



## Description of Risk Related to Financial Market Instruments

### Introduction

The purpose of this document is to provide the Customer - that is classified by the Bank, in accordance with the MiFID Directive<sup>1</sup>, to the category of retail customers or professional customers or eligible counterparties - with a general description of the nature of financial instruments of the OTC market and risks related to investing in these instruments.

This document is neither any form of investment advice (nor any other form of advice), nor a recommendation on transactions made with respect to financial instruments it refers to.

Prior to a transaction conclusion, each Customer should consider, on its own, whether such a transaction reflects his/her knowledge and experience as regards products, financial standing and objectives set and, if necessary, should seek professional advisory services.

### A. General rules

#### A.1. Money market instruments and derivative instruments

##### A.1.1. Money Market Instruments

Money market instruments are financial instruments that entail cash flow related to the notional amount. Examples include FX spot transactions, loans, deposits, shares and bonds.

##### A.1.2. Derivative Instruments (Derivatives)

A derivative instrument is a financial instrument whose value depends on or derives from one (or more) underlying asset(s). The most popular underlying assets are shares, bonds, goods, currencies, interest rates and market indexes. Derivative instruments can be classified according to their trading market into listed instruments and Over-The-Counter (OTC) instruments.

#### A.2. Types of derivative instruments

The most popular basic types of derivative instruments are the following:

**FX Forward** – a contract concluded by and between two parties for a purchase or sale of a currency on a specific date in the future and at a specified price.

**Swap contract** – a swap is an agreement between two parties concerning an exchange of payments related to an underlying instrument at a predefined time.

**Call option** – a contract that gives a holder the right (but not an obligation) to buy a specific amount of underlying instruments (underlying asset) at a specific price and on a predefined term or date. For acquisition of the right, the buyer pays a premium to the seller.

**Put option** – a contract that gives a holder the right (but not an obligation) to sell a specific amount of underlying instruments (underlying asset) at a specific price and on a predefined term or date. For acquisition of the right, the buyer pays a premium to the seller.

**Cap option** – a contract that gives a holder the right (but not an obligation) to receive from the option seller an amount of a difference between the level of market interest rate and the level agreed in the transaction of the Cap exercise rate, where the market interest rate is higher than the Cap exercise rate. For acquisition of the right, the buyer pays a premium to the seller.

**Floor option** – a contract that gives a holder the right (but not an obligation) to receive from the option seller an amount of a difference between the level of the Floor exercise rate agreed in the transaction and the level of market interest rate, where the market interest rate is lower than the Floor exercise rate. For acquisition of the right, the buyer pays a premium to the seller.

**Non-standard (exotic) options** – options with individual features are called exotic options. The most common features are the following:

**Knock Out/Reverse Knock Out** – “knock-out” (deactivating barrier) type option ceases to function as a standard option if a specific price level (barrier) is reached over a certain time period or at the option expiry date.

**Knock In/Reverse Knock In** – “knock-in” (activating barrier) type option starts to function as a standard option if a specific price level (barrier) is reached over a certain time period or at the option expiry date.

**Asian options** – an Asian option is an option whose pricing, settlement value or exercise rate depend on the average value of the underlying asset over a specific period of time.

#### A.3. Other issues related to the risk of derivative instruments

##### A.3.1. Manner of Option Exercise

Option seller is exposed to unlimited losses as s/he has an obligation towards the buyer. The option seller receives a premium from the buyer. Option buyer pays a premium to obtain the right stipulated by the option transaction terms, and his/her loss is limited to the amount of the premium paid. It does not apply to a loss of potential, alternative benefits.

According to their manner of exercise, options are classified into:

**European options:** the option holder may exercise the option only at a predefined date (exercise date).

**American options:** the option holder may exercise the option at any date during the term of the option contract.

**Window options:** the option holder may exercise the option in the period defined in the transactions terms.

##### A.3.2. Hedging transactions

Hedging transactions are entered into in order to minimise or offset financial risks which may occur as a result of customers' financial or commercial activity. Risks that are most often hedged against include an FX risk, interest rate risk, energy and commodity market prices risk, stock market price risk and credit risk.

The Customer can hedge against the identified financial risks in full or in part. The Customer may choose not to use any hedge at all and remain fully exposed to risks. It is the Customer's decision whether to hedge against financial risk or not.

Only the Customer is fully aware of his/her financial standing and possible risks, therefore the BNP Paribas Bank Polska S.A. will rely on the Customer's instructions and information provided by him/her regarding the purpose of a financial transaction (hedging transaction or investment).

### **A.3.3. Leverage Effect**

By purchasing e.g. a call option you can make profit equal to the one made on the purchase of the underlying instrument but the amount invested is much smaller considering that the value of a derivative (premium) is only a fraction of the value of the underlying instrument.

The leverage mechanism works both ways, which means that if the valuation of the underlying assets decreases (e.g. the exchange rate changes), the percentage change in the value of the option may be much higher than the percentage change in the value of the underlying assets.

The leverage effect can be observed also in option strategies, where the value of the whole strategy will be affected by the proportion of notional values of options purchased and sold.

### **A.3.4. Swap points**

Each currency transaction quoted for a settlement date other than an immediate date (spot, i.e. two business days after a transaction conclusion date) is subject to adjustment by the amount of swap points. Swap points (forward) mean a negative or positive amount resulting from: (i) the difference in interest rates of currencies comprising the quoted pair of currencies (amount of the quoted currency per unit of the base currency), (ii) the duration of the transaction and (iii) the level of a spot rate. For a forward transaction, whose the settlement date falls two business days after the transaction date, in a situation in which the interest rate of the base currency is lower than the interest rate of the quoted currency, the swap points assume positive values (quoting at a premium, i.e. the forward rate is higher than the spot rate). For the same type of transaction, in a situation in which the interest rate of the base currency is higher than the interest rate of the quoted currency, the swap points assume negative values (quoting at a discount, i.e. the forward rate is lower than the spot rate).

## **A.4. Hedge Accounting**

This document does not define the rules of application of hedge accounting nor does it explain how and when they should be applied. To better understand hedge accounting, the Customer may refer to the accounting standards applied.

## **B. Definition of different risk types**

Below, we present a list of the most frequent risks related to financial transactions.

### **B.1. Risk Categories**

#### **B.1.1. Market Risk or Price Change Risk:**

a risk that fluctuations of the price of a financial instrument resulting from the change of market factors (such as interest rates, FX rates, indexes) may have a negative impact on the financial results generated.

FX rates and interest rates, similarly to other market factors (indexes, commodity prices), depend on the general macroeconomic situation and economic situation, likewise are affected by changes in behaviour of other participants on the money market. Expectations of other market participants, the policy they apply and arbitration (speculative) transactions they conclude may have a material impact on the level and fluctuation of market factors (price parameters), and therefore on the valuation of financial instruments and financial results generated.

For some transactions the market risk is linear in nature, which means that variations of FX rates or interest rates can be proportionally reflected in the value of concluded transactions and therefore in their results. However, the risk may also be non-linear. In this case a change in the value of instruments is higher or lower than the variation of an FX rate or interest rate and it does not change proportionally following the variation of an interest rate or FX rate.

**Basic market risk categories are the following:**

**FX Risk:** a risk that a change in the price of one currency against other currency (or currencies) may have a negative impact on the valuation of a transaction, and in consequence, on the Customer's financial results that include the result of this valuation. Price of a currency is expressed as the exchange rate of the currency against other currencies.

**Interest Rate Risk:** a risk that changes in domestic or foreign interest rates may have a negative impact on the value of a transaction, and in consequence, on the Customer's financial results. Interest rate risk concerns mainly instruments whose value (valuation) depends directly on interest rates, i.e. IRS, CIRS contracts as well as CAP and FLOOR options. In addition, a level of interest rates have an impact on the value of all financial instruments.

**Commodity Price Risk:** a risk that a change in a commodity price may have a negative impact on the valuation of a transaction, and in consequence, on the Customer's financial results that include the result of this valuation.

#### **B.1.2. Liquidity Risk:**

a risk arising from the fact that there is either no possibility or only a limited possibility of trading in a financial instrument that cannot be purchased or sold at any time or that the transaction exercise price significantly differs from the price that could be obtained in a fully liquid market. An increased liquidity risk may occur in particular in the event of recession.

There is a risk that in the event the Customer wants to close a transaction before its initially agreed term, such an early transaction termination will be considerably difficult, it will require time or will involve additional costs to be incurred the Customer (in particular, including costs resulting from differences (spread), negative for the Customer, between the buy and sell prices of specific instruments) or losses (early transaction termination may result in the transaction valuation which, depending on market factors, may be adverse for the Customer at the given time). Specifically, an early exit from the investment may be made at the price which for the Customer may be worse than the price arising from the current market valuation of the transaction which was presented to the Customer.

#### **B.1.3. Risk of the need to establish collateral:**

Every day the Bank determines the value of instruments underlying transactions, depending on FX rates, interest rates and other market parameters. If the valuation of transaction made with a Customer is negative (from Customer's point of view), the Bank may ask the Customer to establish collateral. Its type and value is determined by the Bank, pursuant to the rules defined in regulations and agreements used for a given transaction type.

The Customer will be requested to complement the required value of collateral in the case when the negative valuation of a transaction concluded aggravates.

#### **B.1.4. Counterparty Credit Risk:**

a risk that a counterparty with whom the transaction was concluded, or the financial instrument issuer (which is the Bank with respect to the Customer), will not be able to/ will not fulfil its obligations. The risk includes in particular the Bank's bankruptcy risk. When entering into derivative instrument contracts, the Bank considers the risk of its counterparties and, depending on the risk assessment, asks for establishment of collateral.

The following counterparty risk categories can be identified:

**Default on Credit Obligations:** a situation in which, before the contractual settlement period, the other party to the transaction refuses to fulfil its obligations, including those resulting from transactions with other counterparties, e.g. due to its poor financial standing.

Risk of default on credit obligations by a counterparty is strongly correlated with market risk – it can be assumed that for the same transaction type, higher market risk entails higher counterparty risk.

**Default on Obligations on Settlement Date (Settlement Risk):** a risk that one party fails to fulfil the contract terms and conditions towards the other party on the contract settlement date. Depending on the instrument type, there will be either no exchange of settlement amounts or no settlement through the difference in obligation amounts (the party of higher obligations will not pay the difference).

**B.1.5. Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer entails incurring a commitment towards the Bank, which may in particular consist in: payment for the currency purchased, payment of a premium or a settlement amount (amount unspecified in advance), or the need to deliver the currency sold.

**B.1.6. Risk of Hedging Mismatch:**

means deteriorated effectiveness of the hedging transactions concluded, as a result of a mismatch between a transaction or a group of transactions (the so-called strategies) and the activity hedged against. The hedging mismatch may result from differences in value, settlement time or currency between the secured cash flows and those generated by hedging instruments.

For example, if the Customer uses the FX hedging transactions, e.g. the FX forward transactions or FX options, and dates or amounts of these FX transactions are mismatched with the Customer's actual currency flows, it will result in no hedge against the FX risk.

Please note that hedging transactions will have to be settled irrespective of whether they are covered by flows from the business activity (which is hedged).

**B.1.7. Risk of an early transaction closing unilaterally by the Bank:**

risk of a unilateral early transaction closing consists in a risk that the Bank unilaterally terminates the transaction earlier, in cases determined in the relevant agreement and regulations (in particular, in Events of Default). Such an early transaction termination will involve additional costs to be incurred by the Customer (specifically, the costs resulting from differences (spread), negative for the Customer, between the buy and sell prices of specific instruments and the obligation to cover the Bank's costs) or losses (early transaction termination may result in the transaction valuation which, depending on market factors, may be adverse for the Customer at the given time). Specifically, an early exit from the investment may be made at the price which for the Customer may be worse than the price arising from the current market valuation of the transaction which might have been presented to the Customer.

**B.1.8. Political Risk and Legal Risk:**

a risk of a negative impact of political changes in the country and activities of other countries undertaken towards the country in which the transactions are made. Also the risk of amendments to tax and custom regulations, ownership rights or rules of profit repatriation; or failure to comply with them. Changes in the legal system or unlawful actions may lead to deterioration of the economy parameters, and thus may adversely affect the valuation or settlement of the transaction.

**B.1.9. Force Majeure:**

are risks or circumstances beyond human control that affect the activities pursued and cannot be foreseen.

**B.1.10. Operational Risk:**

a risk related to the possibility of system failures, staff or procedural problems and intentional actions of persons representing the parties to the transaction or third parties, aimed at obtaining illegal profit which indirectly or directly may impact the parties and/or transaction parameters.

**B.1.11. Reinvestment Risk:**

a risk that in the future a rate of return on the reinvestment in the financial instrument will not be possible to reach under the conditions currently available in the market. This risk may in particular relate to hedging transactions which cannot be concluded under the same conditions as the originally concluded transactions.

**B.1.12. Tax Risk:**

a risk that the Customer's tax settlements may be questioned by tax authorities. To minimise this risk, the Bank recommends Customers to turn to a tax advisor for assistance in determination of tax consequences related to the purchase of financial instruments.

**B.1.13. Inflation Risk:**

a risk that inflation will have a negative impact on the rate of return on the transaction made. This risk means that due to inflation the amount received on the transaction settlement date may have a lower purchasing power (it will not be possible to purchase the same goods) than on the transaction conclusion date.

The categories above refer to basic risk types related to financial instruments of the OTC market, offered by the Bank. However, it cannot be excluded that in some circumstances categories of risk that are not described above will occur, or that those presented will have a greater impact on the standing of particular Customers.

Risk descriptions included in this document mainly refer to single transactions (instruments). When several transactions that make up the so-called structures or strategies (e.g. option structures) are concluded at the same time, the ensuing risk profile can considerably differ from the single transaction risk profile. In specific cases it may mean a higher risk borne by the Customer.

## C. Products (Description and Risks)

Descriptions of specific instrument types presented below do not cover all risks related to their purchase. Categories presented below should be considered important, however not as the only ones resulting from the conclusion, holding or settlement of specific transaction types. The Bank has exercised due diligence so that the presented descriptions are in line with the transaction terms defined in agreements and regulations that govern the basic rights and obligations of the Parties arising from the transactions concluded. Should there be any doubts or discrepancies, the terms defined in product regulations and agreements, including master agreements on particular products, should be considered primary.

### C.1. FX Instruments

**C.1.1. FX Forward transactions, Non-Deliverable-Forward transactions (NDF transactions), Flexitem Forward transactions.**

**Description:**

By entering into an FX Forward transaction, the seller sells the transaction amount to the buyer, while the buyer buys it for the amount that is equivalent to the transaction amount denominated in the settlement currency, calculated at the exchange rate determined in the transaction.

For the NDF transaction - net settlement of a payment amount equal to the product of the transaction amount and the absolute value of the difference between the set exchange rate and the reference rate - is made on a settlement date. In the event that the exchange rate on the fixing date is higher than the reference rate, the Buyer shall pay the payment amount to the Seller on the settlement date; nevertheless, if the exchange rate on the fixing date is lower than the reference rate, the Seller shall pay the payment amount to the Buyer on the settlement date.

FX Forward / NDF transaction settlement date falls not earlier than on the third business day following the transaction conclusion date.

By entering into a Flexitem Forward Transaction, at any moment of the exchange period, upon notifying the Bank about the willingness to make a partial settlement of the Flexitem Forward Transaction, the Customer has the right to buy the Transaction Currency from the Bank (in the event the Customer is the Buyer) or sell it to the Bank (in the event the Customer is the Seller), respectively, in the amount equal to at least the Minimum Exchange Amount, in exchange for the Settlement Amount payable on the appropriate Settlement Date. If on the Automatic Exchange Date, the difference between the Notional Amount agreed upon in the Transaction Terms and the Notional Amount / the total of Notional Amounts which is/are partially settled on the Exchange Date(s) differs from zero, the Customer is obliged to buy from the Bank (in the event the Customer is the Buyer) or sell to the Bank (if the Customer is the Seller), respectively, of the Transaction Currency in the amount equal to the difference between the Notional Amount agreed upon in the Transaction Terms and the Notional Amount / the total of Notional Amounts which is/are partially settled on the Exchange Date(s), in exchange for the Settlement Amount payable on the Settlement Date appropriate for the Automatic Exchange Date.

**Pros:**

- FX market is very liquid.
- The possibility to choose many currencies.
- By choosing the settlement date, forward FX transactions can be tailored to individual needs.

**Cons:**

- the transaction is unconditional, whereas FX rate is fixed. It means that one cannot withdraw from the transaction and settlement is made under conditions set at the transaction conclusion date. One cannot take advantage of a possible favourable change of FX rates on the market.
- Due to the fact that particular contracts are tailored to Customers' individual needs and that these instruments are not traded on the exchange, the availability of transaction valuation may be temporarily limited.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

**Risks:**

**Market Risk:** FX risk depends on the level and fluctuations of an exchange rate of a currency pair.

**Liquidity Risk:** Liquidity risk is limited for major currencies, such as: EUR, USD, JPY, GBP and PLN.

**Counterparty Risk:** a change of market terms can give rise to a risk of withdrawal of a little-creditworthy counterparty from the fulfilment of obligations as at the transaction settlement date. Generally, the longer transaction term, the higher the counterparty risk.

**Risk of the need to establish collateral:** risk of the need to establish cash collateral by the Customer where a negative valuation exceeds the level determined in a contract.

**Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer entails incurring a commitment towards the Bank, which may consist in (i) the need to pay for the currency delivered or (ii) the need to pay the settlement amount, or (iii) the need to deliver the sold currency.

**Inflation Risk:** described under B.1.13

**C.1.2. FX Swap****Description:**

By entering into an FX Swap, the Parties shall conclude two currency transactions for the purpose of the initial exchange and the final exchange; the latter is opposite to the initial exchange in terms of direction. The settlement date, both for the initial and final exchange, can be the Transaction conclusion date (FX Today), or the business day falling immediately after the Transaction conclusion date (FX Tomorrow), the second business day falling after the Transaction conclusion date (FX Spot), or the business day falling not earlier than on the third business day after the Transaction conclusion date (FX Forward).

**Pros:**

- FX market is very liquid.
- The possibility to choose many currencies.
- By choosing the settlement date, FX Swap can be tailored to individual needs.

**Cons:**

- the transaction is unconditional, whereas FX rates are fixed. It means that one cannot withdraw from the transaction and settlement is made under conditions set at the transaction conclusion date. One cannot take advantage of a possible favourable change of FX rates on the market.
- Due to the fact that particular contracts are tailored to Customers' individual needs and that these instruments are not traded on the exchange, the availability of transaction valuation may be temporarily limited.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

**Risks:**

**Market Risk:** FX risk depends on the level and fluctuations of an exchange rate of a currency pair.

**Liquidity Risk:** Liquidity risk is limited for major currencies, such as: EUR, USD, JPY, GBP and PLN.

**Counterparty Risk:** a change of market terms can give rise to a risk of withdrawal of a little-creditworthy counterparty from the fulfilment of obligations as at the transaction settlement date. Generally, the longer transaction term, the higher the counterparty risk.

**Risk of the need to establish collateral:** risk of the need to establish cash collateral by the Customer where a negative valuation exceeds the level determined in a contract.

**Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer entails incurring a commitment towards the Bank, which consists in the need to pay for the currency purchased and the need to deliver the currency sold.

**Inflation Risk:** described under B.1.13

### C.1.3 Currency put and call options

#### Description:

**Vanilla Call Option** Through the conclusion of a call option, the option buyer acquires the right to purchase, on the exercise date, from the option seller, and the option seller undertakes to sell, the notional amount for the settlement amount representing its equivalent in the settlement currency computed at the exercise rate. In exchange for the acquisition of the above right, the option buyer shall pay the option seller a premium on the premium payment date.

**Vanilla Put Option** Through the conclusion of a put option, the option buyer acquires the right to sell, on the exercise date, to the option seller, and the option seller undertakes to buy, the notional amount for the settlement amount representing its equivalent in the settlement currency computed at the exercise rate. In exchange for the acquisition of the above right, the option buyer shall pay the option seller a premium on the premium payment date.

In the case a call or put option is not exercised by its holder (e.g. for out-of-the-money option), the option expires without settlement.

#### Knock-In Barrier Option

Through the conclusion of a Knock-In barrier option, the option buyer acquires the right to exercise a specified underlying option on the condition that in the barrier period, the barrier reference rate reaches the barrier level. When the above-mentioned condition fails to be met, the option expires.

#### Double-Knock-In Barrier Option

Through the conclusion of a Double-Knock-In barrier option, the option buyer acquires the right to exercise a specified underlying option on the condition that in the barrier period, the barrier reference rate reaches at least one of the two barrier levels. When the above-mentioned condition fails to be met, the option expires.

#### Knock-Out Barrier Option

Through the conclusion of a Knock-Out barrier option, the option buyer acquires the right to exercise a specified underlying option on the condition that in the barrier period, the barrier reference rate does not reach the barrier level. When the above-mentioned condition fails to be met, the option expires.

#### Double-Knock-Out Barrier Option

Through the conclusion of a Double-Knock-Out barrier option, the option buyer acquires the right to exercise a specified underlying option on the condition that in the barrier period, the barrier reference rate does not reach any of the two barrier levels. When the above-mentioned condition fails to be met, the option expires.

#### Exotic (Asian) Option

Currency option (call or put), whose reference exchange rate (for Average Rate Options) or strike price (for Average Strike Options) is determined as a (weighted) arithmetic mean or (weighted) geometric mean of the underlying exchange rate in the period defined in the transaction terms. Because an average exchange rate is applied, Asian options are considered to be less sensitive to short-term fluctuations in market foreign exchange rates.

#### Pros:

- Can be used as hedging against FX Risk;
- The potential profit is practically unlimited for both the call option buyer and the put option buyer.
- For the option buyer, a potential loss is limited to the full amount of the premium paid, both for the call option buyer and the put option buyer.

#### Cons:

- Currency option seller is exposed to unlimited losses in the case of both call and put options. It refers in particular to cases when an option has not been used properly for hedging purposes. The option buyer incurs the premium cost.
- Option valuation depends on the so-called implied volatility, a market parameter, the level of which may not be available for the Bank's Customers.
- Due to a considerable diversity of options offered and the fact that these instruments are not traded on the exchange, the availability of transaction valuation may be limited.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

#### Risks:

**Market Risk:** Market Risk depends mainly on (i) expected exchange rate fluctuations of two currencies (foreign exchange rate is an underlying instrument), (ii) time to settlement, and usually to a smaller extent, on (iii) interest rates for the transaction currencies.

In the case of options, fluctuations of foreign currency rates directly affect the transaction value. It can be accepted as a rule that the greater the fluctuations, the higher the risk incurred by the option writer and the higher the option purchase price.

The risk incurred by the seller of call and put options is unlimited.

For barrier options, option valuation is very sensitive to changes in the reference rate, in particular when it is near the barrier level.

Option market risk translates directly into the counterparty risk level. It results from the fact that a positive market valuation of an option at the moment of its settlement leads to a need to pay the valuation amount by the option writer (seller).

**Liquidity Risk** is usually limited for transactions based on exchange rates for the most important currencies such as: EUR, USD, JPY, GBP or PLN. Liquidity risk may be higher for the so-called exotic options (e.g. barrier, Asian ones), which are traded on the market less frequently than simple vanilla options.

**Counterparty Risk:** A risk that a counterparty will not be able to/will not fulfil its obligations.

#### Currency options purchase

The maximum loss for the buyer of the (call or put) option is equal to the amount of the premium paid. Nevertheless, if the option seller refuses the option holder exercising an option, the option holder loses potential benefits, which he/she could have gained.

#### Currency options sale

Option seller may fulfil his/her obligations if the option holder wants to exercise his/her right. Theoretically, the seller's (option writer's) loss is unlimited. It means the option seller (writer) must pay the full amount of option valuation.



**Risk of the need to establish collateral:** for the sale of currency options by the Customer - the risk of the need to establish cash collateral by the Customer in the event that the negative valuation of the transaction exceeds the level specified in the contract.

**Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer results in incurring a commitment towards the Bank, which may consist in:

- the need to pay for the currency purchased or the need to pay the settlement amount, or the need to deliver the sold currency - while selling the currency option by the Customer.
- the need to pay a premium - while buying a currency option by the Customer.

**Inflation Risk:** described under B.1.13

## C.2. Interest Rate Instruments

### C.2.1. Interest Rate Options (Cap and Floor).

#### Description:

**Cap Option.** Through the conclusion of an interest rate cap option, the option buyer acquires the right - and the option seller undertakes, should the option buyer exercise that right - to transfer to the option buyer on each settlement date the interest accrued in a given interest period on the notional amount at the reference interest rate determined for that interest period, in exchange for the interest accrued in that interest period on the notional amount at the exercise interest rate. In exchange for the acquisition of the above right, the option buyer shall pay the option seller a premium on the premium payment date. The parties agree on the number of interest periods.

**Floor Option.** Through the conclusion of an interest rate floor option, the option buyer acquires the right to claim, and the option seller undertakes, should the option buyer exercise the said right, to transfer to the option buyer on each settlement date the interest charged in a given interest period on the notional amount at the exercise interest rate, in exchange for the interest charged in that interest period on the notional amount at the reference interest rate determined for that interest period. In exchange for the acquisition of the above right, the option buyer shall pay the option seller a premium on the premium payment date. The parties agree on the number of interest periods.

Therefore Cap and Floor options are instruments whose value depends mainly on the difference between the reference rate and the strike rate in particular settlement periods, and on the transaction notional amount. Interest is settled with the frequency corresponding to interest periods.

**Interest Rate Barrier Options** For interest rate cap and floor options, a knock-in barrier (for Cap/Floor Knock-In options) or a knock-out barrier (for Cap/Floor Knock-Out options) can be introduced.

#### Cap/Floor Knock-In Option

Through the conclusion of a Cap/Floor Knock-In (barrier) Option, the option buyer acquires the right to exercise a specified underlying option (Cap or Floor) on the condition that in the barrier observation period, the barrier reference interest rate reaches the barrier level. When the above-mentioned condition is not met, the option expires and neither of the parties is obliged to make further payments on its account.

#### Cap/Floor Knock-Out Option

Through the conclusion of a Cap/Floor Knock-Out (barrier) option, the option buyer acquires the right to exercise a specified underlying option on the condition that in the barrier observation period, the barrier reference interest rate does not reach the barrier level. When the above-mentioned condition is not met, the option expires and neither of the parties is obliged to make further payments on its account.

#### Pros:

- It provides hedging against interest rate risk.
- It provides for a flexible adjustment to the business activity hedged.
- For cap or floor option buyers the potential loss on an option is limited to the amount of the premium paid.

#### Cons:

- Cap or Floor option seller is exposed to unlimited losses in the case of both Cap and Floor options. It refers in particular to cases when an option has not been used properly for hedging purposes.
- The option buyer incurs the premium cost.
- Due to a big flexibility in setting option parameters and the fact that these instruments are not traded on the exchange, the availability of transaction valuation may be limited.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

#### Risks:

**Market Risk:** Market risk depends on the interest rate volatility (interest rate is an underlying instrument for Cap and Floor options) in the option duration period. The higher the interest rate volatility, and the higher the option notional amount, the higher the market risk.

**Liquidity Risk:** Liquidity risk of interest rate options may be slightly higher than for transactions based on a foreign exchange rate (e.g. currency options), and relates mainly to exotic options, e.g. Cap and Floor options with a barrier.

#### Counterparty Risk:

##### Interest Rate Options purchase

The maximum loss on option transactions for the (Cap and Floor) option buyer equals the amount of the premium paid. Nevertheless, if the option seller refuses the option holder exercising an option, the option holder loses potential benefits, which he/she could have gained.

##### Interest Rate Options sale

Option seller must fulfil his/her obligations if the option holder (buyer) wishes to exercise his rights. Theoretically, the seller's (option writer's) loss is unlimited and corresponds to market risk that materialises on settlement dates of transaction interest periods. Interest rates and their expected changes over a period of time affect significantly interest rate option valuation, and thus the risk related to the option sale.

**Risk of the need to establish collateral:** for interest rate options sold by the Customer - risk of the need to establish cash collateral by the Customer in the event that negative valuation of a transaction exceeds the level specified in the contract.

**Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer results in incurring a commitment towards the Bank, which may consist in:

- the need to pay a settlement amount - while selling the interest rate option by the Customer.
- the need to pay a premium - while buying interest rate options by the Customer.

**Inflation Risk:** described under B.1.13

### C.2.2. Interest Rate Swap (IRS)

#### Description:

By entering into an IRS transaction, the parties shall exchange interest payments on each interest payment day in the period from the effective date until the termination date. For each party to the transaction, the amount of interest due on the date of making payment is calculated at the reference rate defined in the transaction terms. In particular, one of the reference rates can be a fixed rate.

The parties can additionally agree in particular that the notional amount will be variable in the period from the effective date until the termination date.

#### Pros:

- A variable interest rate can be exchanged into a fixed rate, a fixed rate into a variable rate, one variable rate into another variable rate - as the needs arise.
- Loan interest payment terms and conditions can be adjusted to market terms.
- Flexible dates of specific interest periods and contract duration.
- Availability in major currencies.

#### Cons:

- When exchanging a variable interest rate into a fixed interest rate, one cannot take an advantage of an interest rate fall, if any. When exchanging a fixed interest rate into a variable interest rate, one cannot take an advantage of an interest rate rise, if any.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

#### Risks:

**Market Risk:** The interest rate risk depends on the level of interest rates over the instrument's life. If the instrument is denominated in a foreign currency (other than the Customer's local / settlement currency), an FX risk will be also involved for the IRS transaction.

**Liquidity Risk:** for IRS transactions, the liquidity risk is limited.

**Counterparty Risk** is a risk that obligations will not be met by the other party to the transaction, which consists in a lack of settlement of interest payments in specific interest periods.

The counterparty risk depends on the transaction valuation: the higher the interest payment amounts in specific periods, the higher the risk.

The settlement risk is limited due to the fact that instead of significant notional amounts, the parties exchange interest payments.

**Risk of Hedging Mismatch:** risk that may arise e.g. when a loan hedged by an IRS contract concluded is repaid and such a contract is not simultaneously closed at the moment of the loan repayment. In such a case, the IRS contract should be treated as an exposure open to risk, susceptible to changes in the value of market interest rates. The need to settle interest payments arises irrespective of whether the loan that the IRS hedged still exists or has been repaid.

**Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer entails a commitment towards the Bank, which consists in the need to pay interest or interest difference amount.

**Risk of the need to establish collateral:** risk of the need to establish cash collateral by the Customer where a negative valuation exceeds the level determined in a contract.

**Inflation Risk:** described under B.1.13

### C.2.3. Cross Currency Interest Rate Swap (CIRS)

#### Description:

By entering into a CIRS transaction, in the period from the effective date until the termination date, the Parties shall:

- exchange notional amounts in such a way that:
  - if the initial and final exchanges of notional amounts have been agreed upon, then the amounts agreed will be mutually transferred between the Bank and the Customer; or
  - if only the final exchange of notional amounts has been agreed upon, then the notional amounts will be exchanged only once, and
- exchange interest payments on each interest payment day in such a way that the Bank shall transfer to the Customer the amount of interest accrued in a given interest period on the Bank's notional amount at the Bank's reference rate, while the Customer shall transfer to the Bank the amount of interest accrued in the same interest period on the Customer's notional amount at the Customer's reference rate.

#### Pros:

- The structure of interest rates and FX rates can be adjusted simultaneously to the risk hedging needs defined by the Customer.
- No premium payment is required to enter into a CIRS contract.
- Flexible dates of specific interest periods and contract duration.
- Availability in major currencies.

#### Cons:

- When exchanging a variable interest rate into a fixed interest rate, one cannot take an advantage of an interest rate fall, if any. When exchanging a fixed interest rate into a variable interest rate, one cannot take an advantage of an interest rate rise, if any.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

#### Risks:

As cross currency interest rate swap transactions (CIRS) are in a sense a combination of IRS contracts and FX transactions, and risks generated for the CIRS contract buyers are the same as in the case of IRS and FX transactions.

## C.3. Commodity Instruments

### C.3.1. Commodity Swap (Swap Towarowy).

#### Description:

By the Commodity Swap transaction, the Parties undertake - in the period from the effective date until the termination date - to make, on each payment date, the settlement by payment or receipt of the payment amount, which is the product of the nominal value of the Commodity Swap and the difference between the commodity's market price determined in the future (floating price) and the fixed price determined at the transaction conclusion.

#### Pros:

- A commodity floating price can be exchanged into a fixed price, and the fixed price into the floating price - as the needs arise.

- Flexibility of the transaction terms (availability of major currencies, transactions are concluded for a number of commodities, option to choose the transaction period).
- No premium payment is required to enter into a Commodity Swap.

**Cons:**

- In the case of exchange of a floating price into a fixed price, one may not take advantage of a drop in commodity prices, if any. In the case of exchange of the floating price into the fixed price, one may not take advantage of a raise in commodity prices, if any.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

**Risks:**

**Market Risk:** Commodity price risk depends on the level of commodity prices over the duration of a given instrument. If the commodity price is denominated in a foreign currency (other than the Customer's local / settlement currency) - an FX risk will be also involved for the Commodity Swap transaction.

**Liquidity Risk:** for Commodity Swap transactions, the liquidity risk is limited.

**Counterparty Risk** is a risk that obligations will not be met by the other party to the transaction, which consists in a lack of settlement of a payment amount in specific settlement periods.

The counterparty risk depends on the transaction valuation: the higher the payment amounts in specific calculation periods, the higher the risk.

The settlement risk is limited due to the fact that the parties settle a difference of amounts of mutual obligations.

**Risk of hedging mismatch:** The base risk arising from hedging the price of a specific commodity with a derivative instrument based on a standardized underlying instrument, which is the commodity of specific characteristics. This risk materializes when the hedged commodity differs significantly from the underlying instrument, and at the same time the relation of the price of the underlying instrument to the price of the hedged commodity changes in the course of the transaction.

**Risk of incurring a financial commitment as a result of concluding a transaction:** conclusion of a transaction by the Customer entails a commitment towards the Bank, which consists in the need to settle a payment amount.

**Risk of the need to establish collateral:** risk of the need to establish cash collateral by the Customer where a negative valuation exceeds the level determined in a contract.

**Inflation Risk:** described under B.1.13

#### C.4. Combinations of Several Transactions, Strategies (Structures)

**Description:**

In addition to making single transactions, that is, a purchase of one foreign currency instrument or one interest rate instrument, frequently there are transactions concluded wherein several instruments are purchased and/or sold at the same time. By entering into many transactions at the same time, one can obtain a different payout profile than the one arising in effect of concluding single transactions. Such a group of transactions is sometimes called a strategy or structure.

**Types of strategies:**

A combination of several instruments of a similar payout profile can create a lot of different (joint) payout profiles. The payout profile is understood as a relation between the level of market interest rates, FX rates, etc. and the level of profit or loss.

Combinations of several transactions (strategies), similarly as transactions using single instruments, require a thorough analysis prior to their conclusion. Only after understanding in detail how a given strategy can work at diverse levels of market interest rates and exchange rates, a given strategy can be adjusted to one's own needs. Irrespective of the number of the strategy components, confirmations of the transaction conclusion can be prepared separately for each single instrument that is a part of the strategy.

Should the Customer have any doubts regarding a specific strategy and how it works, they should be clarified before the transaction conclusion.

Zero-Cost Strategies

A characteristic feature of zero-cost strategies is such a selection of instruments bought and sold that enables to reduce or even eliminate the cost of buying the entire strategy by the Customer. To obtain this type of a combination, frequently it is necessary to introduce an asymmetry for the risk incurred by one of the parties to the transaction. This asymmetry can cause increased losses in the case of materialization of certain market scenarios.

"Knock-in" or "Knock-out" Strategies

The operation of such strategies depend on whether there are specified levels of interest rates/ FX rates on the market which activate (knock in) or deactivate (knock out) the entire strategy or its part. Please note that strategies of this kind, despite frequently an attractive price, give no assurance as to effectiveness of their application. It can happen that they will not be activated or will be deactivated thus depriving their buyer of the hedging or failing to give him/her a possibility of earning the income planned.

Symmetrical or Asymmetrical Strategies

Symmetrical strategies are characterised by a balance of rights and obligations of the parties that conclude a given transaction. In the event of asymmetrical transactions, there is a different value of obligations and rights of the strategy buyer and seller.

The buyer of such strategies, in order to finance the option purchase, agrees to write an option of a higher notional value.

One-period or Multi-period Strategies

Strategies can be prepared in such a way that they will cover one or multiple periods. One-period strategy shall mean such a combination of instruments that they are settled at a predefined time and all its components are settled or expire simultaneously. In multi-period strategies, some instruments are settled (or expire) earlier while some instruments are settled (or expire) later, whereas the later settlements can in particular be made many times.

A specific case of multi-period strategies are such strategies where their selected components can be knocked in or knocked out depending on the existence of specific conditions defined in the transaction parameters. An example is a strategy under which when the FX rate exceeds a specified level, the strategy is prolonged for a period corresponding to the initial period, i.e. from the moment of the transaction conclusion until the time when the transaction prolongation condition is verified.

**Pros:**

- Solutions adjusted to the needs of a specific problem or purpose can be created.
- Greater flexibility than in cases of single instruments (forward FX transactions or options).
- An option to develop a structure in which the Customer does not pay the net premium.

**Cons:**



- In the majority of cases, the value of the option structure does not behave similarly as a pair of currencies of the underlying instrument.
- Very often structures are complex and so complicated that in order to conclude them, monitor them later on and make a valuation, the Customer needs a specialist knowledge and considerable resources.
- The requirement to bring in cash collateral where a negative valuation exceeds the level determined in the contract.

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<sup>i</sup> Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on financial instruments markets, and amending Directive 2002/92/EC and Directive 2011/61/EU, along with its delegated acts, implementing acts and national law implementing its provisions.