

## Complex financial instruments

### Risks of investing in funds

Investing always involves a risk, which means the uncertainty about the yield on the investment. In practice, the risk means that the investor may receive a lower or higher yield on the investment than expected and lose the invested assets partially or fully. Fund investors should also take into account that the fund can be merged with another fund, or be divided into several funds or be dissolved.

It is a common feature for all funds that the net asset value (NAV) per unit may rise or fall. A fund's fluctuation in value is in general measured by volatility. The higher the fund's annual volatility, the bigger is the risk relating to fluctuations in value. When redeeming fund units, the investor may get back less than the amount of the original investment. Historical performance is not a guarantee of future results.

A fund reduces the risk relating to an individual investment by spreading its investments into several instruments in accordance with the fund's investment policy. However, a fund is always subject to a market risk, which means the risk that the prices of the fund's individual investments change as a result of general market performance.

Settlement risk refers to the risk that the counterparty to a securities trade may not act in compliance with the agreed terms even though the other party has fulfilled his or her contractual obligations. The settlement risk is higher in securities and foreign exchange transactions between different continents because the settlement of the trades can take place in different time zones. The settlement risk is usually higher in emerging securities markets than in developed markets.

Force majeure risks refer to factors for which the contracting parties are not liable and which cause unpredictable and insurmountable consequences that are independent of agreements and cause a risk of discontinuation of operations. For instance, severe natural catastrophes, uprisings, strikes and states of war can be considered force majeure risks. The realisation of force majeure risks may have a significant effect, for example, on the prices of the securities in the fund's portfolio or on the fund's possibility to engage in securities trade. Consequently, the realisation of force majeure risks may affect the execution schedule of fund redemptions.

Furthermore, investing in funds can involve operational risks arising, for example, from external factors and technology or the deficient actions of the personnel or inadequate operations of the organisation or internal processes. Operational risks also include potential changes in the personnel and organisation.

In addition, a fund can also involve a **liquidity risk**, which means the risk that the fund's investments cannot be liquidated in the planned time period or at the desired price. This may affect the performance of the NAV per unit if the fund's investments have to be realised at a disadvantageous time. A liquidity risk can occur in an exceptional market situation when, for example, certain securities are not actively traded or their buy and sell quotations differ greatly or are missing entirely. In such a case, the redemption of fund units may last longer than normally and redemptions can be suspended in certain situations.

## Risks of investing in bonds

When investing in a bond, you should always read the terms and conditions of the bond. The terms and conditions define how the yield and nominal capital will be repaid in different market situations. Furthermore, you must assess the issuer's capacity to fulfil its obligations.

Bonds involve different kinds of risks, such as market and settlement risk, force majeure risk, operational risk, issuer risk, liquidity risk and a risk relating to the capital, interest and yield. **Market risk** means the risk that the prices of bonds change as a result of general market performance. On the secondary market the values of bonds vary according to supply and demand, and the market risk is realised when an investor sells bonds before their maturity date. You can mitigate the company risk relating to the fluctuations in the value of a bond by spreading your investments in the bonds of different issuers.

**Settlement risk** refers to a situation where the counterparty cannot fulfil his or her obligations; in other words, is not able to deliver the securities subject to a trade or to pay the trading price in accordance with the agreed terms, even though the other party has fulfilled his or her contractual obligations.

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Furthermore, investing in funds can involve **operational risks** arising, for example, from external factors and technology or the deficient actions of the personnel or inadequate operations of the organisation or internal processes. Operational risks also include potential changes in the personnel and organisation.

**Issuer risk** refers to a situation where the issuer of a bond cannot pay the investor the yield and nominal capital in accordance with the issue terms when the bond matures. One instance of a situation where the issuer risk is realised is the issuer's bankruptcy in which case the issuer becomes insolvent.

**The capital risk** is realised if the company that issued the bond is declared bankrupt and does not have the funds to repay the bond's nominal capital to the bond holders. Collateral lodged as security for the bond reduces the capital risk according to the realisation value of the collateral.

**Liquidity risk** is affected by the demand and supply of a certain security. If a security is not traded much, its liquidation at the desired price and time may be difficult and its value may fluctuate greatly.

**Interest rate risk** means that the selling price of a bond, ie rate, falls if the general interest rate level rises or the market changes in an adverse direction. The interest rate risk of interest-bearing bonds is realised when the investor sells the bond before maturity and the interest rates have risen between the subscription date and selling date. Example: A customer has bought a bond at an issue rate of 100%. If the selling rate is 98.8%, for a bond with a nominal value of 1,000 euros the customer receives 988 euros + the accrued interest, if any. If the interest rates fall, the investor gets profit. If the selling rate is 102.5%, for a bond with a nominal value of 1,000 euros the customer receives 1,025 euros + the accrued interest, if any.

## Risks of investing in shares

In addition to general risks, which include market and settlement risk as well as force majeure and operational risk, investing in shares also involves risks relating to the company's success. Investments in foreign shares also constitute an exchange rate risk.

**Market risk** means the risk that share prices change as a result of general market performance. On the secondary market the rates of shares, ie their values, vary according to supply and demand. The price risk is realised when the shares are sold. The company risk relating to the value fluctuations of a share can be reduced by spreading assets into several shares in different sectors. In addition, you can decrease general market risk by allocating assets into fixed income instruments, for example

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**Force majeure risks** refer to factors for which the contracting parties are not liable and which cause unpredictable and insurmountable consequences that are independent of agreements and cause a risk of discontinuation of operations. For instance, severe natural catastrophes, uprisings, strikes and states of war can be considered force majeure risks. The realisation of force majeure risks may have a significant effect, for example, on the prices of the securities or the possibility to engage in securities trade. Consequently, the realisation of force majeure risks may affect the execution schedule of share trades.

**Operational risks** can arise, for example, from external factors and technology or the deficient actions of the personnel or the inadequate operations of an organisation or internal processes. Operational risks also include potential changes in the personnel and organisation.

The owner of a share, ie shareholder, bears **the risk of losing the capital invested in the company** if the company is declared bankrupt. Direct investments in shares require careful study of the equity markets and the companies you are planning to invest in. You can reduce the risk and the problem of which companies to pick by investing in equity funds instead of investing in individual shares.

## Category A (capital protected, risk max 10%) Capital-protected financial instruments

Capital-protected products refer to products where the capital risk is 10% at the most, such as index-linked bonds. The yield on index-linked bonds can be tied, for example, to the performance of commodity, fixed income, share or currency indices. The subscription price of these index-linked bonds ranges from 100% to 110%.

There are also bonds on the market in which at least 90% of the nominal capital is always repaid at maturity while the maximum subscription price is 100%. However, the capital protection is in force only on the maturity date. During the loan period the repurchase price may be higher or lower than the nominal value, depending on the performance of the reference index.

The risks of index-linked bonds include settlement risk, force majeure risk, operational risk, issuer risk, liquidity risk, interest rate risk and market risk. **Settlement risk** refers to a situation where the counterparty cannot fulfil his or her obligations; in other words, is not able to deliver the securities subject to a trade or to pay the trading price in accordance with the agreed terms, even though the other party has fulfilled his or her contractual obligations.

**Force majeure risks** refer to factors for which the contracting parties are not liable and which cause unpredictable and insurmountable consequences that are independent of agreements and cause a risk of discontinuation of operations. For instance, severe natural catastrophes, uprisings, strikes and states of war can be considered force majeure risks. The realisation of force majeure risks may have a significant effect, for example, on the prices of the securities or the possibility to engage in securities trade. Consequently, the realisation of force majeure risks may affect the execution schedule of trades in index-linked bonds.

**Operational risks** can arise, for example, from external factors and technology or the deficient actions of the personnel or the inadequate operations of an organisation or internal processes. Operational risks also include potential changes in the personnel and organisation.

Furthermore, index-linked bonds constitute a **liquidity risk** because there is usually only one possible counterparty (issuer of the bond) on the secondary market. The liquidity risk increases especially if the issuer of the index-linked bonds undertakes to buy back the bond only on certain days during a year.

Moreover, index-linked bonds always involve **an issuer risk**, which means the risk of the issuer not being able to repay the yield on the bond and/or the capital in time due to bankruptcy, for example.

**Interest rate risk** means that the selling price of an index-linked bond, ie rate, falls if the general interest rate level rises or the market changes in an adverse direction. The interest rate risk of index-linked bonds is realised when the investor sells the bond before maturity and the interest rates have risen between the subscription date and selling date.

Example: A customer has bought an index-linked bond at an issue rate of 100%. If the selling rate is 98.8%, for an index-linked bond with a nominal value of 1,000 euros the customer receives 988 euros + the accrued interest, if any. If the interest rates fall, the investor gets profit. If the selling rate is 102.5%, for an index-linked bond with a nominal value of 1,000 euros the customer receives 1,025 euros + the accrued interest, if any.

**Market risk** means the risk that the prices of financial instruments change as a result of general market performance. The values of index-linked bonds on the secondary market vary as a result of interest rate movements as well as the changes in the prices of the underlying assets; in other words, according to supply and demand. If the market risk of index-linked bonds is realised, the investor does not receive the expected yield or receives no yield at all.

There are private placements on the market the structure of which places them in category A (capital-protected products). These products are usually tailored for a certain customer group. It is typical of these products that their supply and secondary market trading is limited.

## Category B (risk limited to capital, max 100%) Bonds

This category includes index-linked bonds that offer no capital protection at maturity or the capital protection is limited. The yield on such bonds can be tied, for example, to the performance of commodity, fixed income, share or currency indices.

Bonds involve different kinds of risks, such as market and settlement risk, force majeure risk, operational risk, issuer risk, liquidity risk and a risk relating to the principal, interest and yield. **Market risk** means the risk that the prices of bonds change as a result of general market performance. The values of bonds on the secondary market vary according to supply and demand. The market risk is realised when an index-linked bond is sold before maturity or the bond matures.

**Settlement risk** refers to a situation where the counterparty cannot fulfil his or her obligations; in other words, is not able to deliver the securities subject to a trade or to pay the trading price in accordance with the agreed terms, even though the other party has fulfilled his or her contractual obligations.

**Force majeure risks** refer to factors for which the contracting parties are not liable and which cause unpredictable and insurmountable consequences that are independent of agreements and cause a risk of discontinuation of operations. For instance, severe natural catastrophes, uprisings, strikes and states of war can be considered force majeure risks. The realisation of force majeure risks may have a significant effect, for example, on the prices of the securities or the possibility to engage in securities trade. Consequently, the realisation of force majeure risks may affect the execution schedule of bond trades.

**Operational risks** can arise, for example, from external factors and technology or the deficient actions of the personnel or the inadequate operations of an organisation or internal processes. Operational risks also include potential changes in the personnel and organisation.

**Issuer risk** refers to a situation where the issuer of a bond cannot pay the investor the yield and nominal capital in accordance with the issue terms when the bond matures. One instance of a situation where the issuer risk is realised is the issuer's bankruptcy in which case the issuer becomes insolvent.

**The capital risk** is realised if the company that issued the bond is declared bankrupt and does not have the funds to repay the bond's nominal capital to the bond holders. Collateral lodged as security for the bond reduces the capital risk according to the realisation value of the collateral.

**Liquidity risk** is affected by the demand and supply of a certain security. If a security is not traded much, its liquidation at the desired price and time may be difficult and its value may fluctuate greatly.

**Interest rate risk** means that the selling price of a bond, ie rate, falls if the general interest rate level rises or the market changes in an adverse direction. The interest rate risk of interest-bearing bonds is realised when the investor sells the bond before maturity and the interest rates have risen between the subscription date and selling date. Example: A customer has bought a bond at an issue rate of 100%. If the selling rate is 98.8%, for a bond with a nominal value of 1,000 euros the customer receives 988 euros + the accrued interest, if any. If the interest rates fall, the investor gets profit. If the selling rate is 102.5%, for an index-linked bond with a nominal value of 1,000 euros the customer receives 1,025 euros + the accrued interest, if any.

On the market there are also bonds tied to the credit risk of companies, such as CDOs (Collateral Debt Obligation). Investors investing in these bonds take a capital risk, ie a risk that a reference company is not able to service its liabilities and is placed in liquidation or declared bankrupt. If the risk related to a reference company is realised, the investors lose part or all of the capital they have invested.

Other bonds included in this category are, for example, bonds with warrants and convertible bonds. You can exchange a convertible bond for the issuer's shares in the manner specified in the terms and conditions of the convertible bond. A bond with warrants includes a right to subscribe for the issuer's shares at a certain price at a certain point of time in the future. Moreover, bonds always involve an issuer risk, which means the risk of the issuer not being able to repay the yield on the bond and/or the capital in time due to bankruptcy, for example.

These bond instruments suit experienced and active investors who are willing to take the risk of losing the capital invested in return for an opportunity to gain a substantial yield.

There are private placements on the market the structure of which places them in this category. These products are usually tailored for a certain customer group. It is typical of these products that their supply and secondary market trading is limited.

## Shares

This category includes Finnish and foreign unlisted shares and the related subscription rights. In addition to general risks, which include market and settlement risk as well as force majeure and operational risk, investing in shares also involves risks relating to the company's success. Investments in foreign shares also constitute an exchange rate risk.

**Market risk** means the risk that share prices change as a result of general market performance. On the secondary market the rates of shares, ie their values, vary according to supply and demand. The price risk is realised when the shares are sold. The company risk relating to the value fluctuations of a share can be reduced by spreading assets into several shares in different sectors. In addition, you can decrease general market risk by allocating assets into fixed income instruments, for example.

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**Force majeure risks** refer to factors for which the contracting parties are not liable and which cause unpredictable and insurmountable consequences that are independent of agreements and cause a risk of discontinuation of operations. For instance, severe natural catastrophes, uprisings, strikes and states of war can be considered force majeure risks. The realisation of force majeure risks may have a significant effect, for example, on the prices of the securities or the possibility to engage in securities trade. Consequently, the realisation of force majeure risks may affect the execution schedule of share trades.

**Operational risks** can arise, for example, from external factors and technology or the deficient actions of the personnel or the inadequate operations of an organisation or internal processes. Operational risks also include potential changes in the personnel and organisation.

The owner of a share, ie shareholder, bears **the risk of losing the capital invested in the company** if the company is declared bankrupt. Direct investments in shares require careful study of the equity markets and the companies you are planning to invest in. You can reduce the risk and the problem of which companies to pick by investing in equity funds instead of investing in individual shares.

It is typical of unlisted shares and subscription rights that only limited information is available of the companies and there is not a functioning secondary market.

This category also includes Finnish and foreign bonds with warrants and personnel options, which companies mainly use as an incentive to their employees. They are comparable to subscription rights, ie rights to subscribe for the underlying company's shares at a predetermined price in the future. It is typical of bonds with warrants and personnel options that if you do not use the subscription rights by the due date, they become worthless. The supply of information and secondary market trading may also be limited.

These products suit experienced and active investors who are willing to actively monitor the share price performance of individual companies.

## Other products

This group includes listed warrants and certificates. The risks of these products depend on their underlying asset, which can be a share, share index, currency or commodity.

The warrant entitles but does not obligate its buyer to buy (buy warrant) or sell (sell warrant) the underlying asset at a pre-specified price at maturity. However, the investor does not actually buy or sell the underlying asset, as the potential profit is paid in cash. You can obtain a yield on warrants when the value of the underlying asset rises or falls. The investor can assume a view whether the value will rise or fall and benefit from rises or falls. Warrants are leveraged, which means that if the price rises, the relative value of the buy warrant increases more than that of the underlying asset itself. You can also use warrants to hedge against price decreases of your existing share investments. Trading takes place as with shares.

A warrant is a high-risk investment. The investor may lose the entire invested amount. The cheaper a warrant is, usually the higher are the leverage effect and risk. Then again, it is considerably less expensive to buy a warrant than the underlying share, which limits the risk of loss. The price risk of the underlying asset is similar to the risk of owning the underlying asset directly, and in some cases there is also a leverage factor. The risks are related to the general performance of the equity markets and the success of the underlying asset. In addition, warrants pose an issuer risk.

Index-linked certificates are securities issued by Nordea Bank Abp. Their value is based on the performance of the underlying asset. There are two kinds of certificates: Bull and Bear. The value of the index-linked certificate Bull follows the performance of the underlying asset, while Bear moves in an opposite direction from the underlying asset. The index-linked certificates issued by Nordea are publicly listed and they are traded in the same way as shares.

The price risk of the underlying asset is similar to the risk of owning the underlying asset directly, and in some cases there is also a leverage factor. The risks are related to the general performance of the equity markets and the success of the underlying asset. The investor may lose the entire capital invested; direct equity investments rarely pose this kind of risk. In addition, certificates pose an issuer risk.

If the underlying asset is a share or a share index, the certificates also involve the following risks: market and settlement risk, force majeure risk, operational risk, and in direct share investments a risk relating to the company's success. Investments in foreign shares also constitute an exchange rate risk.

**Market risk** means the risk that share prices change as a result of general market performance. On the secondary market the rates of shares, ie their values, vary according to supply and demand. The price risk is realised when shares are sold. The company risk relating to the value fluctuations of a share can be reduced by spreading assets into several shares in different sectors. In addition, you can decrease general market risk by allocating assets into fixed income instruments, for example.

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## Category C (risk of loss exceeds the capital)

The category includes investment products involving a risk of losing more than the invested capital. Different derivative products, such as options, forwards and futures, are such products. They are used to buy or sell an underlying instrument, such as index, currency or commodity, at a certain price in the future. These products are meant as tools for investors who have a view on the market trend and who want to optimise the risk- return ratio of their investments or hedge their investment portfolio.

These investments typically have a short investment period and high volatility. These investments also involve a risk of losing more than the invested capital, which is why the bank will conclude a separate agreement with the customer on derivative trading and demand collateral from the investor, if necessary. Derivatives suit professional investors who understand the operating principles of the market and derivatives and are willing to take a risk of losing more than the invested capital in return for receiving a substantial yield.

If the underlying asset is a share or a share index, the products also involve the following risks: market and settlement risk, force majeure risk, operational risk, and in direct share investments a risk relating to the company's success. Investments in foreign shares also constitute an exchange rate risk price risk is realised when the shares are sold. The company risk relating to the value fluctuations of a share can be reduced by spreading assets into several shares in different sectors. In addition, you can decrease general market risk by allocating assets into fixed income instruments, for example.

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