

Swaptions Explanation

Swaptions are options on swap rates. Like caps, they have an upfront premium and never further obligate the buyer to additional termination amounts. They are commonly used to hedge future fixed rate issuances like CMBS.

Although commonly used to hedge specific financings, swaptions do not have to be tied to a closing. Some borrowers use swaptions to hedge generic interest rate movements in the future, particularly if they have a large amount of debt maturities in a given year.

For example, a borrower with 5 loans totaling \$350mm maturing in 2020 may not know the exact plans for those refinances yet but wants to hedge against a dramatic movement higher in 10 year rates. Swaptions will help hedge against this risk.

Like caps, swaption strikes are usually set at a strike above today's 10 year swap rate. The borrower retains the risk up to that higher level but is protected against a movement above that strike.

Also, like caps, swaptions can be bought from any provider and never have a prepayment penalty.

Mechanics

Let's assume that same borrower wishes to buy rate protection on \$100mm of its 2023 debt maturities. In this instance, the borrower wants to buy the right to pay a fixed rate for 10 years.

This borrower is willing to hold the risk of 10 year rates up to 4.00% but wants to protect against a movement above that.

Settlement	6/1/2023
Notional	\$100mm
Term	10 years
Strike	4.00%

This option would cost \$500,000 upfront today.

This translates into approximately 5bps on the financing, so technically the rate is hedged at 4.05% when factoring in upfront cost. Some borrowers will iterate between strike and cost to back into an actual 4.00% effective rate, but for illustration purposes we will focus on just setting the strike at 4.00%.

Settlement Outcomes

On 6/1/2023, there are two potential outcomes.

- If 10 year swap rates are below 4.00%, the option expires worthless and the borrower locks in at the then-current swap rate.
- If 10 year swap rates are above 4.00%, the option is exercised.
 - The swaption provider will pay the borrower the present value difference between 4.00% and the swap rate
 - The borrower locks in a swap with the lender at the then-current rate
 - The borrower uses the payment from the swaption provider to buy down the rate on the new swap
 - This can be a payment made to the lender or simply accounted for internally

In general, lowering the strike and/or pushing out the settlement date increases the cost of the swaption.

Considerations

For this borrower, the swaption should be viewed as hedging insurance against a dramatic upward movement in swap rates rather than precisely locking in a rate in the future.

The swaption does not imply a loan commitment and does not hedge borrowing spreads.

The swaption is an option on 10 year swaps, not the 10 year Treasury. Although these are usually highly correlated, if the ultimate rate on the financing is based on Treasuries, there could be a mismatch.

While the value of a swaption is driven, in part, by the settlement date, a borrower can terminate at any time.

Conclusion

Swaptions can be attractive instruments to hedge specific financings or generic interest rate movements, but can have high upfront costs because they are hedging long term rates.

Swaptions do not have prepayment penalties.

Swaptions can be executed apart from a financing to simply hedge rate risk.

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