

# Risks in Securities Trading Risk Disclosure Booklet



# Foreword

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Pursuant to the European Markets in Financial Instruments Directive banks need to ensure that their clients prior to trading in financial instruments are provided with sufficient information in relation to the nature and the risks of such instruments. This brochure is intended as a guide to assist you in your investment decisions. It provides a general overview of the main types of securities investments, from investment fund units to equities and warrants. Against this background, this brochure is intended to inform on the main characteristics and risks associated with financial instruments. For specific investments it is recommended that you contact your relationship manager for further information.

In the part entitled **“Types of investment”**, you will find information on the safety, liquidity and profitability of the different kinds of instruments. You should try to achieve an appropriate balance between these criteria by weighting them according to your personal investment objectives. The description of the characteristics of each type of investment is followed by notes on the special risks associated with them.

Securities transactions and other stock market transactions usually carry downside price risk. This means that if the price of the relevant securities falls, you may lose some or even all of the capital invested. Stock market transactions may lead to losses at any time and past performance is no guarantee of future performance.

The final chapter of this brochure, **“Basic investment risks”**, is intended to alert you to economic factors which may in some cases have significant implications on the value of your investment. The chapter deals with typical risks that apply to investment types covered in this brochure, such as economic risk, inflation risk and liquidity risk.

# Table of Contents

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<b>Part I: Types of investments</b>	<b>6</b>
<b>1. Interest-bearing financial instruments</b>	<b>6</b>
1.1 General	6
1.2 Features of a bond	6
1.3 Special forms of bonds	8
1.4 Primary markets	9
1.5 Issuers	9
1.6 Safety of interest-bearing securities	9
1.7 Bond trading	10
1.8 Special risks associated with interest-bearing securities	10
<b>2. Shares</b>	<b>12</b>
2.1 General: Shareholder as “owner”	13
2.2 The shareholder’s rights	13
2.3 Different types of share	14
2.4 Special risks associated with shares	14
<b>3. Index certificates</b>	<b>15</b>
3.1 General	15
3.2 Special risks associated with index certificates	16
<b>4. Investment fund units/shares</b>	<b>16</b>
4.1 General	16
4.2 Different types of investment funds and marketing passports	16
4.3 Investment fund structures	17
4.4 Open-end investment funds/closed investment funds	17
4.5 Fund composition	17
4.6 Geographical investment focus	18
4.7 Funds with a fixed investment horizon	18
4.8 Capital or income guarantee	19
4.9 Payment of distributions	19
4.10 Investments in non-traditional investments (hedge funds, offshore funds, private equity funds)	19
4.11 Special risks associated with investment funds	20
<b>5. Warrants and options</b>	<b>23</b>
5.1 General	23
5.2 How warrants work – risk of loss	24
5.3 Valuation criteria and pricing factors	24
5.4 Margin requirements for short positions	25
5.5 Types of warrants	25
5.6 Over-the-counter (OTC) options	26
5.7 Exotic options	27
5.8 Special risks associated with warrants and options	27

<b>6.</b>	<b>Forward/futures transactions</b>	<b>29</b>
6.1	General	29
6.2	Underlying instruments	30
6.3	Characteristics	30
6.4	Risks	31
<b>7.</b>	<b>Structured products and structured deposits</b>	<b>31</b>
7.1	General	31
7.2	Capital-protected structured products/structured deposits	31
<b>8.</b>	<b>Synthetic products</b>	<b>33</b>
8.1	General	33
8.2	Synthetic covered options ( <i>e.g. Title or Return Options, TOROs</i> )	34
8.3	Index, region and basket certificates	34
<b>9.</b>	<b>Special issuer/counterparty risk in derivative transactions</b>	<b>34</b>
<b>10.</b>	<b>Investments in emerging markets</b>	<b>35</b>
10.1	General	35
10.2	Characteristics	35
10.3	Risks	35
<hr/>		
<b>Part II:</b>	<b>Basic Investment Risks</b>	<b>36</b>
<b>1.</b>	<b>Economic risk</b>	<b>36</b>
<b>2.</b>	<b>Inflation risk (purchasing power risk)</b>	<b>36</b>
<b>3.</b>	<b>Country risk and transfer risk</b>	<b>36</b>
<b>4.</b>	<b>Exchange rate risk</b>	<b>36</b>
<b>5.</b>	<b>Liquidity risk</b>	<b>37</b>
<b>6.</b>	<b>Psychological market risk</b>	<b>37</b>
<b>7.</b>	<b>Tax risk</b>	<b>37</b>
<b>8.</b>	<b>Risks associated with credit-financed investments (leverage)</b>	<b>37</b>
<b>9.</b>	<b>Interest rate risk</b>	<b>37</b>
<b>10.</b>	<b>Price Risk</b>	<b>37</b>
<b>11.</b>	<b>Risk of total loss</b>	<b>37</b>
<b>12.</b>	<b>Counterparty risk</b>	<b>38</b>
<b>13.</b>	<b>Concentration risk</b>	<b>38</b>
<b>14.</b>	<b>Risk of insolvency of the counterparty or clearing and settlement system</b>	<b>38</b>
<b>15.</b>	<b>Additional risks on emerging markets</b>	<b>38</b>
<b>16.</b>	<b>Other basic risks</b>	<b>38</b>
16.1	Information risk	38
16.2	Transmission risk	38
16.3	Risk associated with owner custody	38
<b>17.</b>	<b>Impact of incidental costs on profit potential</b>	<b>38</b>

# Part I: Types of Investment

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## 1. Interest-bearing financial instruments

*Interest-bearing financial instruments* bear interest at a fixed or variable rate. The maturity and form of redemption are agreed in advance. Also referred to as bonds, loan stock or debentures, they are debt instruments issued to an (anonymous) unspecified bearer or in the name of a specified bearer. As the purchaser of a bond (*creditor*), you acquire a monetary claim against the issuer (*borrower*).

### 1.1 General

#### Definitive notes and global certificates

Interest-bearing investment instruments are either printed as individual documents with specific nominal values (*definitive notes*) or are collectively represented by a global certificate, which is deposited for *global custody* with a custodian bank. Definitive notes can be delivered to the investor. In case of bonds held in global custody, the purchaser's account is credited with the co-ownership (calculated in fractions) of the global certificate.

#### Par, discount, premium

Bonds may be issued at par (i.e. at 100% of the nominal value), *above par* or *below par*. Below and above par mean, respectively, that the new bond is issued at a *discount* or a *premium*, i.e. the issue price is lower or higher than the nominal value. This discount or premium is generally expressed as a percentage of the nominal value.

#### Interest payments and capital appreciation

Bonds can provide you with two types of income: interest payments by the issuer and capital appreciation (difference between the purchase/issue price and the sale/redemption price).

### 1.2 Features of a bond

The particular features of a bond are set out in the terms and conditions of issue. These contain all relevant details of the bond issue and the legal relationship between the issuer and the investor. The details include the year of issue, the life or

the maturity of the bond and its redemption method, the interest rate, the currency and the priority in the event of bankruptcy or liquidation of the borrower.

#### 1.2.1 Life of a bond

Depending on their maturity, bonds are described as **short-term** (up to four years), **medium-term** (four to eight years) or **long-term bonds** (more than eight years). The *maturity* or *life* of a bond is the period between the date from which the bond will bear interest and the date on which it falls due for redemption as laid down in the terms and conditions of issue.

#### 1.2.2 Life of a bond

Bond redemption can take the form of either scheduled or unscheduled repayment.

#### Scheduled repayment

There are essentially three forms of bond with scheduled repayment:

- With *bullet bonds* (also known as term bonds), you will usually receive the nominal value in a single lump sum at maturity. Thus with this type of interest-bearing investment, the date of repayment of capital by the issuer is fixed.
- *Annuity bonds*, by contrast, are not repaid as a single lump sum but are paid in annual installments spread equally over the life of the bond. Repayment usually begins after a redemption-free period of three to five years.
- In the case of *lottery bonds*, repayment takes place on different dates following a redemption-free period of a certain number of years. The issuer draws lots (usually based on end numbers, series or groups) to determine which certificates will be repaid on the next repayment date.

#### Unscheduled repayment

An issuer may, under the terms and conditions of the bond, reserve the right to exercise unscheduled repayment by issuing a notice of

redemption. In some cases the purchaser may also have a right to exercise early repayment under the terms and conditions.

### 1.2.3 Interest

The interest which you, the investor, receive from the issuer on the nominally invested capital (the nominal value of the security) may be paid either at a fixed rate (as with *traditional bonds*) or at a *variable* rate which can be adjusted to the prevailing market conditions. Hybrid rate forms also exist.

#### Fixed-interest bonds

Fixed-interest bonds (also called *straight bonds*) pay interest at a fixed rate (***nominal interest rate*** or *coupon*) over their entire life. In some countries, the interest is usually paid annually, while in other countries (such as the USA), interest on bonds is paid on a semi-annual basis. Payments are made at the end of the period. Interest certificates (***coupons***) attached to these securities represent the interest to be paid to the investor.

#### Bonds with variable interest rates (floating rate notes)

*Floating rate notes* (or ***floaters***) pay a variable rather than a fixed interest rate. The issuer pays this interest at the end of each interest period, which may be three, six or twelve months. At the same time it announces the reference rate for the new interest period. The interest rate payable to the investor is calculated according to the difference between the fixed rate of interest and the reference rate.

The coupon on a floater is periodically adjusted in line with development of the reference rate, although the issuer pays the interest to the investor at a fixed percentage premium or discount to these rates (the difference is known as the ***spread***). The actual spread depends on the issuer's creditworthiness and on prevailing market conditions. To some extent, an investment in floating rate notes is similar to a money market investment: the interest rate is periodically adjusted in the same way as with a fixed-term deposit or time deposit.

#### Special forms of floating rate note

Variable-interest investments can take different forms. For instance, some types of floaters place a limit on the interest rate fluctuation range.

There are two basic models: floating rate notes with a minimum interest rate (or ***floor***) and those with a maximum interest rate (***cap***).

***Floor floaters*** are variable-interest bonds which pay a minimum level of interest. In the event that the sum of the reference rate and the spread falls below this level, the investor is guaranteed payment of interest at the minimum rate.

Conversely, ***cap floaters*** are variable-interest bonds which pay a maximum level of interest, i.e. the rate of interest paid is limited to the specified maximum.

***Mini-max floaters (collared floaters)*** are a combination of the two basic models described above. Interest fluctuations during the life of these bonds are kept within a certain range, defined by maximum and minimum rates.

There are also variable-interest bonds where the payable interest rate moves in the opposite direction to money market rates. These are known as ***reverse floaters (inverse floaters or bull floaters)*** and are medium-term or long-term variable-interest bonds on which the interest rate is calculated according to the difference between a fixed interest rate and a reference rate. This means that the investor's interest income rises when the reference rate falls.

***Convertible floating rate notes*** give the investor or the issuer (depending on the terms and conditions of the bond) the right to convert the note into a usual fixed-interest bond.

#### Zero bonds

*Zero bonds* do not have interest coupons attached. Instead, they pay the difference between the redemption price and the issue price. This difference can be expressed as the compound rate of interest on the bond to maturity. If the investor chooses to sell the bond before maturity (early redemption), payment is restricted to the proceeds of the sale. Zero bonds are usually issued at a deep discount to their nominal value and redeemed on maturity *at par* (i.e. at 100% of the nominal value). The amount of the discount (*disagio*) depends on the maturity of the bond, the borrower's creditworthiness and prevailing capital market interest rates. Zero bonds offer investors a fixed lump-sum payment at a future date if the bond is held until maturity. This may have important tax implications for the investor. In some countries, this lump sum is treated as interest income. Similarly, if the bond is sold before maturity, the difference between the purchase price and the sale price is usually broken down for tax purposes into two components: interest income and capital appreciation.

Another form of zero bond, called a ***stripped bond***, is created when an ordinary bond is separated into its two components, the periodic interest payments and the bond principal. The bond principal and individual interest coupons are traded separately and treated as zero-coupon securities.

## Combined-interest bonds and step-up bonds

These types of bonds are similar to fixed-interest securities in the way the interest is calculated. Although the investor does not receive interest payments at a single, fixed rate over the entire life of the bond, the interest income is determined in advance and does not depend on fluctuations in capital market rates. Instead, the rate of interest changes during the term of the bond, following a pattern agreed at the time of issue. With *combined-interest bonds*, it is agreed that there will be no coupon for the first few years of the life of the bond and an above-average coupon for the remaining years. These bonds are usually issued and redeemed at par. With *step-up bonds*, a relatively low coupon is paid initially, and a very high one later. These bonds are also issued and redeemed at par.

## Phased interest rate bonds

Phased interest rate bonds are a hybrid of fixed and variable-interest notes. They usually have a maturity of 10 years and pay a fixed coupon for the first few years. This is followed by a period of several years during which the bond pays a variable rate of interest in line with money market rates. For the remaining years of its life, the bond reverts to paying a fixed interest rate.

### 1.2.4 Currency

As an investor you can generally choose between bonds denominated in your national currency, e.g. EURO, or in another currency (*foreign currency bonds*).

## Dual currency bonds: capital and interest in different currencies

With this special form of bond, repayment of capital and interest payments can be made in different currencies; in some cases the issuer or investor is entitled to choose. To limit the exchange rate risk, dual currency bonds may be issued with a call (buy) option and/or a put (sell) option. The former entitles the issuer to early redemption of the bond, usually at a price below the original redemption amount. In the case of a put option, the investor has the right to early redemption of the bond at a price, fixed in advance and lower than the original redemption amount.

### 1.2.5 Priority in the event of bankruptcy or insolvency of the borrower

Another important feature of a bond is its "priority": in the event of insolvency or liquidation of the issuer, bonds are ranked as *preference bonds*, *pari passu bonds* and *subordinated bonds* depending on whether the investor's claims are given higher, equal or lower priority than those of other investors. This also affects the yield of the bond in question. As a general rule, the better the creditor's position in the case of insolvency or liquidation of the company,

the lower the bond's yield, provided all other features of the bond are identical.

## 1.3 Special forms of bonds

The following is a description of bond types which include special rights or which are linked to the performance of a specified index.

### 1.3.1 Convertible bonds (bonds with share call options)

*Convertible bonds* issued by public limited companies give you the right as the investor to exchange the bonds, at a specific time or within a specific period, for shares in the issuing company at a specific ratio. There is usually a lock-in period during which investors cannot convert the bonds into shares. If you do not exercise your right of conversion, your bonds remain fixed-interest securities and are repaid at par on maturity. Because they offer investors conversion rights, convertible bonds usually offer a lower interest rate than ordinary bonds.

### 1.3.2 Warrant bonds (bonds with subscription rights)

Traditional warrant bonds, like convertible bonds, give the holder the right to subscribe for shares, but in addition to the bond, not as an alternative. *Warrant bonds* are fixed-interest securities giving the holder the right to acquire shares; this right is certificated by a warrant which is detachable from the bond. The warrant can be traded separately. The shares can be purchased on surrender of the warrant on terms agreed in advance. The bond itself is not exchanged, but continues to be held or traded until redemption. This means there can be up to three separate stock exchange quotations for a warrant bond: one for the bond with the warrant attached (*cum warrant*), one for the bond without the warrant (*ex warrant*) and one for the warrant alone.

*Bonds with interest rate warrants* are a special form of warrant bond. The detachable warrant gives the holder the right to buy (call) or sell (put) another specified bond at a fixed price. There are also *bonds with currency warrants*, where the warrant entitles the holder to call or put a specified amount of foreign currency at a fixed exchange rate.

### 1.3.3 Index-linked bonds

When this type of bond is issued, the redemption amount and/or interest payments are index-linked rather than fixed, i.e. they depend on the level of a specified index (e.g. a price index or share index) at redemption or on the interest payment date. An index-linked bond is usually issued in two parts, or "tranches": *bull bonds* and *bear bonds*. Bull bonds are bought by investors who expect the relevant index to rise. Conversely, buyers of bear bonds expect the index to fall.



### 1.3.4 Subordinated bonds

Subordinated bonds are Tier 2 instruments. These bonds establish direct, unconditional, unsecured and subordinated liabilities on the part of issuers. In the event of the issuer's liquidation or insolvency, the claims of Tier 2 bond holders are subordinate to the claims of non-subordinated bond holders. Therefore, subordinated bonds are more risky than unsubordinated bonds. It is therefore important for potential investors to be mindful of the issuer's solvency, other debt obligations and total assets when reviewing an issued bond. Although subordinated debt is riskier for investors, it is still paid out prior to any equity holders. Bondholders of subordinated debt are also able to realize a higher rate of interest to compensate for the potential risk of default.

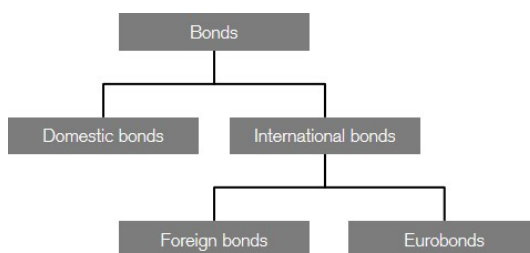
### 1.3.5 High-yield bonds

High-yield bonds are securities where an issuer with low credit standing (= debtor) accepts an obligation towards the holder (creditor, buyer) to pay fixed or variable interest on the capital received and to redeem the bond according to the agreed terms. High yield bonds are typically rated below investment grade or are unrated. As such, they carry high credit risk as they are often subject to higher risk of issuer default. High-yield bonds are also more vulnerable to economic cycles as high-yield bonds typically fall more in value than investment grade bonds given higher default risk and higher investor risk adversity.

### 1.4 Primary markets

Bonds are categorized not only according to their currency, but also according to the primary (issue) market and issuer's domicile. Bonds issued in the domestic market are referred to as **domestic bonds**. Bonds are also issued on foreign markets, either on the national capital markets of the countries concerned (**foreign bonds**) or on the euromarket (**eurobonds**). These types of bonds are collectively referred to as **international bonds**.

### Bonds and their primary markets



Traditional **foreign bonds** are issued on the capital market of a particular country, are denominated in that country's currency and are essentially placed, traded and listed only in that country. Foreign bonds are governed by the laws of the country in which they are issued. They should not be confused with **eurobonds**. While foreign bonds are placed on national capital markets for foreign investors (which are essentially modified domestic capital markets), eurobonds are traded on the euromarket, which are international markets in the true sense, as they are not regulated by national authorities or supervisory bodies.

### 1.5 Issuers

Issuers are categorized according to their financial resources and creditworthiness. These factors are important from the investor's point of view as they affect the security of the bond as an investment.

Bonds can be issued by the public sector as well as by private institutions.

#### 1.5.1 Public sector bonds

An example of public sector bonds are German government bonds ("Bundesanleihen") and US Treasuries.

#### 1.5.2 Bank bonds

The term bank *bond* covers all bonds issued by banking institutions (e.g. mortgage banks, public sector banks etc.). These bonds are categorized either as "covered" (i.e. secured) bank bonds or as "other" bank bonds, depending on whether they are backed by special forms of collateral. Issuers of covered bank bonds are often subject to special regulations.

#### 1.5.3 Industrial bonds

Bonds issued by the industrial sector are known as **industrial bonds**. The issuers are industrial and commercial companies. These bonds may also be issued in collateralized form.

### 1.6 Safety of interest-bearing securities

The *safety* of a bond means the degree of the probability that the capital invested will be repaid on maturity. In the narrower sense, leaving aside price and exchange rate risk, the term refers to the degree of certainty that the issuer will repay the capital (and, if applicable, the agreed interest). Safety, in this sense, is measured by a number of criteria.

For bonds issued by public sector borrowers – domestic or foreign – the issuer's financial strength determines how safe the investment will be. The safety of bonds issued by other borrowers depends primarily on the issuer's creditworthiness, i.e. its financial structure, its earnings potential and its liability arrangements.

Covered bank bonds (such as mortgage-backed bonds) are considered safe, because the claims to capital and interest payments are secured or “covered” in the full amount (or more) and at an equal (or higher) interest rate by mortgage-backed or public sector loans.

Alongside these, there are other special forms of collateralization which can increase the safety of a bond regardless of the general creditworthiness of the issuer; for instance, some issuers provide their creditors with additional collateral, e.g. by registering security mortgages and land charges. Additional collateral can also take the form of guarantees, where a third party (guarantor) guarantees the issuer’s interest and redemption payments in the event that the issuer is unable (or no longer able) to make them. The guarantor for bonds secured in this way might, for instance, be the parent company of an – often foreign-based – financial subsidiary.

### 1.7 Bond trading

Bonds are generally traded over-the-counter (OTC), rather than on a formal exchange (convertible bonds, some futures and bond options). There may be additional risks associated with trading fixed-income investments OTC because OTC transactions are generally subject to limited regulation and therefore less transparent with regard to transaction details such as volume, price formation, etc. This may therefore entail higher risks than exchange trading. Your bank will generally advise you on the purchase and selling prices of certain bonds on request. However, there is no entitlement to negotiability. Adding a limit will cap the risk of trading at unfavorable pricing conditions.

### 1.8 Special risks associated with interest-bearing securities

Investments in interest-bearing securities carry various special risks. These include credit risk, interest rate risk, early redemption risk, lottery risk and other specific risks associated with individual types of bonds.

#### 1.8.1. Credit risk

*Credit risk*, also referred to as *borrower risk*, *issuer risk* or *default risk*, is the risk that the borrower may become insolvent or illiquid, i.e. temporarily or permanently unable to fulfill its interest and/or redemption obligations on time. The issuer’s creditworthiness may change during the term of the bond as a result of macroeconomic trends or developments affecting the company’s operating environment.

A deterioration in the issuer’s creditworthiness has a negative effect on the price of the securities in question (*risk discount*). The longer the remaining maturity of the bond, the greater the credit risk tends to be. If the borrower’s

creditworthiness remains good, the investor can be sure that the borrower will fulfill its contractual obligations. However, the borrower’s creditworthiness may deteriorate over the term of the bond to such an extent that interest or redemption payments are put at risk; in some cases, the borrower may even default completely.

### **Safety discount on the yields of top-graded bonds**

Bonds issued by borrowers with top-rated creditworthiness usually have lower yields, as they pay a lower coupon from the outset than bonds issued at the same time by borrowers with a lower credit rating. Government bonds, for instance, often pay lower yields than bonds issued by corporations. As an investor, you have to decide whether to accept a lower yield in return for a higher degree of safety, or whether to choose bonds which pay a higher yield, but also carry a higher level of risk. As a general rule, the higher the yield of a particular security compared with the usual market yield, the greater the risk for the investor. Issuers with low credit ratings and thus offering comparatively high yields are only suitable for risk-aware investors. In the case of *junk bonds*, the issuer’s creditworthiness is usually very low and there is a risk of losing the entire amount invested, particularly in a sharp economic downturn.

### **Ratings as an investment guide**

Ratings help investors to weigh up the probability that the bond issuer will make the interest and redemption payments on time and in full. Independent rating agencies publish credit ratings or grades for individual borrowers or bonds. Their analysis is based on a number of factors, including the overall economic situation of the issuer’s country of domicile, industry trends, the issuer’s current situation and an economic and legal assessment of the terms and conditions of the issue. The rating awarded to an issuer or bond affects the terms of newly issued bonds, and in particular the yield. As an investor, you will therefore receive a lower regular yield from a top-rated bond than from a bond with a lower credit rating. Changes in ratings during the life of a bond can also affect its price. The rating scale ranges from “AAA” (“the obligor has extremely strong capacity to meet its financial commitments” – best credit standing) to “D” (“default on financial commitments” – worst credit standing).

**Notice:** Ratings are not a substitute for your own judgment as an investor and should not be taken as a recommendation to buy or sell a particular security. They are merely intended to help you take your investment decisions and there are many other factors to be weighed up. Ratings are not usually revised until the issuer’s creditworthiness has changed. Consequently, even if

ratings are available, you must form your own opinion. Please also note that while some issuers do not have a rating, in some instances the quality of a non-rated bond issue may well be better than one with a rating.

### 1.8.2 Interest rate risk

The *interest rate* risk is one of the central risks associated with interest-bearing securities. Investors in fixed-income securities are exposed to the risk of a price decrease of the security should market interest rates rise.

#### Relationship between interest rate changes and price movements

Prices of interest-bearing securities are determined by supply and demand, which in turn depend on the level of the bond's coupon in relation to prevailing money and capital market rates (market interest rates).

- The **nominal interest rate** or **coupon** of fixed-interest bond is fixed for the entire life of the bond and is generally based on the prevailing market interest rates at the time of issue. However, the price of the bond can deviate significantly from its issue price during its life. The extent of the price deviation depends on changes in market interest rates.
- **Market interest rates** are largely influenced by government fiscal policy, central bank policy, economic trends and inflation. Other factors are foreign interest rates and anticipated exchange rate levels. The magnitude of each individual factor cannot be directly quantified and will change over the course of time.

After a fixed-income security has been issued, any movement in market interest rates will cause the price to move in the opposite direction, i.e. if market interest rates rise, the price of the bond will usually fall until its yield is approximately equal to the new rates. Conversely, a fall in market interest rates will lead to a rise in the price of a fixed-income security until its yield comes into line with the new rates.

The **yield on a fixed-income security** is its effective return, which will depend on its coupon, the issue or purchase price, the redemption price and the remaining maturity.

#### Sensitivity to interest rate changes depending on the bond's remaining maturity and coupon

The extent to which a bond reacts to changes in market interest rates depends on two factors: its remaining maturity and its coupon. Prices of bonds with a longer remaining maturity and a lower coupon will move more than those of bonds with a shorter time to maturity and higher

coupon. Fixed-income securities are exposed to a significant interest rate risk in periods when capital market rates are rising steeply. Any changes in price will of course only affect you as an investor if you sell the bond before maturity. Otherwise the bond will be redeemed at par on its maturity date or earlier.

#### Impact of market interest rate changes on the equity market

Changes in market interest rates have an indirect effect on the equity market. Equity prices usually fall in response to rising interest rates (or rise in response to falling rates) after a *time lag*. However, there is no direct or immediate correlation.

### 1.8.3 Early redemption risk

In the terms and conditions of the issue, which are set out in the issue prospectus, the borrower may reserve the right to exercise early redemption. If market interest levels fall, the investor will be exposed to an increased risk of early redemption by the issuer. An early redemption clause allows the issuer to reduce its liabilities or to refinance its debt more cheaply by issuing new bonds, thus reducing its interest burden. Often, longer-dated bonds traded on the euromarket are issued with this right of early redemption – also referred to as a **call right**. Investors should bear in mind that early redemption may result in the actual yield on the bond diverging from the anticipated yield. However, the advantage of these bonds for investors is that from the outset they usually offer a yield premium over bonds without call rights.

### 1.8.4 Lottery risk

Lottery bonds are a form of redeemable bond. Repayment is determined by the drawing of lots. These bonds carry particular risks as their maturity cannot be calculated with any certainty, so the actual yield can differ from the anticipated one. If you buy a bond priced above its par value and the bond is subsequently redeemed at par earlier than expected as a result of the draw, the shortened maturity means you receive a lower yield.

### 1.8.5 Risks associated with individual types of bonds

Certain types of bonds carry different or additional risks (e.g. subordinated bonds which will not be paid out until after senior debt holders have been paid in full).

#### Floating rate notes

The difference between floating rate and fixed-interest notes is that interest rate fluctuations make it impossible to calculate the yield on floating rate notes at the time of purchase. This means that investors cannot calculate the profitability of floating rate notes compared with longer-term, fixed-interest papers. If the terms

and conditions provide for frequent interest payments (i.e. payments at short intervals), you incur a reinvestment risk in the event of falling market interest rates, i.e. you can only reinvest your returns on the bond at the lower rates. Floaters are not usually subject to significant price fluctuations, as the coupon is regularly adjusted, ensuring that the price remains at around par. However, this also means that if market interest levels fall, you do not benefit from price gains.

### **Greater price volatility of reverse floaters**

With *reverse floaters*, the interest income moves in the opposite direction to the reference interest rate. If the reference rate goes up, the investor's interest income falls, and if the rate falls, the interest income rises. In contrast to normal floaters, the price of a reverse floater will fluctuate significantly depending on the yields on fixed-interest bonds with a comparable maturity. Reverse floater prices move in the same direction as fixed-interest bonds with similar maturities, but the fluctuations are much stronger. There is a high risk to the investor if long-term market interest rates are expected to rise, even if short-term rates are falling. The increase in interest income is never adequate compensation for any price losses on reverse floaters, as these losses are disproportionately high.

### **Zero bonds**

With *zero bonds*, changes in market interest levels have a much greater impact on prices than with other types of bonds. This is because zero bonds do not carry a coupon and therefore are issued at a price significantly below par. If market interest rates rise, zero bond prices fall more sharply than other bonds with the same maturity and credit rating. In the case of foreign currency denominated zero bonds, there is also an increased exchange rate risk because interest payments are not made over the life of the bond, but on a single date, i.e. at final maturity when the capital is also repaid.

### **Foreign currency bonds and dual currency bonds**

If you invest in *foreign currency bonds*, you are exposed to the risk of exchange rate fluctuations. With *dual currency bonds*, exchange rate fluctuations also affect the price, unless the terms and conditions of the bond include a foreign currency adjustment clause in the investor's favor. The higher the foreign currency component of a bond without a currency adjustment clause, the greater the impact of exchange rate fluctuations on the price.

### **Convertible bonds**

The price of a *convertible bond* is essentially determined by the price of the underlying share. As a rule, if the share price rises, so does the price of the bond. Conversely, the price of the

convertible bond will fall if the share price drops. In general, because convertible bonds are linked to a particular share, the price risk is higher than for bonds without conversion rights, but lower than a direct investment in the share concerned. This is because an ordinary convertible bond is a fixed-interest security, so downside price risk is limited. The price cannot fall below the point where the yield on the convertible bond converges with the interest paid on bonds issued by borrowers with a comparable credit rating. The coupon on a convertible bond is usually lower than for bonds without conversion rights, so the periodic interest payments are relatively low. If you exercise your conversion rights as an investor and subscribe for the underlying shares, you bear the usual risks as a shareholder.

### **Warrant bonds**

As with convertible bonds, the periodic interest payments on *warrant bonds* are relatively low. Warrant bonds normally pay a lower rate of interest than bonds without warrants. The price of a bond **with** the warrant attached (*cum-warrant bond*) will track the price of the share (or underlying instrument). As warrant bonds are fixed-interest securities, the downside price risk is limited. The price of a warrant bond cannot fall below the point, where the yield on the bond converges with the interest paid on bonds issued by borrowers with a comparable credit rating. A bond **without** the warrant attached (*ex-warrant bond*) is a simple interest-bearing security; its price is mainly determined by capital market interest rates.

The risks usually associated with warrants are described below under Section 5.8, "*Special risks associated with warrants and options*".

### **Index-linked bonds**

Because the redemption price of an *index-linked bond* is linked to the level of a specified index at maturity, the investor runs the risk of price losses. In the case of a **bull tranche** (bonds which appreciate in value if the index rises), the price will go down if the index falls; and in the case of a **bear tranche** (bonds which appreciate in value if the index falls), the price drops if the index rises.

## **2. Shares**

A *share* is a single stock unit representing ownership interest in a public limited company. The shareholder's ownership rights in the company are represented by a physical certificate. The shareholder participates in the share capital and thus owns a portion of the company's assets.

Your rights as a shareholder in a company are determined by legal regulations in your country and may deviate from those described below, which apply to listed companies in general.

## 2.1 General: Shareholder as “owner”

If you hold a share in a company, you are not a creditor, but one of the owners of that company. This gives you certain rights and obligations – in particular the obligation to contribute to the share capital. The amount of such a contribution is limited to the issue price of the share, i.e. its par value, plus a premium in some cases.

The **par value** of a share is the nominal value assigned to it as a portion of the company’s capital. In contrast to par value shares, **shares without par value (no-par shares)** represent a specific proportion of a company’s capital as published in its articles of incorporation. The amount is not expressed as a cash sum; instead, the share certificate represents a specific number of shares. The investor’s shareholding and the scope of his/her associated rights are calculated on the basis of the number of shares they hold as a proportion of the total number of shares issued. It makes no difference to investors whether they purchase par or no-par shares. In both cases the **market value** of a share is determined by supply and demand and is not related to its nominal value.

Shares offer investors two sources of earnings – **dividend distributions** and **price gains**. However, neither price gains nor – in most cases – dividends are guaranteed.

## 2.2 The shareholder’s rights

Shareholders in public limited companies usually have property rights and administrative rights.

### 2.2.1 Property rights

Property rights include dividend rights, subscription rights (the right to subscribe for new shares) and rights to bonus or scrip shares.

#### 2.2.1.1 Dividend rights

Unlike the interest paid on a security, the dividend depends on the balance sheet profit posted by the company in a given financial year. An individual shareholder’s share in the profits depends on his/her holding in the share capital – i.e. the profit is distributed among the shareholders in proportion to the par value of the shares held by each one. When a company carries out a capital increase, the new shares may, under certain circumstances, carry a smaller entitlement to dividends than those already in circulation (“old shares”).

#### 2.2.1.2 Subscription rights

Subscription rights entitle shareholders to acquire a number of new shares when a capital increase is carried out through a rights issue. The actual number of new shares that can be acquired depends on the shareholder’s existing holding. If, as a shareholder, you exercise your subscription rights, your stake in the company remains the same. Maintaining the same stake and relative voting power is important for major shareholders in particular.

#### 2.2.1.3 Subscription period and subscription rights trading

As a shareholder, you have a limited period of at least two weeks (the **subscription period**) to acquire a certain number of new shares at the issue price by surrendering the required number of subscription rights. The actual number of shares that a shareholder can acquire in a rights issue depends on the **subscription ratio**. This ratio determines the number of subscription rights a shareholder needs to subscribe for one new share. On the first day of the subscription period, the old shares are quoted and traded on the stock exchange *ex rights (without subscription rights)*. This means they are traded at a discount equivalent to the price of the subscription rights (this price is determined by market supply and demand). The subscription rights are traded separately on the stock exchange for the duration of the subscription period. If you are a shareholder in the company but do not possess sufficient shares – and therefore rights – to acquire new ones, you can purchase the required number of additional subscription rights. Conversely, you can sell surplus subscription rights and only buy some of the new shares to which you are entitled. Alternatively, you can sell all your subscription rights, if you do not wish to buy any new shares.

#### 2.2.1.4 Bonus or scrip shares

**Bonus** or **scrip shares** (also referred to as **free shares**) are issued by a company to its shareholders when it carries out a capital increase from retained earnings. Companies thus increase their share capital from their own reserves without shareholders making additional cash contributions. A scrip issue does not affect the company’s overall value (**market value**), but simply distributes it across a larger number of shares. As a shareholder, you are allocated additional shares in proportion to your existing stake in the company. The share price is then reduced by an amount known as the **scrip discount**, which corresponds to the allocation ratio.

### 2.2.2 Administrative rights

The administrative rights which shareholders are entitled to exercise at the general meeting include voting rights and information rights.

**Voting rights** allow shareholders to vote on resolutions at general meetings. As a general rule, each shareholder has one vote per share. In addition to ordinary shares with voting rights, there are also preference shares with no voting entitlement – these generally pay better dividends in compensation. As a shareholder, you can either exercise your voting rights in person or give a third party or institution written authorization to act on your behalf (**proxy voting rights**).

### 2.3 Different types of share

Rules on the transferability of shares and the granting of rights may vary according to the country and company in question. In general, shares in listed companies can be bought and sold without any special formalities.

**Bearer shares** are shares which are not registered in a particular name, but confer ownership rights to any individual holding the certificate. Ownership can be transferred without any special formalities.

**Registered shares** are issued in the name of a specified natural or legal person. The owner of the share is recorded in the company's share register, so that the company has a record of the names of its shareholders

### 2.4 Special risks associated with shares

Share prices are largely dependent on factors, which are difficult to predict.

#### 2.4.1 Business risk (bankruptcy or insolvency risk)

If the issuing company goes bankrupt, the value of an investment in its shares can, in some cases, be completely wiped out since shareholders usually only receive a portion of the proceeds of liquidation after all creditors' claims have been satisfied.

#### 2.4.2 Price risk

Share prices can fluctuate unpredictably. In the long term, price movements are determined by company profits, which are in turn influenced by overall economic trends and the general political environment. Economic policy, exchange rate policy and monetary policy all come into play in the medium term. In the near term, short-lived current events such as pay disputes or international crises may affect market sentiment and thus the share prices.

Price risks to investors generally fall into two categories: market risk and company-specific (i.e. share-specific) risk. Share prices can be affected by either factor individually or by a combination of the two.

The **general market risk** of a share (also called **systemic risk**) is the risk of a price movement due to general stock market trends. Even blue chip stocks may suffer severe price losses as the result of a market downturn. General market risk can also be reduced by distributing shares across a broader range of companies and sectors within a market – the more widely the shares are spread, the more closely the portfolio will reflect the market trend.

**Company-specific risk** is the risk of a downturn in the share price as a result of factors

directly or indirectly affecting the issuing company. For example, a fall in the share price may be caused by poor management decisions or more general economic factors. Company-specific factors may cause share prices to move in the opposite direction to the market as a whole.

The extent of price fluctuations cannot be accurately determined in advance and may differ according to the company, sector or country of issue. You can reduce company-specific risk by diversifying your portfolio.

#### 2.4.3 Market psychology

The markets as a whole or individual share prices may go up or down depending on the views of market participants and thus on their investment behavior. Share prices therefore reflect the hopes, fears, suspicions and moods of traders.

#### Market sentiment

In a rising market, investors tend to gain in confidence, accept new risks and be driven by their emotions to abandon their original rational decisions. If the general mood is upbeat, events which would otherwise impact negatively on shares are simply ignored or considered to have been factored into prices (*discounted* or *priced in*). Share prices keep rising constantly during such phases, creating a market boom or **bull market**. Sentiment can have the reverse effect in sustained periods of falling prices. Good news which ought to boost share prices is simply ignored or considered to be already discounted. This sometimes results in a stock market decline (**bear market**). Prevailing market sentiment can mean that an event which would be regarded as good news in an upbeat market environment will be seen as bad news at other times. In these cases, the markets can become divorced from reality as a result of investor sentiment.

#### Opinion leaders

In general, investors will try to base their decisions on as many sources of information as possible so as to minimize uncertainty about future trends which may affect the capital markets. They pay particular attention to analysts' recommendations, press articles and stock exchange newsletters. The *opinion leaders'* views expressed in these publications are widely used by investors to guide their decisions and can reinforce particular market trends (this is known as the **multiplier effect** or **bandwagon effect**). They can trigger price fluctuations which may lead individual investors to make errors of judgment.

#### The role of speculation in reinforcing trends

Uncertainty about future trends means that all investment decisions contain an element of speculation. Psychological factors such as fear or optimism can spread among large numbers of

investors, leading to a wave of speculation on a market upturn or downtrend. As soon as this happens, there is a danger that market trends may become detached from economic reality. At times like this, even relatively insignificant economic or political news which fails to confirm or casts doubt over the sustainability of current market trends can cause a sudden turnaround in prices.

### Market globalization

Domestic stock markets often take their lead from trends in the major international stock markets. Market psychology can – after a certain time lag, and to a greater or lesser extent – have a knock-on effect, as trends in other countries spread to the domestic market.

### Measures taken by individual companies

The market can respond positively or negatively to official announcements or rumors of impending measures by individual companies such as rights issues, corporate deals and takeovers. For example, in a favorable market climate, a rights issue will tend to push up share prices. In a more downbeat environment, the company's need for capital may be interpreted as a sign of its weakness and can lead to a fall in share prices.

#### 2.4.4 Price forecast risk

The single most important factor for successful investment is **timing** – picking the right moment to buy or sell. Analysts use various methods for compiling and interpreting a wide variety of market-relevant, price-relevant and technical factors to help them make the right investment decisions. However, none of these types of analysis can actually guarantee success.

**Fundamental analysis** is a method of evaluating companies on the basis of company-specific information and the economic environment. The aim of fundamental analysis is to determine the *fair* price of a share. The process is based on the traditional approach of analyzing balance sheets, profit and loss accounts and a series of price-related ratios, such as the dividend yield and price/earnings ratio. Fundamental analysis helps to identify shares or companies which are overvalued or undervalued, and can be used as the basis for a stock market trading strategy. The principle of fundamental analysis is to use information currently available to predict future performance. Forecasts will not always turn out to be accurate if, for example, the economic and political circumstances and their possible implications on the company have been incorrectly assessed.

The aim of **technical analysis (charting)** is to forecast prices and identify price potential, providing an indication of when the right times to buy and sell might be. Charts illustrate price and

volume movements – usually for a share or share index, but also for sectors or currencies – over a certain period. Chart analysts work on the theory that share prices follow certain patterns which are repeated over time and which, once recognized, can be used to predict probable price movements. Charting is a popular tool for making investment decisions and forecasts based on charts can affect prices, so that the forecasts become a self-fulfilling prophecy. The more often a particular charting model proves successful, the greater the number of investors likely to act on it, adjusting their strategies to take the predicted price movements into account. Investors should remember that charts are open to subjective interpretation and can only provide an indication of what is likely to happen. They cannot predict price trends with any certainty. Forecasts based on chart formations may turn out to be inaccurate. Decisions to buy or sell will always have to take into account the element of uncertainty about future price movements.

### 3. Index certificates

#### 3.1 General

Index certificates, also known as index participation certificates, are debt instruments (usually publicly listed) entitling the holder to a cash payment or settlement which is linked to the value of the underlying index at maturity. The underlying index is generally represented on a 1:1 basis in the index certificate, and any changes in said index are taken into account.

An index is an indicator used to measure securities price movements and market performance. Bond indices and share indices are the most common form of securities index. The best-known share indices are the American *S&P 500*, the Japanese *Nikkei 225*, the European *Dow Jones STOXX*, the German *DAX*, the British *FTSE 100*, the *Swiss SMI* and the French *CAC 40*.

There are two basic categories of share index: **price indices**, which simply measure price movements and reflect discounts to share prices on payment of dividends; and **performance indices**, which only take into account market-driven price changes and mathematically “reinvest” all dividends and subscription rights in the shares automatically.

As an investor, by purchasing a certificate you are participating in the performance of the underlying index. The price of an index certificate generally tracks the movements of the index. In other words, when the index rises, the price of the certificate will go up, whereas a fall in the index will cause the certificate price to go down. Index certificates are traded both on- and off-exchange. Buy and sell prices for the

certificates are set by the issuer on a daily basis. As an investor you can buy or sell certificates at market prices any time up until maturity. The certificates usually have a maturity of several years and no regular interest payments or other distributions (e.g. dividends) are made. The settlement amount paid out at redemption or maturity is linked to the current value of the index.

In some cases, the terms and conditions of issue provide for an **upper limit (cap)**. Any rise in the index above this cap will not be reflected in the value of the index participation certificate. This is not a disadvantage, provided the index does not exceed the cap. If the value of the certificate approaches the cap during its life, the certificate may be traded at a discount to the index as a consequence.

### 3.2 Special risks associated with index certificates

The risk profile of an index certificate is determined by the risks associated with the underlying securities. Any positive or negative factors that may lead to changes in the securities' prices in the index will in turn affect the value of the index as a whole, and thus the price of the certificate.

The more volatile the underlying securities – particularly if the prices of the securities are generally moving in the same direction – the greater the fluctuations in the price of the certificate. Index certificates only pay out if their price rises. Any decrease in the price of the certificate as a result of a falling index cannot be compensated, because index certificates do not pay interest or dividends.

The certificate settlement amount is linked exclusively to the value of the index at maturity, which in some cases may be significantly lower than the index value on the date when the certificate was purchased. The settlement amount may therefore be much less than the purchase price of the certificate. In extreme cases (where the value of the index is zero), the entire amount invested may be lost.

Investors should also remember that the price of the certificate will not always track the exact movement of the index (**correlation risk**). Factors such as interest rates, dividends paid on shares included in the index, market performance and – in the case of certificates linked to foreign indices – exchange rates can all affect the price of the certificate.

Depending on the method used to calculate the relevant index, a certificate may be traded at a *discount to the current value of the index*, particularly where the calculation method does not take dividend payments into account. As well as the risk of insolvency of a company whose shares are included in the index, investors

are exposed to the risk of the issuer becoming insolvent (**issuer risk**).

## 4. Investment fund units/shares

### 4.1 General

An *investment fund* (often referred to as an *Undertaking for Collective Investment – UCI*) has the following characteristics:

- There is a collective investment of funds.
- The capital is raised from a number of investors.
- The capital is invested in accordance with a defined investment policy for the benefit of the investors, generally in accordance with the principle of risk spreading.

The shares or units of investment funds may be distributed to the general public, while others are reserved for certain categories of investors, such as informed, qualified or institutional investors. Depending on the structure of an investment fund and the jurisdiction under which the investment fund is established, the shares or units may be obtained through private placement, direct distribution, distributors or through stock exchanges.

The term *investment fund* refers to the total sum of money paid in by investors and the assets in which this money is invested. The specific investment policy of an investment fund is described in the fund prospectus or offering/private placement memorandum and, if applicable, the fund management regulations or the fund's articles of incorporation.

As an investor, your actual stake in the fund's assets depends on the number of units or shares you hold. The value of a fund unit or share is calculated from the total value of the fund's assets (*net asset value*) divided by the number of units or shares in issue.

### 4.2 Different types of investment funds and marketing passports

Undertakings for Collective Investment in Transferable Securities (**UCITS**) and Alternative Investment Funds (**AIF**) benefit from a "product" passport, enabling them to be marketed to investors in the European Union (EU)/European Economic Area (EEA), following a notification procedure. UCITS shares or units can be marketed to all types of investors, retail and professional, throughout the EU/EEA, following a notification procedure. The marketing of AIFs depends on whether or not they are managed in accordance with and subject to the Alternative Investment Fund Manager (AIFM) requirements ("**Full AIFM regime AIF**"). Full AIFM regime AIFs which are managed by an authorized AIFM



or authorized internally managed AIF must meet the full requirements of the AIFM Directive, as transposed into national law in the respective EU country. AIFs not exceeding certain thresholds are subject to a simplified AIFM registration regime (“**Simplified AIFM registration regime AIF**”). Full AIFM regime AIFs can be marketed to professional investors in the EU/EEA, and depending on how the AIFM Directive was transposed into national law in the respective Member State also to retail investors. Simplified AIFM registration regime AIFs can be marketed to professional investors in the EU/EEA under national private placement regimes (i.e. subject to national requirements).

#### 4.3 Investment fund structures

Investment funds can be set up in contractual form (common fund) or in corporate form (as an investment company, with or without variable capital). A common fund has no legal personality and must be managed by an authorized management company. An investment company must appoint an approved management company or designate itself as “self-managed”. Both, common funds and investment companies can be single or multiple compartment funds (sub-fund). Each fund compartment can have one or more share-classes.

It is also possible to create master-feeder structures, in which the feeder UCI invests most of its assets in the master UCI.

#### 4.4 Open-end investment funds/closed investment funds

*Open-end funds* issue and redeem units/shares as and when required (**open-end principle**). This means that in principle you can acquire new units/shares of an open-end investment fund at any time. The company, for its part, is obliged to redeem your units/shares at any time within the scope of the terms and conditions set out in the sales prospectus, the fund management regulations and, where applicable, the articles of incorporation. Units/shares are redeemed from the fund’s assets at the official redemption price. As an investor you can therefore sell your fund units/shares at any time.

*Closed investment funds* issue a set number of units or shares at a fixed price (**closed-end principle**). Once the planned investment volume has been reached, no further shares are issued. The company is not obliged to repurchase shares. The shares can only be sold to a third-party buyer, or on a stock exchange if appropriate. The price of the shares is determined by supply and demand.

While UCITS must be open-ended, non-UCITS can be open-ended or closed-ended.

#### 4.4.1 General features of open-end investment funds.

##### The role of the management company or AIFM

The management company or AIFM manages the assets entrusted to the investment fund in accordance with investment principles set out by fund law and in the fund management regulations. A common fund must be managed by a management company. An investment company can appoint a management company or AIFM, or manage itself.

##### Pricing of investment fund units/shares

The **redemption price** of a unit/share (**unit/share price**) is calculated from the total value of the fund’s assets (**net asset value**) divided by the number of units/shares in issue. This price usually changes on a daily basis; it rises and falls with the value of the investments held by the fund.

When units/shares are purchased, a **front-end load** is usually charged to cover distribution costs. A **back-end load** may also be charged. The fee structure can, however, vary from fund to fund. Details of fees and commissions are published in the relevant fund’s sales prospectus. Issue and redemption prices for individual investment funds are both published on a regular basis.

##### Role of the depositary

In accordance with applicable laws, UCITS and AIFs shall entrust their assets for safekeeping to an authorized depositary, which also assumes certain oversight and day-to-day administration tasks.

#### 4.4.2 Open-end investment funds

If you want to invest in an open-end retail fund, you have a wide range of possibilities. Details of the investments held by the fund and the investment strategy are given in the sales prospectus, the fund management regulations and, where applicable, the articles of incorporation.

**Open-end real estate funds** are managed so as to achieve a “risk mix” by investing in mainly commercial real estate, buildings and the fund company’s own building projects. They also hold liquid assets such as securities and bank deposits. The purpose of holding liquid investments is to ensure that the fund is able to fulfill payment obligations (e.g. those arising from the purchase of real estate) and redeem fund units/shares.

**Open-end securities funds** invest their capital in financial instruments.

Essentially, the only differences between open-end real estate funds and open-end securities funds are the assets in which they invest and the way these assets are valued. In the case of real estate funds, this is done by

an independent committee of experts, while in the case of securities, the value of the assets depends on current stock market prices and foreign exchange rates.

**Money market funds** invest in overnight deposits, time deposits and money market papers.

**Funds of funds** invest in units/shares of other investment funds.

#### 4.5 Fund composition

Securities funds fall into one of the following categories, depending on their composition:

##### Standard equity funds

Standard equity funds typically invest in *blue chips*, i.e. equities generally recognized to be of high quality. The assets of these funds are diversified over a broad range of equities, rather than restricted to a particular sector.

##### Special equity funds

Special equity funds focus on particular segments of the equity markets. Examples are:

- *Sector funds*: funds that invest in shares of companies from a particular industry branch or economic sector such as energy, commodities or technology;
- *Small-cap funds*: funds that invest in shares of small and medium-sized companies (*second-tier stocks* or *second liners*);
- *Equity index funds*: funds that track a particular index, such as the *DAX* (German Share Index).

##### Standard bond funds

Standard bond funds invest in interest-bearing securities with different interest rates and maturities. They concentrate almost exclusively on issuers with good or very good credit ratings.

##### Special bond funds

Special bonds funds, like special equity funds, focus on specific segments of the relevant market. Examples are:

- *Low-coupon bond funds*;
- *Variable-interest bond funds*;
- *High-yield funds*: funds that invest in high-yield bonds with varying credit ratings;
- *Junk bond funds*: funds that invest in high-yield bonds with low credit ratings;
- *High-grade bond funds*: funds that invest in top-rated bonds;
- *Quasi-money market funds/short-maturity bond funds*: funds that invest in short-term securities;

- *Bond index funds*: funds that track a particular bond index.

##### Asset allocation funds

Asset allocation funds invest in both equity and bond market instruments. They include:

- *Standard asset allocation funds*: funds that invest in equities and bonds;
- *Asset allocation funds with futures and options components*: funds that invest in equities and bonds and aim to exploit opportunities in the futures and options markets;
- *Convertible and warrant bond funds*.

##### Speciality funds

Speciality funds specialize in particular markets, instruments or combinations, and therefore have a lower degree of risk diversification. Examples are:

- *Warrant funds*;
- *Participation certificates*: funds that invest in participation rights certificates;
- *Protection funds*: funds that invest in short-term bonds, money market investments and equity index put options;
- *Forex funds*: funds with forward forex commitments;
- *Futures funds*: funds trading in futures contracts.

In practice, there is no strict definition of the term *speciality fund* and it is used in different ways. For instance, special equity funds or country funds (see below) are sometimes also referred to as speciality funds.

#### 4.6 Geographical investment focus

The following types of funds make investments along geographical lines:

- *Country funds*, which only invest in securities of issuers domiciled in a particular country. For example, a Japan fund will focus on securities of Japanese issuers;
- *Regional/hemisphere funds*, which concentrate their investments in a particular region such as Europe, North America or the Asia-Pacific area;
- *International funds*, which invest in capital markets worldwide;
- *Emerging market funds*, which invest in the stock markets of one or more threshold countries.

#### 4.7 Funds with a fixed investment horizon

Investment funds can be issued with or without a fixed maturity. Fixed-maturity funds are fixed-

term bond funds which mature on a date agreed in advance. On maturity, the fund's assets are liquidated and the proceeds are distributed among the unitholders.

#### 4.8 Capital or income guarantee

Investment funds can be set up with or without a guarantee. Guarantees can relate to distributions over a specified period, to the repayment of the capital invested or to the fund's performance.

#### 4.9 Payment of distributions

If you buy units/shares of an income fund, you receive distributions on a regular basis, usually once a year. On the distribution day, the unit/share price of the investment fund is reduced by the amount of the distribution. The investment policy and the nature of the investment fund determine whether the fund's earnings will be distributed and what the size of the distribution will be. This information is given in the fund prospectus, management regulations or articles of incorporation.

Fund management companies often offer a **reinvestment discount** (equivalent to a specified percentage of the front-end load) to investors who make their distribution available for reinvestment within a certain period after the distribution day.

**Capital growth funds**, also known as *capital accumulation* funds, do not pay distributions. Instead, the fund management reinvests the fund's earnings. Fixed-term bond funds and guarantee funds typically take the form of a capital growth fund.

**Notice:** Only the fund prospectus and management regulations can give binding information about the specific investment policy and any other special features of a particular fund.

#### 4.10 Investments in non-traditional investments (hedge funds, offshore funds, private equity funds)

Non-traditional investments differ completely from traditional equity and bond investments on account of their investment style.

The most common form of a non-traditional investment is the *hedge fund*, which – in spite of its name – does not necessarily have anything to do with **hedging**. Many hedge funds aim to make a profit and sometimes take on very high levels of risk. Hedge funds include all types of investment funds, investment companies and partnerships that use derivatives for investment rather than hedging purposes, that can carry out **short sales** or that can attain significant **leverages** from the investment of borrowed capital. Additional features of hedge funds are their free choice of investment categories, markets

(including emerging markets) and trading methods. Hedge funds generally demand high minimum investments. They offer no more than limited subscription and redemption rights with lengthy notice periods. Portfolio managers of hedge funds receive performance-linked bonuses and often have a personal stake in the fund.

Non-traditional investments can take countless different forms. Hence we cannot detail all the risks involved in any particular case. Before making such an investment, be sure to seek comprehensive advice about particular risks involved and to carefully study any offers.

Investment strategies are often high-risk. Due to the leverage, a small movement in the market can lead to a major gain, but any loss will also be magnified sharply. The entire amount of your investment can, under certain circumstances, be lost.

Often there may be little information available concerning a non-traditional investment. Moreover, many investment strategies are highly complex and quite difficult to understand. Changes in strategy that can lead to a substantial increase in the level of risk are often virtually overlooked, paid too little attention or noticed too late.

Examples of investment strategies of hedge funds:

- **Long/short:** Undervalued financial instruments are purchased and at the same time overvalued financial instruments are sold short.
- **Event-driven:** The objective is to take advantage of specific corporate events, such as mergers, acquisitions, reorganization or bankruptcy.
- **Tactical Trading (e.g. Global macro):** This style attempts to use macroeconomic analysis of major economic and political developments with a view to identifying and exploiting market inefficiencies.

The liquidity and tradability of non-traditional investments can vary a great deal. Hedge fund issues and redemptions are often only monthly, quarterly or annually. Fixed holding periods lasting many years are not unusual. Provisions regarding trading frequency and holding periods may change frequently and rapidly. Liquidations can stretch over many years.

Many funds in this category have an offshore domicile (e.g. the Bahamas, Bermudas, Cayman Islands, Panama, British Virgin Islands or the Dutch West Indies) which earns them the name **offshore funds**. They are subject to less

stringent legislation and supervision, which in turn offers poorer investor protection. Problems or delays may also arise in the settlement of buy and sell orders for units/shares in such funds. There is no guarantee that an investor's legal rights will be enforceable.

Generally, the focus of hedge funds is on maximum short-term profits.

**Hedge funds of funds** are funds that invest in individual hedge funds, some of which may follow different strategies. This makes the portion accounted for by each individual underlying even smaller.

**Hedge fund index certificates** are debt securities whose price and performance is determined by the average performance of several hedge funds that are combined into a single index to provide a basis of calculation.

Hedge funds of funds and hedge fund index certificates offer investors the advantage of improved risk diversification.

**Private equity funds** generally involve investing in unlisted companies, for example in venture capital firms. They frequently use leveraged buyouts to acquire financially distressed companies. Unlike hedge funds focused on short-term profits, private equity funds are focused on long-term potential of the portfolio of companies they hold an interest in or acquire. Once they acquire or control interest in a company, private equity funds look to improve the company through management changes, streamlining operations or expansion, with the eventual goal of selling the company for a profit, either privately or through an initial public offering in a stock market. The long-term focus of private equity funds typically dictates a requirement that investors commit their funds for a minimum period of time, usually at least three to five years, and often even 10 years. Private equity fund managers have greater freedom in their investment decisions than managers of traditional funds. The development of the investment capital is therefore substantially dependent on the skills and experience of the fund managers and their teams. There are significant differences in the performance of individual managers.

Hedge funds as well as private equity funds may involve capital calls over a period of time until the total subscription amount has been reached.

#### **4.11 Special risks associated with investment funds**

Investment funds are an easy way for you as an investor, to achieve a *risk mix*, i.e. diversify the risk of your investment. Your assets are managed by a professional fund manager who

invests them across a diverse range of instruments. At the same time – depending on the investment strategy of the fund concerned – you ultimately share in the entire risk of the investments represented by a unit/share of the fund. Investment funds also carry special risks which may have a long-term, negative effect on the value of your investment.

##### **4.11.1 Fund management risk**

In purchasing fund units/shares you are making an investment decision by selecting a particular investment fund. Your decision should be guided by the investment principles of the fund in question. If an investment fund significantly outperforms a direct investment or another investment fund over a certain period of time, its success is due in part to the actions of the professionals running the fund, and thus to the fact that the right management decisions have been taken. However, even if an investment fund has performed well in the past, this does not necessarily mean that it will continue to perform well in the future. Management risk is smaller with index funds. An index fund holds more or less exactly the same percentage weighting of each security as the relevant index holds – depending on the terms and conditions set out in the fund prospectus – so the performance of the fund essentially tracks the performance of the index.

##### **4.11.2 Price risk**

Investment fund unit/shares are exposed to a price risk: if the prices of the financial instruments held in the investment fund decrease, the fall will be reflected in the fund's unit/share price. The more the risks are spread across a wide range of underlying assets the lower is the risk of total loss.

##### **4.11.3 Market risk**

###### **4.11.3.1 General market risk**

Broad diversification of the fund's assets does not prevent a general downturn risk in one or more markets leading to a fall in the price of the fund's units. Equity funds generally carry more downside risk in this respect than bond funds. In the case of index funds, which aim to track the performance of a share index, bond index or other type of index, any fall in the value of the index will also cause the unit price to go down.

###### **4.11.3.2 Credit Risk- Counterparty Risk of Synthetic ETF**

Swap-based ETFs do not replicate an index through the purchase of index components: rather, they use swaps for this purpose. A swap counterparty – usually another bank – agrees to pay the corresponding index performance of the ETF in question. Thus, Synthetic ETFs are exposed to both the risks of the securities that constitute the index as well as the credit risk of

the counterparty that issues the financial derivative instruments for replicating the performance of the index.

#### **4.11.3.3 Liquidity Risk**

The liquidity of an investment fund is determined by the liquidity of the underlying assets. If the underlying assets become illiquid, redemption of the fund units may be suspended for a period specified by the fund. Under certain circumstances, the fund may also be liquidated.

#### **4.11.3.4 Currency Risk**

Investors may be exposed to currency risk if (i) the underlying assets are traded in a currency other than that of the investment fund or (ii) the fund is set up in a currency other than their home currency.

#### **4.11.4 Concentration of risk in funds with a specialized investment focus**

By deciding to invest in a special equity fund, special bond fund or speciality fund, you are automatically accepting a greater degree of unit price volatility than with other funds. The more specialized the fund, the greater the investment risk.

*Regional funds and country funds*, for instance, are exposed to more downside risk because they depend on the performance of a particular market. As they do not spread the risk over other markets, the degree of risk diversification is limited.

*Sector funds*, such as commodity funds, energy funds and technology funds are exposed to significant downside risk because, by their nature, they cannot spread the risk across different sectors.

*Funds with futures and options components* are exposed to the usual downside risks associated with futures and options transactions.

With *investment funds that include foreign-currency denominated securities*, you must also remember that, in addition to the performance of the securities, the performance of the currency can also have a negative effect on the unit price, and that country risk may also come into play.

#### **4.11.5 Risk of misinterpreting performance statistics**

An investment fund's performance is usually measured using a *performance concept*.

Performance statistics provide a useful benchmark for comparing the managers of funds following similar investment principles. The statistics show the results that different managers have achieved, with calculations based on identical investment amounts. However, performance figures only tell part of the story

and they are open to interpretation. For instance, the front-end load payable on a fund may not be reflected in the performance rankings. This can mean that a well-managed fund with a high *front-end load* may earn you a smaller effective return than a fund which does not perform as well, but which charges a lower issuing commission. Furthermore, performance rankings are usually calculated on the assumption that all income and capital gains from the fund, including any tax, are *reinvested*. As individual investment funds and the income they generate may be taxed in different ways, funds which do not perform particularly well statistically may actually provide more attractive bottom-line returns than funds which boast better performance statistics.

This is why you should always take into account the current capital market environment and your own risk tolerance when considering an investment in fund units.

#### **4.11.6 Special risks associated with open-end real estate funds**

Open-end real estate funds are exposed to rental income risk, i.e. the loss of rental income due to properties standing vacant. First-time letting can be a particular problem with funds which carry out their own building projects. Above-average vacancy rates can affect the fund's earnings power and lead to a reduction in distributions.

Redemption of open-end real estate fund units may be subject to certain restrictions. In particular, the fund management regulations may state that, following redemption of large numbers of units, redemption of any further units can be suspended for a period of several years. This means that units cannot be converted back into cash at any time during this period.

Real estate funds often invest liquid assets temporarily in other instruments, such as interest-bearing financial instruments. These particular assets are then exposed to the special risks associated with the instruments concerned. When open-end real estate funds invest in foreign construction projects (as is common practice) the investor is exposed to additional exchange rate risks, as the market value and capitalized income value of a foreign property have to be converted into Euro each time the issue price of a fund unit is calculated

#### **4.11.7 Special risks associated with non-traditional investments (hedge funds, private equity funds, offshore funds)**

##### **Manager Risk**

Non-traditional investments rely heavily on manager skills and judgment to generate

investment returns. In many cases non-traditional investment structures rely on small teams only. The incapacity or defection of such individuals may have a material effect on the performance. Portfolio managers of hedge funds receive performance-related bonuses and often hold a personal stake in the funds.

#### **Fraud risk**

Fraud is a more significant risk in the case of less regulated investment vehicles, since they are not subject to the same transparency requirements as regulated investment vehicles. Fund managers of non-traditional investment vehicles seek to protect their competitive “edge”, by deliberately not disclosing full information about their activities, not even to their investors.

#### **Concentration risk**

Non-traditional investment vehicles typically have excessive focus on a particular type of strategy or invest in a restricted sector for enhancing returns. As a result, they usually hold fewer investments than regulated investment vehicles which tend to follow a market benchmark. Also in the case of private equity funds managers will only invest in a limited number of companies or regions. More concentrated investment portfolios are more susceptible to fluctuations in value resulting from adverse business or economic conditions.

#### **Leverage risk and high volatility**

Non-traditional investment vehicles are often using leverage effects as an integral part of their investment strategy. Leverage effects may lead to substantial gains, but also to overproportional losses within short periods of time. In a worst case scenario your entire investment can be lost.

#### **Taxation, legal and regulatory risks**

Hedge funds are often taxed as partnerships, which means that gains and losses are directly passed on to the investors. You should consider your own tax treatment and rely on a specialist tax advisor before investing in non-traditional investment vehicles. Further, non-traditional investments may be affected by legal, tax and regulatory changes which may be introduced on short notice. Related changes may affect the ability of the manager to continue trading or to exit existing investments.

#### **Lack of liquidity**

Investments in non-traditional vehicles are often subject to lock-up periods or redemption penalties. Moreover, many of the investments are illiquid instruments or subject to legal or restrictions on transfer. Therefore, selling a non-traditional investment position may only be possible periodically or on certain days. Share redemption of hedge funds may only be possible monthly, quarterly or annually. Concerning private equity,

the lock-up period may last up to 10 years or more.

#### **Incomplete information**

A non-traditional investment vehicle may have little or no operating history or performance and hence may use hypothetical measures of performance which may not necessarily reflect the actual trading done by the manager or advisor. Further, non-traditional investment vehicles may not provide any transparency regarding their underlying investments, which in turn will be difficult for investors to monitor.

#### **Minimal regulation**

Many non-traditional investment vehicles are located in off-shore countries and are only subject to minimal regulations. As a consequence, the enforceability of investor rights is not systematically guaranteed.

#### **Valuation of funds**

The net asset values of hedge funds are often not audited. This might result in situations where financial information to determine the net asset value is incomplete or inaccurate. Due to difficulties to validate the underlying assets delays in calculating and publishing the net asset value can occur.

#### **Risks in case of capital calls**

When capital calls are made to investors they need to provide the called capital within a relatively short period of time, usually a few days. Failure to meet capital calls may result in negative consequences for the investor (e.g. exclusion of rights attributed to investors, high interest rates for delayed payments).

#### **Absence of depositary or custodian bank**

Some non-traditional investment vehicles do not require that the assets are held with a depositary or custodian bank. Therefore, safeguarding of the assets may not be subject to regulatory supervision, or may be entrusted to brokers instead of (custodian) banks.

#### **Use of short selling and derivatives techniques**

Short selling involves the sale of financial instruments which the fund manager does not own, and which need to be borrowed for delivery to the purchaser. Hedge funds often use short selling techniques to reduce their “net exposure” to the market (being the sum of all long and short positions) and in order to profit from an anticipated decline in the price of a security. Purchasing securities to close out short positions can result in a loss and can itself cause the price to rise further, thereby deepening the loss. Hedge funds may use exchange-traded and over-the-counter futures, options and contracts for differences. These instruments are highly

volatile and expose investors to a high risk. Relatively movements in the price of a derivative contract may result in a high profit or loss in proportion to the initial margin placed.

## 5. Warrants and options

*Warrants* entitle you to buy (*call warrants*) or sell (*put warrants*) a specified underlying instrument (the “underlying”) during a specified exercise period or on a specified date.

### 5.1 General

Warrants are options certificates. Unlike shares, they do not represent ownership interest in a public limited company; instead, they represent the holder’s option rights. If they are not exercised by the expiration date, the option rights expire and the warrant becomes worthless. Details of the life, option ratio and strike price of the warrant are set out in the terms and conditions of issue.

The following products in particular may be underlying instruments of an option:

- Assets such as equities, bonds, commodities and precious metals;
- Benchmarks such as currencies, interest rates and indices;
- Derivatives or
- Any combination of assets, benchmarks and derivatives (e.g. futures).

In an option transaction, the earnings potential for the “writer” (seller) lies in the premium paid by the buyer. The earnings potential for the buyer lies in the opportunity – acquired in return for the premium – to realize a profit.

An **initial margin** is agreed at the outset of the option contract both for the purchase and for the short sale of a warrant. This initial margin is usually expressed in terms of a percentage of the purchase price of the eligible instruments. In addition, a **variation margin** is calculated periodically throughout the life of the contract. This represents the book profit or loss resulting from changes in the value of the contract or the underlying. The variation margin may be several times higher than the initial margin. The terms governing the calculation of the variation margin during the life of the contract or in the event that the contract is closed out are laid down in the rules of the exchange in question or in the contract specifications. The investor is obliged to deposit margin cover at least equal to the variation margin requirement with the securities dealer for the entire life of the contract.

The significantly higher transaction costs incurred when an option is exercised and the loss of time

value mean that it is usually in the best interests of private investors to close out their positions before the expiration date. In practice, exercising an option – although legally possible – is the exception rather than the rule. Options are usually only exercised by arbitragists seeking to balance forward and spot transactions.

Exchange-traded options are settled via a clearing house. For instance, options traded on EUREX are settled via EUREX Clearing AG. The clearing house is responsible not only for settlement but also for managing clearing members’ margin requirements. It acts as counterparty in any trade taking place on the relevant exchange. This means that in the first instance a legal relationship exists only between the clearing house and its members, who execute transactions on their own account, on behalf of customers or sometimes also for non-clearing members and their customers. The clearing house ensures the fulfillment of all contracts and thus reduces the counterparty risk to the individual investor. If the holder of an exchange-traded option exercises his/her option right, the clearing house randomly assigns the exercised contract to writers of suitable short positions. The writers selected must fulfill any obligation to deliver or accept delivery of the underlying under the terms of the contract.

The **life of a warrant** is the time between the date of issue and the date on which the option right expires. The last date on which the warrant is traded on the exchange and the holder has the opportunity to exercise the option right is usually a few days earlier.

Warrants are described as either *American-style* (for **American options**) or *European-style* (for **European options**) depending on the terms of exercise. American options can be exercised on any bank working day up to and including the expiration date. European options can only be exercised on the expiration date. The terms and conditions of issue sometimes state that the option rights can only be exercised within a specified period during the warrant’s life.

The **option ratio (exchange ratio)** determines how many units of the underlying the holder can buy (*call*) or sell (*put*) by exercising the option. If the warrant is to be settled in cash, the option ratio is used as the basis for calculating the settlement amount.

The **strike price** or **exercise price** is the price agreed under the terms and conditions of issue that you pay or receive for the underlying when you exercise your option rights. If the warrant is to be settled in cash, the strike price is used to calculate any difference payable to you as the holder of the warrant.

## 5.2 How warrants work – risk of loss

As the buyer, you pay a price for the rights conferred by the warrant certificate. The price of the warrant is determined by supply and demand, and is also closely linked to the performance of the underlying, although the price of the warrant is usually much lower than the price of the underlying. Consequently, any change in the price of the underlying usually leads to a greater percentage change in the price of the warrant (**leverage effect**). This means that the warrant holder participates to a greater-than-average extent in the price gains or losses of the underlying.

Investors in call warrants and investors in put warrants have different expectations in terms of the performance of the underlying. Investors buying call warrants expect the price of the underlying to go up during the life of the warrant so that the option rights are worth more and the price of the warrant rises as a result. Investors in put warrants expect the price of the underlying to fall so that the price of the warrant rises. Holders do not normally exercise their option rights, but instead aim to sell back their warrants at a higher price.

### Buying options

**Buying options** involves the purchase (**long position**) of calls (options to buy) or puts (options to sell), by which you acquire the right to delivery or acceptance of the underlying instrument (e.g. security), or, if this is impossible (e.g. with index options) the right to payment of an amount equal to the positive difference between the price of the underlying instrument at the time you purchased the option and the market price at the time you exercise the option. To obtain a right under an option you need to pay the option price (option premium). The price may fail to live up to the expectations you had when you purchased the option, and the value of your option may decline, possibly even becoming completely worthless by the expiration date. Your risk of loss is therefore the price you pay for the option. The buyer of a call option speculates on a rise of the price of the underlying over the life of the option. Conversely, the buyer of a put option benefits from a drop in the price of the underlying.

### Selling options

**Selling calls** involves the disposal (opening, **short position**) of calls (options to buy), by which you accept the obligation to deliver the underlying security at a specified price. You are paid the exercise price for assuming that obligation. Should the price of the underlying security rise, you will be expected to deliver the underlying security at the agreed price even if the market price is significantly higher. Your risk of loss, which cannot be anticipated and is, as rule, unlimited, lies in this difference. If you do not own the underlying securities (**uncovered**

**short position**), you will need to purchase them by means of a spot transaction (cover transaction) and, in that case, your risk of loss cannot be anticipated. If you own the underlying securities, you are protected against coverage of losses, and you will also be able to ensure timely delivery. However, as such securities must be blocked until the expiration date of your option, you will not have them at your disposal during that time, which means you will be unable to sell them to protect yourself against falling prices.

**Selling puts** involves the disposal (opening, **short position**) of puts (options to sell), by which you accept the obligation to purchase the underlying security at a specified price. You are paid the exercise price for assuming that obligation. Should the price of the underlying security fall, you will be expected to buy the underlying security at the agreed price even if the market price is significantly lower. The seller of a call option anticipates price drops of the underlying, whereas the seller of a put option profits from a rise in value of the underlying.

## 5.3 Valuation criteria and pricing factors

**Static analysis** is used as a tool for making qualitative evaluations of warrants. These evaluations are used by investors as a decision-making guide. **Static indicators** include the intrinsic value, time value, premium, break-even point and leverage ratio of a warrant.

A comparison of warrants using static indicators is only possible for warrants with more or less the same terms and conditions. Even the slightest change in the terms of a warrant could have a huge impact on its static indicators.

### 5.3.1 Intrinsic value

The *intrinsic value* is the difference between the strike price and the spot price of the underlying, taking into account the option ratio.

If the spot price of the instrument underlying a call (*put*) warrant is above (*below*) the strike price, the warrant is said to be **in-the-money** and has an intrinsic value. If the strike price and spot price of the underlying are the same, the warrant has no intrinsic value and is said to be **at-the-money**. A call (*put*) warrant is also without intrinsic value, if the spot price of the underlying is below (*above*) the strike price. In this case the warrant is said to be **out-of-the-money**.

### 5.3.2 Time value

The *time value* of a warrant is equivalent to the price of the warrant minus its intrinsic value. In rare cases, a warrant may be traded below its intrinsic value, i.e. it may have a negative time value. The time value reflects the probability of fluctuations (**volatility**) in the price of the underlying up until the expiration date of the



warrant. The shorter the time until the expiration date and the lower the volatility of the underlying, the lower the time value. This is because the probability of a change in the price of the underlying decreases as the remaining time to maturity becomes shorter and the underlying becomes less volatile. Because they do not offer as much profit potential for the holder, warrants with a short time to maturity are usually traded at a lower price than warrants with the same strike price but a longer time to maturity. The time value decreases gradually over the life of the warrant, so that all warrants have a time value of nil at maturity. On the actual expiration date, the value of a warrant is determined by its intrinsic value alone.

### 5.3.3 Premium

The *premium* of a call warrant (*put warrant*) is the amount by which it would be more expensive to purchase (*sell*) the underlying by buying and immediately exercising the option rights than to purchase (*sell*) the underlying directly. The premium is usually calculated annually so that investors can evaluate the warrant more easily. If the warrant is in-the-money, the premium expresses the time value of the warrant as a percentage of the spot price of the underlying.

### 5.3.4 Break-even point

The *break-even point* is the price that the underlying must reach for the option to be exercised without loss. For call warrants (*put warrants*) this means that the price must be above (*below*) the strike price. The gains from exercising the option must cover the purchase price plus transaction costs. If, on the other hand, you intend to sell the warrant, the sales proceeds must exceed the sum of the purchase price plus transaction costs in order for you to make a profit.

### 5.3.5 Leverage ratio and price sensitivity

The *gearing* or *leverage ratio* of a warrant is the ratio between the amount of capital that would be required to purchase the underlying (price of the underlying multiplied by the option ratio) and the capital required to purchase the warrant (i.e. the price of the warrant). The leverage ratio indicates the extent to which the warrant's price will be affected by changes in the value of the underlying. As a rule, the further the warrant moves "into-the-money", the greater the fluctuations in its value compared with the underlying. If the warrant moves in the opposite direction, i.e. "out-of-the-money", it will gradually depreciate. The dynamic indicator for *price sensitivity*, called the delta, measures the relationship between changes in the price of the warrant and changes in the price of the underlying. For call warrants, the delta is between 0 and 1, while for put warrants it is between 0 and -1. Warrants which are a long way out-of-the- money are relatively

insensitive to changes in the price of the underlying and thus have a delta close to 0. By contrast, when a warrant is deep-in-the-money, the relationship between the movement in the warrant and the movement in the underlying is almost linear and the delta will be close to 1 or -1.

For example: If a warrant has a delta of 1, a leverage ratio of 2.5 will mean that the warrant makes a 2.5% price gain if the underlying share price increases by 1%. The leverage ratio can only ever indicate the maximum potential participation in underlying price changes, so the appreciation in the value of the warrant will usually be lower than the leverage ratio indicates.

## 5.4 Margin requirements for short positions

Over the lifetime of an option the seller must provide as collateral either the corresponding amount of the underlying asset or another form of collateral. You are required to post such margin as determined by the Bank at the time of the opening and as needed at any time prior to expiration of the option. You will be required to post additional collateral within a very short notice. When trading in American-style options you have also the possibility to close out your position prior to expiration. However, the availability of this possibility depends very much on the market situation. In a difficult market you may have to close out your position on unfavorable terms.

## 5.5 Types of warrants

Although there are many different types of warrants, with new forms constantly coming onto the market, the basic distinction is between warrants detached from warrant bonds (*traditional warrants*) and *naked warrants*. Options which are traded off-exchange are called over-the-counter (OTC) options (see section 5.6.). In addition to ordinary, "plain-vanilla" warrants, there are also a variety of "exotic" options available in the market (see section 5.7).

*Traditional warrants* are issued as part of a warrant bond. The warrants are traded separately in the form of securities giving the holder an independent right to delivery of the underlying. If, as the buyer of a traditional warrant, you exercise your option rights, the issuer is obliged to deliver the underlying instrument – e.g. the share or bond – to you. A common structure for this type of instrument is the *bond with share warrants*. The warrants attached to these bonds are conferring the right to subscribe for shares of the issuer. Most traditional warrants are call warrants.

*Naked warrants* are warrants issued without a warrant bond being issued at the same time. They usually involve a cash settlement instead of

physical delivery of the underlying. Naked warrants are issued in the form of both call warrants and put warrants.

*Covered warrants* are a sub-category of naked warrants. These are traditionally defined as share warrants conferring the right of the holder to subscribe for shares which, during the life of the warrant, are kept in a separately held covering portfolio. Recently, however, it has become increasingly common to dispense with the covering portfolio. Instead, the issuers make additional financial transactions to ensure that the warrant holder's delivery claims are fulfilled when the option right is exercised. The term *covered warrants* is also used to refer to warrants involving a cash settlement rather than the underlying's physical delivery.

Listed below are some common forms of naked warrant with different types of underlying instruments.

### 5.5.1 Share warrants

*Share warrants* are option certificates giving the holder the right to buy (call) or sell (put) shares or to receive a cash settlement when the share price rises above (call) or below (put) a certain level. The crucial factor for investors in share warrants is the performance of the underlying share: as an investor, you profit from a rise (call warrant) or fall (put warrant) in the share price.

### 5.5.2 Interest rate warrants

*Interest rate warrants* are option certificates giving the holder the right to buy (call) or sell (put) bonds or to receive a cash settlement when the bond price rises above (call) or below (put) a certain level. The bond's price performance is the crucial factor for investors in interest rate warrants. The price of the bond depends in turn on interest rate levels in the relevant country. If you hold interest rate call warrants (interest rate put warrants), you generally profit from falling (rising) capital market rates, as falling (rising) capital market rates lead to rising (falling) bond prices.

### 5.5.3 Currency warrants

*Currency warrants* are option certificates giving the holder the right to buy (call) or sell (put) a certain amount of a specified currency or to receive a cash settlement if the exchange rate rises above (call) or falls below (put) a certain level. If you hold a call warrant (put warrant), you will usually profit from rising (falling) exchange rates.

### 5.5.4 Commodity warrants

*Commodity warrants* are option certificates which generally give the holder the right to receive a payment, if the price of a commodity rises above (call) or falls below (put) a certain level. The price

of a call warrant usually rises when the price of the commodity goes up, while the price of a put warrant usually goes up when the price of the commodity falls.

### 5.5.5 Index warrants

*Index warrants* are option certificates that give the holder the right to receive a cash settlement if the value of the underlying index rises above (call) or falls below (put) a specified level. The underlying index for an index warrant can be a share index, bond index or another index. The price of a call warrant generally climbs if the index rises and falls if the index drops; put warrants rise if the value of the index drops and fall if the index rises.

### 5.5.6 Basket warrants and turbo warrants

*Basket* and *turbo warrants* are special forms of warrants. Basket warrants usually entitle the holder to buy (call) a precisely defined basket of underlyings (e.g. shares of specific companies in a specific sector or in one or more countries). Turbo warrants may also give the holder the right to subscribe for other warrants, so they are relatively highly leveraged.

## 5.6 Over-the-counter (OTC) options

*OTC options* are entered into directly between the buyer and writer off-exchange. OTC options are not listed and are only certificated in exceptional cases. A position in OTC options can therefore only be closed out by entering into the corresponding offsetting transaction with the same counterparty.

### Standardized OTC options

Some options, in particular currency or precious metal options, are offered for public sale or purchase with standardized contract specifications. The market for these options is transparent and liquid, which means that positions in these options can generally be closed out early without any problem.

### Tailor-made OTC options

The rights and obligations arising from OTC options can also be individually tailored to the specific needs of the buyer or seller. There is practically no limit to the number of forms a tailor-made OTC option might take. Because they are individually tailored there is no actual market for them, so positions may only be closed out early if the counterparty is in agreement.

## 5.7 Exotic options

### 5.7.1 General

In addition to the plain-vanilla call and put options described in section 5.4, there are also numerous forms of exotic options. *Exotic options* differ from plain-vanilla options in that they involve additional conditions or arrangements. In

particular, exotic options may have a payoff structure which cannot be achieved by any combination of plain vanilla options alone or through their underlying instruments. Exotic options can take the form of both tailor-made OTC options and warrants.

## 5.7.2 Examples of exotic options

The following are examples of typical exotic options:

### 5.7.2.1 Path-dependent options

In the case of path-dependent options, the market value of the underlying is relevant not only on the expiration or exercise date, but throughout the option's life. It is therefore especially important for the investor to take into consideration possible fluctuations in the market value of the underlying during the life of the option.

#### Barrier options

With *barrier options*, the rights arise (*knock-in barrier options*) or expire (*knock-out barrier options*) if the market value of the underlying reaches or exceeds a specified threshold (*or barrier, also known as the in-strike or out-strike*) within a given period. If this barrier is set between the market value of the underlying at the time when the option is taken out and its strike price, the option may also be referred to as a *kick-in or kick-out barrier option*. *Double barrier options*, as the name suggests, have two barriers (the upper and lower thresholds) and may take the form of either *knock-in or knock-out barrier options*. This kind of instrument is also known as a range option.

#### Payout options

*Payout options* pay out a fixed amount agreed in advance. *Digital or binary options* pay out if the market value of the underlying touches the barrier once during a specified period (*one-touch digital options*) or on the expiration date (*all-or-nothing options*). A *one-touch digital option* pays out the specified amount either as soon as the barrier is reached or on the expiration date. Those that pay out on the expiration date are also referred to as *lock-in options*. *Lock-out options*, meanwhile, pay out the fixed sum on the expiration date only if the market value of the underlying has failed to touch the barrier during the period specified.

#### Asian options

With *Asian options*, the market value of the underlying is recorded periodically over a specified period to give an average market value. This is used to calculate the value of the underlying instrument of an *average-rate option* or the strike price of an *average-strike option*.

The actual strike price for an average-strike option can be much higher for the buyer of a call option or much lower for the buyer of a put option than the strike price agreed at the beginning of the sampling period, while for the writer it can be much lower in the case of a call option or much higher in the case of a put option.

#### Lookback options

With *lookback options*, the market value of the underlying is recorded periodically over a specified period

With a *strike-lookback option*, the lowest market value is used as the strike price for a call option and the highest market value is used as the strike price for a put option. In the case of a *price-lookback option*, the strike price remains unchanged; instead the top rate is used for the valuation of the underlying instrument of a call option and the bottom rate is used for the valuation of the underlying instrument of a put option.

#### Contingent options

With *contingent options*, the premium becomes due only if the market value of the underlying instrument reaches the strike price either during the life of the option (American option) or on the expiration date (European option).

#### Cliquet and ladder options

With *cliquet options* (also known as *ratchet options*), the strike price for the following period is adjusted in line with the current market value of the underlying at specified (usually regular) intervals. The option's intrinsic value (if any) is recorded (*locked-in*) each time and the recorded values are accumulated over the life of the option.

*Ladder options* work in a similar way to cliquet options, except that the strike price adjustments are not made periodically, but instead when the market value of the underlying reaches certain levels. Normally, only the highest in-the-money value is *locked-in*, or recorded; it is less usual for all the recorded intrinsic values to be added together.

### 5.7.2.2 Options on several underlyings Spread and outperformance options

Both spread and outperformance options are based on two underlyings. With a *spread option*, the absolute difference between the performance of the two underlyings forms the basis for calculating the option's value. The value of an *outperformance option* is based on the relative difference, i.e. the percentage by which one underlying outperforms the other.

### 5.7.2.3 Compound options

*Compound options* are options on options. In other words, they may be call options with either call or put options as the underlying

instrument; or they may be put options with either call or put options as the underlying instrument.

### **5.8 Special risks associated with warrants and options**

If you are interested in warrants and options as an investment instrument, please familiarize yourself, first of all, with the way they work and the typical risks associated with them, as otherwise there is a very high risk of losing some or even all of your investment.

#### **5.8.1 General price risk**

Before buying a warrant, check first whether there is a sufficiently liquid market for it. You should also avoid making orders without a specified limit. The price of a warrant largely depends on the current or anticipated future performance of the underlying. You should therefore keep a close eye on the price of the underlying instrument at all times. The earnings potential of a warrant lies solely in the potential price gain. Warrants do not generate a steady income.

#### **5.8.2 Leverage risk**

One of the characteristic features of warrants is that their earnings potential is leveraged. This is because warrants have a relatively high delta, i.e. they are very sensitive to changes in the price of the underlying. The leverage effect can not only push up the price of the warrant when the underlying is performing well, it can also drive the price down when the underlying is performing badly. The more highly leveraged the warrant, the greater the risk to the buyer. The leverage effect is particularly strong in warrants with very short remaining maturities.

#### **5.8.3 Risk associated with changes in the time value**

The price of a warrant is determined not only by the price performance of the underlying but also by the maturity of the warrant and the volatility of the underlying. The market can influence the price of a warrant, if investors are prepared to pay much more or much less than the intrinsic value based on expectations of the future performance of the underlying. The time value of a warrant therefore changes on a daily basis.

#### **5.8.4 Risk of the investment losing some or all of its value**

The option rights certificated in a warrant must usually be exercised within a specified period. They may expire or lose value. The shorter the warrant's remaining maturity, the greater the risk of a depreciation in value.

#### **Depreciation in value**

When you sell a warrant, you may make a loss, if its price performance does not live up to your expectations.

#### **Total loss of value**

If you buy a warrant you may – regardless of the issuer's financial strength – lose the entire sum invested, purely because of poor market performance and expiry of the rights. If the market does not perform as you expect or if you decide not to exercise the rights from the warrant or if you fail to exercise them within the specified period, your warrant will expire without value. You will therefore have lost your entire investment, i.e. the purchase price plus costs. Because of the possibility of the warrant expiring without value and the frequently high volatility of these instruments, you should constantly monitor your position. In addition, as with any legal transaction, when entering into an options transaction you are also exposed to default risk (credit risk), i.e. the risk that the other party to the transaction will default.

#### **5.8.5 Exchange rate risk**

When you buy a warrant denominated in a foreign currency, you are exposed to the normal exchange rate risk. You are also exposed to an exchange rate risk if the cash payment or delivery due on exercise of the option rights is denominated in a foreign currency.

#### **5.8.6 Issuer/counterparty risk in OTC transactions**

In contrast to exchange-listed derivatives, in which performance of obligations is guaranteed by means of the market participants' margin payments, in OTC transactions the counterparty risk is concentrated on one institution.

#### **5.8.7 Special risks associated with exotic options**

Due to the practically unlimited number of forms that exotic options can take, it is not possible here to provide a detailed description of the risks inherent in each one. Investors should therefore make sure they are properly informed about all the risks involved in a particular exotic option before buying or writing such an instrument. In addition, investors should note that large-scale client transactions or proprietary transactions by the issuer might trigger price movements which cause the option to expire without value.

#### **5.8.8 Impact of incidental costs on profit potential**

Before you place an order, find out about any associated costs that you may incur. A minimum commission or fixed commission for each transaction (sale or purchase) combined with a low transaction value (calculated as unit price times quantity) may mean that, in extreme cases, the costs are several times higher than the value of the warrant itself. If a warrant is exercised, additional costs are incurred. As a general rule, the higher the costs incurred, the later the break-even point is reached if the warrant performs as expected.

### 5.8.9 Special risks incurred by the writer of an option (writer risk)

The writer of an option should remember that the buyer may exercise his/her rights even if the option is only “at-the-money” or “out-of-the-money”. In the case of American options, this may be any time before expiry.

#### 5.8.9.1 Covered call options

The writer of a *covered call option* owns a quantity of underlying instruments corresponding to the total size of the position (*number of contracts x size of contract: exchange ratio*). If their value exceeds the strike price, the writer misses out on the profit potential of the option. However, the writer also bears the entire risk for any losses incurred on the underlying assets caused by a drop in market value. Any losses are reduced by the amount of the premium received by the writer. Unless agreed otherwise, the underlying instruments are blocked to cover the liability and may not be sold during the life of the option.

#### 5.8.9.2 Uncovered call options

The writer of an *uncovered call option* does not own the underlying instruments. With physical delivery options, the risk lies in the difference between the strike price at which the underlying instruments must be delivered when the option is exercised, and the price at which the writer must procure them. In the case of cash settlement options, the potential risk lies in the difference between the strike price and the market value of the underlying. Since the market value may be considerably higher than the strike price when the option is exercised, the potential loss is unquantifiable and theoretically unlimited.

Writers of American options in particular must take into account the fact that the option may be exercised in very unfavorable, high-loss market situations in which physical delivery obligations may be very difficult, and therefore very costly, to fulfill. In some instances it may even be impossible to acquire the necessary underlying instruments.

The writer must be aware that the potential loss may be far greater than the value of the collateral deposited (*margin cover*). Furthermore, if any additional collateral required is not forthcoming, the bank usually reserves the right to close out the positions concerned.

#### 5.8.9.3 Put options

Writers of put options are exposed to the risk of significant losses in the event that the market value of the underlying falls below the strike price. The risk is quantifiable as the difference between the two figures. In particular, writers of physical delivery American put options run the risk of having to buy the underlying instruments in market conditions where it is difficult to resell them (assuming the writer does not wish to

retain them) without incurring significant losses. In some cases it may even be impossible to resell the instruments. Similarly, there must be sufficient liquidity in the market to enable the purchase of the underlying. The writer's potential losses can be far greater than the value of any collateral (*margin cover*) deposited.

#### 5.8.9.4 Call and put options on futures

Writers of call or put options on futures undertake to enter into futures contracts and are thus exposed to risks similar to those outlined above. Once exercised, these options have the same characteristics and risks as those described under *Forward transactions* below.

## 6. Forward/futures transactions

### 6.1 General

Forward transactions may be associated with special financial risks and are therefore only suitable for investors who are familiar with this type of transaction, have adequate liquid assets and are in a position to absorb any losses. This brochure provides some general information on the essential characteristics of forward transactions and the risks that are normally associated with them.

A forward/futures transaction entails the **obligation** to deliver or take delivery on a specified date (delivery date) of a specified quantity of a particular underlying instrument at a price agreed on conclusion of the contract (delivery price).

The ***difference between options and forward/futures transactions*** is therefore as follows: options give the buyer the right, but not the obligation, to buy or sell the underlying instrument, and only the writer (seller) has an obligation to deliver or take delivery of the underlying against payment if the option rights are exercised. By contrast, forward/futures transactions always involve an obligation both to deliver and to accept delivery against payment.

The shorter the maturity of a forward contract, the smaller the difference between the forward price and the spot rate. The forward price and spot price converge over time. A look at pricing factors for options and forward transactions shows that forward market price trends are closely linked to price trends in the spot market. In well-functioning markets, a balance is established between forward and spot prices. If the relationship between spot and forward market prices is disrupted for any significant length of time, arbitrage methods are used to restore price equilibrium between the two markets.

Forward/futures transactions also involve a leverage effect, as the investor participates in

fluctuations in the price of the underlying by paying only part of the contract value. This means that even small changes in the price of the underlying – relative to the capital invested – can lead to significant gains or, equally, substantial losses.

The difference between the purchase price and the selling price determines the gains or losses made on the investment, although additional costs (e.g. transaction costs) need to be taken into account.

## 6.2 Underlying instruments

Underlying instruments may be any of the following:

- Assets such as equities, bonds, commodities and precious metals;
- Benchmarks such as currencies, interest rates and indices.

## 6.3 Characteristics

### 6.3.1 Types of forward transactions

**Futures** are exchange-traded forward contracts in which the volume of the underlying and the delivery date are standardized.

**Over-the-counter (OTC) forward transactions** are contracts which are not traded on exchanges. The contract specifications are agreed between the buyer and seller and may be standardized or customized.

### 6.3.2 Margin requirement or margin cover

An *initial margin* is agreed at the outset of the contract both for the forward purchase and the forward short sale of an underlying instrument. This initial margin is usually expressed in terms of a percentage of the purchase price of the eligible instruments. In addition, a *variation margin* is calculated periodically throughout the life of the contract. This represents the book profit or loss resulting from changes in the value of the contract or the underlying. The variation margin may be several times higher than the initial margin. The terms governing the calculation of the variation margin during the life of the contract or in the event that the contract is closed out are laid down in the rules of the exchange in question or in the contract specifications. The investor is obliged to deposit margin cover at least equal to the variation margin requirement with the securities dealer for the entire life of the contract.

### 6.3.3 Closing out or performance

In principle, investors can close out contracts at any time before the delivery date or, where applicable, until the last day of trading stipulated in the individual contract. However, they should

bear in mind that closing out is only actually possible on or before a deadline specified by the bank. Depending on the type of contract involved or the relevant stock exchange regulations, contracts may be closed out in one of two ways: either by selling the contract or by concluding another contract which is identical to the first, except that its delivery (buy or sell) specifications are exactly the reverse. The result of executing this countervailing transaction is that the two sets of delivery specifications cancel each other out.

Contracts which are not closed out on or before the delivery date or, where applicable, the last day of trading specified, must be fulfilled by the contracting parties according to the following rules: Contracts for which the underlying is a physical asset may be fulfilled either by physical delivery of the underlying or by means of a cash settlement. Generally, this type of contract is fulfilled by physical delivery, unless the possibility of cash settlement is provided by the contract specifications or relevant stock exchange regulations. All other terms governing performance of the contract, in particular the place of performance, are laid down in the individual contract specifications.

Futures contracts on benchmarks (excluding currencies) cannot be fulfilled by physical delivery of the underlying. Therefore, performance of these contracts always takes the form of cash settlement.

For contracts where performance is by physical delivery, the full contract value must be delivered, whereas for cash settlement futures contracts, only the difference between the price agreed on conclusion of the contract and the current market value at the time of delivery must be paid. Investors therefore need to have greater liquid funds at their disposal for forward transactions involving physical delivery than for cash settlement contracts.

## 6.4 Risks

### 6.4.1 Changes in the value of the contract and/or underlying

An investor using strategies that involve forward transactions will have certain expectations regarding likely movements in the value of the contract over the relevant period. If these movements run contrary to his/her expectations, the risks to the investor are as follows: Even if the value of the contract or underlying rises, the forward seller must nevertheless deliver the underlying at the price initially agreed, which may be significantly below the current market value. In other words, the risk to the seller lies in the difference between the delivery price and the market value on the delivery date. As the market value can theoretically rise by an unlimited

amount, the seller is exposed to unlimited downside risk and his/her losses can easily exceed the margin requirements.

Likewise, even if the value of the contract or underlying falls, the forward buyer must nevertheless accept delivery of the underlying at the price initially agreed, which may be substantially higher than the current market value. In other words, the risk to the buyer lies in the difference between the delivery price and the market value on the delivery date. The maximum potential loss for the buyer is therefore the amount of the delivery price, which may significantly exceed the margin requirements. Like warrants, forward transactions are also exposed to market volatility.

Even before the delivery date, anyone entering into a forward contract is exposed to certain price risks. You should therefore keep a close eye on the price performance of the underlying. In addition, as with any legal transaction, when entering into a forward transaction you are also exposed to default risk (credit risk), i.e. the risk that the other party to the transaction will default.

#### 6.4.2 Restricted or suspended closing out

In order to limit excessive price fluctuations, an exchange may set price limits for certain contracts. Investors entering into this type of contract should be aware that when the price limit is reached, it will be much more difficult, or even temporarily impossible, to close out the contract. You should therefore find out whether any price limits apply before making a forward transaction.

#### 6.4.3 Acquisition of underlying in short sales

Investors who sell forward an underlying instrument which they do not hold at the outset of the contract (**short sale**) run an additional risk of being obliged to acquire the underlying instrument at an unfavorable market price in order to be able to make the physical delivery on the delivery date.

#### 6.4.4 Special risks associated with over-the-counter (OTC) forward transactions

The market for *standardized OTC forwards* is generally transparent and liquid. This means that this type of contract can usually be closed out.

There is no actual market for *OTC forward transactions with customized contract specifications*, so the positions they entail may only be closed out with the agreement of the counterparty. In contrast to exchange-listed derivatives, in which performance of obligations is guaranteed by means of the market participants' margin payments, in OTC transactions the counterparty risk is concentrated on one institution (see *below Investments in emerging markets, section 10*).

### 6.4.5 Combinations

Given the large variety of possible combinations, we cannot detail in this brochure the risks involved in any particular case. Since combinations consist of various elements, closing out individual elements can considerably alter the risks inherent to the residual position. Investors should therefore find out all they can about the specific risks of the combination in question before entering into a transaction.

## 7. Structured products and structured deposits

### 7.1 General

*Structured products* are combinations of two or more financial instruments that together make up a new form of investment product. At least one of them must be a derivative product. At present, the **structured products** most frequently traded in the market are those **which have a capital protection element**. However, also **structured products without a capital protection element** have come onto the market. Although having no capital protection element, they reduce the downside risk in other ways. Every structured product has its own risk profile, since the specific risks inherent in each product can be partially or completely reduced, eliminated or increased. It is therefore vital to find out the exact risk profile of a structured product – for instance by reading the relevant product brochure – before buying it.

As a rule, structured products are not exchange-listed. However, the issuing bank usually guarantees a permanent secondary market for the instrument concerned. Prices for some issuers are published in selected newspapers.

A structured deposit combines a traditional money market investment with a currency or precious metal option. Structured deposits can pursue different investment strategies. They all have in common that at maturity the initial investment amount is paid back, either in the investment amount or in an alternative currency at a predetermined conversion rate.

### 7.2 Capital-protected structured products/structured deposits

*Capital-protected structured products and structured deposits* are made up of two financial instruments: a bond or money market investment and an option. These products give investors the opportunity to participate in the performance of one or more underlying instruments (currencies, assets or benchmarks) through the option component, while at the same time limiting potential losses thanks to the bond/money market component (*capital protection component*). Some products can be *split* into two parts, i.e. the capital protection component and the option component. This allows the investor to

retain or sell the components separately. The value of a capital-protected structured product/structured deposit is determined by the value of the capital protection component, which may be less or more than 100% of the overall capital commitment, and on a fixed percentage of the rise in the price of the underlying. This percentage is agreed in advance and may be below, equal to, or above 100%.

### **7.2.1 Capital protection component**

The *capital protection component*, which is repaid at maturity, is itself made up of a capital component and an interest component.

The capital protection component determines how much of the purchase price of the capital-protected structured product/structured deposit is paid out and hence what the buyer's minimum return will be, irrespective of how the option component performs. The capital protection component is linked to the nominal value rather than the price paid at the time of issue or its purchase price in a secondary market. This means that the capital protection component decreases as a percentage of the capital invested if the purchase price or price paid at issue is higher than the nominal value. Conversely, it increases as a percentage of the capital invested if the purchase price is lower than the nominal value.

### **7.2.2 Option component**

The *option component* determines how and to what extent the buyer of the capital-protected structured product/structured deposit participates in the performance of the underlying and thus in the instrument's profit potential over and above any profit made on its capital protection component. The buyer participates in the underlying through an option or a combination of options, so the risk profile of the option component corresponds to that of the option or combination of options in question. This means that, if the price of the underlying moves in the wrong direction, the option component may expire without value.

### **7.2.3 Special risks associated with capital-protected structured products/structured deposits**

If the value of the underlying goes up and is not as far above the strike price as expected when the option component expires, the investor still receives the previously agreed percentage of the underlying price rise in addition to the guarantee capital portion. However, this amount may still be less or only slightly higher than the initial capital invested, so the return on the investment may be lower than a money market investment with the same maturity. If the price of the underlying is equal to or lower than the strike price when the option component expires, the investor only receives the guaranteed portion of the initial

capital invested. The risk for the investor is therefore that the option component (e.g. of a Capital Protected Unit "CPU") will expire without value. The maximum loss will be the difference between the price paid for the instrument and the agreed capital guarantee.

If, during the life of the product, the price of the underlying falls below the level at which it stood when the product was purchased, the impact of interest rates could even result in the value of the product as a whole falling below the amount of the capital protection component.

Further, the capital protection depends on whether the issuer of the protection can meet its obligations. In addition, capital protection is only guaranteed if you continue to hold the product until maturity, but not if early repayment is requested. As regards to structured deposits there is a risk that the bank with which the money market instrument is invested cannot meet its repayment obligation.

The following examples illustrate a few of the forms that participation via an option component can take. For the sake of simplicity, the scenarios below are all based on the assumption that a capital-protected derivative will be held until maturity.

#### **Capital-protected structured products/structured deposits with unlimited profit potential**

With these instruments, the investor participates in a percentage of the gains made by the underlying. The exact percentage share depends, among other things, on what proportion of the initial capital investment is guaranteed. Depending on the product, the relationship between the performance of the underlying and the investor's participation can be linear, progressive or degressive.

#### **Capital-protected structured products/structured deposits with limited profit potential**

With this type of instrument, the investor only participates in the performance of the underlying up to a specified limit. If the underlying moves above this limit, the investor does not participate in any further price gains. In return, however, the investor usually has a greater share in any price gains made by the underlying than if he/she had invested in a capital-protected derivative with unlimited profit potential.

#### **Capital-protected structured products/structured deposits with fixed profit potential**

These pay out a fixed amount in addition to the guaranteed capital if:

- The price of the underlying exceeds or falls below an agreed threshold at maturity or on



the specified sampling date (the option component in this case will be a *barrier option*), or if,

- The price of the underlying is within an agreed trading range at maturity, on the specified sampling dates or throughout the life of the instrument (in this case the option component will be a *range option*).

Consequently, before buying these products, investors should not only consider the overall performance of the underlying, but should also have a clear expectations regarding possible fluctuations in the underlying's price during the relevant period.

#### **7.2.4 Special risks associated with structured products/structured deposits without capital protection**

There are numerous structured products/structured deposits without capital protection. In this booklet only a few examples can be described. You should carefully read the product term sheet before investing in structured products/structured deposits without capital protection.

##### **7.2.4.1 Discount certificates**

With discount certificate you have the right to buy an underlying instrument at a price below the market price (i.e. with a discount). At the same time you accept a limited up-side potential (i.e. cap). The potential return results from the difference between the discounted purchase price of the underlying (e.g. share, index, basket, etc.) and the price ceiling determined by the cap.

##### **7.2.4.2 Reverse convertible**

The investor receives a guaranteed coupon in a given currency, but accepts a risk on his capital on maturity. Repayment is in cash. On maturity, if the price of the underlying (e.g. share, index, basket, etc.) is higher than the strike price, you will receive the guaranteed coupon, plus 100% of the capital initially invested (in cash). If the price of the underlying instrument is lower than the strike price, you will receive the coupon, plus the underlying instruments at the strike price.

##### **7.2.4.3 Risks of discount certificates and reverse convertibles**

No capital protection is guaranteed. The investor could receive the underlying instrument instead of the capital invested, respectively a cash amount at the strike price. The capital risk is closely linked to the evolution of the price of the underlying instrument. Under certain conditions liquidity could be limited and products denominated in another currency than the underlying instrument expose the investor also to currency risks.

##### **7.2.4.4 Structured deposits paid back in an alternative currency**

Certain structured deposits could – depending on the underlying – be paid back in an alternative currency (different from the investment amount).

##### **7.2.4.5 Risks of structured deposits paid back in an alternative currency**

The investor takes the risk that the repayment of the initial investment amount and the maximum fixed yield are not made in the investment currency, but in an alternative currency. The conversion back into the investment currency may result in a loss. The potential loss is the difference between the initial investment amount and the amount received at maturity, which converted back into the investment currency at the prevailing exchange rate could be considerably lower than the initial investment amount.

## **8. Synthetic products**

### **8.1 General**

Synthetic products duplicate the profit and loss structure of one or more conventional financial instruments. For instance, a synthetic product can replicate the holding of an equity portfolio or the writing of a call option.

Synthetic products are combinations of two or more investment products in a single security. As the markets do not always move as predicted, investors should, however, be aware that the risks associated with synthetic products are not necessarily the same as the risks in the investments they are duplicating. It is therefore vital to find out the exact risk profile of a synthetic product – for instance by reading the relevant product brochure – before buying it. As a rule, synthetic products are not exchange-listed. However, the issuing bank usually guarantees a permanent secondary market for the instrument. Prices for some issuers are published in selected newspapers.

### **8.2 Synthetic covered options (e.g. *Title or Return Options, TOROs*)**

#### **8.2.1 General**

In a covered option transaction, the investor buys an asset (equity/bond/currency) and at the same time writes a call option on the same asset, thereby reducing the potential loss by the amount of the premium received for the call option (***covered short***). By the same token, the potential profit is limited to gains up to the amount of the strike price. With a synthetic covered option, this hedging process is built into a single transaction.

### 8.2.2 Characteristics

Synthetic covered options are limited-duration investments, which are repaid at maturity either by cash settlement or by physical delivery of the underlying assets or instruments (usually blue chip stocks or top-rated bonds). Additional information on individual products can be found in the relevant product literature. The purchase price for a synthetic covered option is equivalent to the price of the underlying minus the premium received for the sale of the call option. If the price of the underlying on the final valuation date is at or below the agreed strike price, the investor receives physical delivery of the underlying. In all other cases, he or she receives the fixed cash sum agreed at the time of issue. In favorable circumstances, the return will be higher than that on a money market investment with the same maturity.

### 8.2.3 Risks

Unlike capital-protected derivatives, synthetic covered options do not provide a hedge (as such) against a fall in the price of the underlying. However, the call option built into the product and the inclusion of the sale proceeds in the price of the instrument mean that there is not as much loss potential as with a direct investment in the underlying.

Investors are exposed to the following risks, depending on price movements: If the price of the underlying rises and, at the final fixing, is higher than the option's strike price as fixed, the investor receives the fixed redemption price in the form of a cash payment. If the underlying's closing price is not as high as expected, the return may be lower than the return on a money market investment with the same maturity.

If the price of the underlying security at the final fixing is the same as or lower than the agreed strike price, the investor receives physical delivery of the underlying. The loss potential here is linked to any fall in the price of the underlying by the final fixing date. Just as if the investor held the underlying directly, the downside risk is theoretically unlimited.

## 8.3 Index, region and basket certificates

### 8.3.1 General

Certificates are based on a number of selected underlying instruments:

- *Index certificates* reflect the performance of a whole market. They are based on an official index (e.g. the German Share Index, (DAX).
- *Region certificates* contain stocks selected from a particular region (e.g. Eastern Europe, Asia-Pacific).

- *Basket certificates* comprise selected stocks of national or international companies operating in a particular sector (e.g. biotechnology, mechanical engineering, precious metals), indices, bonds or other underlying instruments.

### 8.3.2 Characteristics

Investing in index, region or basket certificates makes it possible for any investor to spread a small initial investment over a wide range of stocks, thereby reducing the higher risks involved in an individual investment to the lower levels of risk associated with whole markets or sectors. These certificates are securitized and tradable at all times. They usually have a maturity of one to three years. Another advantage, they offer is that transaction costs are lower than they would be for direct investments in the relevant shares.

When the certificate matures, the repayment due is:

- One unit of currency (e.g. Euro) per index point in the case of index certificates or
- The difference between the market value on expiry and the strike price in the case of region or basket certificates.

### 8.3.3 Risks

An investment in an index, region or basket certificate carries the same risks and opportunities as a comparable direct investment in the underlying stocks. However, the degree of **diversification** inherent in the certificate means that it carries a lower level of risk than an investment in a single stock. At the same time, investors in certificates should pay particular attention to issuer risk, i.e. the issuer's credit-worthiness should be taken into account when assessing risk.

## 9. Special issuer/counterparty risk in derivative transactions

With financial derivatives, which focus on the price performance of the underlying, there is a particular danger of underestimating or even completely overlooking the element of counterparty risk to the investor. With exchange-traded options and futures, the exchange clearing house is the counterparty; however, with warrants, OTC forward contracts and structured or synthetic products, the issuer is the counterparty, and may in some cases be unable to fulfill its contractual obligations.

## 10. Investments in emerging markets

### 10.1 General

*Emerging markets* are securities markets in countries characterized by, among other things, political instability and relatively unpredictable financial markets and economic growth patterns.

Emerging markets include countries whose stock markets are still in the process of becoming established, those whose economies are weak and those described as “developing countries”. The list of emerging markets is constantly changing. Investments in emerging markets should only be made by investors who have an in-depth knowledge of the markets in question and are thus in a position to assess the various risks.

## **10.2 Characteristics**

All types of emerging market investment carry specific risks which are not present in established markets. This applies to investments where the product issuer or provider has its headquarters in an emerging market, and equally to those where the issuer or provider conducts the bulk of its activities in such a market. Investments in emerging markets may also carry additional risks, so investments in the products of such providers are often speculative.

## **10.3 Risks**

The main additional risks associated with investments in emerging markets include the following:

### **10.3.1 Political risk**

An inexperienced government or unstable political system can mean that there is greater risk of short-term economic or political upheaval. The consequences for investors can include the confiscation of the assets with no compensation, the restriction of rights of disposal over the assets or a dramatic fall in the value of the assets in specific industry sectors as a result of state intervention or the introduction of state monitoring and control mechanisms.

### **10.3.2 Economic risk**

The economy of an emerging market country is more susceptible to changes in interest rates and inflation, which in turn are considerably more volatile than in established markets. Emerging economies also tend to be far less broadly based, so a single event can have a far greater impact on the economy as a whole or on individual sectors. Finally, emerging nations generally have a lower capital base and their financial markets often lack an adequate structure and sufficient monitoring.

### **10.3.3 Credit risk**

Investments in debt papers (e.g. bonds or notes) issued by emerging market governments or companies tend to entail much higher levels of risk than established market debt. This can be due to inferior creditworthiness, a high level of government debt, debt reschedulings, lack of market transparency or lack of market and company information. In addition, inconsistent valuation standards and the absence of ratings make it much more difficult to assess credit risk.

### **10.3.4 Exchange rate risk**

The currencies of emerging market nations are subject to major, unpredictable (or fluctuations) in value. Furthermore, it is important to note that some countries impose currency export controls or are able to introduce them at short notice. Although hedging can help limit losses resulting from exchange rate fluctuations, such losses cannot always be entirely excluded.

### **10.3.5 Market risk**

Underdeveloped financial supervisory mechanisms mean that emerging markets often suffer from insufficient transparency and liquidity as well as poor regulation and inefficiency. These markets are also highly volatile and there can be wide variation in prices. Finally, inadequacy or absence of regulatory measures often means that there is an increased danger of market manipulation or insider dealing.

### **10.3.6 Liquidity risk**

Liquidity depends on supply and demand. However, social, economic and political developments or natural catastrophes can have a much more rapid and lasting impact on supply and demand in emerging markets than in other markets. In extreme cases, emerging markets can become illiquid, making it impossible for investors to sell their investments.

### **10.3.7 Regulatory and legal risk**

If financial market monitoring is inadequate or non-existent, legal claims may be difficult or impossible to enforce. In addition, in countries with an inexperienced judiciary there may be widespread legal uncertainty.

### **10.3.8 Settlement risk**

Certain emerging markets have an array of different clearing and settlement systems or none at all. Systems are often outmoded and prone to processing errors or considerable delays in settlement and delivery.

### **10.3.9 Shareholder/creditor risk**

Legislation to protect the rights of shareholders and creditors (e.g. duties of disclosure, laws forbidding insider trading, management responsibilities, protection of minority shareholders) is often inadequate or non-existent.

# Part II: Basic Investment Risks

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In this section we would like to remind you of the basic risks to which investors are exposed. These apply equally to all the forms of investment instruments covered in this brochure. Please also note that some investments may carry a combination of risks, which will increase the impact of each individual risk.

## 1. Economic risk

If, when making an investment decision, you do not take economic trends sufficiently into account or ignore them, and as a result, buy or hold particular securities at a time when the economic environment is unfavorable, there is a risk that the value of your investment may fall (*economic risk*).

In particular, you should note that past performance does not necessarily provide an indication of future performance, and that a rise in the value of an investment does not guarantee that its value will continue to rise in the future. Price losses (and therefore losses to the investor) are always possible.

The performance of securities is influenced by changes in economic trends. Securities prices (and exchange rates) react in particular to changes (or announcements of changes) in national economic and fiscal policy. You should therefore continually monitor your investments to ensure that the allocation of assets by asset class and country is appropriate to the economic environment, correcting previous investment decisions where necessary. *Timing* is a crucial factor in every investment decision.

## 2. Inflation risk (purchasing power risk)

The value of your investment may also fall as a result of a drop in the value of a currency (*inflation risk*). This represents a downside risk both to the real value of the assets and to the real return on the investment.

As an investor, you should therefore take the *real yield* into account. The real yield on a

fixed-interest security is the difference between the yield and the inflation rate. Neither equities nor tangible assets offer the investor any comprehensive protection against currency depreciation. Depending on inflation levels, dividend income and price gains (or price losses), the real yield can be negative as well as positive.

It is not possible to generalize about which types of investment keep their value best. However, when compared over the long term, *tangible assets* have performed better and have therefore been more stable than *money assets*.

## 3. Country risk and transfer risk

Events that destabilize a country's political or social system may cause the country's government to intervene into the servicing of foreign debt. This may result in non-payment by the country concerned. Consequently, the foreign creditor, although solvent, may not be able to make interest or redemption payments on time or at all because of a lack of foreign currency or the existence of exchange controls in its country of domicile (*country risk*). There is no way of hedging against the risk arising from non-transferability of funds (*transfer risk*).

The *country ratings* published in the financial press are a very useful guide to country risk. Countries are rated according to their creditworthiness.

## 4. Exchange rate risk

If you hold foreign currency denominated financial instruments and the value of the underlying currency falls, you are exposed to *exchange rate risk* as well as downside price risk. A fall in the underlying currency may in some cases reduce the instrument's yield advantage to such an extent that, with hindsight, it would have been preferable to invest in an instrument denominated in your local currency.

## 5. Liquidity risk

The possibility for the investor to sell securities at any time at market prices is described as liquidity.

Difficulties in buying or selling securities can be caused not only by narrow, illiquid markets, but also by the particular features of the security or by market regulations. In some circumstances, it may not be possible to execute buy or sell orders immediately, in full (in the case of **partial execution**) or on favorable terms. You may also have to pay higher transaction costs. If you require short-term liquidity, you may need to take out a bridging loan, incurring additional costs as a result.

**Penny stocks** carry a particularly high liquidity risk. As the name suggests, the price of these stocks is usually less than USD 1; they are often sold through a single brokerage house only and are not exchange-traded. Investors in penny stocks do not have the certainty of knowing whether or at what price the brokerage house will continue to trade in them. If, as the only market maker, the broker ceases to trade in the stocks, they become illiquid. This means there is no guarantee that investors will be able to sell back their penny stocks.

## 6. Psychological market risk

Irrational factors such as sentiment, opinion and rumors can also trigger significant price falls on the stock market, even if there has been no deterioration in results and earnings outlook of the companies concerned.

## 7. Tax risk

Before making an investment, find out the tax implications and make sure that the investment meets your expectations from a tax point of view.

## 8. Risks associated with credit-financed investments (leverage)

Taking out a security-backed loan, known as a Lombard loan, is a way for you to increase your buying capacity as an investor. With a Lombard loan, the line of credit provided for your securities transactions is secured by your securities portfolio, which is pledged to the bank. A separate agreement is required for this purpose. Different amounts of your portfolio may be pledged as security, depending on the type of assets in the portfolio.

Credit-financed, speculative commitments should not make up more than a certain proportion of your investment portfolio, even if you are a highly risk-tolerant investor. You cannot, otherwise be sure, that you will not have to sell financial instruments during a stock market slump because you need the money or because of market uncertainty.

Bear in mind that pledging your portfolio as security carries risks for you. The prices of the financial instruments pledged may fluctuate, with the result that their collateral value no longer covers the loan value. In these cases, the bank may ask you to provide additional collateral. A demand for additional collateral may be made at very short notice, particularly in the case of speculative, highly volatile transactions. If the requested collateral cannot be provided, the bank is normally entitled to close out your existing positions and to sell financial instruments until the amount of cover is once again equal to the sum of the secured claims arising from the Lombard loan. In this case, the loan will be maintained. You must therefore be aware that even after realizing the collateral you are committed to repaying the remainder of the loan and to making interest payments.

Whereas the maximum risk in non-credit-financed transactions is the loss of the entire position, as a consequence of the leverage effect the downside risk of a credit-financed financial instruments may amount to more than the sum originally invested.

## 9. Interest rate risk

Interest rate risk results from the possibility of future interest rate movements in the market. During the term of fixed-interest bonds, a rise in interest rates will cause prices to drop, whereas a decline in market interest rates will cause prices to increase.

## 10. Price Risk

Price risk is the risk of potential changes in the value of individual investments. In the case of transactions involving future transfer of ownership (e.g. foreign exchange forwards, futures, writing of options), price risk may make it necessary to post collateral (a margin) or to raise the existing margin, i.e. to tie up liquid assets.

## 11. Risk of total loss

The risk of total loss is the risk that an investment becomes worthless, for instance because it is devised as a right that is subject to a time limit. A total loss is especially likely to occur when the issuer is no longer in a position, for financial or legal reasons, to meet their payment obligations (insolvency). The risk of total loss also arises when issuers of securities find themselves in financial straits and the authorities in charge resort to resolution instruments, cancelling the shares of shareholders, for example, or using the bail-in option for unsecured bonds, which may lead to a complete write-off of the bonds' face value.

## 12. Counterparty risk

When assessing the risks of a specific type of transaction you should always be aware who your counterparty is.

- With respect to transactions in equities and bonds, the respective corporation is the issuer, so that you bear the credit risk of the issuer.
- As regards exchange-traded options and futures contracts the clearing house of the exchange is usually the counterparty as described in the regulations of the respective exchange.
- As regards transactions such as warrants, OTC options and OTC forward transactions, structured products and exotic options, in addition to the risks arising from the type of transactions the issuer is the counterparty and may in some cases be unable to fulfill its contractual obligations.

## 13. Concentration risk

Concentration risk arises if one or only few financial instruments make up a significant part of the total portfolio. In a market downturn such portfolios can suffer more substantial losses than diversified portfolios. When buying or selling financial instruments it is therefore important to consider the overall portfolio composition.

## 14. Risk of insolvency of the counterparty or clearing and settlement system

In case of insolvency of the counterparty or clearing and settlement system on which financial instruments are traded, you may lose part or all of the amounts invested. The solvency of the counterparty or clearing and settlement system may change over time and depends on changes relating to the company and/or in the relevant country, e.g. political changes.

## 15. Additional risks on emerging markets

Please see details in Part I, chapter 10.

## 16. Other basic risks

You should also be aware of the following risks when investing in securities.

### 16.1 Information risk

*Information risk* is the risk of poor investment decisions arising from a lack of information, incomplete information or inaccurate information. This may be due in turn to unreliable sources, misinterpretation of originally accurate information or communication errors.

### 16.2 Transmission risk

When placing an order to execute a financial instruments trade, you must specify certain details such as whether it is a buy or sell order, the number of units or contract volume and the exact name of the security. As a general rule, the

more precise your order, the smaller the risk of a transmission error.

### 16.3 Risk associated with owner custody

If you intend to keep custody of your financial instruments yourself (*owner custody*) (where this is still possible), you should note that if you lose the certificates, a public notice procedure must be carried out in order for you to recover your rights. This procedure may entail significant costs. The process of obtaining new certificates – from the first steps of the public notice procedure, through the cancellation of the certificates to the provision of replacements – may take several years. If a third party has purchased the certificates in good faith, you may not be able to recover the rights at all. You may also incur interest losses if, for instance, you are not aware that a bond that you hold matured some time ago as a result of lottery or early redemption.

*Foreign registered* financial instruments should not, as a rule, be kept in owner custody.

The names and addresses of the owners of foreign registered financial instruments are recorded in the shareholders' register. As a direct consequence, all company information and distributions are sent directly to the owner – and not to the custodian bank. In cases where registered securities are inherited, the sale of the financial instruments at any time is not always guaranteed. As the owner of foreign registered financial instruments, you may also have difficulty with documentation, information, requests etc. sent to you in a foreign language. A custodian bank will assume these risks on your behalf as part of its professional service.

### 17. Impact of incidental costs on profit potential

If, alongside your custodian bank, other domestic or foreign-based parties are involved in the execution of your order, e.g. domestic brokers or brokers operating in foreign markets, you should note that their brokerage fees, commissions and costs will also be passed on to you. You should therefore ensure you have a clear idea of the amount and type of any costs that may be incurred before buying or selling securities. As a general rule, the higher the costs, the later the expected profit potential will be realized. In other words, your investment only becomes profitable once all of the incidental costs have been covered.



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