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# Hedging interest rate risks

Is it time for an interest rate ceiling?

# Table of contents


1. Development of the capital market ........ 3

2. Interest is a growing part of the cost price ........ 3

3. Hedging interest rate risks ........ 3

4. Why choose interest rate derivatives? ........ 4

5. Most used interest rate derivatives ........ 4

5.1 Interest rate swap (interest swap) ........ 4

5.2 Swaption (option on a swap) ........ 4

5.3 Interest cap (interest ceiling) ........ 4

6. What is an interest cap? ........ 4

6.1 Features of an interest cap: ........ 4

7. A calculation example ........ 5

8. Professional transaction support ........ 6

# 1. Development of the capital market

Christine Lagarde, president of the European Central Bank, hinted at the possibility that the central bank will buy bonds at a monthly rate of 20 billion euro as early as the fourth quarter of 2022. No official end date of this purchase program was discussed. Importantly, as long as the ECB buys bonds, interest rate hikes are out of question.

Long-term interest rates, however, are still exceptionally low. For example, the interest rate peak of the economic boom of 2016 - 2018 has not been matched by anything. More importantly, interest rate hikes are dwarfed by inflation.

The financial markets were also quite shocked last week. The ECB meeting, on February 3, 2022, promised to be a boring one, but during the Q&A with Lagarde it suddenly became clear that she was not prepared to talk down the interest rate expectations of financial markets. The door is now suddenly wide open to a rate hike in 2022. Markets estimate that the first-rate hike can be expected in July. Klaas Knot, director of De Nederlandsche Bank NV (DNB), the central bank of the Netherlands, also spoke of an interest rate hike in the fourth quarter. Euro swap rates jumped during Lagarde's Q&A, ultimately resulting in an increase of 23 basis points for the 10-year euro swap rate and a whopping 33 basis points for the 2-year euro swap rate.

*Figure 1: long-term development of 5-year and 10-year euro swap rate. Source: Macrobond.*

# 2. Interest is a growing part of the cost price

The steep incline in land prices, the capital-intensive investments with automation, and the increase in scale, as well as the historically low interest rates have ensured that investment amounts and therefore financing of companies have increased explosively in recent years. As a result, the cost factor of interest has become an increasingly larger part of the cost price in recent years.

Whether interest rates are high or low, entrepreneurs can only run limited risk of increases in interest rates. With each investment, an entrepreneur estimates what return he can make. An increase in interest costs can have unpleasant consequences for the return. The financial world has also responded to this. The banks now offer products that meet the desired customization by the entrepreneurs.

# 3. Hedging interest rate risks

By solid interest management within treasury, entrepreneurs can fix the interest well in advance of an investment. You can agree on a variable interest rate with a maximum (ceiling) or you can take out options on the interest rate. In practice, there are even more possibilities. With the low interest rates of recent years, this can be very pleasant. Now that the interest rate market seems to be rising again, we see a growing interest in interest rate derivatives.

# 4. Why choose interest rate derivatives?

If you have financing based on a variable interest rate (Euribor), you run an interest rate risk. This risk may put pressure on your profit margins and liquidity. You can manage these risks with derivatives. For example, you can set a ceiling on a possible rise in interest rates (interest cap). Another option is to temporarily exchange a variable rate for a fixed rate (interest rate swap). As a result, an increase in the Euribor rate has no effect on your interest expense on the hedged part of the loan.

# 5. Most used interest rate derivatives

## 5.1 Interest rate swap (interest swap)

- Exchange variable interest for a fixed interest
- Insight into tariff structure and market value
- Cover financing in part or as a whole

## 5.2 Swaption (option on a swap)

- Intention to take up financing in the future
- Option to enter into an interest rate swap
- Interest rate hike protection

## 5.3 Interest cap (interest ceiling)

- Protection against rise of interest rate above the agreed interest rate ceiling
- One-off premium in advance
- Benefit from any falling interest rates

# 6. What is an interest cap?

With an interest cap you are still financed on the basis of a variable interest rate, with all the characteristics and flexibility that go with it. The interest costs of your financing will never be higher than the previously agreed ceiling to be increased by the surcharge(s) associated with the financing of the interest cap.

If the variable interest rate is below that ceiling, you pay this lower interest rate. You therefore continue to benefit from a low variable interest rate and you are protected against its rise above the level of the interest rate cap. Please bear in mind that during the term of the contract, surcharges, fees and/or costs for (future) financing can still change unless explicit agreements have been made about this. For example, surcharges based on debtor or liquidity risk. These surcharges, fees and costs can change in the meantime.

## 6.1 Features of an interest cap:

- With an interest cap you have an interest ceiling, excluding surcharges.
- Does the variable interest rate rise above the 'cap rate' (the ceiling)? Your variable interest does not increase: you pay the cap rate plus agreed surcharges.
- You will continue to benefit from falls in interest rates.
- You pay a one-off premium to the bank for taking out an interest cap. The amount depends, amongst other things, on the cap rate, the principal movement, and the term of the interest cap. The following applies: the higher the variable interest ceiling, the lower the premium. And: the longer the term, the higher the premium.
- In addition to the single premium to be paid in advance, you must take into account surcharges, fees, and costs for (future) financing. These will continue to apply during the term of the interest cap and may also change in the interim.
- The bank calculates whether you will receive a refund. Is the variable interest rate higher than your interest ceiling? Then you will receive the difference back. Is the variable interest rate is lower than or equal to your interest ceiling? In that case, you will receive nothing back.

- The individual surcharge that you pay on your financing cannot be covered with an interest cap.
- An interest cap has a market value that is always greater than or equal to zero.
- In the event of premature termination, the market value will be settled. This is positive or zero. At the end date of the interest cap, the market value is always zero.

## 7. A calculation example

A company invested in new machines for € 10,000,000.-. The purchase transaction has been completed and this investment is financed with a bullet loan for 5 years with a variable interest rate based on 3 months Euribor plus a credit spread of 200 basis points (bp).

A treasury adviser points out to the CFO that the current historically low interest rates may well come to an end and that the ECB could change its key rate in the coming months with interest rate hikes. If this happens, it will have an immediate impact on the money market rates and therefore also on the 3-month Euribor. The treasury advisor comes up with a proposal to avert this interest rate risk:

| | |
|---|---|
| Buy: | Interest cap for 5 years |
| Strike: | 1.00 % |
| Start: | 14 February 2022 |
| End: | 14 February 2027 |
| Benchmark: | 3-month Euribor |
| Premium: | € 195,000.-<br>(to be paid once in advance) |

After 1 year, in which the ECB took a number of interest rate steps up, the 3-month Euribor was fixed above the strike of the cap at 1.25 % for the first time on February 14, 2023. The company paid 3.25 % on the loan of € 10,000,000,- (1.25 % = 3-months Euribor + credit spread of 200 bp.) However, the interest cap has an interest rate ceiling (strike) of 1.00 %. The bank settles the difference with the entrepreneur as follows:

Period: 14 February 2023 – 15 May 2023 (90 days)

(Fixing – Strike) * pricipal * days / 360 = compensation by bank

(1.25 % - 1.00 %) * € 10,000,000,- * 90 / 360 = € 6,250,-

| | | |
|---|---|---|
| The company pays for loan | 3.25 % | € 81,250,- |
| Bank compensates via cap | 0.25 % | € 6,250,- |
| **Net paid by entrepreneur** | **3.00 %** | **€ 75,000,-** |

If the fixing of the Euribor is above 1.00% in the coming years, the entrepreneur will never pay more than 3.00% on his loan.

However, the 200 bp credit surcharge may be subject to changes in relation to the creditworthiness of this entrepreneur in the future. This would mean that cap with Euribor protection of 1.00 % will remain intact, but that due to an increase in the credit surcharge, the entrepreneur will pay more on balance.

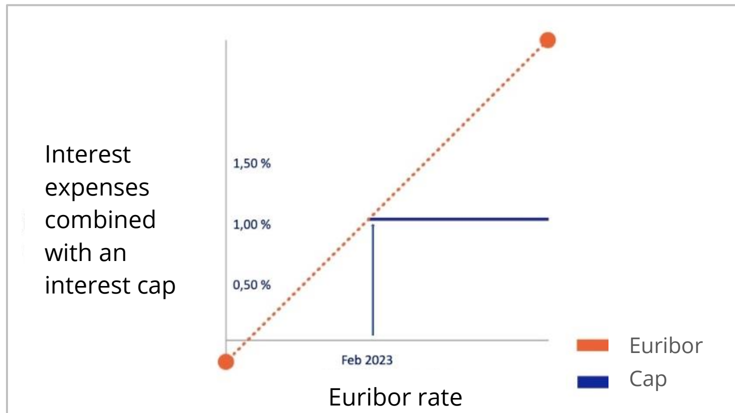


*Figure 2: Working of an interest cap. Source: edited version of Rabobank image.*

## 8. Professional transaction support

For the proper execution of financial transactions you need knowledge. Experience and access to information also play a significant role in the success of a transaction. The experts of the Treasury Desk have all of this. They have knowledge of and experience with derivatives, such as swaps and options, but also the pricing of all forms of financing and FX transactions. Thanks to a good overview of price developments and direct contact with the dealing room of the banks, the Treasury Desk ensures that the price of each financial instrument is determined optimally.

Even if the investment is in the future and the entrepreneur expects the interest to rise, it is certainly wise to speak with a treasury adviser. Let Ilfa's advisers calculate the costs of fixing the interest and the withdrawal over a longer period.

In the case of larger investments, it is certainly recommended to map out the possibilities of treasury products. It is always smart to calculate exactly what these products cost, especially if it is discounted in the interest that you must pay over a period of 5 or 10 years.

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