

Investment instruments and the related risks

SECURITIES

Documentation:

The Bank and its clients enter into standard agreements, which differ by type (commission agreement, repo agreement, mandate agreement).

SHARES

A share (of stock) is a security certifying that its owner is a shareholder who has made a capital contribution to the company (a public limited company). A shareholder enjoys certain rights, including, for example, the right to share in the profits of the company in the form of dividends and the right to take part in the management of the company by voting at the General Meeting, and, possibly, to share in the liquidation balance if the company ceases to exist as a legal entity. Shareholders are not liable for the company's debts.

Types of shares by shareholders' rights:

Ordinary shares give their holder the right to share in profits, to take part in the General Meeting, to submit proposals and counter-proposals, and the right to share in the liquidation balance.

Preference shares carry the priority right to dividends and/or priority in liquidation, or both, usually with a limited right to vote.

Advantages:

- Higher proceeds (dividend and capital gain), compared to other (more conservative) assets,
- Certain kinds of shares enable their holders to participate in the company's business.

Disadvantages:

- Higher gain is associated with higher risk.
- High volatility – the price of the share may vary significantly even within a short time frame.
- Recovery of the invested capital is not assured: significant losses may be sustained.

Risks and hedging possibilities:

Market risk:

- Share price movements, depending on a variety of factors – overall development of the economy, the economic cycle, developments in the sector or company,
- Interest rate movements,

- For shares of foreign companies: exchange rate movements.

Liquidity risk:

- This risk applies mainly to the shares that are not tradable on a regulated market and also to the shares of companies that may find themselves in difficulty for various reasons.

Market risk can be partly mitigated by diversification of investment and by putting together a sound portfolio. A Czech investor may avoid foreign exchange risk by investing only in shares denominated in the Czech currency (crowns) and/or by using currency hedging. Portfolio liquidity can be influenced by investing primarily in shares publicly traded on regulated markets, although even publicly traded shares are exposed to various market factors, which may affect liquidity.

BONDS

A bond is a debt security representing the issuer's debt obligation towards the creditor. It is a substitutable security which gives the investor the right to receive payment of the owed amount (principal) and payment of the agreed proceeds, and the obligation of the issuer to satisfy all obligations.

Types of bonds by issuer:

Government bonds – government bonds are issued by governments or government agencies – in the Czech Republic the issuer is the Ministry of Finance. It is generally acknowledged that government bonds are low-risk bonds.

Municipal bonds – municipal bonds are issued by territorial self-governing units.

Corporate bonds – corporate bonds are issued by companies in order to gain capital. The amount of risk involved in corporate bonds is linked with the amount of interest.

Bank bonds – bank bonds are issued by financial institutions. Bank bonds are sometimes regarded as corporate bonds involving specific legal and financial attributes (for example, a bank can be a distributor).

Treasury bills – treasury bills are short-term securities issued by the state or by public administration bodies and institutions, and also by banks. They are used for short-term optimisation of cash flows. Treasury bills are the lowest-risk bonds and therefore their interest rate is low.

Types of bonds by interest:

Fixed coupon bonds – the coupon agreed at the time of issue of the bond remains unchanged during the entire life of the bond. The advantage is that it is easy to calculate the gain on the bond. The weakness is that the bond is not profitable if the economy is fluctuating.

Floating coupon bonds – the amount of the coupon of these bonds depends on a reference rate – often an interbank rate such as the PRIBOR, LIBOR or EURIBOR. A certain mark-up is added on to the reference rate to compensate for the higher risks, compared to the interbank market.

Zero-coupon / zero interest bonds – no coupon payments are made during the life of these bonds. Proceeds are generated through buying this security at a discount on its par value. The debtor then pays the par value of the bond at maturity.

Indexed bonds – indexed bonds are instruments whose coupon payments are linked to the movements of indexes (wage index, price index, gold index, oil index, other commodities indices). Their coupon is fixed but modified according to the current movements of the relevant index.

Advantages:

- Higher performance compared to current accounts and time deposits in banks,
- Well-hedged risk,
- If the bond is held to maturity, the yield is known before the investment is made.

Disadvantages:

- The par value of bonds is high (CZK 100,000 or more) and therefore they are less accessible to small investors,
- Some bonds are less liquid,
- The holder is exposed to the risk that conditions will change due to interest rate changes during the period between bond issue and redemption,
- Gain from exchange rate movements is subject to income tax, if the bond is held for less than six months,
- Coupon payments are subject to interest tax.

Risks and hedging possibilities:

Credit risk:

- Credit risk depends on the issuer's ability to pay the interest and the par value of the bond. This may be a significant risk with bonds issued by business corporations. On the other hand, with bonds of EU member states or bonds issued by international organisations this risk is much lower.

Interest rate risk:

- Interest rate risk is due to changes in interest rates, which depend on the maturity of the bond.
- Investors must consider this risk when investing in bonds offered in small issues and/or bonds not traded on the secondary bond market.

Currency risk:

- Currency risk is inherent in the bonds denominated in a currency other than the investor's local currency.

Market risk is generally lower in bonds than in shares. Credit risk can be influenced by choosing the bonds of a highly rated issuer. Liquidity risk can be reduced by investing in bonds tradable on the secondary market, and currency risk can be avoided by choosing only bonds denominated in

the investor's local currency (the same applies to shares). Interest rate swap can be used to hedge against interest rate risk.

PROMISSORY NOTE / BILL OF EXCHANGE

Promissory notes and bills of exchange are debt securities containing prescribed written information and expressing a debt obligation, which gives the holder of the instrument the unconditional right to demand at some future date a certain sum of money. No general form is prescribed.

Types of bills distinguished by the debtor's obligations:

- Promissory note, representing the debtor's promise to pay and containing the words "I will pay".
- Bill of exchange, requiring the person to whom it is addressed to pay a certain sum of money. It contains the words "pay to".

Types by maturity:

- Payable at sight (on demand) – sight bill,
- Payable after sight – after-sight bill,
- Payable on a fixed date after draft – after-date bill
- Payable on a fixed date – fixed bill.

Advantages:

A promissory note or bill of exchange is an unconditional obligation, which means that whoever holds an original instrument and has identified himself as its rightful owner is treated as having sufficiently proved his right to receive payment of the note or bill. A borrower who refuses to pay must not only state the reasons but also prove them.

Disadvantages:

The content of a drawn promissory note or bill of exchange is prescribed by law. If any of the essential particulars is missing, the instrument is invalid.

Risks:

Credit risk:

- Credit risk is the risk that the borrower will fail to meet its obligations.

REPO TRANSACTIONS

Repo transactions are loans secured by transferred securities. The amount of the loan is determined on the basis of the credibility of the client and the securities.

Interest:

Interest is determined by the repo rate.

Risks:

Risks are associated with a possible decrease in the value of the underlying instruments (securities) and the resulting need for collateral security.

SELL/BUY AND BUY/SELL TRANSACTIONS

The purchase/sale and reverse sale/purchase of securities. Both these deals are agreed concurrently. They serve to deposit or borrow funds. Interest is the difference between the price of the security at the start and end of the Sell/Buy and Buy/Sell transaction.

Proceeds:

Proceeds (or costs, if it is a loan) are known beforehand – the interest rate is the difference between the initial and final price.

Liquidity risk:

- Liquidity risk exposure is associated with the securities used to hedge the transaction. Liquidity risk is low in the case of government bonds tradable on the stock exchange or on the interbank market and it is higher in the case of low-rated shares and bonds.

Credit risk:

- Credit risk is borne by the counterparty. It is guarded against by pledging the securities, which means that there is a risk of a decrease in the value of the pledged securities. With highly rated government bonds the risk is very low. With shares whose price may fluctuate more widely the risk is mitigated by requiring stronger hedging due to a larger volume of the granted loan.

DERIVATIVES

Documentation:

The bank enters into standard contracts with clients, depending on the type of transaction (master treasury contract, ISDA).

Derivatives are investment instruments derived from the underlying assets. The underlying assets may be securities, commodities, real estate, indices etc. The time nature and the related leverage are important features of derivatives. "Time nature" means that the transaction will be cleared in the future. Only a small initial investment, or none at all, is required and therefore, unlike ordinary spot investment instruments, derivatives and the leverage factor offer opportunities to achieve much higher proceeds (and, of course, also to suffer higher losses).

The use of derivatives:

Hedging

- With hedging, derivatives can be used to fix a price of a financial product at an agreed future date. In other words, for a particular given position a deal is negotiated in the term market where the profit or loss will develop as a mirror reflection of the position.

Speculations

- A speculator engages in term transactions in an attempt to profit from price movements. Simply speaking, he or she speculates that the price agreed in a term transaction will be lower or higher than the prompt price of the underlying financial instrument on the maturity date, at which this instrument can be sold or purchased in the prompt market.

Arbitrage

- Arbitrage is the practice of taking advantage of price differences between markets and between present and future times.

Risks arising from contracts:

General risks

Market risk

Risk of a decrease in the fair value of a derivative contract due to:

- Interest rate movements in the currencies contained in the underlying instruments,
- Changes in the value of securities,
- Exchange rates,
- Exchange rate movements relevant to the currency pair contained in the underlying instrument,
- Commodity price movements,
- Other derivatives, financial indices, or financial or other underlying instruments, which constitute part of the agreed conditions of the underlying instruments and have an influence on the fair value of the contract.

This risk is especially significant in speculative transactions, but it may also occur in hedging transactions, especially where the initial assumption under which the hedging was agreed proves to be wrong. In extreme cases, the potential loss from this risk may even exceed the face value of the contract.

Liquidity risk of the underlying asset

- Contracts concluded between a client and the bank are for the most part OTC transactions (outside the regulated markets) and therefore it cannot be automatically assumed that the client always has the opportunity to close their position or terminate the contract prematurely, doing so at the very price that could be expected by the client with respect to the last known market quotation. In an extreme case there may be a limited period of time when no price is available on the OTC market. The client will be unable to conclude such a transaction in such a period. The potential loss caused by this risk may be (especially in non-standard combinations of certain derivatives) up to several tens of per cent of the difference between the expected price based on the last known quotations of the relevant underlying instruments and the price at which the bank or another entity is willing to offer these instruments on the market when the client requires them.

Credit risk

- Credit risk is associated with the fact that in almost all cases the bank is the client's counterparty in the transaction. The probability that the bank fails to meet its obligations under the contract is very low, but it is not zero either. The final value of the potential loss from this risk is significantly influenced, in particular, by changes in market quotations related to the underlying instrument, by changes in the liquidity of the underlying instrument, and by the ability of the bank to finally settle its obligations under the conditions of the contract.

Specific risks of option contracts

Loss on the exercise/non-exercise of an option

- In option transactions purchased, the risk of a decrease in the fair value of the underlying asset does not manifest itself in the same manner as it does in the case of option transactions sold. In the former case the client's maximum loss is limited by the amount of the premium paid and by the transaction costs. In the latter case the loss may be unlimited.

Volatility of the price of the underlying asset

- The risk of a decrease in the fair value of an option transaction is also significantly influenced by the volatility of the price of the underlying asset (in this case, the price of the relevant forward), i.e., by the frequency and magnitude of the changes in its market value.

FORWARD RATE AGREEMENT – FRA

A forward rate agreement is a fixed agreement between two parties, enabling the parties to fix the rate of interest on a loan or deposit in a future period, or to “switch” from a floating interest rate to a fixed interest rate, or vice versa, on a sum of money receivable or payable.

A forward rate agreement is a derivative interest rate contract, negotiated as an individual non-standardised contract on the OTC market.

Entities negotiating the FRA:

FRA buyer

- Ensuring a fixed interest rate for the FRA buyer's future obligations, which are subject to a variable interest rate, i.e. hedging against increases in interest rates in the future (speculating on increasing market interest rates).

FRA seller

- Ensuring a fixed interest rate for the FRA seller's future claims, which are subject to a variable interest rate, i.e. hedging against decreases in interest rates in the future (speculating on decreasing market interest rates).

Performance under the FRA

- Performance under the FRA involves only settlement of the balance resulting from the difference between the two interest rates.

Possible uses of the FRA:

FRA seller

- Hedging the capital invested in interest rate instruments sensitive to changes in the market interest rate against decreases in the interest rates.

FRA buyer

- Hedging the FRA buyer's expected future capital needs against increases in the market interest rates.

FRA advantages:

- Possibility to negotiate contracts tailored to the needs of both parties,
- Credit risk is only associated with the payment of the credit rate differential,

- The nominal value of the FRA is not reflected in the balance sheets of the parties concerned. Hence, the FRA is balance-sheet neutral,
- The FRA is not associated with any additional costs and commissions,
- There is a relatively liquid market for FRAs up to one year.

FRA disadvantages:

- For small entities the minimum nominal tradable amounts are too high,
- FRA is a fixed contract, which means that both parties are obliged to honour the contract, and therefore it is impossible to make profit from favourable movements in interest rates, if any, during the time to maturity of the FRA,
- The two parties bear each other's credit risk.

INTEREST RATE SWAP – IRS

Interest rate swap is an agreement between two parties on exchange of their cash flows in a specified period of time, based on a floating interest rate and fixed interest rate.

Swap notional principal amount:

- Agreed in the swap contract. Used only for deriving interest rates. It does not change hands.
- In non-standardised contracts it may change during the life of the contract.

Interest rate:

- Fixed interest rate – index serving for calculations to determine the fixed interest payment.
- Floating interest rate – index serving for calculations to determine the floating interest payment, usually expressed as a reference rate such as PRIBOR, LIBOR etc.

Uses of IRS:

- Hedging against changes in market interest rates to protect the cash flows from the interest on counterparties' receivables and payables.
- Speculation on movements in market interest rates.

Market interest rate expected to increase

- Investor wants to profit from expected increase in the rates (receive floating rate and pay fixed).
- Borrower wants to hedge its interest expense against expected increases in the rates (receive floating rate and pay fixed).

Market interest rate expected to decrease

- Investor wants to hedge its proceeds against an expected decrease in the rates (receive fixed rate and pay floating).
- Borrower wants to make use of the expected decrease in the rates and thereby to reduce the financing costs (receive fixed rate and pay floating).

IRS advantages:

- Interest rate swap allows for the management of interest expense or interest income according to the expected movements in interest rates or income curve.
- The existing asset/liability structure can be changed without influencing the initial sources of capital and the use thereof.

IRS disadvantages:

- Credit risk for both counterparties
- In non-standardised transactions the conditions of early settlement of the contract may be less advantageous, compared to standardised transactions.
- Participation is impossible when interest rates change.

FOREIGN EXCHANGE FORWARD – FX FORWARD

A present obligation to buy or sell a pre-specified amount of foreign currency at some fixed future date at a fixed exchange rate.

Contract counterparties:**FX forward buyer**

- Has the right and obligation to buy an agreed amount of commodity currency at a fixed future date at an agreed exchange rate (price).

FX forward seller

- Has the right and obligation to sell an agreed amount of commodity currency at a fixed future date at an agreed exchange rate (price).

Example of FX forward use:

- An importer wants to hedge its obligation against a future appreciation of the euro against the local currency (crown). For this purpose the importer enters today into an FX forward contract as at the maturity date of its future obligations. On the maturity date, the contract is settled at the pre-agreed FWD rate.
- An exporter expects a euro-denominated payment from its foreign customer. The exporter is concerned that the local currency (crown) is going to be stronger and therefore it enters today into an FX forward contract as at the maturity date of its future receivable. On the maturity date, the contract is settled at the pre-agreed FWD rate.

FX Forward advantages:

- Custom contract terms and conditions can be agreed upon for each contract.
- Future cash flows are hedged.

FX Forward disadvantages:

- The transaction is binding on both counterparties regardless of future market developments.
- Positive market movements, if any, cannot be profited from.

FOREIGN EXCHANGE SWAP – FX SWAP

A simultaneous obligation to buy and sell identical amounts of one currency for another with different value dates.

The process of the transaction:

The transaction is in the form of two separate conversions: the client first sells the funds to the bank at the current spot rate and in the future the client buys the funds back at a forward rate.

FX swap advantages:

- Lower costs to acquire funds,
- Making use of the comparative advantages of one or both of the swap counterparties in a specific segment of the financial market,
- No influence on the entity's credit exposure,
- Possibility to manage cash flows in different currencies.

FX swap disadvantages:

- Risk of default of either counterparty,
- Need to have initial capital for the conversion.

CURRENCY OPTIONS

Currency options are conditional forward transactions where the option holder (buyer) has the RIGHT (but not the obligation) to buy or sell under the contract a specific currency at a pre-agreed strike price or pre-agreed date or period.

Basic option positions:

	CALL OPTION - BUY	PUT OPTION - SELL
Option holder LONG POSITION	<ul style="list-style-type: none"> • The right to buy base currency at the strike price. • Obligation to pay option premium. 	<ul style="list-style-type: none"> • The right to sell base currency at the strike price. • Obligation to pay option premium.
Option writer SHORT POSITION	<ul style="list-style-type: none"> • Obligation to sell base currency at the strike price. • Right to collect the option premium. 	<ul style="list-style-type: none"> • Obligation to buy base currency at the strike price. • Right to collect the option premium.

Possible uses of currency options:

- Hedging against currency risk,
- Speculation aiming to profit from expected future market developments.

Advantages:

- Possibility to hedge against the currency risk (FX risk) for the option buyer,
- Opportunity to gain unlimited profit if the exchange rate develops favourably (see the types of positions),
- Profit from the premium for the option seller.

Disadvantages:

- Payment of the option premium, which reduces profit if the option is executed or represents net loss if the option is not executed,
- Possibility to suffer unlimited loss (see the types of positions),

- Need to implement an accounting system, which will enable the client to evaluate and account for options.

INVESTMENT CERTIFICATES

From a legal perspective, investment certificates are debt instruments whereby the issuer promises to pay the value of the certificate at a certain time. The value to be received by the investor at the end of the agreed period depends on the development of the value of the underlying assets such as individual shares, share indexes, bond indexes, stock baskets, credit facilities, currencies or even commodities.

Risks:

- **Certificate issuer's credit risk** – the investor is exposed to the risk that the issuer of the certificate (PPF Banka) will not be able to meet its obligations. The issuer may fall into insolvency for various reasons, including, but not limited to, adverse market movements, wrong decisions of the management, a natural disaster, a criminal act and other unexpected events. The investor's loss may be up to 100% of the amount invested.
- **Underlying asset issuer's credit risk** – the investor is exposed to the risk that the issuers of the underlying assets may become insolvent. Losses are passed on to the investor in whole or in part, depending on the conditions of the certificate.
- **Market risk** – market risk is the risk of loss due to changes in the market prices of the underlying instruments. It includes, in particular, interest rate risk, share price risk, currency risk and commodity risk.
- **Currency (FX) risk** – currency risk occurs when the certificate is issued in a foreign currency or when the financial product is sensitive to changes in exchange rates.
- **Inflation risk** – inflation risk is the risk of future money depreciation. This risk affects all investments, though to a different extent.

Advantages:

- **Transparency and versatility** – with each investment certificate, investors get precise information about the underlying asset, about the instruments that constitute the certificate and the way it is constructed and about the currency in which it is denominated.
- **Liquidity** – liquidity is the possibility to convert certificates back to money. Liquidity of individual investment certificates may be limited, depending on the current market conditions.
- **Diversity** – currently there is a vast number of certificates with different attributes and characteristics. Most issuers are able to tailor their products to investors' preferences.

DUAL DEPOSIT

Structured dual deposit is a financial instrument that combines a simple deposit with a financial instrument. The proceeds from the dual structured deposit may depend on the performance of the

underlying asset (one or more currencies, a share, bond, market index, commodity or any combination thereof). Such proceeds may be even several times greater than returns from the underlying assets. With some types of structured deposits the recovery of the principal may not be guaranteed, and/ or the deposit may be paid out in a currency other than the currency in which the deposit was agreed.

Advantages:

- **Higher proceeds:** Compared to simple deposits, a structured deposit may generate higher proceeds thanks to the involvement of an investment instrument (an option, for the most part).
- **Wide spectrum of underlying assets:** A structured deposit may be applied to diverse classes of assets generating variable proceeds, with or without guaranteed principal and with a fixed maturity date.

Risks:

- **Market risk:** The proceeds (and sometimes even the value of the principal) may vary with the prices of the embedded investment instruments or underlying assets (shares, bonds, market index, commodities, exchange rates etc.).
- **Credit risk:** Compensation from the Deposit Insurance Fund may not apply to some types of structured deposits or the proceeds therefrom. Hence, if the recipient of the deposit (the bank) becomes insolvent, the deposit owner may even lose the entire principal.
- **Liquidity risk:** Structured deposits are very illiquid financial instruments and their early termination (prior to maturity) may require high costs or may even be impossible.
- **Currency risk:** Where the currency of a structured deposit, or an alternative currency, is not at the same time the basic currency of the structured deposit owner's receipts and expenses, currency risk may occur when the exchange rate changes.