

## Introduction

Risk means the possibility to fail in achieving the expected return on investment and/or loss of the part of invested capital (and for some products it means even need for additional capital contribution). Such a risk can result from the number of causes depending on the specific structure of the particular product. These causes can be natural for the product, markets and issuer. Since it is not always possible to foresee the risks, the following discussion cannot be considered as final. Investors should, however, pay close attention to the risk associated with the product issuer credit rating, which is very specific, as it always depends on the particular case.

Description of investment products is based on typical features of the product. However, the decisive factor is always the specific structure of the product in question. For this reason, the following description is not a substitute for detailed examination of the specific features of the product by the investor.

## General investment risks

### Currency risk

In case of transactions in a foreign currency, return and investment performance depends not only on local return on the foreign market, but to some extent also on development of exchange rate of a particular foreign currency in proportion to the currency of the investor (e.g. Euro). It means that exchange rate swings can cause the value of the return and value of the investment to rise or fall.

### Transfer risk

Depending on particular country, securities of foreign issuers are an additional risk because of imposed government policy or restrictions to control currency exchange that may make it complicated or even impossible to carry out an investment. In addition, the problems may arise in connection with the payment order. In the case of transactions in a different currency, such restrictions may pose barrier to free currency convertibility.

### Country risk

Solvency of the particular country poses a risk to the country. Political and economic risk posed by the country may have a negative impact on all contracting parties based in this country.

### Liquidity risk

Marketability (Liquidity) is the possibility to purchase or sell securities or close the position at the current market price at any time. It is said that the particular securities market is limited if average sell order (measured in volume of transactions) causes the price to fluctuate visibly and it is not possible to ensure carrying out of any trade at all or at essentially lower price.

### Credit risk

Credit risk is associated with the possible insolvency of the opposing party, i.e. the risk that the other party does not meet its obligations such as dividends or interest payment, repayment of capital in the time of maturity or it default on payment of their total value. It is also called repayment risk or issuer risk. Credit risk can be graded using the "ratings". Rating is grade classification/ranking, which is used to evaluate the solvency of the issuer.

Rating is done by rating agency and it is based on the credit risk and the country risk. The highest rating is usually AAA, and the lowest is D.

### Interest risk

The interest risk is the risk of capital loss resulting from the interest rate movements on the market in future. Increase of interest rates on the market causes bonds with fixed interest rate to fall, while the decrease of such interest rates causes the market price of bonds to rise.

### Price risk

Price risk is the risk of adverse value movement of individual investments. In case of contingent transactional obligations (stock exchange forward transactions, futures, etc.), it is therefore necessary to provide collateral, or to determine the next margin, in order to commit further liquidity.

### Risk of total loss

It is the risk that investment may become valueless due to its time-limited right concept. The total loss can occur, when equity issuer fails to meet his financial obligations or because of economic and legal causes

### Purchase of financial instruments

Loan purchase of financial instruments involves an increased risk. Loan must be repaid regardless of the success of investment. Moreover, credit costs reduce earnings.

### Instruction issuance

Instructions to purchase or sell must contain at least investment name, amount (number of securities/amount of current deposit) which is about to be purchased or sold or price for carrying out the trade and period of order validity.

If instructions to purchase or sell are placed with an instruction "for the best" (no price limit), the business transactions are done at the best possible price. As a result the capital requirement and the process of purchase remain uncertain. If there is a purchase limit, purchase price, and thus the amount of invested capital, are limited. No purchase, which is above the price limit, is done. The price limit determines the lowest acceptable selling price i.e. no business transactions, which are below this price limit, are done.

It is possible to set a time limit in order to specify validity of instructions. Period of validity for unlimited orders depends on procedures of the particular stock exchange.

### Warranties

The term "warranties" may have a number of meanings. The first meaning is a promise of a third party, not that of an issuer, to ensure that the issuer will meet his obligations. Another one is a promise of issuer himself, to meet his obligations regardless of the trend of some indicators, which may be crucial for the level of his obligation. Warranties may also be associated with a wide range of other aspects. Equity warranties are usually enforceable only by the end of repayment period, in order to enable the total fluctuation of price (price losses) during this period. The quality of equity warranty depends to a large extent on warrantor credit.

### Taxes

It is necessary to take into account the general fiscal aspects of individual investment products. It is also necessary to evaluate the impact of investment on your own tax assessment in cooperation with a tax adviser.

### **Risks on the Securities Markets (secondary market)**

There is no direct communication line with the majority of securities markets on the secondary markets, i.e. all instructions have to be issued via telephone. This can lead to errors or time delays. In general, the limited instructions to purchase or sell are not possible on certain secondary securities markets. This means that the limited instructions cannot be issued if the request is done by telephone with a local agent, and this can lead to time delays. In some cases such limits cannot be done at all. It is very difficult to evaluate existing client's position as it is difficult to permanently attain current price on certain stock markets. If the business quotation on the stock exchange is broken off, then it is not possible to find such securities on the given stock exchange. Transfer to another stock market can also be problematic. At some stock exchanges of secondary markets, the trading hours do not correspond with the standard of the West European countries at all. Short trading hours lasting from three to four hours a day may lead to the stagnation or failure in the processing of instructions.

## **Bonds**

Bonds (=obligations, debentures) are securities that oblige the issuer (=debtor) to pay the bondholder (creditor, the buyer) interests on invested capital and to repay base deposit in accordance with the terms of the bond. In the narrower sense of the word there are bonds which significantly differ from the above-mentioned bonds and their features and the description mentioned below.

### **Return**

Bond return consists of return from invested capital and any difference between purchase price and the price fetched by purchase/redemption of bonds. As a result it is possible to determine the return in advance, but only if the bond is held to maturity. In case of bonds with variable interest, it is not possible to specify the return in advance. In order to compare, the annual return is calculated in accordance with international standards. Bond returns, which are significantly above the general well-established level, should always be examined, as an increased credit risk can be the cause. Price fetched by bond purchase before the redemption (market price) is not known in advance. Subsequently, the return can be higher or lower than the return calculated at the beginning. In addition, transaction costs, if any, must be deduced from the total earnings.

### **Credit risk**

There is always the risk that the debtor may default on payment or default on part of payment, for example in the event of debtor's insolvency. It is, therefore, important to take into account the debtor's credit risk when making investment decisions. Ratings (assessment of the company's solvency) issued by independent rating agencies provide some kind of help in this respect. The highest rating is usually "AAA" or "Aaa" (e.g. Austrian government bonds). In the case of lower ratings (e.g. "B" or "C") the default risk (credit risk) is higher, but these instruments usually provide a higher return (risk premium). Investment with a rating comparable with BBB or higher are usually called "investment grade".

### **Price risk**

If a bond is held to maturity, the investor will receive the surrender price as specified in the terms of the bond. Do not forget the risk of an early termination by the issuer in the scope, which is permitted in terms and conditions of issue. If the bond is sold before the maturity, the investor shall receive the current market price. This price is regulated by supply and demand, which are also exposed to the current level of interest rates. For example, the price of securities with fixed interest rate falls if the interest on the bond with comparable maturity rises. On the contrary, bonds reach a higher value if the interests on bonds with comparable maturity fall. The change in issuer's credibility may also affect the market price of the bond. In the case of bonds with variable interest, whose interest rate is indexed to the capital market rate, the interest rate risk, which is or will become lump-sum, is significantly higher than the interest rate risk of bonds, whose interest rate depends on money market rates. The indicator of "duration" shows the degree of change in bond price in relation to the changing level of interest. The duration depends on time remaining until the maturity of the bond. The higher the duration, the greater is the impact of changes of general interest rate on price, whether positive or negative.

### **Liquidity risk**

Liquidity of bonds depends on several factors, for example on issued volume, the time remaining to maturity, policy of stock market a market conditions. Bonds, which are difficult to sell or cannot be sold at all, must be held to maturity.

### **Trading with bonds**

Bonds are traded on the stock exchanges or on the over-the-counter market (OTC market). In the case of bonds, which are also traded on the securities market, the price accustomed on the stock exchange can significantly differ from the OTC price offers. It is possible to limit the risk of low trading by adding a limit to the order.

## **Equity**

Equities are securities representing participation in the company (Joint Stock Company). Fundamental rights of the shareholder include the participation in the company revenues, as well the right to vote at general assembly of shareholders (exception: Priority Equity).

### **Return**

Returns from direct investments consist of dividend payout, as well as return or loss of the price, and it is not possible to predict it with absolute certainty. Dividend is the portion of corporate profits paid out to stockholders based on decision made at the general assembly. The amount of the dividend is expressed as a fixed amount per share or as percentage of the nominal price of shares. A financial ratio of return earned from dividends and price per share is called dividend revenues. The greater part of returns from direct investments is usually achieved by the performance of shares or the price trend.

### **Price risk**

Equities are usually traded on the public share markets. The rule is that the prices are determined on a daily basis, based on supply and demand. Equity investments may lead to significant losses. In general, price per share depends on the trend of trading of the particular company, as well on general economic and political events. Moreover, the irrational factors (such

as investor sentiment or public opinion) may impact on the trend of share prices as well on the returns from investment.

### **Credit risk**

As a shareholder, you legally own shares of stock in a joint stock company. In case of company's insolvency your investments may become valueless.

### **Liquidity risk**

Liquidity may be limited in case of equities of the limited market (especially equities listed on the over-the-counter market/OTC market). If equity is listed on more stock markets, this may lead to differences in its liquidity on various world share markets.

### **Equity trading**

Equities are traded on the public share markets or sometimes as well on the over-the-counter market (OTC market). In the case of equity trading on the stock exchange it is necessary to follow the particular rules of the stock market (traded quantity, type of orders, contractual settlement, etc.). If the equity is listed on the different stock markets in the different currencies, it also poses a currency risk. When buying the equity on the foreign stock market, please bear in mind, that the foreign stock markets always charge "third party fees", which are an additional/extra fees to the ordinary fees of the broker.

## **Investment funds**

### **General information**

The investment certificates of investment companies offering participation in investment funds (investment fund certificate) are securities, which include shares of mutual funds. Investment funds invest financial means provided by investors in accordance with the principle of the credit risk sharing. There are three basic types of investment funds, bond funds, equity funds and mixed funds, which consist of stock investment as well as bond investment. Funds can invest in domestic and/or foreign securities. The amount of investments of domestic investment funds consists not only of securities but also of money market instruments, liquid financial investments, derivatives and investment fund shares. In addition, the funds are further divided into the investment funds (which pay dividends), the growth funds (which don't pay dividends) and the "funds of funds". The growth funds don't pay out dividends, rather reinvest into the funds, unlike investment funds. The "funds of funds" can invest in domestic and/or foreign funds.

### **Return**

Return from investment fund certificate includes the annual allocation (under the condition, that they are not divided funds or accumulated funds) and the value trend of certificates. It is not possible to determine it in advance. The value trend depends on investment policy specified in terms of the fund, as well on market trends of particular securities the fund holds. Depending on the composition of fund portfolio, it is necessary to take into account relevant warning signals of bond risk, equity risk and warrant risk.

In general, the investment certificates of investment funds can be executed for redemption price at any time. In exceptional conditions, the investment certificates purchase can be temporarily deferred until the sale of fund's assets and income from sales are not executed. Please do not forget, that the investment certificates of investment funds, unlike bonds, are not usually repurchased, and therefore do not bear fixed redemption price. The risk of certificates of investment funds depends, as it has been already mentioned,

on investment objectives set out by the fund and on market trends. However, the loss cannot be excluded. Although the certificates of investment funds can be returned at any time, they are the instruments used to invest for a longer periods of time. Funds, the same as equities, can be traded on the stock markets. Prices of the above-mentioned share markets can differ from redemption price.

### **Taxes**

Tax treatment of investment fund allocation varies depending on the type of investment fund.

### **Foreign investment companies**

Foreign investment companies are regulated by specific legal provisions, which may differ from the provisions applicable in the Slovak Republic. Especially the provisions regulating surveillance are very often less strict than those in the Slovak Republic. In other countries, there are close-end funds or funds managed by corporate law, whose prices are regulated more by supply and demand than by actual fund value that is roughly comparable with the state of equity price. Regardless of their legal form, dividends and dividend yields allocated by the foreign investment companies (e.g. funds not dividing the dividends), and yields equivalent to dividend payout are the subject of other fiscal agreements.

### **ETFs**

Exchange Traded Funds (ETFs) are fund's assets, which are traded as equity stock on stock exchanges. EFT usually generates a basket of securities (e.g. basket of equities), which reflects an equity index, i.e. it monitors an index in one certificate through the equities included in the index and in actual weight, therefore EFT are often called "index equities".

### **Return**

Return depends on the price trend of underlying securities in the securities basket.

### **Risk**

The risk depends on individual underlying securities in the securities basket.

## **Property/ equity funds**

Property funds are special funds owned by the investment company, which holds and administers special mutual funds on behalf of shareholders. Participation certificates represent contractual right to a share of earnings from special fund. Property funds invest financial means, received from shareholders in accordance with the principle of risk sharing, especially in land, buildings, shares of property companies and similar property ownership, as well in construction projects. In addition they hold financial investments (investments in liquid assets), such as securities, or bank deposits. Liquid investment serves to secure an outstanding payment obligation of property fund (e.g. because of property purchase) and to repurchase the participation certificates.

### **Revenues**

From a shareholder point of view, the total return from property funds consists of annual dividends (in such amount that the fund distributes the dividends rather than it reinvests them) and price trend of the calculated value of fund shares. The amount of earnings cannot be determined in advance. Performance of property fund depends on investment policy

stipulated in the statutes of the fund, market trend, specific property owned by the fund and other parts of the fund (securities, balance on the bank accounts). Previous performance of the property fund shall not serve as an indicator of the future performance. Property funds are exposed to the risk of lower earnings due to vacancies in the buildings, among others. There can be a problem with initial rent, particularly in case of own construction projects of the fund. The vacancies can have negative impact on the value of property fund and lead to the lower dividends. Investing in property funds may also lead to a loss of part of invested capital.

Property funds also invest the liquid financial means and cash in banks in other forms of investment, especially interest-bearing securities. This part of fund's assets is exposed to the specific risks applicable to the selected forms of investments.

### Price risk

Participation certificates may be returned for redemption price any time. In case of property funds the redemption of participation certificates can be the subject to restrictions. Under exceptional conditions, the redemption can be temporarily deferred, until the underlying assets of the property fund are sold and sales revenues are received. In particular, statutes of the fund may stipulate that after the return of the large number of participation certificates, the redemption can be deferred for the period of up to two years. In such cases, the fund cannot pay out the redemption price during this period. Property funds are typically classified as long-term investment projects.

## Warrants

Warrants are securities without attached interest and dividends, which entitles the holder to buy (purchase warrants) or sell (sell warrants) certain underlying assets (e.g. equities) at a specified price (exercise price) at certain time or during certain period.

### Return

Those who buy the purchase warrant, have the purchase price of underlying assets secured. Return can be achieved, if the market price of underlying assets exceeds the agreed exercise price, which is to be paid to the investor. Then the holder of the warrant can buy underlying instrument at the exercise price on the stock exchange and sell it immediately at the current market price. Increase in the price of underlying assets will usually result in a proportionally higher percentage increase in the price of warrant (leverage effect). Consequently, the majority of warrant holders will achieve return from purchase of warrants. The same applies, adequately, to sell warrants. Their price usually rises, when the price of underlying assets falls. Revenue from transactions with the warrants cannot be determined in advance. The maximum loss is limited to the amount of invested capital.

### Price risk

The risk associated with the warrant transactions may be that between the time of warrant purchase and its period to maturity the underlying assets evolve differently, as it was expected at the time of their purchase. In the worst case, it might be possible to lose all of the invested capital. The warrant price also depends on other factors, of which the most important are the following:

- Volatility of the underlying assets (rate of fluctuation margin expected at the time of purchase and at the same time the most significant input determining regulation of warrant price). The high volatility usually implies the higher price of the warrant.

- Time remaining until the maturity (the longer the maturity of warrant, the higher the price). Volatility reduction or reduction in time until the maturity may cause that the warrant price will remain unchanged or it will fall – even if it comes up to the expectations regarding the price trend of underlying assets.

Warrants purchase with high volatility makes your investments more expensive and thus highly speculative.

### Liquidity risk

Warrants are usually issued only in small quantities which increases the liquidity risk for investors. As a result individual warrants may be exposed to very strong fluctuation in price.

### Trading with warrants

Warrants are usually traded outside the stock market (OTC). There is usually the difference between the purchase price and the selling price. With respect to the trading on the stock exchanges it is important to remember that the market has often very low liquidity.

### Rules governing warrants

There are no standardized rules governing warrants. Therefore it is necessary to obtain information on accurate rules for warrant.

## Structured investment Instruments

Structured investment Instruments are investment Instruments with no fixed revenues or capital pay-up in general but they are dependent on certain future events and development. Moreover, investment instruments may be structured in such a way that that the issuer may withdraw them in time if the product reaches the targeted value; in such cases they may be even withdrawn automatically. Due to many possibilities of merging, combining and division in relation to such investment instruments, they created a wide range of various structures where their chosen names do not always respond to the structures accordingly. Therefore, it is always necessary to study specific conditions of the product.

### Risks

1) If the conditions provide for interest and/or dividend payment, such payments may depend on future events pr development (indices, baskets, individual equity, certain prices, commodities, precious metals, etc.) and may therefore be decrease in future or even excluded.

2) The capital payments may depend on future events or development (indices, baskets, individual equity, certain prices, commodities, precious metals, etc.) and may be therefore decreased in future or even excluded.

3) What concerns interest and/or dividend payments, as well as the payment of the basic deposit, it is necessary to consider interest risk, currency risk, sector risk, country risk and credit risk (and the likelihood of the insufficient guarantee of the creditor's rights and no entitlement to separation and renewal of assets which are not part of the assets in bankruptcy), as well as tax risks.

4) Risks defined in sections 1 to 3 may lead to strong price fluctuation (price losses) during the time of instrument holding regardless of the guarantee of interest, revenues or basic capital/basic deposit; such risks may also obstruct or exclude the instrument sale prior to its maturity.

### Swaps with constant maturity

These products which are structured as debt securities represent a fixed coupon first. After the stage of fixed interest rate the products are transferred to variable interest rate. The coupon being typically valid for one year depends on current interest situation (e.g. interest curve). Moreover, such products may include the possibility to change the target interest rate, e.g. if the target interest rate is reached, the product may be withdrawn earlier.

In the stage of fixed interest rate, the investor usually obtains higher coupon than for the conventional bonds on the market. In the stage of variable interest rate the investors have the option to reach higher coupons than the bonds with fixed interest rate.

Prior to the maturity, price fluctuations related to changes may occur. Such fluctuations may be proved as important depending on the interest rate trend.

### **Guaranteed certificates**

When the guaranteed certificates obtain their maturity, the calculated face value is paid or its certain percentage regardless of performance of the underlying securities („minimum redemption“).

Maximum achievable revenues from the performance of underlying securities may be limited by maximum redemption price or other limitations on the performance participation of underlying securities determined in the conditions of this certificate. The Investor shall not have a right to dividends or similar division of underlying securities.

The certificate value prior to maturity may drop below the minimum redemption price prior to maturity. However in the maturity date the value shall normally be on the level of minimum redemption price. Minimum redemption price depends on the issuer's credit.

### **Discount certificates**

In case of discount certificates the investor shall obtain underlying securities (e.g. underlying equity or index) for decreased current price (safety reserve) but in return the share during the growth of underlying securities is limited to certain top limit (cap or reference price). In the time of maturity, the issuer shall have the right to redeem the certificate for maximum price (cap) or deliver the equities or when index is used as the underlying securities, pay cash equal to index value.

The difference between the decreased purchase price of the underlying securities and price top determined by cap shall represent possible revenue. If the price of the underlying securities slumps, equities shall be delivered when the instruments reaches maturity (equivalent value of transferred equities shall be lower at that time than the purchase price). Since the equity may be credited, it is necessary to consider warning on equity risks.

### **Bonus certificates**

Bonus certificates are debt securities which pay bonus in the time of maturity due to certain requirements or acknowledged price of underlying securities (individual equities or indices) except for face value. Bonus certificates have fixed maturity. The certificate conditions determine payment of cash or division of underlying securities in the time of maturity. Redemption type and price in the time of maturity depends on the price performance of underlying securities. There are three levels determined for bonus certificates: Initial level, limit below the initial level and bonus level above the initial level. Of the underlying securities fall to the level or below it, the bonus shall expire and the certificate shall be redeemed for the price of underlying securities. On the contrary, the minimum redemption price results from the bonus level. When the certificate reached maturity, the bonus shall be paid together with initially paid amount for certificate face value.

With bonus certificate, investor obtains monetary entitlement against the issuer for payment of amount determined by the performance of underlying securities. The revenue depends on the performance of underlying securities.

The risk depends on the underlying securities. If the issuer goes bankrupt, the investor has no guarantee for the creditor's rights or right to exclusion and return of assets not belonging to the bankruptcy assets with regard to the underlying security.

### **Index certificates**

Index certificates are debt instruments (usually publically listed) offering the investors the possibility to obtain interests from certain index without obligation to own securities which the index contains. Underlying index is usually expressed as 1:1; changes in the particular index are considered.

With the index certificate, investor obtains the monetary right against the issuer for the payment of amount which shall depend on the level of underlying index.

The risk depends on the underlying index for securities. If the issuer goes bankrupt, the investor has no guarantee for the creditor's rights or right to exclusion and return of assets not belonging to the bankruptcy assets with regard to the underlying security.

### **Basket certificates**

Basket certificates are debt instruments which offering the investors the possibility to obtain interests from the performance of certain securities basket without obligation to own securities which the basket contains. The composition of underlying basket depends on the issuer. Various securities in the basket may have the same or various weights. The composition may be adjusted from time to time (e.g. annually).

## **Hedge funds (hedge funds, hedge funds of funds, index certificates of hedge funds, and other products with hedge strategy as the basic instrument)**

Hedge funds are funds which are subject to small or no limitations of legal or other nature with regard to the investment principle. They strive to use all forms of investment in order to increase their capital by means of alternative investment strategies. Hedge funds of funds are funds which invest into individual hedge funds. Index certificates of hedge funds are debt securities and their price and performance trend depend on average trend of some hedge funds which are connected to simple index to provide for the basis of calculation. Hedge fund of funds and index certificates of hedge funds offer investors the advantage of improved risk distribution.

Hedge funds offer the option of very high revenues as well as the risk of losing you invested capital being quite high. The price trend of hedge funds products is especially impacted by the following factors which generate options and risks:

- hedge funds trends tend to be independent of international trends on the equity and bond market; depending on the hedge fund strategy, the general market trends may be exaggerated or they may end in significantly opposite development direction.

- hedge fund trends are especially influenced by their market share.

- due to their parts, hedge fund assets may be significantly volatile, which means that equity prices may be subject to significant fluctuations upwards or downwards within a short time period. In extreme cases, unsecured hedge fund products may lead to complete loss.

- focus on only one strategy or only on some may cause risk – this risk may be decreased by means of diversification in case of hedge fund of funds or index certificates if hedge funds.

- the fund of funds management selects individual funds and their parts are in compliance with the desired fund risk/profit profile or based on the distribution system among various countries and sectors determined by the index committee.

### Liquidity risk

Since hedge funds require complex strategies and they are difficult to manage, it takes longer to determine the price of hedge fund product than with the traditional funds. Hedge fund products are therefore less liquid than traditional funds. In general, prices are determined rather monthly than daily in order for equities to be regularly redeemed only once a month. In order to be able to return equities in time, the investor shall issue an irrevocable statement on the intention to return their equities in advance prior to the redemption date. The equity price may change significantly between the period of the intention publication of equity redemption and the time of redemption, however, the investor shall not have right to such price changes since his statement on the intention is irrevocable. Specific conditions of redemption depend on individual product. Limited liquidity of individual funds and instruments may therefore decrease hedge fund product saleability.

## Money market instruments

Money market instruments include certified money market instruments and loans such as deposit certificates, cash bonds, global note facilities, commercial papers, as well as all notes with maturity of the capital no later than 5 years with fixed interest within one year. Transactions on the money market include also redemption and agreements.

Profit and risk components of the money market instruments correspond to the bonds/debenture bonds/notes. The differences are related mainly to the liquidity risk.

### Liquidity risk

There is typically no regulated secondary market for the money market instruments. It is therefore not possible to ensure their saleability any time. Liquidity risk retreats providing the issuer ensures the payment of invested capital anytime and has sufficient credit for that.

Deposit certificates – securities of the money market issued by banks usually with maturity from 30 to 360 days.

Cash bonds – securities of the money market issued by banks usually with maturity up to five years.

Commercial Papers - securities of the money market, short-term bonds issued by corporations with usual maturity from five to 270 days.

Global Note Facility - variant commercial paper facility enabling the issuance of commercial papers in the USA and at the same time on the markets in Europe.

Notes – short-term securities of capital market, typically with maturity from one to five years.

## Stock exchange future trading (options and futures)

What concerns option and future trading there are high chances for revenues as well as extraordinary high risk of loss.

### Options purchase

It means a purchase (opening= sale at opening, long position) of calls or puts (puts) obtaining right to delivery or acceptance of underlying security or if possible, as in the case of index options, you have a right to payment of amount equal to positive difference between the price of underlying security in the time of option purchase and the market price in the time of option execution. Execution of option in the case of American style options may be done any time before the agreed maturity; in case of European options it may only be done at the end of agreed period. You pay the option price for option purchase (option premium). When changing price compared to your expectation when buying option, there might be its complete devaluation at the end of maturity date. Your risk of loss is then included in the price you pay for the option.

### Sale of option contracts and purchase or sale of forward contracts

#### Sale of calls

It means a sale (opening= sale at opening, short position) of call option when taking over the obligation to supply underlying security for a set price any time prior to the maturity for American style calls) or at the end of maturity (for European calls). When accepting this obligation, you shall also receive option price. With the growing price of underlying security you shall count with the risk of delivery of underlying security for agreed price even in case that the market price is significantly higher. This difference shall represent your loss risk which could not be determined in advance and it is actually unlimited. If the underlying securities are not in the ownership (uncovered short positions), you have to purchase them by means of cash transaction (cover transaction) and your loss risk may in such case not be determined in advance. If you have underlying securities in your ownership, you are protected against the loss by coverage and you are also able to deliver immediately. Since these securities have to be blocked until the maturity date of your option transactions, you may not dispose of them in this period meaning that you may not sell them to be protected against the price decline.

#### Sale of puts

It shall mean sale (opening=sale at opening, short position) of put option (short position) when taking over the obligation to purchase underlying security for a set price any time prior to the maturity for American style calls) or at the end of maturity (for European calls). When accepting this obligation, you shall also receive option premium. With the declining price of underlying security you shall count with the risk of purchase of underlying security for agreed price even in case that the market price is significantly lower. This price difference calculated as execution price minus option premium shall represent your loss risk which could not be determined in advance and it is actually unlimited. Immediate sale of securities is only possible with loss. If you do not consider immediate sale of securities and you would like to keep them in your ownership, you shall count with payment of amount related thereto.

#### Sale or purchase of forward contracts

It shall mean purchase or sale of futures whereby you take over the obligation to accept or deliver the underlying value for agreed price at the end of agreed period. With growing price you shall count with the risk of necessity to deliver underlying securities for agreed price even in case that the market price is significantly higher. With decreasing price, you shall accept the risk of necessity to buy underlying securities for agreed price even if the market price is significantly lower. This price difference shall represent your risk loss. In case of the obligation to purchase, you shall have the necessary cash available in the moment of maturity. If the underlying securities are not in the ownership (uncovered short positions), you have to

purchase them by means of cash transaction (exchange transaction) and your loss risk may in such case not be determined in advance. If you have underlying securities in your ownership, you are protected against the loss by coverage and you are also able to deliver immediately.

### Transactions with clearing in cash

If it is not possible to supply or accept underlying securities for future transactions (e.g. in case of index options or index futures), you shall be obliged to pay the amount in cash (cash settlement) providing the market has not changes as you expected. The amount of this difference shall be calculated from the difference between the underlying security price in the time when the option or future contract was concluded and the market price in the time of execution or maturity. This price difference shall represent your loss risk which could not be determined in advance and it is unlimited. In this case, you have to make sure you have enough liquid means to cover this transaction.

### Margins

In case of short sale of options (opening=sale at opening, uncovered short position) or purchase or sale of futures (future trade), it is necessary to provide the capital in form of „margin“. You are obliged to provide such capital in the time of opening and anytime it is necessary (if the price development does not fulfil your expectations) prior to the termination of option or future contract. If you cannot provide supplementary capital upon request, we will unfortunately have to close your positions and use the already provided capital for transaction cover.

### Option clearing

When trading with American options and future contracts, you may balance your position prior to maturity date. Do not rely unconditionally on the fact that it may be done anytime. It always depends to certain extent on the situation on the market; in case of dissatisfactory conditions you might have to conclude business for inconvenient market prices, so there may possibly be some losses.

### Currency forwards

Currency forward includes firm obligation to purchase or sell certain amount in foreign currency in certain time in future or for a certain period of time for the price agreed when concluding contract. Delivery or acceptance of another currency shall be done on the same day as the foreign currency day. Revenues (profit/loss) which the speculative investors shall obtain are the difference between the cash rates during the maturity date of the forward trade or at the end of it in line with contract specifications. Using currency forwards for security shall mean determining the exchange rate so the costs or revenues of hedge transaction shall not be increased or decreased as a result of exchange rate fluctuation.

### Currency risk

Currency risk of currency forwards with hedge funds means that the buyer/seller may buy/sell foreign currency during the maturity or at the end of currency forward more convenient than during the business conclusion or in case of open trades when the buyer/seller will have to do inconvenient buying/selling. Possible loss may substantially exceed the amount of original contractual value.

### Credit risk

Credit risk in relation to currency forwards lies in the likelihood of insolvency of the contracting party, i.e. temporary or permanent inability of one party to accomplish currency forward, thereby the necessity to cover transaction by means of the market, which may be more expensive.

### Transfer risk

Transfer of some foreign currencies may be limited especially by regulations for exchange control in domestic country issuing the currency. This could endanger the proper execution of forward currency transaction.

### Currency swaps

Transactions when certain amount of one currency is swapped for another currency in certain time period. The interest difference between these two currencies is considered by means of extra charge/deductions to reverse rate of exchange. Supply or acceptance of the other currency is performed on the same day of foreign exchange. Revenues (profit/loss) for the currency swap participants results from positive or negative development of the interest difference and in case of mutual trade it can be obtained in the maturity date of the currency swap.

### Credit risk

Credit risk in relation to currency swaps lies in the option of insolvency of the contracting party, i.e. temporary or permanent inability of either party to execute currency swap and thereby the necessity to cover transaction by means of the market, which may be more expensive.

### Transfer risk

Transfer of some foreign currencies may be limited especially by regulation for the swap control in the domestic country issuing specific currency. This could endanger the proper execution of currency swap.

### Interest swaps

The agreement between two parties on the exchange of interest obligations defined differently with regard to fixed face amount. Typically the fixed interest payments are exchanged for the variable ones. That means that only the interest payment is being done but the capital exchange does not happen. The interest swap buyer (the fixed interest payer) has profit from the interest growth. The interest swap seller (the fixed interest acquirer) has profit from the interest decline. The amount of profit from interest-rate swap may not be determined in advance.

### Interest risk

Interest risk results from the uncertainty in future changes of market interests. The IRS Buyer or Seller is exposed to the risk of loss if the level market interests is falling or rising.

### Credit risk

Credit risk with IRS lies in the possibility of failure to pay by the contracting party which causes the loss of receiving positive cash or possible necessity to cover trade using the market for a worse price.

### Forward rate agreement (FRA)

Forward rate agreements are used as an agreement on interest rates that shall be paid on certain date in future. Because the FRAs are realized on the

inter-bank market and not on the stock exchange, they do not have standardised conditions. In contrast to interest-rate futures, the FRAs are customised investment products in terms of amount, currency and interest period. By buying or selling FRA, the investor fixes the interest rate for the afore-mentioned period. If the reference interest rate on the effective date is higher than the agreed interest rate (FRA price), the buyer gets compensation for interest rate fluctuation. If the reference interest rate on the effective date is lower than the agreed interest rate (FRA price), the seller of the FRA gets the compensation payment.

### Interest rate risk

The interest rate risk results from the uncertainty in future changes of interest rates. In general, the higher the risk is, the more significantly the interest rate rises or falls.

### Credit risk

The credit risk at the FRA consists in the possibility of non-payment of the party to contract, what causes loss of positive cash income or potential necessity to cover the deal through the market at a worse price.

### Interest rate futures

Futures are future contracts for short-term investment papers, financial or capital market papers with standardized payment date and size of contract exchange-traded. Thus, the yield from such investment (interest rate or price) can be fixed beforehand. Also by futures the unconditional obligations are assumed that have to be fulfilled regardless of future development and rise of below risks. Gains or losses achieved by the speculative futures investors result from interest rate differences or price differences at the end of payment date of the futures transaction under the conditions of that futures transaction. Use for hedging purposes lowers the financial risk of existing or future positions.

### Interest risk

The value of futures depends primarily on the development of the yield of the underlying instrument. The risk rate of the buyer is therefore comparable to the risk of the underlying instrument. The risks results from uncertainty in future interest rate changes on the market. Interest rate risk of the buyer or the seller is in the duty of supplementary payment or fulfilling his obligation on the payment date, if the interest rate rises or falls. In general, the higher the risk, the more significantly the actual market interest rate is rising or falling. From that resulting possible loss can present up to several fold of the original capital contribution.

### Liquidity risk

On some markets the closing of futures position (sale/redemption of contracts) can lead to considerable and disadvantageous fluctuation of prices in case of the above-average supply or above-average demand.

### Currency options

The buyer of a currency option acquires the right but not the obligation to buy or sell a fixed amount of foreign exchange at certain price on certain day in the future or in certain time period. The seller (issuer) of the option guarantees this right to the buyer. The buyer pays the seller for this right a premium. The following types of options exist:

- the buyer of a call option acquires the right to buy a fixed amount in certain currency for a certain price (basic price or realization price) on or before certain date (payment date).
- the seller of a call option guarantees to deliver or sell, based on a request of the option holder, set amount in certain currency for agreed realization price on or before certain date.
- the buyer of a put option acquires the right to sell a fixed amount in certain currency for certain price (basic price or realization price) on or before certain date (payment date).
- the seller of a put option guarantees to buy, based on a request of the option holder, set amount in certain currency for agreed realization price on or before certain date.

### Yield

The buyer of the call option will profit if the market price of the currency is higher than the agreed realization price, whereby the purchase prices (=the premium) will be deducted from this profit. The option holder can then buy the foreign exchange for the realization price on the market and resell it immediately. The issuer of the call option obtains the premium for the option sale. The same applies reversely to put options that are bought in expectation of rising exchange rates.

### Total loss of premium risk

For the option buyer, the risk of loss of the whole premium value arises that has to be paid regardless of whether the option will be realized or not.

### Credit risk

The credit risk in connection with the purchase of currency options lies in the possibility that the party to the contract will not pay. This results in the loss of already paid premium and subsequent necessity of expensive obligation coverage through a purchase on the market.

### Currency risk

The risk of currency options lies in the possibility of reverse development of the value of respective currency during the lifetime of the option (e.g. decision of the seller counted on reverse development). The loss resulting from this is basically endless for the issuer of the option. Assessment of the option depends on various factors:

- volatility of the underlying currency (characteristic of expected rate of exchange rate fluctuation)
- agreed realization price
- time remaining to the payment date
- current exchange rate
- interest rate of both currencies
- liquidity

### Transfer risk

Transfer of certain currencies can be limited, especially by provision for regulation of exchange in the mother country emitting that currency. That may endanger proper realization of the trade.

### Liquidity risk

For the currency options there does not exist organised (secondary) markets. Therefore, it is not possible to guarantee that the currency option will be easily sold.



## Interest rate options

The interest rate options represent an agreement on upper or lower limit of interest rate or option for an interest rate swap (swaption). They are used for the purpose of hedging or for speculative trading with the aim of profit. The interest rate options are either calls or puts. The most common types are caps, floors, swaptions, etc. The caps buyer hedges through the realization price the upper limit of interest rate (= realization price) for future lending. At the speculative trading the cap value rises with the rising interest rate. Cap sale is used only as a speculative instrument. The seller receives a premium and is obliged to pay the buyer compensation for any difference in the interest rate. Floors guarantee the buyer with certain minimal interest rate for future investments. At the speculative trading, the value of the floors rises with falling interest rate.

### Yield

The interest rate option owner gets yield if on the day of realization the interest rate on the market is higher than the call realization price or lower than the put realization price. In case of swaption it is possible to achieve the yield if on the day of realization the interest rate is above the agreed realization price (at payers swaption) or under the agreed realization price (at receivers swaption). The achieved option premium remains with the seller without regard to whether the option is realized or not.

### Interest risk

The interest risk arises from the uncertainty of possible future changes in market interest rates. The buyer or the seller of the interest rate option is exposed to the risk of loss if the market interest rates are falling or rising. The higher the risk, the more significantly is the market interest rate rising or falling. That results in virtually unlimited possible loss. The interest rate option premium depends on following factors:

- interest rate volatility
- agreed realization price
- time remaining to payment date
- current financial costs
- liquidity

That means that the price of the option can remain unchanged or even drop even in the case when the expectations of investors regarding the development of the interest rate were met.

### Credit risk

The credit risk at the interest rate options purchase lies in the possibility of non-payment of the party to the contract, what causes loss of positive cash income or potential necessity to cover the deal through the market at a worse price.

### Total loss risk

The maximum loss in case of the interest rate option purchase is the amount of premium, which has to be paid regardless to whether the option will be realized or not.

## Cross Currency Swaps (CCS)

A Cross Currency Swap is an exchange of variously defined interest obligations as well as different currencies for a fixed nominal amount between two partners. In general, it is the exchange of fixed interest rates in two different currencies. Both interest payments can be certainly realized also in variable interest rate obligations. The payment flows are realized in

different currencies on the basis of the same capital sum that is determined on the basis of the current rate on the business day. Apart from the exchange of the interest rate obligations or interest rate claims, the exchange of capital occurs at the beginning (initial exchange) as well as at the end (final exchange). Depending on the needs of particular business partners, it is possible to omit the initial exchange.

### Yield

It is not possible to assess the amount of profit from the CCS in advance. At the positive development of the interest rate and interest rate difference it is possible to achieve the yield in case of premature cancellation of the CCS. If the CCS is closed with the aim to improve the difference between the interest rates, it is possible to gain the yield from a lower interest rate of the other currency. The yield can be then decreased by possible currency losses. If the currency relation is developing positively, the yield can improve profit.

### Interest rate risk

The interest rate risk arises from the uncertainty of possible future market interest rates changes. The buyer or the seller of the CCS is exposed to the risk of loss if the interest rate rises or falls.

### Currency risk

The currency risk rises from the uncertainty of possible future changes in corresponding exchange rate relations of currencies involved. In case of the CCS with the Final Exchange it is especially important to emphasize that the threat of risk is not only at the default of the contract partner but also during the whole period of maturity.

### Credit risk

The credit risk in the event of purchase or sale of the CCS lies in the danger of dropout of the business partner and subsequent necessity to provide additional coverage.

## Commodity derivatives

The commodity futures are special contracts that include rights or obligations regarding purchase or sale of certain commodity for certain predetermined price at certain moment or during certain period. The commodity futures are realized, among others, through the instruments described below.

### Commodity swaps

The commodity swap is an agreement on exchange of an array of payments ("fixed amounts") against the payments of variable prices for commodities ("market price") whereby there is a compensation of cash ("compensation amount"). The commodity swap buyer acquires the right to payment of the compensation amount if the market price falls under the fixed amount. On the contrary, the commodity swap seller is obliged to pay the compensation amount if the market price rises above the fixed amount. Both payment flows (fixed/variable) are in the same currency and based on the same basis of the nominal amount. Whereas the fixed aspect of the swap has the characteristic of the benchmark, the variable aspect regards the trade price of the said commodity recorded at a specific fixed date on the stock exchange or published otherwise on the futures commodity market or at the commodity price index.

### Commodity options with cash compensation

The Commodity Put option buyer acquires for the premium payment of the premium the right to that on every realization day he will receive the difference between the realization price and the market price in relation to the nominal amount, if the market prices falls under the fixed amount. The Commodity Call option buyer acquires for the premium the right to that on every realization day he will receive the difference between the realization price and the market price, if the market price rises above the fixed amount.

### **Risk at commodity swaps and commodity options with cash compensation**

If the expectation is not met, you have to pay the difference between the rate that was the basis for closing of the option and the current market rate at the maturity of the trade. This difference represents the loss. It is not possible to estimate the maximum amount of loss in advance.

### **Risk at purchased commodity options - price loss**

The change in price of the underlying asset (e.g. raw material) that is the basis of the option as the subject of the contract can decrease the value of the option. The loss of value can show itself in case of the call option in the event the prices fall; in case of the put option the loss of value can show itself if the price of the assets that are basis of the contract rises. Decrease of the value of the option can occur also when the price of the underlying assets does not change because the value of the option is concurrently determined by other factors of price making (e.g. frequency and intensity of fluctuation of price of the underlying asset).

### **Risk at sold commodity options - the leverage effect**

The risk in the event of the commodity option sale lies in that the value of the underlying asset will not develop in a way the seller expected until the completion of the option. Possible loss resulting from that is virtually unlimited for the issued options.

### **Fluctuation of prices**

The amount of payment obligations from commodity futures trades is estimated from the prices on particular commodity futures market. Commodity futures markets can succumb to strong price fluctuation. The prices can be affected by many factors related to supply and demand for commodities. It is not easy to predict or foresee such price determining factors. The prices can be significantly affected also unforeseen events like natural catastrophes, diseases, epidemics or orders issued by the state authorities as well as unforeseen development, e.g. weather conditions, fluctuation in harvests or risks of supplies and storage.

### **Currency risk**

The prices of commodities are frequently listed in foreign currency. You will be also exposed to foreign exchange market risk, if you enter into a trade with commodities, where your obligations and rights regarding the consideration are denominated in foreign currency or the accounting entity or the price of the contract is assessed according to them.

### **Liquidity risk**

Commodity futures markets are in general smaller than financial futures market and thus they can be less liquid. It is possible that on the requested date you will not be able to close the commodity futures position because of insufficient liquidity of the market as a whole or partially. Apart from that, there can be a big spread for certain contract between the purchase and sale price. Liquidation of positions thus can be made difficult or impossible under certain market conditions. Most of the commodity futures exchanges

are for example authorized to set limits for price fluctuation. Such limits can restrict offers or demands outside such set limits for certain period. Thus the liquidation of positions can be made difficult or impossible.

### **Limit order or Stop orders**

Limit order or stop loss orders are orders that serve the purpose of reducing trading losses in the events of certain market activities. Despite of that such options for risk reducing are on most commodity futures markets allowed, the limit orders or stop orders cannot be set at OTC commodities.

### **Futures market and spot markets**

It is particularly important to understand the relationship between prices of the futures contracts and prices on the markets where the transactions are carried out immediately after closing (spot markets). Even though the market powers can compensate the differences between the price of the futures contract and the price on the spot market of certain commodity in such way that the price difference will be virtually zero on the day of delivery, range of market factors including supply and demand can cause that the differences still remain between the price of the futures contract and the price on the spot market.

### **Market price assessment**

The market prices are recorded either on commodity futures exchanges or in accordance with common market practices. According to the failures of the system, the non-functionality of the system on the stock exchange or other reasons sometimes happens that because of the agreed set date no market price can be assessed. If no adjustments for substitute price assessment method shall be made, the clearing centre is usually authorized to set the market price based on their deliberation.