



Special Risks in Securities Trading

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INTRODUCTION

What this brochure is about

Since 1 February 1997, commercial trading in securities is governed by the Stock Exchange Act (Swiss Federal Act on Stock Exchanges and Securities Trading of 24 March 1995). The Act requires securities dealers to inform their clients about types of transaction and investments that may involve special risks. This brochure contains information about these risks. 1

The term “securities dealer” is used in this brochure to mean UBS AG.

Securities and the Risks Involved

What are securities? 2

Securities are standardised certificates which are suitable for mass trading, as well as rights not represented by a certificate but with similar features (book-entry securities). They include equities, bonds, units of mutual funds and derivatives. They are offered to the public in a standardised form and denomination, or are sold to more than 20 clients.

What are derivatives? 3

Derivatives are financial instruments for which the price is derived either from assets (underlyings) such as equities, bonds, precious metals and other commodities; or from benchmark rates such as currencies, interest rates and indices; or from credit or catastrophe events.

An equity option, for example, derives its value from the “underlying” equity. In the following chapters, we will go on to look at different types of derivatives, including forwards, futures and structured products as well as options. 4

What do you particularly need to bear in mind when carrying out securities transactions? 5

Securities, and especially derivatives, entail financial risks. Derivatives are financial instruments based on a separate underlying and are often composed of different elements, which sometimes makes them difficult to understand. This is particularly true for “exotic” options. This brochure explains these financial instruments and their associated risks. However, it is no substitute for the product descriptions provided by issuers and securities dealers. If you have any further questions, consult your client adviser.

Can the risks be unlimited? 6

There are basically two types of financial instruments: those with limited risk and those with unlimited risk. The purchase of equities or options involves

limited risk. At worst, you will lose the entire amount of your invested capital and not make a profit.

- 7 **CAUTION** On the other hand, there are certain types of derivatives that can require an additional outlay of capital over and above the original investment. The obligation to make such margin payments can amount to many times the purchase price of the investment. Unlimited risk is particularly associated with
- selling (writing) an uncovered call option,
 - selling (writing) a put option or
 - forwards and futures transactions.

Your Right to Information

8 **What must your securities dealer inform you about?**

The Stock Exchange Act obliges securities dealers to inform their clients about the risks associated with a given type of transaction.

- 9 The obligation to inform is dependent of the client's level of experience and specialist knowledge in the area concerned. Clients must be informed about transactions that entail higher levels of risk or have a complex risk profile, but not about the specific risks relating to individual transactions.

Limits of the Duty to Provide Information

10 **When can you waive your right to information?**

If you are already familiar with the risks pertaining to a particular type of transaction, you may choose not to receive this information from your securities dealer.

11 **What information are securities dealers not obliged to supply?**

Securities dealers are not obliged to inform you about normal risks. These are not covered in this brochure. Normal risks chiefly include

- 12 • **The risks attached to conventional, widely used financial instruments, such as equities, bonds and collective investments (e.g. units in mutual funds)**

For example, the debtor (issuer) can get into financial difficulties, making him/her incapable of payment (credit and default risks).

- **Country risks** 13
A country risk can arise if a country restricts securities trading, for instance by imposing economic sanctions or currency restrictions.
- **Settlement risks** 14
A settlement risk occurs when you have to pay the purchase price of a security in advance but do not actually receive the security until later. In this event, the risk is that you will pay the purchase price and receive the securities late or even not at all. Conversely, when you are obliged to deliver securities that you have sold, you may not simultaneously receive the purchase price from the buyer. Settlement risks mainly occur in emerging markets (see 209).
- **Risks associated with custody of financial instruments** 15
Financial instruments can be held either in your country or abroad. Generally, they are held where they are most often traded, and are governed by the regulations that apply there. If your securities dealer becomes insolvent, Swiss law stipulates that the financial instruments deposited with that dealer will not form part of their bankruptcy assets, but will be kept separate for your benefit. However, insolvency proceedings can delay the transfer of the financial instruments to you or another securities dealer. If a third-party custodian becomes insolvent, the law in many countries provides that the financial instruments deposited with that custodian by your securities dealer are also normally protected. In less advanced markets (see 196 ff.), however, financial instruments deposited with a third-party custodian in the country concerned may be included in the custodian's bankruptcy assets.
- **Liquidity risk** 16
Liquidity risk is the risk that you will not always be able to obtain an appropriate price for your investment when you sell it. When certain securities and derivatives are impossible to sell, or can only be sold with difficulty and at a sharply reduced price, the market is said to be illiquid. Illiquidity risk occurs especially with shares in unlisted or poorly capitalised companies, investments with sales restrictions, and certain structured products.

- 17 The Stock Exchange Act does not require securities dealers to inform you about risks associated with investments in alternative (non-traditional) investments funds and emerging or developing markets. Given the significance of these types of investment, we nonetheless explain the risks typically encountered in these markets in Section Two of this brochure.
- 18 This brochure does not deal with the issues of taxation or any other legal consequences pertaining to securities transactions (e.g. duties of disclosure). We advise you to look into these matters yourself or obtain professional advice.
- 19 Please read through this brochure carefully and consult your client adviser if you have any questions.

Options

What are your rights and duties in an option transaction? 20

As the buyer of an option, you have the right to buy a specified amount of an underlying asset (often simply referred to as the “underlying”) from the seller (call option) or sell it to the seller (put option) at a predefined price (strike price) up until a set time (expiration date). The price you pay for this right is called the premium.

As the seller (writer) of an option, you must sell the underlying to the buyer at the strike price (call option) or buy the underlying from him/her at the strike price (put option) up until the expiration date, irrespective of the market value of the underlying asset at the time, if he/she chooses to exercise the option. 21

What is the leverage effect in the context of options? 22

The price of an option is closely linked to that of the underlying asset. Any change in the market value of the underlying asset will result in a greater change in the price of the option. This is termed the leverage effect. It means you participate disproportionately in any rise or fall in the market value of the underlying asset.

Which underlying assets can options be based on? 23

The commonest underlying assets for options are:

- assets such as equities, bonds, precious metals and other commodities,
- benchmark rates such as currencies, interest rates and indices,
- derivatives and
- any combination of the above.

What are “American-style” options? 24

“American-style” options can normally be exercised on any trading day up to the expiration date.

What are “European-style” options? 25

“European-style” options can only be exercised on the expiration date, in other words the date set out in the contract. This does not, however, normally affect their tradability on the secondary market (e.g. on a stock exchange).

When are options settled physically, and when are they settled in cash? 26

Where a call option provides for physical settlement, you can require the seller of the option (writer) to deliver the underlying asset when you exercise the option. With a put option, the writer is obliged to buy the underlying asset from you.

27 If an option provides for cash settlement, you are only entitled to a sum of money corresponding to the difference between the strike price and the current market value of the underlying asset.

28 **When is an option**

- **in the money,**
- **out of the money,**
- **at the money?**

A call option is in the money if the current market value of the underlying asset is above the strike price. A put option is in the money if the current market value of the underlying asset is below the strike price. An option that is in the money is said to have an intrinsic value.

29 A call option is out of the money if the current market value of the underlying asset is below the strike price. A put option is out of the money if the current market value of the underlying asset is above the strike price. In this case, the option has no intrinsic value.

30 If the current market value of the underlying asset is the same as the strike price, the option is at the money. In this case, it has no intrinsic value.

31 **What determines the price of an option?**

The price of an option depends on its intrinsic value and on what is referred to as the time value. The latter depends on a variety of factors, including the remaining life of the option and the volatility of the underlying. The time value reflects the chance that the option will be in the money. It is higher for options with a long duration and a very volatile underlying and for options that are at the money.

What types of options are there?

- 32 • Warrants are options in securitised form that are traded on an exchange or over the counter (OTC).
- 33 • Exchange-traded options are non securitised, but are traded on an exchange.
- 34 • OTC (over-the-counter) options are neither securitised nor traded on exchange. They are agreed directly off exchange between the seller and the buyer. If you wish to cancel (close out) an option of this type before

the expiration date, you must make a corresponding offsetting trade with your counterparty. OTC options with precious metals and currencies as their underlying are offered publicly as standardised products. Tailor-made OTC options, by contrast, are specially created for individual investors.

What is “margin cover”? 35

If you sell an option, you have to deposit either an amount of the underlying asset or another form of collateral for the entire duration of the contract. The level of this collateral or margin is determined by the securities dealer. The exchange stipulates a minimum margin for traded options.

CAUTION If the margin cover proves insufficient, the securities dealer can require you to provide additional collateral (via a margin call). 36

What risks do you face as the buyer of an option? 37

Generally speaking, if the market value of the underlying asset falls, so does the value of your call option. The value of your put option tends to fall if the underlying asset rises in value. Normally, the less your option is in the money, the larger the fall in the option's value. In such cases, value reduction normally accelerates close to the expiration date.

The value of your call option can drop even when the value of the underlying remains unchanged or rises. This can happen as the time value of your option falls or if supply and demand factors are unfavourable. Put options behave in precisely the opposite manner. 38

CAUTION You must therefore be prepared for a potential loss in the value of your option, or for it to expire entirely without value. In such a scenario, you risk losing the whole of the premium you paid. 39

What risks do you face as the seller (writer) of a covered call option? 40

If, as writer of a call option, you already have a corresponding quantity of the underlying at your disposal, the call option is described as covered. If the current market value of the underlying exceeds the strike price, your opportunity to make a profit is lost since you must deliver the underlying to the buyer at the strike price, rather than selling the underlying at the (higher) market value. You must have the underlying assets freely available as long as it is possible to exercise the option, i.e. they may not, for example, be blocked by being pledged for other purposes. Otherwise, you are essentially subject to the same risks as when writing an uncovered call option (see below).

41 What risks do you face as the seller (writer) of an uncovered call option?

If, as writer of a call option, you do not have a corresponding quantity of the underlying at your disposal, the call option is described as uncovered. In the case of options with physical settlement, your potential loss amounts to the price difference between the strike price paid by the buyer and the price you must pay to acquire the underlying assets concerned. Options with cash settlement can incur a loss amounting to the difference between the strike price and the market value of the underlying.

42 CAUTION Since the market value of the underlying can move well above the strike price, your potential loss cannot be determined and is theoretically unlimited.

43 As far as American-style options in particular are concerned, you must also be prepared for the fact that the option may be exercised at a highly unfavourable time when the markets are against you. If you are then obliged to make physical settlement, it may be very expensive or even impossible to acquire the corresponding underlying assets.

44 You must be aware that your potential losses can be far greater than the value of the underlying assets you lodged as collateral (margin cover) either when entering into the contract or thereafter.

45 What risks do you face as the seller (writer) of a put option?

As the writer of a put option, you must be prepared for potentially substantial losses if the market value of the underlying falls below the strike price you have to pay the seller. Your potential loss corresponds to the difference between these two values.

46 As the writer of an American-style put option with physical settlement, you are obliged to accept the underlying assets at the strike price if the buyer exercises the option, even though it may be difficult or impossible to sell the assets and may well entail substantial losses.

47 CAUTION Your potential losses can be far greater than the value of any underlying assets you may have lodged as collateral (margin cover). You could in a worst case lose your entire capital invested.

What is a covered option?

48

With a covered option, you purchase an underlying asset (equity, bond or currency) and simultaneously write a call option on that same asset. In return, you are paid a premium, which limits your loss in the event of a fall in the market value of the underlying asset. By the same token, however, your potential return from any increase in the asset's market value is limited to gains up to the option's strike price. Traditional covered options require that the underlying asset be lodged as collateral, which makes you the covered writer.

Synthetic covered options are based on the idea of replicating traditional covered options. However, this is achieved by means of only one transaction. Both the purchase of the underlying asset and the writing of the call option are carried out synthetically using derivatives. The purchase price of such a product is identical to that of the underlying, less the premium received for the sale of the call option. Hence, the synthetic product is sold more cheaply than its underlying.

49

What are the risks of a covered option?

50

Covered options do not contain a hedge against falls in the market value of the underlying. However, by writing a call option (traditional covered option) or by calculating the return from the sale of a call option into the product price (synthetic covered option), any loss in market value of the underlying has less impact than it would in the case of a direct investment. In effect, the option premium thereby limits any loss in the market value of the underlying.

Either cash settlement or physical delivery of the underlying takes place on the expiration date. If the market value of the underlying on expiration is higher than the strike price, the holder of an option with cash settlement is paid a specified amount.

51

CAUTION If, however, the market value of the underlying is lower than the strike price, the holder of an option with physical settlement receives physical delivery of the underlying asset. In this case, the option holder bears the full risk associated with the underlying.

52

What are option strategies?

53

If you acquire two or more options, based on the same underlying, which differ in either the option type (call or put), the quantity, the strike price, the expiration date or the type of position (long or short), this is referred to as an option strategy.

- 54 CAUTION** Given the large number of possible combinations, we cannot go into detail here about the risks involved in any particular case. Before entering into any such transaction, be sure to consult your securities dealer about the particular risks involved.
- 55 What are exotic options?**
Unlike the “plain vanilla” put and call options described above, exotic options are linked to additional conditions and agreements. Exotic options come in the form of tailor-made OTC options or as warrants.
- 56** Given the special composition of exotic options, their price movements can vary markedly from those of their “plain vanilla” cousins.
- 57 CAUTION** You must be aware that larger transactions can trigger price movements even shortly before expiration and that these can render an option worthless. Before buying or selling any exotic options, be sure to seek comprehensive advice about the particular risks involved.
- 58** There is no limit to the possible structures for exotic options. We cannot describe in full here the risks involved in any particular case.

The examples of exotic options listed below can be broadly divided into two categories: path-dependent options and options on more than one underlying.

- 59 What are path-dependent options?**
Unlike “plain vanilla” options, for path-dependent options, it is not just when the option expires or is exercised that the market value of the underlying is important. You also need to take into account fluctuations in the market value of the underlying during the life of the option when contemplating such an investment. The following are examples of path-dependent options:
- 60**
- **Barrier options**
Your exercise rights for knock-in barrier options only arise if the market value of the underlying reaches a fixed threshold (barrier) within a specified period. Exercise rights for knock-out barrier options expire if the market value of the underlying reaches the specified barrier during the given time period.

- If this barrier is between the market value of the underlying at the time the option was entered into and its strike price, it is referred to as a kick-in/kick-out barrier option. 61
- Double-barrier options have both an upper and a lower barrier and may take the form of knock-in and knock-out barrier options. 62
- CAUTION** When buying a barrier option, you must be aware that your exercise rights only arise when the market value of the underlying reaches the barrier (knock-in/kick-in option) or that they expire irrevocably when that barrier is reached (knock-out/kick-out option). 63
- **Payout options** 64
Payout options accord you the right to payment of a fixed amount agreed in advance.

In the case of a digital (otherwise known as “binary”) option, you receive payment if the market value of the underlying reaches a fixed value once during a specified time period (one-touch digital option) or precisely on the day of expiration (all-or-nothing option). For the one-touch digital option, payment occurs either immediately the barrier is reached or on the date of expiration (lock-in option). 65

With lock-out options, you only receive the fixed payment if the market value of the underlying does not reach the agreed barrier during a specified time period. 66

CAUTION If you sell a payout option you owe the fixed amount if the barrier is reached, regardless of whether or not the option is in the money when exercised or on the expiration date, or to what extent. This means that the amount you owe can be considerably larger than the option’s intrinsic value. 67
 - **Asian options** 68
For Asian options, an average value is derived from the market value of the underlying over a specified time period. This average is used to determine the underlying’s value for an average-rate option and to calculate the strike price for an average-strike option.

CAUTION The calculation of an average value for the underlying in the case of the average-rate option can result in the value of the option on 69

the expiration date being considerably lower for the buyer and considerably higher for the writer than the difference between the strike price and the current market value on expiry.

- 70 CAUTION** For an average-strike option, the average strike price of a call option can be considerably higher than the price originally set. For an equivalent put option, the strike price can similarly be lower than the price originally set.
- 71 • Lookback options**
With a lookback option, the market value of the underlying is recorded periodically over a specified time period.
- 72** For a strike-lookback option the lowest value (call option) or the highest value (put option) of the underlying becomes the strike price.
- 73** The strike price remains unchanged for a price-lookback option, with the highest value (call option)/lowest value (put option) being used in calculating the option value of the underlying.
- 74 CAUTION** For lookback options, both the calculated strike price and the calculated value of the underlying can vary considerably from the market prices prevailing on the expiration date. If you sell an option of this type, you must be aware that it will always be exercised at the most unfavourable value for you.
- 75 • Contingent options**
When you buy a contingent option you must pay the premium only if the market value of the underlying reaches or exceeds the strike price during the life of the option (American-style option) or on the expiration date (European-style option).
- 76 CAUTION** You will have to pay the entire premium even if the option is only just at the money or just in the money.
- 77 • Cliquet and ladder options**
For cliquet options (also known as ratchet options), the strike price is modified for the following period, normally at regular intervals, in line with the market value of the underlying. Any intrinsic value of the option is locked in. All lock-ins arising over the entire life of the option are accumulated.

For ladder options, these modifications take place when the underlying reaches specified market prices, rather than at regular intervals. Normally, only the highest intrinsic value is locked in. In rare cases, all the intrinsic values recorded are added together. 78

CAUTION If you sell a cliquet option, you are required on the expiration date to pay the buyer all the accumulated lock-ins in addition to any intrinsic value of the option. If you sell a ladder option you must pay the buyer the highest lock-in amount, which can be considerably higher than the option's intrinsic value on the expiration date. 79

What are options on more than one underlying?

Examples of options on more than one underlying are:

- **Spread and outperformance options** 80

Both spread and outperformance options are based on two underlyings. With a spread option, the absolute difference in movement between the two underlyings forms the basis for calculating the option's value. By contrast, the value of an outperformance option is based on the relative difference, i.e. the percentage outperformance of one underlying compared to the other.

CAUTION Even if the underlying performs positively, the difference between the underlyings may be equal or lower in absolute as well as relative terms, thus having a negative impact on the value of the option. 81

- **Compound options** 82

Compound options have an option as their underlying, i.e. they are options on options.

CAUTION Compound options can have an especially large leverage effect. If you sell an option of this type, you can be faced with very substantial obligations. 83

- **Credit default options** 84

With a credit default option, a credit risk of the original risk taker (risk seller) is transferred to a third party (risk buyer), who receives a premium in return. If the defined credit event occurs, the risk buyer is obliged to effect a cash settlement or take on the non-performing loan (or another delivery obligation) by way of physical settlement at a previously determined price. Credit default options are a form of credit derivatives.

85

CAUTION The risk of chain reactions on the credit market is high and can easily be underestimated. There is also the risk that lack of liquidity will lead to price distortions when volumes are low. This may mean that the investment can only be sold at a low price, longer term or even not at all.

Forwards and Futures

What duties do you have with forwards and futures?

86

With forwards and futures you undertake to deliver or take delivery of a defined quantity of an underlying on a specified expiration date at a price agreed on the contract date. Unlike with options, which (for the buyer at least) only give rise to rights, forwards and futures involve both parties entering into obligations. You do not have to pay a premium when the contract is concluded.

CAUTION Forwards and futures can involve special risks. You should therefore only make investments of this type if you are familiar with this type of instrument, have sufficient liquid assets and are able to absorb any losses that may arise.

87

What is the difference between futures and forwards?

88

Futures are traded on an exchange. They take the form of contracts in which the quantity of the underlying and the expiration date are standardised.

Forwards are not traded on an exchange; hence they are referred to as OTC (over-the-counter) forwards. Their specifications may also be standardised; otherwise they may be individually agreed between the buyer and seller.

89

What underlying assets can forwards and futures be based on?

90

The most common underlyings for forwards and futures are:

- assets (equities, bonds, precious metals and other commodities),
- benchmark rates such as currencies, interest rates and indices.

What is a margin?

91

When you buy or sell (short) an underlying asset on the futures market, you must supply a specified initial margin when entering into the contract. This is usually a percentage of the total value of the contracted instruments. In addition, a variation margin is calculated periodically during the life of the contract. This corresponds to the book profit or loss arising from any change in value in the contract or underlying instrument. The way in which the variation margin is calculated will depend on the rules of the exchange concerned and/or the conditions of the contract.

As the investor, you are obliged to deposit the required initial and variation margin cover with the securities dealer for the entire life of the contract.

92

- 93 CAUTION** In the event of a book loss, the variation margin can be several times as large as the initial margin.
- 94 How is a transaction closed out?**
As the investor, you are entitled to close out the contract at any time prior to the expiration date. How this is done depends on the type of contract or stock exchange practice. You either “sell” the contract or agree an offsetting trade with identical terms. Concluding such an offsetting trade means that the obligations to deliver and receive cancel one another out.
- 95 How is the transaction settled?**
If you do not close out the contract prior to the expiration date, you and the counterparty must settle it.
- 96** If the underlying in your contract is a physical asset, settlement is achieved by physical delivery or a cash payment. Generally, the asset is physically delivered. Only in exceptional cases do the contract provisions or stock exchange practice call for cash settlement. All other fulfilment specifications, especially the definition of the place of fulfilment, can be found in the relevant contract provisions.
- 97** The difference between physical delivery and cash settlement is that with physical delivery, underlyings amounting to the entire contractual value must be delivered, whereas with cash settlement, only the difference between the agreed price and the market value on settlement needs to be paid. This means that you need more funds available for physical delivery than for cash settlement.
- 98** If the underlying in your contract is a reference rate or benchmark, fulfilment by physical delivery is not permitted (except for currencies). Instead, settlement is always in cash.
- 99 What special risks do you need to bear in mind?**
For forward sales, you must deliver the underlying at the price originally agreed even if its market value has since risen above the agreed price. In such a case, you risk losing the difference between these two amounts.
- 100 CAUTION** Theoretically, there is no limit to how far the market value of the underlying can rise. Hence, your potential losses are similarly unlimited and can substantially exceed the margin requirements.

CAUTION For forward purchases, you must take delivery of the underlying at the price originally agreed even if its market value has since fallen below the agreed price. Your potential loss corresponds to the difference between these two values. Your maximum loss therefore corresponds to the originally agreed price. Potential losses can substantially exceed the margin requirements. 101

In order to limit price fluctuations, an exchange may set price limits for certain contracts. Find out what price limits are in place before effecting forward or futures transactions. This is important since closing out a contract can be much more difficult or even impossible if a price limit of this type is reached. 102

CAUTION If you sell forward an underlying which you do not hold at the outset of the contract, this is referred to as a short sale. In this case, you risk having to acquire the underlying at an unfavourable market value in order to fulfil your obligation to effect delivery on the contract's expiration date. 103

What special factors apply to OTC forwards? 104
The market for standardised OTC forwards is transparent and liquid. Hence, contracts can normally be closed out without difficulty. There is no actual market for OTC forwards agreed individually, and hence the positions they entail may only be closed out with the agreement of the counterparty.

What special factors apply to combinations? 105
Since combinations comprise a number of elements, closing out individual elements can considerably alter the risks inherent in the overall position. Before entering into any such transaction, be sure to consult your securities dealer about the particular risks involved.

Given the many possible combinations, we cannot go into detail in this brochure about the risks involved in any particular case. Before making a purchase, be sure to seek comprehensive advice about these risks. 106

Structured Products

107 What are structured products?

Structured products are issued either publicly or privately. Their redemption value depends on the performance of one or more underlyings. They may have a fixed or unlimited term and consist of one or more components.

108 What are the common types of structured products?

Here is a list of the common product categories, based on the categorisation model used by the Swiss Structured Products Association (SSPA):

- capital protection products (see 116 ff. below),
- yield enhancement products (see 126 ff. below),
- participation products (see 130 ff. below),
- leverage products (see 135 ff. below).

109 Can products of this type be traded on an exchange?

Structured products may be listed for trading on an exchange, but do not have to be.

110 Can you sell a structured product?

The tradability of a structured product depends on whether the issuer or a market maker is prepared to make a price. Even if they are, liquidity risks can still arise. If the market is not liquid, you run the risk of having to either hold the financial instrument until the end of its term or sell it during the term at an unfavourable price. It can also be difficult or impossible to determine a fair price or even compare prices at all, as there is often only one market maker.

111 What is the issuer risk?

You bear the risk that the debtor of a structured product may become insolvent (issuer risk). The instrument's value is therefore dependent not only on the performance of the underlying asset but also on the creditworthiness of the issuer, which may change over the term of the structured product.

112 What special risks do you need to bear in mind?

Every structured product has its own risk profile, and the risks of its individual components may be reduced, eliminated or increased. In particular, it may profit to different degrees from rising, constant or falling market values of the underlying, depending on the product involved.

113 CAUTION It is extremely important to find out exactly what the risks are before acquiring a product of this kind. This information can be found in, for example, the issue documents or the product description concerned.

Are structured products covered by the Collective Investment Act? 114

Structured products are not categorised as collective investments under the Collective Investment Schemes Act (Federal Act on Collective Investment Schemes of 23 June 2006). Unlike with collective investments, the issuer is liable with his or her own assets (as is any guarantor, to the extent of a guarantee they have provided), and there is no backing from specially protected assets. You therefore need to bear in mind that in addition to a potential loss resulting from a decline in the market value of the underlyings (market risk), you may in the worst case lose your entire investment because the issuer or guarantor becomes insolvent (issuer or guarantor risk).

Do you have an entitlement to voting rights and dividends? 115

You do not normally have any entitlement to voting rights or dividends if you buy a structured product.

Capital Protection Products**What types of capital protection are there?** 116

Some structured products offer capital protection. The level of this protection is fixed by the issuer when the product is issued and indicates the percentage of the nominal value that will be repaid to the investor on expiration. However, capital protection generally only applies at the end of the term and may, depending on the product conditions, be (far) lower than 100% of the invested capital.

CAUTION Some structured products offer only conditional capital protection, 117

which can be lost if the value touches, falls below or rises above a predefined threshold (barrier, knock-out level). Repayment is then dependent on the performance of one or more underlyings.

What are structured products with capital protection? 118

Structured products with capital protection consist of two elements, such as a fixed-income investment (especially a bond or a money market investment) and an option. This combination enables the holder to participate in the performance of one or more underlyings (via the option or participation component) while at the same time limiting potential losses (via the fixed-income investment or capital protection component). The capital protection component may only cover a portion of the capital invested.

119 What is the purpose of the capital protection component?

The capital protection component determines the minimum repayment you receive on expiration, regardless of how the participation component performs.

120 What does the capital protection relate to?

The capital protection is linked to the nominal value rather than the issue price or purchase price. Hence, if the issue/purchase price you pay exceeds the nominal value, only the nominal value is capital protected. The protection of your capital outlay drops accordingly. If, however, the issue/purchase price is less than the nominal value, the protection of your capital outlay rises accordingly.

121 Is the invested capital fully protected?

The capital protection component can be well under 100% of the capital invested, depending on the product. Capital protection does not therefore mean 100% repayment of nominal value or the purchase price for all products. Structured products with capital protection generally offer lower returns than direct investments in the underlying, as the capital protection costs money.

122 Does the capital protection still apply if you sell the product during its term?

CAUTION If you wish to sell a structured product with capital protection before it expires, you may receive less than the capital protection component as the capital protection only applies if you keep the product until the redemption date.

123 What is the purpose of the participation component?

The participation component determines how you benefit from price movements in the underlying(s) when you buy a structured product. In other words, it fixes the level of your potential return over and above the capital protection component. Some structured products with capital protection offer only a limited potential participation (those with a cap); some (those without a cap) offer unlimited potential participation. Others require the market value of the underlying to touch, rise above or fall below a specific barrier before you can make a profit.

124 How high is the risk on the participation component?

The risk on the participation component is the same as that on the corresponding option or combination of options. Depending on the movements in the market value of the underlyings, the participation component may therefore be zero.

What is the maximum possible loss?

125

CAUTION Your maximum loss on a structured product with capital protection is limited to the difference between the purchase price and the capital protection, provided you continue to hold the product until expiration. You may also miss out on a profit due to the fact that full or partial repayment of the capital is guaranteed but no income (interest) is paid. Please be aware that there is also issuer risk (see 111).

Yield Enhancement Products

What are structured products with yield enhancement?

126

Structured products with yield enhancement consist of two elements, such as a fixed-income investment and an option (mainly on equities or currencies), and possibly a currency swap. This combination enables you to participate in the performance of one or more underlyings (via the option component). However, these financial instruments offer no or only conditional capital protection. The interest that is paid means you receive a higher return than with a direct investment if the price of the underlying remains essentially unchanged. On the other hand, you will not benefit from the full potential return of the underlying.

If the market value of the underlying rises, you will receive the stipulated interest and the nominal value on expiration (equally, the product may provide for a discount on the issue price). If the market value of the underlying rises sharply, you could possibly have earned a higher return on a direct investment. However, if the market value of the underlying falls sharply, you will receive both the interest payment and the underlying on expiration (unless the product offered a discount on the issue price).

127

What special risks do you need to bear in mind?

128

Many products with yield enhancement refer to several underlyings. You as investor receive the security with the worst performance on expiration (either physically or in the form of cash) if the underlying touches, rises above or falls below a predefined barrier during the term of the financial instrument. If the performance of the underlying is negative, the financial instrument can trade some way below the issue price during its term even if the barrier is not touched, exceeded or undershot.

The level of interest rate is directly related to the level of the barrier. The nearer the barrier is to the market price of the underlying on the day of issue, the higher

the interest you receive will generally be, but the higher the risk that the barrier will be reached, and vice versa.

129 What is the maximum possible loss?

CAUTION When you invest in a structured product with yield enhancement, you could in the worst case scenario lose the entire capital that you have invested.

Participation Products

130 What are structured products with participation?

Structured products with participation enable you to participate in the performance of one or more underlyings. However, they offer no or only conditional capital protection.

If the participation product offers conditional capital protection, the risk is smaller than with a direct investment provided the market value of the underlying does not reach a specific barrier (termed the “knock-out”).

131 CAUTION If the market value of the underlying touches, rises above or falls below the barrier, you will lose the capital protection.

132 What special risks do you need to bear in mind?

The risk of a structured product with participation is generally the same as that of the underlying. Unlike with a direct investment, however, you do not receive voting rights and you are not entitled to a dividend. You do, though, bear the credit risk of the product’s issuer.

133 Many products with participation refer to several underlyings. You as investor receive the security with the worst (or sometimes best) performance on expiration (either physically or in the form of cash) if the market value of the underlying touches, rises above or falls below a predefined barrier during the term of the financial instrument. The financial instrument can trade some way below the issue price during its term even if the barrier is not touched, exceeded or undershot. Moreover, the level of participation is directly related to the level of the barrier. If you have a higher risk tolerance when selecting the barrier, you will enjoy a higher participation.

134 What is the maximum possible loss?

CAUTION When you invest in a structured product with participation, you

could in the worst case scenario lose the entire capital that you have invested.

Leverage Products

What are structured products with leverage?

135

Structured products with leverage enable you to achieve a leverage effect by investing less capital than you would have to if you invested directly in the underlying. This means you can benefit from short-term trends.

Structured products with leverage are suitable for short-term speculation but also for strategically hedging a portfolio.

136

What special risks do you need to bear in mind?

137

Because of the leverage effect, you need to carefully and regularly monitor the underlying, since structured products with leverage can experience a larger rise in profits but also a bigger loss than the underlying.

What is the maximum possible loss?

138

CAUTION When you invest in a structured product with leverage, you could in the worst case lose the entire capital that you have invested.

Products Used for Financing or Risk Transfer

139 **What exactly are these products?**

The financial instruments discussed in this section have the same or similar profit and loss structures as certain conventional financial instruments (equities or bonds).

140 Such financial instruments may be listed for trading on an exchange, but do not have to be.

141 The risks associated with these products are not necessarily the same as those of the financial instruments they contain. It is therefore extremely important to find out exactly what the risks are before acquiring a product of this kind. This information can be found in, for example, the product description concerned.

142 **What are credit and catastrophe derivatives?**

There are some products that are mainly used to transfer risks. These include credit and catastrophe derivatives. They are financial instruments where the “underlying” is an event such as a credit event (default of a loan or bond) or a natural disaster. Derivatives of this type can be used by the bearer of a risk to transfer it to others. Credit derivatives come in the form of swaps, options or hybrid financial instruments.

143 **CAUTION** Credit and catastrophe derivatives involve a liquidity risk. Often such instruments cannot be sold before the end of their term, because there is no market for them.

144 Credit bonds securitise the risks and transfer them to third parties as credit-linked notes, collateralised debt obligations and asset-backed securities. As a result, the buyer takes on the risk associated with a loan portfolio.

145 • **Credit-linked notes (CLNs)**

CLNs are bonds whose redemption and interest payments depend on the performance of a specific underlying or benchmark portfolio (e.g. loan, bond).

146 **CAUTION** Look closely at the creditworthiness of the debtor to which the CLN is linked, as the CLN can end up being valueless if a credit event occurs. There is an issuer risk, i.e. a credit risk of the issuing bank, just as with structured products. The secondary market for CLNs is highly illiquid, and you should therefore assume that you will not be able to sell one before the end of its term.

- **Collateralised debt obligations (CDOs)** 147

CDOs are bonds backed by a diversified debt portfolio (mostly loans, bonds or credit default swaps). They give you access to investments that are unattractive or even unattainable for individual investors. Since CDOs are often divided up into a number of tranches with differing credit risks, you can decide what credit risk you wish to take on. If a debtor in the debt portfolio experiences a credit event, the equity-like tranches are affected first: they may be only partially redeemed, or not redeemed at all. If a number of debtors default, this affects the remaining tranches in order of creditworthiness, until finally the tranche with the highest credit rating (comparable to that of first-class bonds) may only be partially redeemed, or not redeemed at all.

The value of a CDO is based primarily on the probability of a credit event affecting the individual companies in the portfolio. This probability of default is determined using statistical methods and on the basis of historical data, and can cease to be meaningful in extreme market conditions.

Before you invest in a CDO, you should also look at the track record of the manager in charge of it: he or she will receive a performance-related bonus and will often have a holding in the CDO him-/herself. If the portfolio is not run by a manager (which is termed a “static” portfolio), its composition remains unchanged throughout its term. In this case you should pay special attention to the composition of the portfolio. 148

CAUTION CDOs typically have a term of several years. As there is generally no secondary market, you should assume that you will not be able to sell the CDO before the end of its term. 149

- **Asset-backed securities (ABSs)** 150

In ABSs, risks (such as a range of receivables) are grouped together and transferred to a special purpose vehicle (SPV). The SPV finances this transaction by issuing securities backed by a pool of assets or a portfolio. If the collateral is a mortgage, this kind of instrument is called a mortgage-backed security (MBS). The individual components of the portfolio would be unattractive or even unobtainable in this form for individual investors. However, the composition of the portfolio makes it possible to combine together and sell a range of assets and risks. By grouping together different types of credit risk, different risk profiles can be created.

- 151 Even if a pool or portfolio is created, lack of diversification can lead to a concentration of risk.
- 152 **CAUTION** Credit bonds are often issued by particular types of offshore companies (SPVs). In this event you should pay special attention to the issuer risk and the quality of government supervision of such SPVs.

Alternative (Non-Traditional) Investments

What are alternative or non-traditional investments? 153

Alternative or non-traditional investments are investments that do not fall within the traditional asset classes, such as equities, bonds or money market products. They include a wide range of instruments and strategies. This section focuses on the classes that are most important in terms of risk information:

- hedge funds (see 159 ff. below),
- private equity (see 174 ff. below),
- real estate (see 182 ff. below),
- precious metals and other commodities (see 189 ff. below).

This list is not exhaustive and this brochure cannot point out all the risks and issues that need to be taken into account in connection with alternative or non-traditional investments. 154

CAUTION Be sure to obtain comprehensive advice before investing in alternative or non-traditional investments, and examine the offering carefully.

What do you need to bear in mind when making direct investments? 155

Instruments allowing for direct investment can make sense in terms of diversifying a portfolio (risk distribution) because their returns are less dependent on factors such as the performance of the markets and levels of interest rates than those of conventional investments. However, the minimum outlay required for direct investments is generally very high, and they are often not accessible to all investors.

What about indirect investments? 156

To overcome these obstacles and avoid the risks of the large direct investments required, the financial sector has developed instruments for indirect investment. They include certificates, notes, investment funds, funds of funds, commodity futures and forward contracts. All these structures are based on one or more of the asset classes mentioned below. If you are interested in indirect investments, you need to bear in mind not just the risks of alternative investments as an asset class, but also the risks of the instrument concerned – the risks associated with structured products, for example. Please note that this section does not deal with the risks of structured products, forward contracts and futures, as these were discussed in the preceding sections (see “Forwards and Futures” and “Structured Products”).

157 What are offshore funds?

Offshore investments are often structured as funds or partnerships (such as limited partnerships) and domiciled in countries where legislation and supervision can be weak – hence the name “offshore funds”. The Swiss financial supervisory authority does not permit the public distribution of such funds in Switzerland.

- 158 CAUTION** The legislation and supervision applying to offshore funds are much less strict than for traditional investments, which means that investors may enjoy less protection. They may find it difficult to enforce their rights, and problems and delays may occur when settling buy and sell orders for units of such funds.

Hedge Funds**159 What are hedge funds?**

Hedge funds are the best-known form of alternative or non-traditional investments. Despite what their name suggests, hedge funds do not necessarily have anything to do with hedging. Indeed, they take on sometimes very high levels of risk in order to obtain an above-average return. Hedge funds include all forms of investment funds, investment companies and partnerships that use derivatives not just for hedging but also for investment, that are able to engage in short selling or take on significant leverage by borrowing. Other features typical of hedge funds include their freedom to choose their asset classes, markets (including emerging markets) and trading methods. Hedge funds normally require high minimum investments. They frequently offer only limited opportunities for subscription and redemption, with long notice periods. The portfolio managers of hedge funds receive performance-related bonuses and often hold a personal stake in the funds.

160 What should you particularly bear in mind about hedge funds?

CAUTION Pay special attention to the following:

- A hedge fund may be less transparent than a traditional investment fund, for example, as investors are not always informed about planned strategies and changes to them, or changes of portfolio manager. Hedge funds are also not subject to any disclosure requirements.
- 161** • Unlike traditional collective investments, hedge funds have limited liquidity (units may generally only be redeemed once a month, quarterly or

annually). Normally, investors can only invest in a hedge fund at specific times. There are generally long notice periods for redemptions and long lock-up periods (periods during which investors are obliged to leave their capital in the fund).

- Delays may occur, and unfavourable prices may result, when settling buy and sell orders for hedge fund units. There is no guarantee that investors will be able to enforce their rights. 162

What are funds of hedge funds or multi-manager hedge funds? 163

Investors invest in funds of hedge funds or multi-manager hedge funds in order to reduce risk. These funds invest their capital in a number of hedge funds and spread it across a range of hedge fund managers that cover different investment styles, markets and instruments. There are also structured products that you can use to invest in hedge funds or hedge fund indices.

What strategies do hedge funds pursue? 164

The main hedge fund strategies seen on the market are as follows:

- **Equity hedge (“long”, “short”)** 165
Equity hedge funds identify undervalued (buy or long position) and overvalued (short selling or short position) equities in specific regions or market segments and attempt to make profits in the belief that sooner or later these positions can be closed out at a profit.
- **Arbitrage strategies** 166
Arbitrage strategies identify price differences between identical or similar investments in different markets and try to exploit them. Such strategies include equity-market neutral, fixed-income arbitrage, convertible-bond arbitrage and mortgage-backed-securities arbitrage.
- **Event-driven** 167
Managers that pursue this kind of strategy try to make a profit from events such as upcoming changes in a company (mergers, takeovers, restructurings, turnarounds, etc.). Examples of such strategies are merger arbitrage, distressed securities and special situations.
- **Global macro** 168
Hedge funds that pursue global macro strategies attempt to identify macroeconomic developments such as changes in interest or exchange rates at an early stage and exploit them for profit. This category in-

cludes growth funds and emerging market funds.

169 • **Managed futures**

This type of hedge fund deals in futures (standardised, exchange-listed contracts) on financial instruments, currencies and commodities.

170 **What risks do you take on when you invest in a hedge fund?**

Generally speaking, hedge fund managers do not need to be licensed by an authority and are largely unregulated. In particular, hedge funds are not subject to the numerous investor protection regulations that apply to authorised collective investments. These include rules on liquidity, redemption of fund units at any time, avoiding conflicts of interest, fair prices for fund units, disclosure and limitations on borrowing.

171 Since these rules do not apply to hedge funds, they can use much more leverage than traditional authorised funds, and engage in complex investment transactions that are not permitted for traditional collective investments. A hedge fund is allowed to adopt aggressive strategies including the widespread use of short selling, leverage, swaps, arbitrage, derivatives and programme trading. Their investment strategies are often highly complex and very intransparent. You will often receive little or no information about changes of strategy that may lead to a significant increase in risk, or receive such information only at a late stage.

172 As part of their investment strategy, hedge funds can also use derivatives such as futures, options and swaps that may be listed for trading on an exchange but do not have to be. These instruments may be subject to significant price volatility, resulting in a high risk of loss for the fund. The low margins typically required to build up a position in such instruments mean that high levels of borrowing can be used. Depending on the instrument, a relatively small change in the price of the contract can therefore lead to a large profit or loss in comparison with the capital lodged as collateral and hence to further, unforeseeable losses that can exceed any margin cover.

173 **CAUTION** Investment vehicles that are not listed on an exchange also involve further risks as there is neither an exchange nor a secondary market where units can be sold or open positions closed out. It may be impossible to unwind an existing position or determine the value or risk of a position. If a hedge fund sells uncovered options on securities, it may be exposing itself to an unlimited risk of loss.

Private Equity

What is Private Equity?

174

Private equity is a form of risk capital financing for companies that either are not exchange listed or – occasionally – wish to delist. Investments are usually made at an early stage in a company's development, when its chances of success are uncertain and the risks are therefore high.

Where private equity flows into young companies (start-ups) or small companies with growth potential that are at an early stage in their development, the term venture capital is also used. Private equity now also extends to risk capital made available to a company immediately before it goes public (late-stage financing, mezzanine financing). Normally the financing is constructed in such a way that the proceeds of the initial public offering are used to wholly or partially redeem the holdings of the shareholder entrepreneurs. If a change of ownership is financed, for example a delisting, the term "buyout" is customarily used.

175

The success of a private equity investment depends on the correct timing of the "exit" or sale and – especially with indirect investments via a fund, for example – on the quality of the private equity manager. The exit can be effected by going public (initial public offering or IPO), a sale to another company (trade sale) or to another private equity fund (secondary sale), or a management buyout. The choice of solution will depend largely on the market conditions prevailing at the time. How easy or difficult the exit phase is, and whether the proceeds meet expectations, will depend on factors such as the performance of the equity markets.

176

What are the risks of private equity investments?

177

Private equity investments are not regulated compared to equities listed for trading on an exchange. This means that investors may be exposed to more risks, for example due to lack of transparency (e.g. limited access to financial statements, lack of publication).

Private equity investments involve considerable risks and can lead to substantial losses. They are based on a long-term approach and are much less liquid than exchange-listed equities. Normally, private equity investments cannot be sold until some years after the original investment. You should be aware that your capital will be tied up, either completely or with access subject to restrictions, for a long time. No distributions are made prior to exit from investments. You do not normally have any entitlement to exit early.

178

Companies that are potential candidates for private equity investments may have high levels of borrowing and therefore be more sensitive than established companies to negative market developments such as rising interest rates. There is also a greater danger of the company becoming insolvent and going bankrupt than with listed companies.

- 179 CAUTION** It is not unusual for further calls for capital to be made at short notice after the initial investment. If you fail to comply with such a demand, you may lose all the capital you have invested up to that time.
- 180 CAUTION** A change of management in a young company where the personality of the individuals occupying key functions is a particularly important factor can have a highly detrimental effect on a private equity investment.
- 181 What do you need to bear in mind when making indirect investments?**
With indirect investments, there is no guarantee that the manager of a private equity fund will be able to make investments and generate profits that fulfil the expectations for this form of investment. The abilities of the private equity manager are therefore crucial to the success of an indirect investment.

Real Estate

How can you invest in real estate? 182

Investments in real estate can be made directly or indirectly. Real estate comprises office buildings, retail and industrial premises, residential property and special real estate (such as hotels or hospitals). The variables that determine the value of a property are its location, construction, equipment fittings and the variety of ways in which it can be used.

What do you need to bear in mind when making direct investments? 183

A direct investment involves actually buying property. This will usually require a high capital outlay, a long-term investment horizon, in-depth knowledge of the sector, familiarity with the location and often personal involvement, as property needs to be professionally managed.

What about indirect investments? 184

Indirect investments in real estate generally require a lower capital outlay than direct investments. Indirect investments are divided into those that are exchange listed and those that are not. Examples of unlisted indirect investments include real estate funds, shares of real estate companies that are not listed for trading on an exchange, and certificates on real estate funds. Real estate funds can reduce risk by diversifying across geographical areas and real estate categories. The main category of exchange-listed indirect investments is real estate investment trusts (REITs). These enable investors to invest in real estate without incurring certain disadvantages, such as illiquidity.

What risks do you need to be aware of? 185

Real estate investments are based on physical assets – land and buildings – that are ultimately unique, and in which trading is not regulated.

Where real estate is concerned, it is therefore often difficult, or even impossible, to spread risks adequately or diversify investments sufficiently. With direct real estate investments especially, the high capital outlay required and the illiquidity of the property market make diversification difficult or even impossible. 186

Property markets are also frequently intransparent, and require precise knowledge of local circumstances. It is therefore vital to involve local experts, which hampers access to the market. 187

- 188 Real estate often reacts to interest rate changes in a similar way to bonds: when interest rates are low, for instance, mortgages are cheap and it is easy to generate above-average profits. Conversely, high interest rates cause profits to contract. Fiscal incentives offered by the State to promote home ownership and attractive lending conditions can also lead to excessively high prices.

Precious Metals and Other Commodities

- 189 **What are commodities?**
Commodities are physical goods that are produced via agriculture and mining, for example, and standardised for use as the underlying of a transaction. Derivatives on commodities such as energy sources, precious and other metals, and agricultural products are traded on futures markets.
- 190 Contractual agreements allow investors to buy or sell futures linked to the performance of a particular commodity. This means that they can buy a standardised amount of a commodity at a specific time in the future for a specific price.
- 191 The commonest way in which private individuals invest indirectly in commodities is via structured products (see 107 ff. above). There are other alternatives, such as commodity swaps and options that are not listed for trading on an exchange. These are traded directly between the parties concerned and are tailor-made products. More information on how forwards and futures work can be found in a separate section of this brochure (see 86 ff. above).
- 192 **CAUTION** With commodity futures, you may receive physical delivery of the commodity concerned on expiration, while structured products normally provide for cash payment. If you prefer cash settlement, you will have to sell the futures before their expiration date. Such products are therefore more risky than, for instance, equities or collective investments.

What are the risks of commodity investments? 193

The price of commodities is influenced by a number of factors. These include:

- the relationship between supply and demand,
- climate and natural disasters,
- State programmes and regulations, national and international events,
- State intervention, embargoes and tariffs,
- movements in interest and exchange rates,
- trading in commodities and the corresponding contracts,
- provisions relating to monetary policy, trading, fiscal and currency controls.

These variables can lead to additional investment risks.

Commodities investments are more volatile than conventional investments, and yields on commodities can collapse at short notice. The volatility of commodity prices also affects the value, and hence the price, of a futures contract based on those commodities. 194

Conventional futures on oil, base and precious metals are normally easy to trade, regardless of their term.

CAUTION When market activity is limited, a contract can become illiquid. Depending on how the yield curve moves, such illiquidity can lead to significant price changes. This is a typical feature of commodities. 195

Investments in Emerging Markets

196 **What are emerging markets?**

There is no standard definition of the term “emerging markets”. In the broadest sense it includes all economies that are not regarded as “advanced” (see 197 ff.). Common criteria for defining what is an emerging market are per capita income, the level of development of the financial sector, and the proportion of the total economy that is made up by the service sector.

The creditworthiness of countries that fall within this definition can vary widely, from very high to very low, with – in the latter case – very high default risk.

Although they can be at very different stages in their economic development, most emerging markets have a political system that is very new (for instance they have only recently become democracies) or is currently changing. This means that the political system and its institutions may be less stable than in an advanced nation.

197 **Which countries are deemed to be “advanced economies”?**

The list of emerging markets is changing constantly. According to the criteria applied by the International Monetary Fund in October 2007, they include all countries except: Australia, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Singapore, Slovenia, Spain, Sweden, Switzerland, Taiwan, the UK and the US. These nations are classed as having advanced economies.

198 **Which factors should you be especially aware of when making investments in emerging markets?**

There are risks linked to investments in emerging markets that are not encountered in their advanced counterparts. This is also the case when the issuer or provider of a product has its headquarters or primary focus of activity in an emerging nation.

199 **CAUTION** Investing in products linked to emerging markets is therefore often speculative. Before investing in emerging markets, you should form an impression of them that allows you to assess the risks involved.

200 **What are the individual risks involved?**

When investing in emerging markets, the following risks should be taken into account. The list is not exhaustive. Depending on the type of investment product, there may be additional risks involved as described elsewhere in this brochure.

- **Political risk** 201
A government's political inexperience or the instability of the political system increases the risk of short-term, fundamental shifts in a nation's economy and politics. The consequences for you as an investor can include the confiscation of your assets with no compensation, the restriction of your rights of disposal over your assets, or government-imposed controls. State intervention in specific sectors of industry can result in a dramatic fall in the value of investments in those sectors.
- **Economic risk** 202
Emerging market economies are more sensitive to changes in interest and inflation rates, which are in any case subject to greater swings than in the developed nations. The focus of such economies is often relatively narrow, allowing single events to have a magnified impact. In addition, emerging nations generally have a lower capital base. Finally, their financial markets often lack an adequate structure and sufficient supervision.
- **Credit risk** 203
Investments in debt securities (e.g. bonds, notes) issued by emerging market governments or companies tend to entail higher levels of risk than advanced market debt. This can be due to inferior creditworthiness, a high level of government debt, debt restructuring, a lack of market transparency or a lack of information. It is also much more difficult to assess credit risk due to inconsistent valuation standards and the absence of ratings.
- **Currency risk** 204
The currencies of emerging market nations are subject to unpredictable fluctuations in value that are larger than those of advanced countries. Some countries limit the export of their currency or can impose short-term restrictions, or stop pegging their currency to a reference currency such as the dollar. Hedging can help limit losses resulting from currency swings, but they can never be entirely eliminated.
- **Inflation risk** 205
Large fluctuations in the value of the currency and an insufficiently developed financial market can make it difficult for an emerging market nation's central bank to stick to its inflation targets. As a result, inflation may fluctuate more than in advanced countries.

- 206 • **Market risk**
Because there is little or no supervision of financial markets in emerging market nations, regulation, market transparency, liquidity and efficiency are often inadequate. Moreover, high volatility and large price differences are characteristic of these markets. Finally, the inadequacy or absence of regulatory measures gives rise to an increased danger of market manipulation or insider trading.
- 207 • **Market liquidity risk**
Liquidity is dependent on supply and demand. The impact on the emerging markets of social, economic and political changes or natural disasters can involve a much more rapid and lasting change to this supply and demand equation than would be the case in the advanced markets. In an extreme case, illiquidity can be the result. This can make it impossible for an investor to sell his/her investments.
- 208 • **Legal risk**
The absence or inadequacy of financial market supervision can lead to your legal rights being difficult or impossible to enforce. Moreover, legal uncertainty may exist due to the inexperience of the emerging nation's judiciary.
- 209 • **Settlement risk**
Certain emerging markets have an array of different clearing and settlement systems. These are often outmoded and prone to processing errors as well as considerable delays in settlement and delivery. Some countries do not have any such systems at all.
- 210 • **Shareholder risk and creditor risk**
Legislation to protect the rights of shareholders and creditors (e.g. duties of disclosure, insider trading ban, management responsibilities, minority shareholder protection) may often be inadequate or non-existent.

APPENDIX

Counterparty and Issuer Risk

When assessing the risks of a specific type of transaction, you should know which parties are required to perform which obligations to you.

- For transactions with conventional risks, for example the purchase or sale of equities or bonds, the issuer risk is identical with the credit risk of the transaction since for equities the company involved is also the issuer. Similarly for bonds, the borrower is the issuer of the bond.
- For exchange-traded option and futures contracts (e.g. EUREX), the clearing house of the exchange is usually the counterparty and therefore required to perform certain obligations to you, as described in the specific regulations of the exchange.
- For financial instruments 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 noted in this brochure, the risk of the issuer or the counterparty for OTC transactions also needs to be taken into account. Since investors may find it necessary to assert their claims against the issuers or their counterparties, the ability of these parties to meet their obligations should also be included in the investor's risk considerations when purchasing such products.

EXAMPLE An investor purchases a warrant, issued by "Issuer Bank", on equities of "Underlying Ltd". Whereas the value of the warrant largely depends on the performance and volatility of Underlying Ltd. shares, it is the Issuer Bank that is obliged to perform the obligation constituted by the warrant. This means that in addition to the risks of warrants (see Section "Options"), the investor also needs to consider the credit rating of Issuer Bank.

Concentration Risks (Bulk Risks)

Concentration risk (or bulk 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, i.e. portfolios where investments are spread over different assets in order to reduce the risk of earnings fluctuations. When buying or selling a financial instrument it is therefore important to consider the overall portfolio structure and to check in particular whether it results in a sufficiently diversified portfolio.

EXAMPLE Your portfolio consists of three stocks of the Swiss Market Index. This exposes you to a substantial concentration risk vis-à-vis the Swiss stock market, i.e. if one of these stocks suffers losses while the market overall is doing well you will suffer much bigger losses than a well-diversified investor. If you invested in a greater number of stocks, in other asset classes (e.g. bonds, investment funds) or other markets with the goal of achieving a well diversified portfolio you should be able to achieve the same return but with lower risk.

Potential Conflicts of Interest

UBS AG deals simultaneously for a large number of clients as well as for its own account and therefore conflicts of interests cannot be entirely avoided. Conflicts of interest may arise:

- between the bank and its clients,
- between individual clients themselves or
- between the bank, its clients and its employees.

UBS actively manages conflicts of interest in order to minimise any material risk of damage to its clients. Management of these risks may be achieved by, amongst others, one or more of the following: use of information barriers, separate management structures, removal of direct remuneration links, processes and procedures, independence arrangements, promoting a culture of integrity, obtaining client consent and declining to act. Where such conflicts of interest cannot be managed so that such risk is prevented, UBS will clearly disclose the general nature and/or sources of the conflict of interest before we undertake business with or for you.

The following examples demonstrate how we handle conflicts of interest:

- Conflicts of interest can arise if several clients wish to buy the same financial instrument on the same day. The basic principle is that the various clients (orders) must be treated fairly and in the same manner; in cases of doubt, the client's interest always has priority. In practice, this means that we execute the orders in the order in which they are received. Whenever it is certain that the orders have been placed independently of each other, this arrangement is applied equally to all orders (to those of clients, employees and to the bank's own orders). In all other cases, the bank's own orders and if necessary also those of its employees are deferred.
- There are situations in which the various orders are not handled in the order in which they were given but are aggregated, since a larger aggregated order can produce better prices for all clients.
- In special situations, movements in prices can be caused by substantial client orders or proprietary trading by the bank. This can result, for example with knock-out options (see Section "Options"), in the price of the option's underlying breaking through the barrier and the option being worthless at expiration. This conflict of interest cannot be avoided. For path-dependent options issued by UBS, we therefore

choose an objective reference price to calculate the barrier. Investors can then see that the price, which in our example led to their option becoming worthless, was computed fairly.

- Conflicts of interest can also arise from the type of financial instrument, e.g. if UBS is issuing a structured product it may, from time to time, have positions in, buy or sell, or make a market in the underlying financial instruments. Such conflicts are usually disclosed in the relevant product documentation.

Definitions

Advanced market	197 ff.
All-or-nothing option	65
American-style option	24 , 43, 46, 75
Asset-backed securities (ABS)	144, 150 ff.
Asian option	68
At the money	28 ff.
Average-rate, average-strike option	See Asian option
Barrier option	60 ff.
Binary option	See Payout option
Call option	7, 20 ff. , 26 ff., 37 f., 48 ff., 72 f.
Capital protection	108, 116 ff.
Cash settlement	27 , 97 ff., 192
Certificate	156, 184
Clearing and settlement	Exchange of securities for payment between securities traders, in Switzerland through SIS SegalInterSettle AG.
Cliquet option	77 ff.
Closing out	34, 94
Code of conduct for securities dealers	Professional rules of conduct issued by the Swiss Bankers Association for securities dealers (see Securities dealer) in Switzerland, describing their statutory (see Stock Exchange Act) duties of information, due diligence and good faith

	towards their clients.
Collateralized debt obligations (CDO)	144, 147 ff.
Collective Investment Schemes Act	(Swiss) Federal Act on Collective Investment Schemes of 23 June 2006, which entered into force on 1 January 2007 (Classified Compilation of Federal Law 951.31).
Combination	105
Compound option	82 f.
Contingent option	75
Covered option	48 ff.
Credit and catastrophe derivatives	142
Credit default swap (CDS)	Credit derivative whereby one counterparty undertakes to compensate the other counterparty for future credit losses (i.e. take on credit risks) in return for a premium.
	147
Credit-linked notes (CLN)	145 f.
Credit risk	84, 147, 203
Creditor risk	210
Currency risk	204

Derivative	Financial contract for which the price is derived either from assets such as equities, bonds, commodities or precious metals, or from benchmarks such as currencies, interest rates and indices. 3 ff. , 16, 23, 49
Digital option	See Payout option
Double-barrier option	See Barrier option
Economic risk	202
Emerging market	17, 159, 168, 196 ff.
European-style option	25 , 75
Exotic option	55 , 58 f.
Expiration date	20 f.
Financial instrument	Generic term for all securities, book-entry securities and derivatives, including those that are not standardised and suitable for mass trading (on standardised securities suitable for mass trading, see Security).
Force majeure	Events neither party in a transaction can influence or be held liable for, such as natural or man-made disasters, armed conflicts, terrorist attacks, uprisings, employment disputes (strikes and lockouts), embargoes, etc.
Hedge funds	159 ff.
Hedge fund strategies	164 ff.
In the money	28 , 37, 67, 76
Indirect investments	156

IPO (initial public offering)	The first sale of previously unlisted shares by a company to the public, commonly known as “going public” (as distinct from issuance). 176
Issuance	Creation and placement of securities in the primary market (as distinct from „Initial Public Offering [IPO]“). 113, 116, 120 f.
Issuer	5, 12, 107, 110 ff., 114, 132, 146, 152, 198
Issuer risk	111, 146, 152
Kick-in, kick-out barrier option	See Barrier option
Knock-in, knock-out barrier option	See Barrier option
Ladder option	77 ff.
Legal risk	208
Leverage effect	Enhanced exposure to losses and gains due to price changes. 22, 135, 159
Lock-in, lock-out option	See Payout option
Lock-up period	161
Lookback option	71 ff.
Margin, margin cover, variation margin, margin requirement	35 ff., 44, 47, 91 ff., 100 f.

Market liquidity risk	207
Market maker	A securities dealer (see Securities dealer) who undertakes, either permanently or on request, to maintain firm bid and offer prices for one or more financial instruments (see Financial instrument).
Market risk	114, 206
Mortgage-backed securities (MBS)	150
Nominal value	Face value or par value
Non-traditional investments, non-traditional funds	153 ff.
Off-exchange trading	See OTC forward
Offshore investments	Investments (often in form of funds or limited liability partnerships) domiciled in countries where they are subject to a comparably weaker legislation and supervision. 157 f.
On-exchange trading	Trading, especially with securities and rights not embodied in a certificate but with similar functions (book-entry securities; see Security) on an organised, regulated market (the “secondary market”), as opposed to issuance (which takes place on the “primary market”; see Issuance).
One-Touch digital option	65
Option	4 ff., 20 ff.

OTC	Trading with securities which are not traded on a stock exchange, are agreed on an individual basis and not standardised.
OTC (over-the-counter) forward	89, 104
OTC option	34 , 55
Out of the money	29
Outperformance option	80
Participation component	118, 123 f.
Path-dependent option	58 ff.
Payout option	64 ff.
Physical settlement, physical delivery	26, 41, 46, 51, 84
Plain vanilla option	55 f. , 59
Political risk	201
Price-lookback, strike-lookback option	See Lookback option
Private equity	174 ff.
Put option	7, 20 f. , 26, 28 f., 37 f., 45 f., 55, 72 f.
Ratchet option	See Cliquet option
Real estate investment trusts (REIT)	184

Securities dealer	Natural person or legal entity that offers new securities (see Security) publicly on the primary market on a professional basis, and/or trades securities on the secondary market or creates derivatives (see Derivative) which it offers publicly.
	1, 5, 8, 10 f., 15, 17, 35 f., 54, 92, 105
Security	Standardised certificate which is suitable for mass trading, as well as rights not embodied in a certificate but with similar functions (book-entry securities). They include equities, bonds, units of investment funds and derivatives (see also Derivative), and must be offered to the public in a standardised form and denomination, or sold to more than 20 buyers.
	1, 2, 5, 13
Settlement risk	14 f., 209
Shareholder risk	12, 210
Short put option	Sale of a put option whereby the seller (writer) undertakes to buy the underlying at the strike price on the strike date.
Short selling	91, 103, 165
Spread option	80
Stock Exchange Act	(Swiss) Federal Act on Stock Exchanges and Securities Trading of 24 March 1995, which entered into force on 1 February 1997, with subsequent amendments (Classified Compilation of Federal Law 954.1).
	1, 8, 17
Strike price	20 f., 27 ff., 40 ff., 46 ff., 61, 68 ff.

Structured product	107 ff.
Swap	Contract for the exchange of payment streams; not traded on exchange or en masse. See OTC. 142, 147, 171 f.
Time value	31 , 38
Traded option	33 , 35
Underlying, underlying asset	The asset on which a derivative financial instrument is based. Examples include interest rates, equities, bills, etc. Increasingly, derivatives are also traded on alternative underlyings such as catastrophe risks and weather as well as credit risks, although these underlyings are not traded assets in their own right. 3, 20 ff. , 26 ff., 59 ff., 80, 86 f., 96 ff., 107 ff.
Volatility	Range within which a price or rate is expected to fluctuate. 31 , 206
Warrant	32, 55
Writer (of an option)	Seller (of an option) 21 , 26, 40 f. , 45 f.



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