>Loan Rate Fixing Alternatives</i> | | | | | | | |
| Forward Fixed Rate Loan | \$100,000 | Forward period from overnight to two years | NA | <ul style="list-style-type: none"> • Forward period • Loan tenor • Yield curve | Yes | Incorporated into loan rate | Broken funding charges |
| Option to Fix Loan Rate | \$1,000,000 | Overnight to two years | NA | <ul style="list-style-type: none"> • Option period • Loan tenor • Yield curve • Interest rate levels • Interest rate volatility | Yes, but customers may decline loan advance during option period. | Yes, customer pays premium | No |
| <i>Risk Management Products</i> | | | | | | | |
| Interest Rate Cap | \$1,000,000 | Overnight to ten years (credit dependent) | <ul style="list-style-type: none"> • LIBOR • Prime • Commercial paper • Others | <ul style="list-style-type: none"> • Notional amount • Cap tenor • Cap strike level • Interest rate levels • Interest rate volatility | Provides upper limit | Yes, customer pays premium | Mark-to-market upon early termination |
| Interest Rate Collar | \$1,000,000 | Overnight to ten years (credit dependent) | <ul style="list-style-type: none"> • LIBOR • Prime • Commercial paper • Others | <ul style="list-style-type: none"> • Notional amount • Collar tenor • Collar strike levels • Interest rate levels • Interest rate volatility | Rate floats within range | Cap / floor premium netted | Mark-to-market upon early termination |
| Interest Rate Swap | \$1,000,000 | Overnight to ten years (credit dependent) | <ul style="list-style-type: none"> • LIBOR • Prime • Commercial paper • Others | <ul style="list-style-type: none"> • Notional amount • Swap tenor • Yield curve • Interest rate levels • Swap market liquidity | Fixed or floating | No | Mark-to-market upon early termination |
| Interest Rate Lock | \$5,000,000 | Overnight to 10 years (credit dependent) | <ul style="list-style-type: none"> • 2, 3, 5, 10, 30 year U.S. Treasury Bonds • LIBOR | <ul style="list-style-type: none"> • Notional amount • Lock period • Yield Curve Slope • Interest Rate Levels • Interest Rate Volatility | Yes | No | Mark-to-market valuation at settlement. If rates rise, CoBANK pays customer; if rates fall, customer pays CoBANK. |
| Foreign Exchange | None | Overnight to one year, structured to fit financing needs | NA | <ul style="list-style-type: none"> • Global interest rate environment | Fixed currency exchange rate | Options only | Mark-to-market upon early termination |

FINANCIAL RISK MANAGEMENT GLOSSARY

Accreting Swap

A swap whose notional principal increases over the life of the transaction.

Amortizing Swap

A swap whose notional principal decreases over the life of the transaction.

Basis Point

One-hundredth of one percentage point, or 0.01%.

Basis Risk

The inherent repricing risk that occurs as a result of changing interest rate spread relationships between different pricing indices.

Basis Swap

A swap where two different floating rates are exchanged over time; e.g. three-month LIBOR, prime or commercial paper rates.

Call Option

A contract involving the payment of a premium by one party in exchange for the right to buy (call) a financial instrument from another party at a predetermined price over a specified future time frame.

Cap

A series of interest rate put options which protect the buyer from rising interest rates. If, on predetermined dates in the future, a specified floating rate index such as LIBOR is above a strike price agreed upon between the seller of a cap and the buyer, then the seller will reimburse the buyer for the difference between the strike price and the prevailing floating rate index until the next reset date.

Collar

The simultaneous purchase of a cap and sale of a floor which protects the customer from rising interest rates and establishes a minimum level below which the customer's rate will not fall. The premium payable for the cap is offset against the premium received on the floor, thus reducing the net cost to the buyer.

Coupon

The fixed rate that is paid or received in a swap transaction.

Floating Rate

LIBOR, Prime, Fed funds, commercial paper or other money market index.

Floor

The opposite of a cap, a floor is a series of interest rate call options which enable the buyer to hedge against a decline in interest rates. If, on predetermined dates in the future, the specified floating rate index such as LIBOR is below the strike rate agreed upon between the buyer and the seller, then the seller will reimburse the buyer for the difference between the strike rate and the floating rate index until the next reset date.

Forward

A transaction in which payments commence on a specified date in the future.

Interest Rate Swap

An agreement between two parties to exchange future interest payments based upon different interest rate indices for identical notional principal amounts over a specified time frame. Principal is not exchanged.

LIBOR

London Interbank Offered Rate, the short-term interest rate index commonly used in global financial markets.

Notional Principal

The base amount used in calculating the interest rate payments due in a swap or options-based transaction.

Option

A contract which provides the buyer with the right, but not the obligation, to buy (call option) or sell (put option) a particular financial instrument at a predetermined price over a specified future time frame.

Premium

A payment which a buyer pays (or a seller receives) when purchasing (or selling) options or options-related products.

Prime Rate

A base variable lending rate established by commercial banks.

Put Options

A contract involving the payment of a premium by one party in exchange for the right to sell (put) a financial instrument to another party at a predetermined price over a specified future time frame.

Reset Date

Date on which the floating rate for the subsequent period is determined for a swap, cap, collar or floor.

Reversal

A new swap entered into which exactly neutralizes the effects of an existing swap.

Settlement Date

The date on which accruals commence and upfront premiums are paid for a transaction.

Spot

Market for immediate as opposed to future delivery generally settling two business days forward.

Strike Rate

The rate at which an option or an option-based product may be contractually exercised.

Swap Spread

A market spread which, when added to the comparable U.S. Treasury note yield, equals the swap fixed rate coupon.

Tenor

The period during which a transaction is outstanding.