

PRODUCT INFORMATION

INTEREST RATE OPTIONS

GLOBAL MARKETS DEPARTMENT OF OTP BANK PLC.

May 04, 2020

Please read this Product Information carefully before concluding a contract on interest rate options. For further information, please contact our staff.
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TABLE OF CONTENTS

1. Description of interest rate options	2
2. The risks of interest rate options	3
3. Interest Rate Cap Option	5
4. Interest Rate Floor Option	12
5. Interest Rate Collar.....	19
6. Summary of the advantages and disadvantages of interest rate options	29
7. Miscellaneous information	30
8. Notices and disclaimers.....	32

1. Description of interest rate options

Interest rate options represent an agreement between the customer and OTP Bank Plc. (hereinafter: Bank) in which, subject to certain conditions, the option seller (writer) undertakes to pay to the buyer the difference between the interest rate defined in the contract and the benchmark interest rate pertaining to a specific principal amount and period. Upon the conclusion of the deal, the buyer is required to pay an option premium, i.e. the price of the option. The transaction is a complex, derivate financial transaction concluded between the Bank and the customer outside the regulated market (OTC).

Features

- The transaction can protect the customer from unfavourable interest rate movements, but it does not preclude the possibility of benefiting from positive interest rate movements.
- The owner of the option has no obligations arising from the option transaction.
- It can be concluded against an option premium.
- Three types can be concluded: interest rate cap, floor and collar options.
- Minimum contract amount is HUF 300 million or foreign currency equivalent.
- Maturity: 2 year – 10 years.

Typical customer base

- Interest rate options concluded for hedging purposes can provide efficient assistance in interest rate, credit and liquidity risk management in mitigating – and possibly eliminating – potential losses from unfavourable shifts in interest rates.
- Interest rate options for speculative purposes are typically concluded by investors with a definite expectation about future developments in the yield curve.

2. The risks of interest rate options

Market value of the product

All interest rate option positions have a market value. The price of the option is determined by changes in the underlying interest rates, market yields for the given maturity, the volatility of such market yields, and the term to maturity. The higher the fluctuation (volatility) of the underlying interest rates, the riskier the investment.

Balance sheet effect

As the market value of the interest rate option depends on yield curve developments, the market value of the transaction can change continuously during the term of the contract. It is possible that the customer will recognise a highly negative market value on his balance sheet during the term of the transaction. In addition, the closing of the position before expiry could result in a significant loss for the customer. While the profit achievable on the product is limited, the extent of potential loss is unlimited.

Additional leverage

The product is leveraged. The customer does not need to provide the total principal amount in order to conclude an interest rate option contract; it is enough to deposit a pre-determined percentage of the transaction value as collateral. Market movements unfavourable for the customer can exert additional leverage effects, potentially leading to significant losses.

Additional cost of capital, margining

The Bank applies limits and requests the customer to provide collateral against the risks associated with the interest rate option transaction. The customer is required to post collateral in the form (cash or security collateral) and in the currency specified by the Bank. Normally, the collateral requirement of the product is a pre-determined percentage of the notional value of the interest rate option, which may be modified by the Bank unilaterally. In case of unfavourable yield curve or rate movements, the Bank may require additional margin. The customer is required to provide the additional margin in accordance with the contractual terms, and any losses sustained as a result – which could be substantial – will be borne exclusively

by the customer. The Bank determines the additional margin requirement of interest rate option based on the current fair market value of the transaction. The collateral may be released as soon as the reason for the blocking of the collateral ceases to exist.

Possibility of the unilateral liquidation of the position

The Bank requires collateral for the interest rate option transaction based on the current fair market value of the option. If, for any reason, the collateral pledged by the customer is deemed insufficient by the Bank to cover the financial risk of the positions opened and held by the customer, the Bank may require additional margin. Upon the Bank's call, the customer is required to provide the additional margin in accordance with the contractual terms, and any losses sustained as a result will be borne exclusively by the customer. If the customer fails to provide the required additional margin in accordance with the contractual terms despite being called upon by the Bank, the Bank may decide to liquidate the position, which could involve substantial losses for the customer. Liquidation costs, potential capital losses and the consequences of the failure of liquidation shall be borne exclusively by the customer.

Sale or purchase obligation at the pre-fixed interest rate

Under the contractual terms, when the option is exercised the option writer is required to pay to the buyer the difference between the interest rate specified in the contract and the benchmark interest rate. If the underlying benchmark interest rate is higher than the interest rate specified in the contract upon the closure or settlement of an interest rate cap option, the option seller will incur a loss on the transaction. Similarly, if the underlying benchmark interest rate is lower than the interest rate specified in the contract upon the closure or settlement of an interest rate floor option, the option seller will incur a loss on the transaction.

3. Interest Rate Cap Option

In return for a pre-paid premium, the Interest Rate Cap Option guarantees that the option buyer receives the difference between the benchmark interest rate and the rate specified in the contract for the notional value if the former is higher than the latter.

Two starting points – one transaction

- The customer took out a loan of EUR 5 million with a floating interest rate and a maturity of 10 years. Interest is paid retrospectively on a quarterly basis, while principal payment is due in a lump sum at maturity. The annual interest rate of the loan is 3-month EURIBOR + 50 bps. With a view to eliminating the risk deriving from an increase in the benchmark EUR interest rate, the customer wishes to fix his maximum quarterly instalments for the remaining 2-year term of the loan.
- The customer expects the 3-month EURIBOR to stay above a certain value over the next two years.

In both cases, the customer purchases a 2-year interest rate cap option.

INTEREST RATE CAP OPTION PARAMETERS	
Type	Interest Rate Cap Option
Maturity	2 years
Notional value	EUR 5,000,000
3-month EURIBOR	-0.42% (Bloomberg: EUR003M Index)
Interest Rate Floor	-0.35%
Option price (premium)	EUR 3,600
Settlement	at the end of each quarter

If the customer buys a cap option for a term of two years and the 3-month EURIBOR increases, the customer could realise a capital gain upon the closure of the position or upon the settlement of the transaction. Likewise, should the 3-month EURIBOR drop, the customer could lose the entire amount of the pre-paid premium.

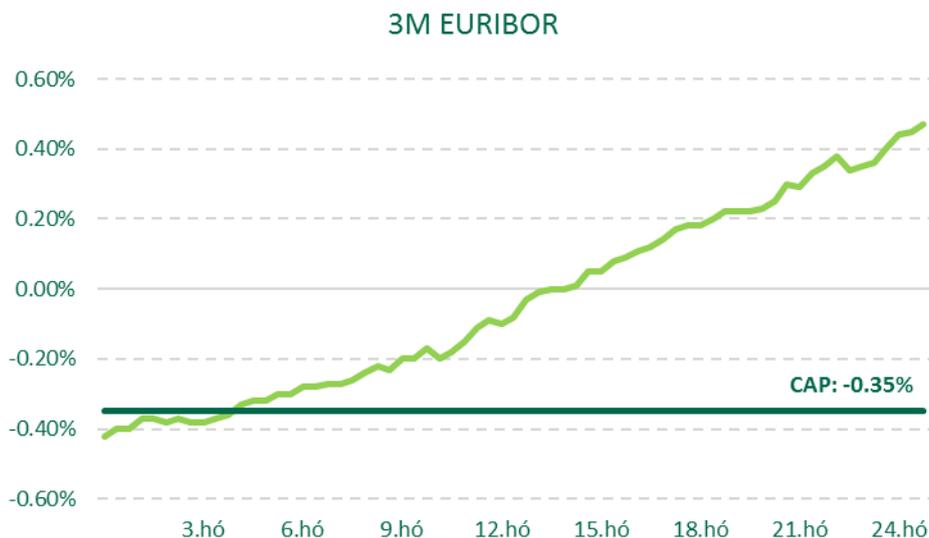
In the example, the customer expects the 3-month EURIBOR to be above -0.35% on the observation days:

The product is presented according to different 3-month EURIBOR scenarios:

1. The 3-month EURIBOR changes as expected, i.e. the benchmark interest rate increases during the term.
2. The 3-month EURIBOR decreases during the term.
3. Extreme increase in the 3-month EURIBOR during the term.
4. Extreme fall in the 3-month EURIBOR during the term.

1. The 3-month EURIBOR changes as expected

Increasing benchmark interest rate



- **Example for the settlement of the Interest Rate Cap Option:**

If the 3-month EURIBOR is lower than -0.35% at the beginning of Q_i , there will be no settlement.

If the 3-month EURIBOR is higher than -0.35% at the beginning of Q_i , the customer will receive at the end of Q_i :

$$(3\text{-month EURIBOR} - (-0.35\%)) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR -3,600
Q1	-0.42%	EUR 0
Q2	-0.38%	EUR 0
...
Q7	0.18%	EUR 6,625
Q8	0.29%	EUR 8,000

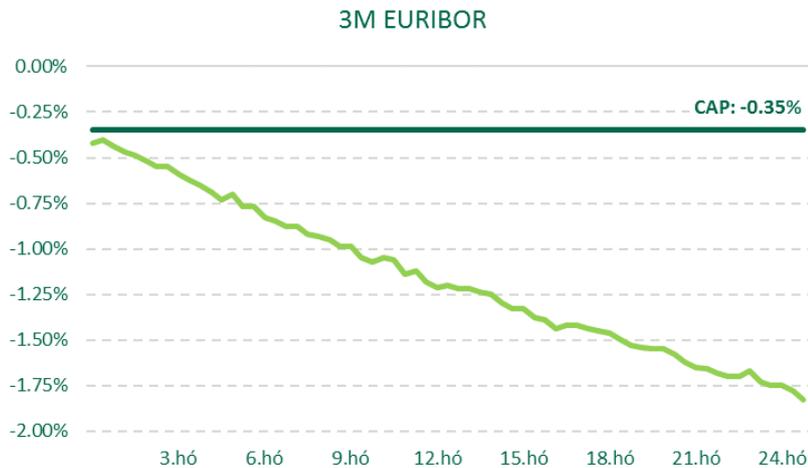
- **Example for closing the Interest Rate Cap Option at the end of Q3:**

In case of closure before maturity, the customer enters into an offsetting contract during the term. If the EUR interest rates increase during the term, the previously concluded interest rate cap contract maximising the EURIBOR at -0.35% appreciates and thus the customer can sell the option right purchased for EUR 3,600 more expensively; i.e. he could realise a capital gain. Likewise, should the EUR interest rate fall, the interest rate cap transaction will depreciate and selling the option at a lower value results in a loss for the customer.

- **Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

2. The 3-month EURIBOR decreases



- Example for the settlement of the Interest Rate Cap Option:**

If the 3-month EURIBOR is lower than -0.35% at the beginning of Q_i , there will be no settlement.

If the 3-month EURIBOR is higher than -0.35% at the beginning of Q_i , the customer will receive at the end of Q_i :

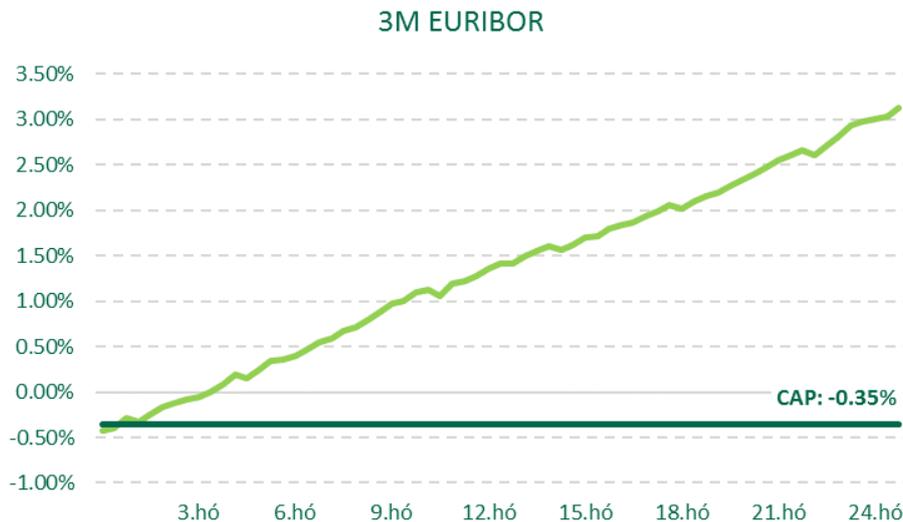
$$(3\text{-month EURIBOR} - (-0.35\%)) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Q_i	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Q_i
trade date		EUR -3,600
Q1	-0.42%	EUR 0
Q2	-0.59%	EUR 0
...
Q7	-1.46%	EUR 0
Q8	-1,65%	EUR 0

- Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

3. Extreme increase in the 3-month EURIBOR



- Example for the settlement of the Interest Rate Cap Option:**

If the 3-month EURIBOR is lower than -0.35% at the beginning of Q_i , there will be no settlement.

If the 3-month EURIBOR is higher than 3.45% at the beginning of Q_i , the customer will receive at the end of Q_i :

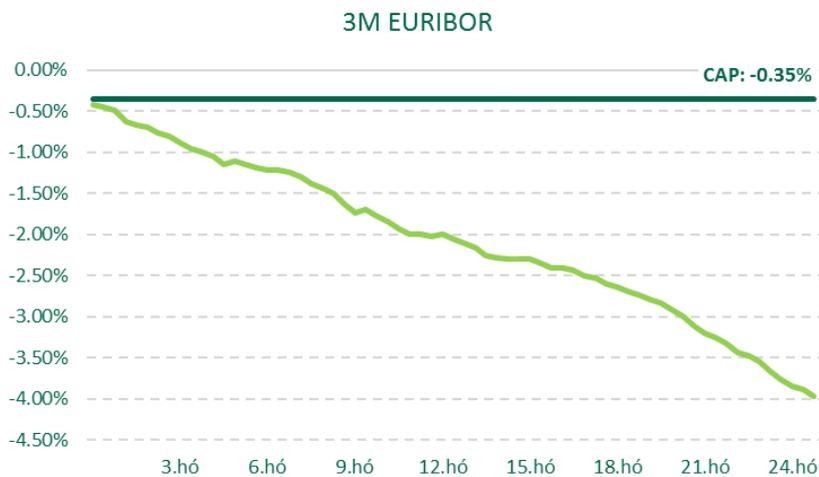
$$(3\text{-month EURIBOR} - (-0.35\%)) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Q_i	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Q_i
trade date		EUR -3,600
Q1	-0.42%	EUR 0
Q2	-0.05%	EUR 3,750
...
Q7	2.02%	EUR 29,625
Q8	2.55%	EUR 36,250

- **Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

4. Extreme fall in the 3-month EURIBOR



- **Example for the settlement of the Interest Rate Cap Option:**

If the 3-month EURIBOR is lower than -0.35% at the beginning of Q_i , there will be no settlement.

If the 3-month EURIBOR is higher than -0.35% at the beginning of Q_i , the customer will receive at the end of Q_i :

$$(3\text{-month EURIBOR} - (-0.35\%)) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR -3,600
Q1	-0.42%	EUR 0
Q2	-0.88%	EUR 0
...
Q7	-2.64%	EUR 0
Q8	-3.20%	EUR 0

- Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

From the perspective of the customer, a customer with a long Interest Rate Cap Option position will face the greatest risk if the benchmark interest rate falls below the cap. Current estimates are based on a one-off, market stress induced change in the benchmark rate, and do not imply a maximum limit for the potential capital loss arising from the transaction.

4. Interest Rate Floor Option

In return for a pre-paid premium, the Interest Rate Floor Option guarantees that the option buyer receives the difference between the benchmark interest rate and the rate specified in the contract for the notional value if the former is lower than the latter.

Two starting points – one transaction

- The customer purchased a two-year floating rate bond with a notional value of EUR 5 million, the coupon payment of which is due every quarter. The annual rate of the coupon is 3-month EURIBOR + 10 bps. With a view to eliminating the risk deriving from a decline in the benchmark EUR interest rate, the customer wishes to fix the minimum coupon amount of the bond.
- The customer expects the 3-month EURIBOR to stay below a certain value over the next two years.

In both cases, the customer purchases a 2-year interest rate floor option.

INTEREST RATE FLOOR OPTION PARAMETERS	
Type	Interest Rate Floor Option
Maturity	2 years
Notional value	EUR 5,000,000
3-month EURIBOR	-0.42% (Bloomberg: EUR003M Index)
Interest Rate Floor	0.00%
Option price (premium)	EUR 55,000
Settlement	at the end of each quarter

If the customer buys a floor option for a term of two years and the 3-month EURIBOR declines, the customer can realise a capital gain upon the closure of the position or upon the settlement of the transaction. Likewise, should the 3-month EURIBOR rise, the customer could lose the entire amount of the pre-paid premium.

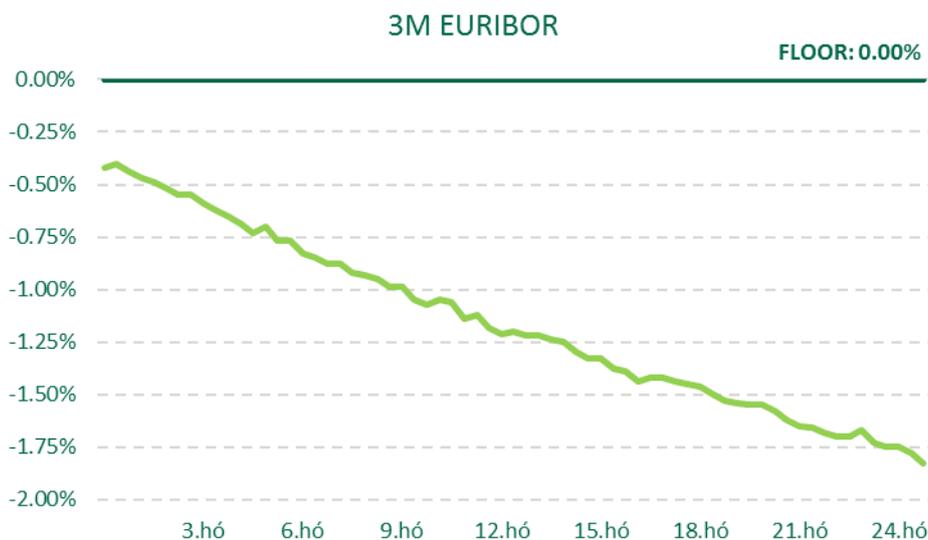
In the example, the customer expects the 3-month EURIBOR to be below 0.00% on the observation days:

The product is presented according to different 3-month EURIBOR scenarios:

1. The 3-month EURIBOR changes as expected, i.e. the benchmark interest rate declines during the term.
2. The 3-month EURIBOR increases during the term.
3. Extreme fall in the 3-month EURIBOR during the term.
4. Extreme increase in the 3-month EURIBOR during the term.

1. The 3-month EURIBOR changes as expected

Declining benchmark interest rate



- **Example for the traditional settlement of the Interest Rate Floor Option:**

If the 3-month EURIBOR is higher than 0.00% at the beginning of Q_i , there will be no settlement.

If the 3-month EURIBOR is lower than 0.00% at the elején of Q_i , the customer will receive at the end of Q_i :

$$(0.00\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR -55,000
Q1	-0.42%	EUR 5,250
Q2	-0.59%	EUR 7,375
...
Q7	-1.46%	EUR 18,250
Q8	-1.65%	EUR 20,625

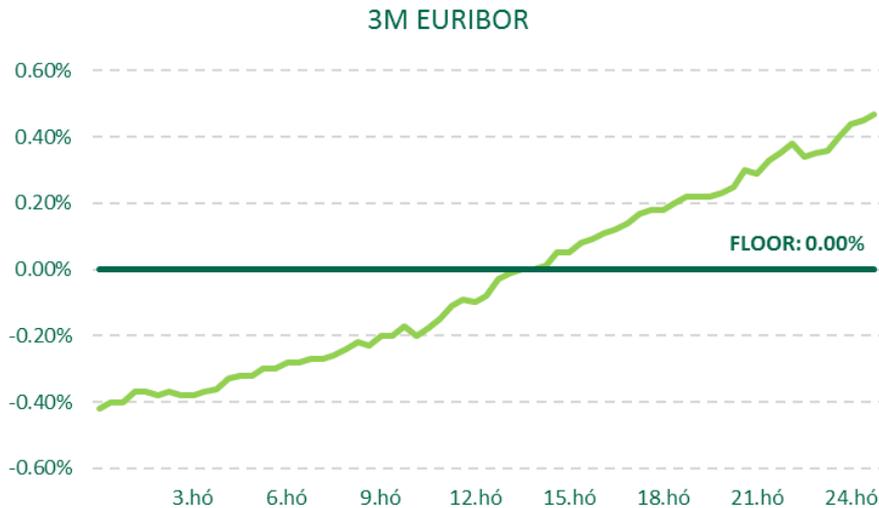
- **Example for closing the Interest Rate Floor Option at the end of Q3:**

In case of closure before maturity, the customer enters into an offsetting contract. If the EUR market rates decline during the term, the interest rate floor contract guaranteeing minimum 0.00% appreciates and thus the customer can sell the option right purchased for EUR 55,000 more expensively; i.e. he can realise a capital gain. Likewise, should the EUR interest rate rise, the interest rate floor transaction will depreciate and selling the option at a lower price results in a loss for the customer.

- **Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

2. The 3-month EURIBOR increases



- Example for the settlement of the Interest Rate Floor Option:**

If the 3-month EURIBOR is higher than 0.00% at the beginning of Qi, there will be no settlement.

If the 3-month EURIBOR is lower than 0.00% at the beginning of Qi, the customer will receive at the end of Qi:

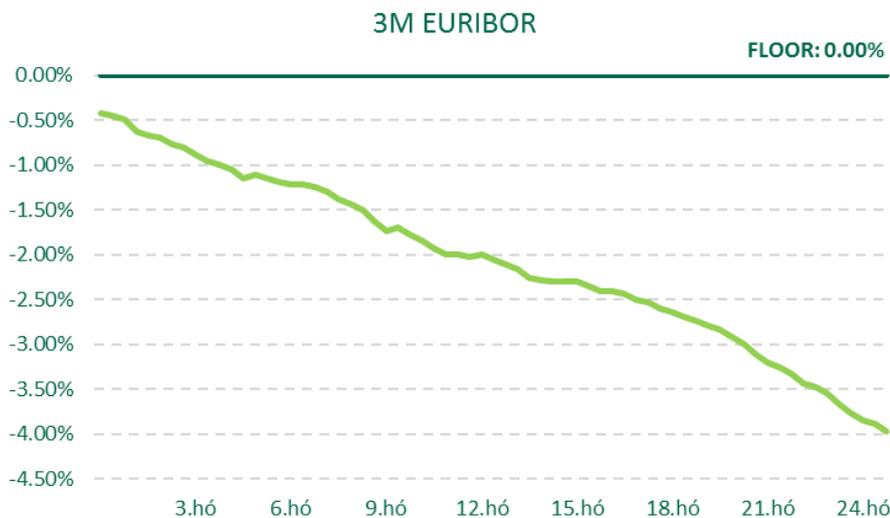
$$(0.00\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) /PAYS (-) at the end of Qi
trade date		EUR -55,000
Q1	-0.42%	EUR 5,250
Q2	-0.38%	EUR 7,375
...
Q7	0.18%	EUR 0
Q8	0.29%	EUR 0

- **Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

3. Extreme fall in the 3-month EURIBOR



- **Example for the settlement of the Interest Rate Floor Option:**

If the 3-month EURIBOR is higher than 0.00% at the beginning of Q_i , there will be no settlement.

If the 3-month EURIBOR is lower than 0.00% at the beginning of Q_i , the customer will receive at the end of Q_i :

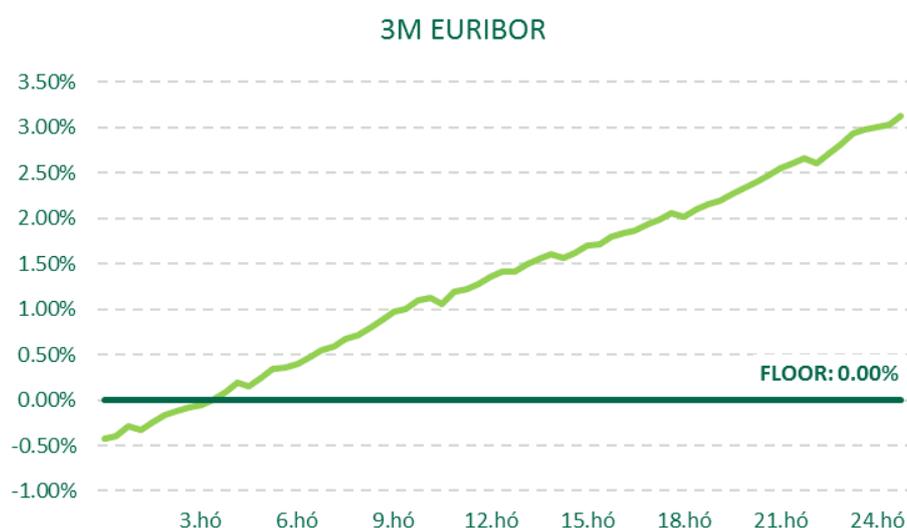
$$(0.00\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		
Q1	-0.42%	EUR 5,250
Q2	-0.88%	EUR 11,000
...
Q7	-2.64%	EUR 33,000
Q8	-3,20%	EUR 40,000

- Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

4. Extreme increase in the 3-month EURIBOR



- Example for the settlement of the Interest Rate Floor Option:**

If the 3-month EURIBOR is higher than 0.00% at the beginning of Qi, there will be no settlement.

If the 3-month EURIBOR is lower than 0.00% at the beginning of Qi, the customer will receive at the end of Qi:

$$(0.00\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR -55,000
Q1	-0.42%	EUR 5,250
Q2	-0.05%	EUR 625
...
Q7	2.02%	EUR 0
Q8	2.55%	EUR 0

- Example for the Collateralisation Requirement:**

When buying an option, the customer must pay the option premium upon the conclusion of the contract; therefore, with respect to this transaction type, he is not required to post collateral during the term.

From the perspective of the customer, a customer with a long Interest Rate Floor Option position will face the greatest risk if the benchmark interest rate rises above the floor. Current estimates are based on a one-off, market stress induced change in the benchmark rate, and do not imply a maximum limit for the potential capital loss arising from the transaction.

5. Interest Rate Collar

The Interest Rate Collar is the simultaneous purchase of an interest rate cap and sale of an interest rate floor option. With the option purchased, the customer protects himself from unfavourable interest rate movements, while with the option sold he reduces the level of the protection premium and in return, restricts his share from favourable interest rate movements. The price of the collar is the difference between the cap and the floor option premium, which means that the desired protection band can be available even at no cost by selecting the right cap and floor levels.

Two starting points – one transaction

- The customer took out a loan of EUR 5 million with a floating interest rate and a maturity of 2 years. Interest is paid retrospectively on a quarterly basis, while principal payment is due in a lump sum at maturity. The annual interest rate of the loan is 3-month EURIBOR + 50 bps. With a view to eliminating the risk deriving from an increase in the benchmark EUR interest rate, the customer wishes to fix his maximum quarterly instalments free of charge.
- The customer expects that the 3-month EURIBOR will not decline significantly over the next two years.

In both cases, the customer buy a 2-year interest rate cap option and sells a floor option.

INTEREST RATE COLLAR PARAMETERS	
Type	Cap buy – Floor sell
Maturity	2 years
Notional value	EUR 5,000,000
3-month EURIBOR	-0.42% (Bloomberg: EUR003M Index)
Interest Rate Floor	-0.75%
Interest Rate Cap	0.10%
Option price (premium)	EUR 0
Settlement	at the end of each quarter

If the customer buys an interest rate cap option and sells a floor option for a term of two years and the 3-month EURIBOR increases, the customer can realise a capital gain upon the closure of the position or upon the settlement

of the transaction. Likewise, should the in the 3-month EURIBOR drop, the loss to be incurred can potentially be unlimited.

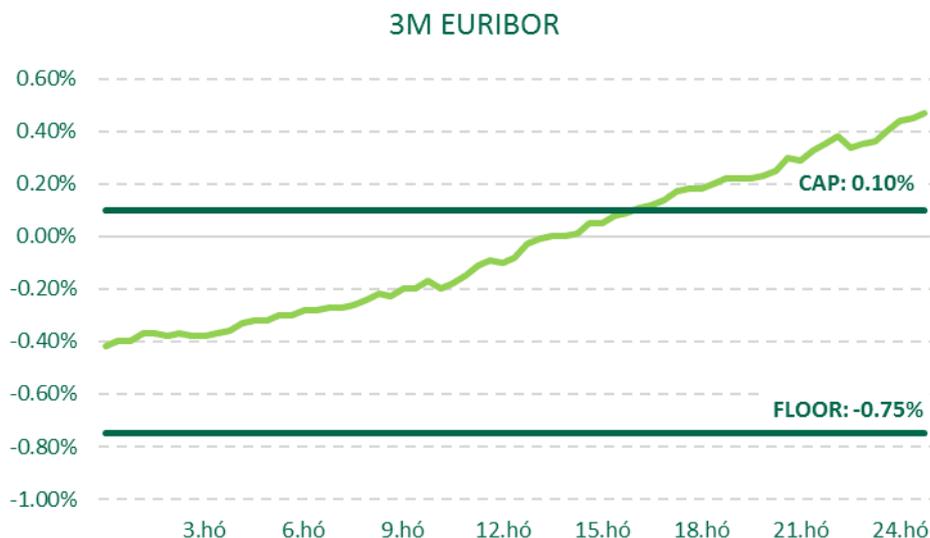
In the example, the customer expects the 3-month EURIBOR to be above 0.10% on the observation days:

The product is presented according to different 3-month EURIBOR scenarios:

1. The 3-month EURIBOR changes as expected, i.e. the benchmark interest rate increases during the term.
2. The 3-month EURIBOR decreases during the term.
3. Extreme increase in the 3-month EURIBOR during the term.
4. Extreme fall in the 3-month EURIBOR during the term.

1. The 3-month EURIBOR changes as expected

Increasing benchmark interest rate



- **Example for the settlement of the Interest Rate Collar:**

If the 3-month EURIBOR is higher than 0.10% at the beginning of Q_i , the customer receives at the end of Q_i :

$$(3\text{-month EURIBOR} - 0.10\%) * \text{EUR } 5,000,000 * 0.25$$

If the 3-month EURIBOR stabilises between 0.10% and -0.75% at the beginning of Qi, there will be no settlement.

If the 3-month EURIBOR is lower than -0.75% at the beginning of Qi, the customer will pay:

$$(-0.75\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR 0
Q1	-0.42%	EUR 0
Q2	-0.38%	EUR 0
...
Q7	0.18%	EUR 1,000
Q8	0.29%	EUR 2,375

- Example for closing the Interest Rate Collar at the end of Q3:**

In case of closure before maturity, the customer enters into an offsetting contract during the term. If the EUR rates increase significantly, the cap option purchased under the interest rate collar appreciates considerably, while the sold floor option depreciates. The net change in the interest rate cap option and the interest rate floor option constitutes the change in the value of the interest rate collar. In general, in the event of a significant rise in the interest rate the value of the interest rate collar purchased free of charge in the above example appreciates; therefore, upon the closure of the position the customer can sell at a higher value; i.e. he realises a capital gain. At the same time, in the event of a decline in the EUR interest rate the value of the interest rate cap option under the interest rate collar above depreciates, while buying back the sold interest rate floor option for the closure becomes more expensive. In the event of a significant decline in the interest rate, the closure of the interest rate collar position purchased free of charge in the above example implies, overall, a payment obligation for the customer; i.e. he incurs a capital loss.

- Example for the Collateralisation Requirement:**

Global Markets customers of the Bank are required to post collateral in order to take written option positions against the Bank; in other words, they must

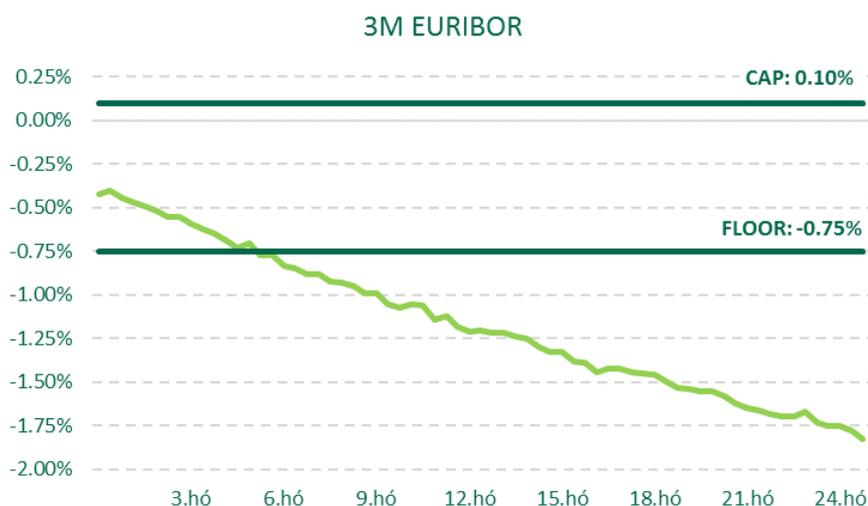
provide sufficient collateral for meeting the initial margin requirement upon the conclusion of the contract. The initial margin requirement means the possible loss arising from rate movements during the period deemed critical by the Bank, which may change during the term of the contract in response to changes in market conditions.

For instance, if the original collateral requirement of the product is 10 per cent of the notional value, the collateral requirement upon the conclusion of the contract will be:

$$\text{EUR } 5,000,000 * 0.1 = \text{EUR } 500,000.$$

The customer will have to provide additional collateral if, due to unfavourable shifts in market rates, the collateral requirement of the customers' transactions that cannot be covered by the pledged collateral exceeds the maximum acceptable limit. In case of adverse price movements, the Bank may require additional margin based on the current fair market value of the interest rate collar transaction, which could increase the collateral requirement significantly. If the customer fails to provide the required additional margin in accordance with the contractual terms despite being called upon by the Bank, the Bank may decide to liquidate the position, which could involve substantial losses for the customer.

2. The 3-month EURIBOR decreases



- **Example for the settlement of the Interest Rate Collar:**

If the 3-month EURIBOR is higher than 0.10% at the beginning of Qi, the customer will receive at the end of Qi:

$$(3\text{-month EURIBOR} - 0.10\%) * \text{EUR } 5,000,000 * 0.25$$

If the 3-month EURIBOR stabilises between 0.10% and -0.75% at the beginning of Qi, there will be no settlement.

If the 3-month EURIBOR is lower than -0.75% at the beginning of Qi, the customer will pay:

$$(-0.75\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR 0
Q1	-0.42%	EUR 0
Q2	-0.59%	EUR 0
...
Q7	-1.46%	EUR -8,875
Q8	-1.65%	EUR -11,250

- **Example for the Collateralisation Requirement:**

Global Markets customers of the Bank are required to post collateral in order to take written option positions against the Bank; in other words, they must provide sufficient collateral for meeting the initial margin requirement upon the conclusion of the contract. The initial margin requirement means the possible loss arising from rate movements during the period deemed critical by the Bank, which may change during the term of the contract in response to changes in market conditions.

For instance, if the original collateral requirement of the product is 10 per cent of the notional value, the collateral requirement upon the conclusion of the contract will be:

$$\text{EUR } 5,000,000 * 0.1 = \text{EUR } 500,000.$$

The customer will have to provide additional collateral if, due to unfavourable shifts in market rates, the collateral requirement of the customers'

transactions that cannot be covered by the pledged collateral exceeds the maximum acceptable limit.

In case of adverse interest rate movements, the Bank may require additional margin based on the current fair market value of the interest rate option, which could increase the collateral requirement significantly. For instance, if the additional margin requirement is 40 per cent of the notional value, the additional margin will be:

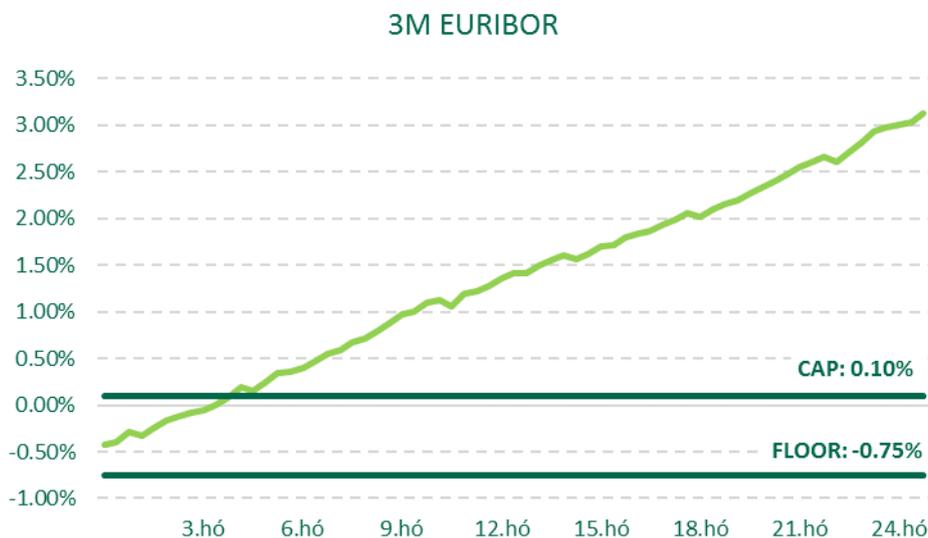
EUR 5,000,000 * 40% = EUR 2,000,000

while the total collateral requirement will be

EUR 500,000 + EUR 2,000,000 = EUR 2,500,000

If the customer fails to provide the required additional margin in accordance with the contractual terms despite being called upon by the Bank, the Bank may decide to liquidate the position, which could involve substantial losses for the customer.

3. Extreme increase in the 3-month EURIBOR



- **Example for the settlement of the Interest Rate Collar:**

If the 3-month EURIBOR is higher than 0.10% at the beginning of Qi, the customer receives at the end of Qi:

$(3\text{-month EURIBOR} - 0.10\%) * \text{EUR } 5,000,000 * 0.25$

If the 3-month EURIBOR stabilises between 0.10% and -075% at the beginning of Qi, there will be no settlement.

If the 3-month EURIBOR is lower than -075% at the beginning of Qi, the customer will pay at the end of Qi:

$$(-075\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+) / PAYS (-) at the end of Qi
trade date		EUR 0
Q1	-0.42%	EUR 0
Q2	-0.05%	EUR 0
...
Q7	2.02%	EUR 24,000
Q8	2.55%	EUR 30,625

- Example for the Collateralisation Requirement:**

Global Markets customers of the Bank are required to post collateral in order to take written option positions against the Bank; in other words, they must provide sufficient collateral for meeting the initial margin requirement upon the conclusion of the contract. The initial margin requirement means the possible loss arising from rate movements during the period deemed critical by the Bank, which may change during the term of the contract in response to changes in market conditions.

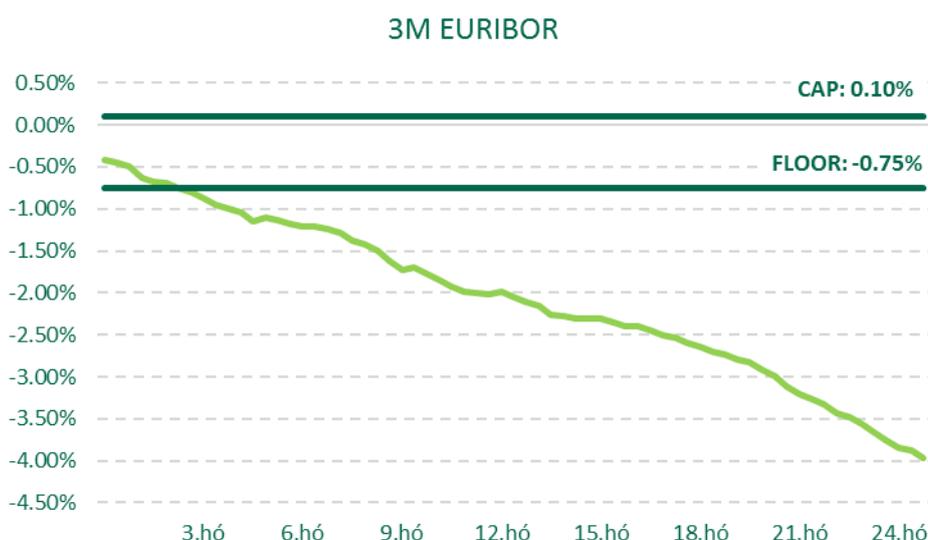
For instance, if the original collateral requirement of the product is 10 per cent of the notional value, the collateral requirement upon the conclusion of the contract will be:

$$\text{EUR } 5,000,000 * 0.1 = \text{EUR } 500,000.$$

The customer will have to provide additional collateral if, due to unfavourable shifts in market interest rates, the collateral requirement of the customers' transactions that cannot be covered by the pledged collateral exceeds the maximum acceptable limit. In case of adverse interest rate movements, the Bank may require additional margin based on the current fair market value of the interest rate collar transaction, which could increase the collateral

requirement significantly. If the customer fails to provide the required additional margin in accordance with the contractual terms despite being called upon by the Bank, the Bank may decide to liquidate the position, which could involve substantial losses for the customer.

4. Extreme drop in the 3-month EURIBOR



- **Example for the settlement of the Interest Rate Collar:**

If the 3-month EURIBOR is higher than 0.10% at the beginning of Qi, the customer will receive at the end of Qi:

$$(3\text{-month EURIBOR} - 0.10\%) * \text{EUR } 5,000,000 * 0.25$$

If the 3-month EURIBOR stabilises between 0.10% and -0.75% at the beginning of Qi, there will be no settlement.

If the 3-month EURIBOR is lower than -0.75% at the beginning of Qi, the customer will pay:

$$(-0.75\% - 3\text{-month EURIBOR}) * \text{EUR } 5,000,000 * 0.25$$

DATE	3-month EURIBOR at the beginning of Qi	CUSTOMER RECEIVES (+)/ PAYS (-) at the end of Qi
trade date		EUR 0
Q1	-0.42%	EUR 0
Q2	-0.88%	EUR -1,625
...
Q7	-2.64%	EUR -23,625
Q8	-3.20%	EUR -30,625

- Example for the Collateralisation Requirement:**

Global Markets customers of the Bank are required to post collateral in order to take written option positions against the Bank; in other words, they must provide sufficient collateral for meeting the initial margin requirement upon the conclusion of the contract. The initial margin requirement means the possible loss arising from rate movements during the period deemed critical by the Bank, which may change during the term of the contract in response to changes in market conditions.

For instance, if the original collateral requirement of the product is 10 per cent of the notional value, the collateral requirement upon the conclusion of the contract will be:

$$\text{EUR } 5,000,000 * 0.1 = \text{EUR } 500,000.$$

The customer will have to provide additional collateral if, due to unfavourable shifts in market rates, the collateral requirement of the customers' transactions that cannot be covered by the pledged collateral exceeds the maximum acceptable limit.

In case of adverse interest rate movements, the Bank may require additional margin based on the current fair market value of the interest rate option, which could increase the collateral requirement significantly. For instance, if the additional margin requirement is 40 per cent of the notional value, the collateral requirement will be:

$$\text{EUR } 5,000,000 * 40\% = \text{EUR } 2,000,000,$$

while the total collateral requirement will be:

$$\text{EUR } 500,000 + \text{EUR } 2,000,000 = \text{EUR } 2,500,000$$

If the customer fails to provide the required additional margin in accordance with the contractual terms despite being called upon by the Bank, the Bank

may decide to liquidate the position, which could involve substantial losses for the customer.

From the perspective of the customer, a customer with a long Interest Rate Collar position will face the greatest risk if the benchmark interest rate drops below the floor. Current estimates are based on a one-off, market stress induced change in the benchmark interest rate, and do not imply a maximum limit either for the collateral requirement or for the potential capital loss arising from the transaction.

6. Summary of the advantages and disadvantages of interest rate options

Main advantages of the transaction

- Interest rate options can offer protection for interest rate, credit and liquidity management activities.
- Customers can protect themselves from the interest rate risk while also benefiting from potential favourable movements in the yield curve.
- The customer can typically conclude an interest rate option against a low collateral requirement, and control high-value positions with relatively small capital investment.
- Upon the customer's request, an interest rate option position can be closed by an offsetting contract during the term.

Main risks of the transaction

- For buying the option, the premium must be paid in advance.
- Selling the option entails a performance obligation on the customer's part: he must settle the difference even if the interest rate levels are higher/lower than the fixed threshold; i.e. he could incur unlimited capital losses.
- If the customer closes the position with an offsetting contract during the term, depending on the prevailing market conditions, he could incur unlimited losses.
- If, for any reason, the collateral pledged by the customer is deemed insufficient by the Bank to cover the financial risk of the positions opened and held by the customer, the Bank may require additional margin. Upon the Bank's call, the customer is required to provide the additional margin in accordance with the contractual terms, and any losses sustained as a result will be borne exclusively by the customer. If the customer fails to provide the required additional margin in accordance with the contractual terms despite being called upon by the Bank, the Bank may decide to liquidate the position, which could involve substantial losses for the customer. Liquidation costs, potential capital losses and the consequences of the failure of liquidation shall be borne exclusively by the customer.

7. Miscellaneous information

Prerequisites for access to interest rate options

- Agreeing to the Sales Terms and Conditions of OTP Bank Plc.'s Global Markets Department, concluding the attached Global Markets Framework Agreement, and, for customers subject to EMIR obligations, an ISDA Master Agreement and Credit Support Annex for Variation Margin Agreement with the Bank, and signing any other required documents
- Concluding agreements for payment accounts denominated in the settlement currency of the transaction
- Posting collateral as specified by the Bank
- Providing all data required for obtaining preliminary information pursuant to Act CXXXVIII of 2007 on Investment Firms and Commodity Dealers, and on the Regulations Governing their Activities (hereinafter: Act on Investment Firms), and filling out the fitness/compliance test prescribed by the Act on Investment Firms

Guarantees linked to interest rate options

Coverage available under the National Deposit Insurance Fund (OBA) and the Investor Protection Fund (BEVA) is not applicable to OTC foreign exchange options.

Fees and charges related to interest rate options

The Bank's quotation pertaining to interest rate option includes all direct fees and charges. It does not include any indirect costs related to obtaining and holding the financial instrument or to the conclusion, maintenance and performance of the contract (e.g. fee, commission, tax, account management).

Tax implications of interest rate options

OTP Bank Plc. makes the tax payments prescribed by prevailing regulations for the payment agent, which may involve liabilities of various degrees, depending on the taxation law status of the beneficiary (e.g. tax residency) and the legal title of income earning. In performing its tax payment obligations as a payment agent, OTP Bank Plc. issues a voucher on the payment and, as required by law, calculates, deducts, pays and issues a tax return on the tax liability on the payment, and fulfils its reporting obligation with respect to the payment toward the tax authority. Please note that adequate information regarding the tax treatment or the tax implications may only be provided in consideration of the individual circumstances of each customer and may be subject to change in the future.

Miscellaneous information

For further general information please refer to OTP Bank Plc. Uniform Prior Information, the Sales Terms and Conditions of the Global Markets Department of OTP Bank Plc. and the announcements attached thereto, the Global Markets Framework Agreement and the List of Conditions, the Investment Services Division Business Regulations, the Information for Clients on MiFID, the General Information on Short Selling, the EMIR Announcement and any other notices referenced therein as well as Annexes thereto, all of which are accessible at the Bank's website at <http://www.otpbank.hu> or are available upon request at the branches of OTP Bank Plc.

8. Notices and disclaimers

1. This product information is complete with the following documents of OTP Bank Plc. as inseparable annexes hereto:

- Preliminary Announcement on certain Global Markets services rendered by at the Global Markets Department of OTP Bank Plc.; individual product information materials and any documents attached thereto along with all referenced business terms and notices;
- Uniform Prior Information;
- Information for Clients on MiFID;
- General Information on Short Selling;
- Announcement on compliance with certain provisions of the EMIR – in respect of investment services;
- Sales Terms and Conditions of OTP Bank Plc.'s Global Markets Department, documents attached thereto along with all referenced notices, Global Markets Framework Agreement along with any other relevant and required documents;
- Investment Services Division Business Regulations along with any other business terms and notices referenced therein, as well as annexes thereto;
- General Business Terms and Conditions of OTP Bank Plc. and documents attached thereto along with all referenced notices;
- Prospectuses, base prospectuses, notices, as well as regular and extraordinary announcements published by the issuer or the broker in relation to individual financial instruments.

Please read all of the above documents and any other notices referenced or indicated therein in order to ensure that you can make informed decisions, in full awareness of all information pertaining to the transactions presented in this Product Information. Moreover, before making an informed decision about the use of the investment or the service, please be advised to carefully consider the subject and risk of your investment, the associated fees and charges and the possibility of potential losses, and to obtain information regarding the tax regulations pertaining to the product or the investment. Prices of financial instruments and securities are subject to change. Spot trades are transacted at the current exchange rate, which may involve a capital loss.

2. The publication of this Product Information and its transfer to customers do not constitute an offer, investment advise, tender notice, investment consulting, investment or financial analysis, solicitation for the purchase of any financial instrument, or any other kind of advice on legal, tax, or accounting issues, and the data provided herein are provided for informational purposes, intended solely as the provision of advance information to OTP Bank Plc.'s current and future customers as required by law. The contents of this information document are limited to general information and knowledge and as such, it disregards the unique or specific needs of individual customers and their willingness and ability to take risk; therefore, in case of any questions, please contact our staff or refer to your bank consultant before making an investment decision. Should you require investment advice from OTP Bank Plc. prior to making your decision, please contact our staff with a view to concluding an investment counselling agreement and making the necessary statements (particularly a suitability test).

3. Each investment carries certain risks that can affect the outcome of the investment decision, and investors may not necessarily realise their expected investment goal or recover their cost of the investment; accordingly, some or all of the invested capital may be lost, and may also incur additional payment obligations.

4. Before entering into a contract for the execution of the transaction contained in this Product Information, OTP Bank Plc. will provide detailed information in respect of the transactions regarding their risks, market position, volatility and any limitations that may apply to market entry, changes in prices, as well as any other information relating to the transactions contained herein.

5. All data and information contained herein are based on estimates and no reliable conclusions may be made concerning prospective future yields, changes or performance in reliance hereon. All charts and calculations are intended to be examples, presenting potential future situations. No information contained herein may be perceived as demonstrations of particular transactions even if client is involved in transactions identical or similar to those contained herein. No estimates may be made based on the data contained herein concerning either the current or the future level of interest rates, or expected interest rate developments. The data contained herein do not constitute information on the changes or performance of particular financial instruments, whether past or future. Any risks associated

with the specific, individual decisions made in reliance on the contents of this Product Information shall be borne solely by the investor, and OTP Bank Plc. shall not be held liable either for the success of the investment decisions or the achievement of the goals set by the investor.

6. OTP Bank Plc. does not act as a fiduciary for or an advisor to any prospective purchaser of the financial instruments discussed herein. Please note that the conclusion of a given contract and the submission of orders may involve further obligations, such as the collateral requirement of the transaction or the provision of supplementary collateral, and a failure to meet such obligations in accordance with the relevant provisions of the contract could result in losses upon the closure of the position. If the specific financial instrument is traded on the regulated market, please consult the websites of the competent regulated market and clearing house to obtain further information and data on the applicable trading terms and settlement.

7. In regard to individual products and services, please also consider their consequences on tax treatment or any other tax implications, which can only be determined taking effective regulations and the individual circumstances of the customer into account, and may be subject to changes in the future. Unless otherwise indicated, yields presented in this publication are gross, non-annualised yields, which may be reduced by taxes in accordance with the effective regulations.

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9. This document has been prepared based on information available to OTP Bank Plc. at the date of preparation. Although this Product Information was prepared in good faith from sources that OTP Bank Plc. believes to be reliable, the Bank does not represent or warrant their accuracy and the data thus obtained may be incomplete or inaccurate.

10. The business terms, announcements, lists of conditions and product descriptions containing the detailed terms, conditions and fees of the products and services are available at our branches, at the Customer Desk while using OTP Bank Plc.'s Global Markets services, and on the Bank's website at www.otpbank.hu.

11. The Bank reserves the right to change the terms contained herein. The contents of this document are subject to change without notice. Please monitor any changes that may be made to this document.

12. OTP Bank Plc. (company registration number: 01-10-041-585; registered seat: H-1051 Budapest, Nádor utca 16; supervisory authority: Magyar Nemzeti Bank – H-1013 Budapest, Krisztina krt. 39; HFSA license numbers: III/41.003-22/2002 and E-III/456/2008). All rights reserved. The contents of this Product Information are owned exclusively by OTP Bank Plc. and may not be reproduced, re-used, disseminated or re-transmitted without OTP Bank Plc.'s prior written consent, including any references thereto or incorporation thereof in any other website (service).