Introduction to swaptions

A swaption gives the holder the right - but not the obligation - to enter into an interest rate swap on predetermined conditions at a future date.

There are two main types of swaptions:

- Payer swaption, which gives the right to pay a fixed interest rate and receive a floating interest rate
- Receiver swaption, which gives the right to receive a fixed interest rate and pay a floating interest rate

Swaptions are often used by companies and investors who wish to:
- hedge interest rate risk in loans or investments;
- take positions based on expectations about future interest rate movements; or
- implement more flexible and targeted interest rate strategies

Opportunities offered by swaptions
Various strategies can be constructed to assume or hedge interest rate risk using swaptions. This factsheet describes only a few simple and typical uses.

Payer swaptions
A payer swaption gives the buyer the right, on the expiry date, to enter into an interest rate swap in which you pay a fixed interest rate and receive a floating interest rate.

You would typically exercise the swaption if the market interest rate on the expiry date is higher than the rate agreed in the swaption. If the market interest rate is lower than the agreed rate, you would not exercise the option.

A payer swaption can be used to reduce your interest rate risk if you have a floating-rate loan.

Benefits of a purchased payer swaption
- You can hedge your interest rate risk with limited liquidity commitment
- If interest rates fall, you are not locked into a fixed rate

Drawbacks of a purchased payer swaption
- You pay a premium, which is lost if interest rates fall

Receiver swaptions
A receiver swaption gives the buyer the right, on the expiry date, to enter into an interest rate swap in which you receive a fixed interest rate and pay a floating interest rate.

You would typically exercise the swaption if the market interest rate on the expiry date is lower than the rate agreed in the swaption. If the market interest rate is higher than the agreed rate, you would not exercise the option.

A receiver swaption can be used to adjust your interest rate risk if you have a floating-rate deposit or a bond.

Benefits of a purchased receiver swaption
- You can hedge your interest rate risk with limited liquidity commitment
- If interest rates rise, you are not locked into a fixed rate

Drawbacks of a purchased receiver swaption
- You pay a premium, which is lost if interest rates rise

1. General benefits and drawbacks

Swaptions provide flexible hedging of interest rate risk and can be tailored to specific needs.

For buyers of swaptions, the risk of loss is limited to the premium paid, while the profit potential is, in principle, unlimited.

However, these instruments are complex and can be difficult to understand and price. Premiums can be high, and for sellers of swaptions, losses can be significant - and in principle unlimited. As swaptions are not listed on an exchange, there may be no clear market prices, which may affect both pricing and liquidity.

2. Return

The return on swaptions depends directly on movements in interest rate levels.

For purchased swaptions, your maximum loss is limited to the premium paid, while the profit potential is, in principle, unlimited.

As a buyer, you achieve a positive return if:
- the market interest rate at expiry is higher than the agreed rate for a payer swaption
- the market interest rate at expiry is lower than the agreed rate for a receiver swaption

From this, the premium paid must be deducted.

As a seller, your return is, in principle, the premium received. If market interest rates move unfavourably, your potential loss can, in principle, be unlimited.

3. About risk

Swaptions have an asymmetric risk profile.
- As a buyer of a swaption, your maximum loss is limited to the premium paid.
- As a seller of a swaption, the risk is, in principle, unlimited, as there is no upper limit to how much interest rates can move. The gain is limited to the premium received.

It is important to have sufficient financial strength to handle negative interest rate and market movements - even in cases of extreme fluctuations.

Swaptions can be illiquid. Closing a contract before expiry may result in losses, especially during periods of market stress, when liquidity is limited.

Key risks include:
- **Interest rate risk -** changes in interest rates directly affect the value of the instrument
- **Volatility risk -** changes in interest rate volatility affect the premium
- **Exchange rate risk -** if swaptions are traded in a foreign currency

When selling swaptions, you must be able to provide collateral if the market value develops unfavourably.

4. What you should know before trading

When trading derivative financial instruments with the Bank, you enter into a framework agreement. The framework agreement outlines how the Bank monitors the risk you assume and gives the Bank the right to terminate the contract or require collateral if the market value moves so far against you that it exceeds the agreed credit limits.

If you seek individual advice in connection with the establishment and ongoing management of swaptions, please contact your adviser.

Tax
We only provide general tax advice. The applicable tax rules depend on how you invest - whether as a private individual, a

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personal business or a company. For specific advice, you should consult an accountant.

Costs

Trading swaptions involves trading costs. The size of the premium depends on several factors as well as an agreed margin, which covers the financial institution's expected costs and profit.

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