

RISK DISCLOSURE NOTICE

Introduction

Freedom Finance Europe Ltd (“the Company”), whose headquarters are at Andrea Zappa, 1, office 1, 4040, Limassol, Cyprus, is authorized and regulated by the Cyprus Securities and Exchange Commission (CySEC) under license number 275/15.

Every type of Financial Instrument has its own characteristics and entails different risks. This Notice contains information about Financial Instruments including some of the risks associated with trading with those Financial Instruments and should be read together with the General Rules and Regulations on Services on the Securities Market. It is not intended to mention or explain all risks and other important aspects involved in dealing with those Financial Instruments, nor does it disclose all risks, and it does not replace your own understanding and experience of those Financial Instruments. It explains, in general terms, the nature of the risks associated with trading in those Financial Instruments in order to assist you in understanding the nature and risks of the specific type of Financial Instrument being offered and, consequently, to be in a position to take investment decisions on an informed basis.

However this notice does not disclose all of the risks and other significant aspects of trading in financial instruments. In light of the risks, you should undertake such transactions only if you understand the nature of the financial instruments into which you are entering and the extent of your exposure to risk. Trading in high risk financial instruments like futures, options, swaps, forward rate agreements, repos and other derivative contracts is not suitable for many members of the public. You should carefully consider whether trading is appropriate for you in light of your experience, objectives, financial resources and other relevant circumstances.

Please note that the value of your investments may rise or fall depending on market conditions and that you may not always recoup your initial investment. In addition past performance should not be seen as an indication of future performance. If you are in any doubt as to the suitability of any investment you should seek independent expert advice.

This Risk Disclosure Notice (“the Notice”) is provided in accordance with the Markets in Financial Instrument Directive (MiFID) of the European Union.

1. General Risks & Warnings associated with transactions in Financial Instruments

The Client is warned of the following risks:

- The Company does not and cannot guarantee the initial capital of the Client’s portfolio or its value at any time or any money invested in any financial instrument.

- The Client should acknowledge that, regardless of any information which may be offered by the Company, the value of any investment in Financial Instruments may fluctuate downwards or upwards and it is even probable that the investment may become of no value.
- The Client should acknowledge that he runs a great risk of incurring losses and damages as a result of the purchase and/or sale of any Financial Instrument and accepts that he is willing to undertake this risk.
- The Client should not engage in any investment directly or indirectly in Financial Instruments unless he knows and understands the risks involved for each one of the Financial Instruments.
- Information of the previous performance of a Financial Instrument does not guarantee its current and/or future performance. The use of historical data does not constitute a binding or safe forecast as to the corresponding future performance of the Financial Instruments to which the said information refers.
- Some Financial Instruments may not become immediately liquid as a result e.g. of reduced demand and the Client may not be in a position to sell them or easily obtain information on the value of these Financial Instruments or the extent of the associated risks.
- When a Financial Instrument is traded in a currency other than the currency of the Client's country of residence, any changes in the exchange rates may have a negative effect on its value, price and performance.
- A Financial Instrument on foreign markets may entail risks different to the usual risks of the markets in the Client's country of residence. In some cases, these risks may be greater. The prospect of profit or loss from transactions on foreign markets is also affected by exchange rate fluctuations.
- A Derivative Financial Instrument (i.e. option, future, forward, swap, etc) may be a non delivery spot transaction giving an opportunity to make profit on changes in currency rates, commodity, stock market indices or share prices called the underlying instrument. The value of the Derivative Financial Instrument may be directly affected by the price of the security or any other underlying instrument which is the object of the acquisition.
- The Client must not purchase a Derivative Financial Instrument unless he is willing to undertake the risks of losing entirely all the money which he has invested and also any additional commissions and other expenses incurred.
- The prices and characteristics of over-the-counter transactions are individually negotiated and there is no central source for obtaining prices, therefore there is a risk of inefficiencies in transaction pricing.
- Under certain market conditions it may be difficult or impossible to execute an order.
- Placing Stop Loss Orders serves to limit your losses. However, under certain market conditions the execution of a Stop Loss Order may be worse than its stipulated price and the realized losses can be larger than expected.
- Should the margin capital be insufficient to hold current positions open, you may be called upon to deposit additional funds at short notice or reduce exposure. Failure to do so in the time required may result in the liquidation of positions at a loss and you will be liable for any resulting deficit.
- A Bank or Broker through whom the Company deals with could have interests contrary to your interests.
- The insolvency of the Company or of a Bank or Broker used by the Company to effect its transactions may lead to your positions being closed out against your wishes.
- There is a risk that the Client's trades in Financial Instruments may be or become subject to tax and/or any other duty for example because of changes in legislation or his personal circumstances. The Company does not warrant that no tax and/or any other stamp duty will be payable. The Client should be responsible for any taxes and/or any other duty which may accrue in respect of his trades.
- Where the Company provides generic market recommendations, such generic recommendations do not constitute a personal recommendation or investment advice and have not considered any of your personal circumstances or your investment objectives, nor is it an offer to buy or sell, or the solicitation of an offer to buy or sell. Each decision, by the Client, to enter into a transaction with the Company and each decision as to whether a transaction is appropriate or proper for the Client is an independent decision by Client. The Company is not acting as an advisor. Client agrees that the Company has no liability in connection with and is not responsible for any liabilities, claims, damages, costs and expenses, including attorneys' fees, incurred in connection with Client following Company's generic

trading recommendations or taking or not taking any action based upon any generic recommendation or information provided by the Company.

- The generic market recommendations provided by the Company are based solely on the judgment of Company's personnel and should be considered as such. Client acknowledges that it enters into any Transactions relying on its own judgment. Any market recommendations provided are generic only and may or may not be consistent with the market positions or intentions of the Company and/or its affiliates. The generic market recommendations of the Company are based upon information believed to be reliable, but the Company cannot and does not guarantee the accuracy or completeness thereof or represent that following such generic recommendations will reduce or eliminate the risk inherent in trading financial instruments.
- The Company will not provide the Client with investment advice relating to investments or possible transactions in investments or make investment recommendations of any kind.
- There are no guarantees of profit nor of avoiding losses when trading financial instruments. Client has received no such guarantees from the Company or from any of its representatives. Client is aware of the risks inherent in trading financial instruments and is financially able to bear such risks and withstand any losses incurred.
- In case of any quoting error occur (including responses to Client requests, typing errors, etc), the Company is not liable for any resulting errors in account balances and reserves the right to make necessary corrections or adjustments to the relevant account.
- Before the Client begins to trade, he should obtain details of all commissions and other charges for which the Client will be liable. If any charges are not expressed in money terms (but for example as a dealing spread), it is the Client's responsibility to request and obtain a clear written explanation, including appropriate examples, to establish what such charges are likely to mean in specific money terms.
- The Company requires the Client to pass through an appropriateness test during the application process and warns the Client, if on the basis of information provided, the trading on various financial instruments is not appropriate based on the Client's profile.
- All relevant cost and charges will be provided by the Company or set out in the Company's website. Clients should be aware of such costs and charges that may influence the account profitability of the Client.
- The client is obligated to keep passwords secret and ensure that third parties do not obtain access to client's online account. The client will be liable for trades executed by means of his password even if such use may be wrongful.
- The Company may be required to hold client's money in an account that is segregated from other clients and the Company's money in compliance with current regulations, but this may not afford complete protection.

2. Communication Risks

- The Company bears no responsibility for any loss that arises as a result of delayed or unreceived communication sent to the Client by the Company.
- The Company bears no responsibility for any loss that arises as a result of unencrypted information sent to the Client by the Company that has been accessed via unauthorized means.
- The Company bears no responsibility for any unreceived or unread internal message sent to the Client through the trading platform(s). In case a message is not received or read within seven (7) calendar days the message gets automatically deleted.
- The Client is solely responsible for the privacy of any information contained within the communication received by the Company.
- The Client accepts that any loss that arises as a result of unauthorized access of a third party to the client's trading account is not the responsibility of the Company.
- Telephone conversations may be recorded, and you will accept such recordings as conclusive and binding evidence of the instructions.

3. General Investment Risks in securities transactions

The classification of risks is based on general as well as on product-specific risks. We will describe in following sections the product-specific risks for various financial instruments. The general risks which should also be taken into account are described briefly below.

Credit risk

Credit risk originates from the fact that the counterparties may be unwilling or unable to fulfill their contractual obligations, like for example the inability of the counterparty (i.e. issuer of a security) to a transaction to timely fulfill its contracted financial obligations like dividend payments, interest payments, repayment of principal etc.

The extent of credit risk borne depends on how large the cashflow or cashflows at risk are, the probability of being deprived of them and the amount we are likely to receive, if any, if our counterparty does not perform.

Credit risk occurs in a lot of settings like:

- When an investor purchases bonds he/she actually lend money to the issuer expecting the issuer to make payments of interest and to repay principal.
- Contractual agreements such as purchased options where our counterparty has to make payments in the future (as in the swaps) or may have to (if we exercise an option they have written)
- When an investor traded with the counterparty, perhaps by buying equity or engaging in a spot FX transaction with them, but there is not a simultaneous exchange of asset for cash. If the investor gives them something before they give him/her the other side of the bargain, there is settlement risk because they may default before the investor gets what they have contracted to give him/her.

Inflation Risk

Inflation is the general increase in the prices of goods and services calculated as the percentage change in a price index. Inflation risk is the possibility that the inflation will rise above the expected rate. Inflation erodes the purchasing power of the currency and/or investment, since positive rate of inflation indicates that prices on average are increasing. For example 3.0% inflation means that prices rose by 3.0%, on average.

As the rate of inflation increases the purchase power decreases. The purchasing power of the invested capital declines if the rate of inflation is higher than the return generated by the securities.

For example assume an investor that has invested €100,000 in 1-year certificate of deposit (CD) that earns 5% interest per year. The table below shows the real return of the investor for inflation rate 3%, 5% and 8%.

Inflation Rate (i)	CD value at the end of the year (5% interest)	Purchasing power at inflation rate (i) $[1/(1+i)^i]$	Real Value of CD	Loss due to inflation
3%	€105,000	0.9708738	€101,942	3,058
5%	€105,000	0.9523809	€100,000	5,000
8%	€105,000	0.9259259	€97,222	7,778

Some of the effects of inflation are:

- Reduction of purchasing power
- Disruptions to stock and bond markets, which may cause volatility
- Devaluation of income on interest-bearing securities
- Squeezing of the profit margins of certain types of stocks

Market risk

Market risk also referred as “systematic risk” or “non-diversifiable risk” reflects the extent to which the return of the security varies in response to, or in association with, variations in the overall market returns. Market risks are uncertain events that affect the entire securities market and the entire economy. It is the risk inherent in an investment related to movements in the overall market that cannot be diversified away. If the market value of an investment declines, assets are reduced. Credit risk, exchange risk, country risk and interest-rate risk in particular have an impact in the form of price fluctuations. All investments are exposed to this risk.

Unsystematic Risk

Unsystematic Risk also referred as “specific risk” or “diversifiable risk” or “residual risk” is the company or industry specific risk that is inherent in each investment. It is the risk of price change due to the unique circumstances of a specific security, as opposed to the overall market, such as financial results, losses caused by labor problems (i.e. strike), weather conditions, poor management decisions etc. This type of risk can be reduced by assembling a portfolio with significant diversification so that a single event affects only a limited number of the assets.

Country risk

Country risk also called “political risk” is the specific risk that an international investor bears because of the political or economic conditions of the country he/she invested. Thus for investors, country risk can simply be defined as the risk of losing money due to changes that occur in a country’s government or regulatory environment. For example, financial factors such as currency controls, the imposition or removal of taxes, the imposition or removal of exchange controls or exchange rate management systems, the repudiation or moratorium of government or central bank debt, the confiscation of assets including nationalisation, the imposition or removal of trade quotas or tariffs or both, the passage of legislation making previously acceptable business practices or ownership structures now illegal or subject to censure are some examples of country risk.

Liquidity risk

Liquidity risk arises from situations in which an investor interested in trading a security cannot do it because nobody in the market wants to trade that security. It is the inability to find buyers on the terms desired. It is the risk stemming from the lack of marketability of an investment that cannot be bought or sold quickly enough to prevent or minimize a loss. Non-highly traded securities bear higher liquidity risk (trading related liquidity risk) since there is a risk of having difficulty in liquidating an investment position without taking a significant discount from current market value. The liquidity risk is usually reflected in a wide bid-ask spread and large price movements and can take the following three forms:

- Bid-ask spread: how much a trader can lose by selling an asset and buying it back right away
- Market depth: how many units traders can sell or buy at the current bid or ask price without moving the price
- Market resiliency: how long it takes for prices that have fallen to bounce back.

Liquidity risk can be of significant consideration when investing in some emerging markets, in certain lightly traded securities such as unlisted options etc.

Exchange risk

Exchange risk also known as “currency risk” is associated with international transactions and is the risk of loss (or gain) from unforeseen changes in exchange rates (the prices at which currencies trade for each other). It is the risk that an investor will have to close out a long or short position in a foreign currency at a loss due to an adverse movement in exchange rates. It can also be described as the uncertainty of returns to an investor who purchases securities denominated in a currency different from his/her domestic currency.

The exchange risk associated with foreign denominated financial instruments is a key element in foreign investment.

For example, if you are a U.S. investor and you have stocks in UK, the return that you will realize is affected by both the change in the price of the stocks and the change in the value of the UK sterling against the U.S. dollar. So, if you realize a 15% return in your UK stocks but the UK sterling depreciates 15% against the U.S. dollar, this will amount to no gain at all.

Declining exchange rates reduce the value of investments in foreign currencies. However, the foreign exchange market also offers opportunities for profits. The currency risk can be eliminated by investing only in the client's domestic currency.

Interest-rate risk

Fluctuations in interest-rate levels on the money and capital markets have a direct impact on the prices of fixed-interest securities. Rising interest rates usually have a negative impact on the market prices of equities and bonds. By contrast, falling interest rates have a positive impact on prices of equities and bonds. Therefore interest rates are a key component in many market prices and an important economic barometer.

However interest rate risk affects the value of bonds more directly than stocks, and it is a major risk to all bondholders. As interest rates rise, bond prices fall and vice versa. The rationale is that as interest rates increase, the opportunity cost of holding a bond decreases since investors are able to realize greater yields by switching to other investments that reflect the higher interest rate. For example, a 5% bond is worth more if interest rates decrease since the bondholder receives a fixed rate of return relative to the market, which is offering a lower rate of return as a result of the decrease in rates.

Operational Risk

Operational risk is the risk of loss arising from inadequacies in, or failures of system and controls for, monitoring and quantifying the risks and contractual obligations associated with financial instruments transactions, for recording and valuing financial instruments and related transactions, or for detecting human error or systems failures. In general operational risk loss can be categorized under the following (overlapping) categories:

- **Internal and External fraud:** Some person or persons either inside the organisation or outside it, or both, have broken regulations, laws or company policies and losses resulted. Insider trading, rogue trader, computer crime and theft typically come under this category.
- **Employment practices and workplace safety:** These are losses arising from failure to implement required employment practices and include losses under discrimination suits and workers' compensation.



- **Clients, products and business practice:** Here losses arise from failure to engage in correct business practice, for instance, via unsuitable sales to clients, money laundering or market manipulation.
- **Business disruption and systems failures:** These include all hardware, software, telecom and utility failure related losses.
- **Execution, delivery and process management:** This is a wide category including data entry issues, collateral management, failure to make correct or timely regulatory or legal disclosures, and negligent damage to client assets.

Leverage Risk

Leverage indicates the risk undertaken by an investor which is greater than the invested capital. One of the main characteristics of leverage is that the relatively insignificant fluctuations of the underlying assets' prices can lead to multiple profits or losses. A leverage investment can be extremely risky as the investor may lose more than he/she originally invested.

The high degree of "gearing" or "leverage" is a particular feature of derivative Financial Instruments. This stems from the margining system applicable to such trades, which generally involves a comparatively modest deposit or margin in terms of the overall contract value, so that a relatively small movement in the underlying market can have a disproportionately dramatic effect on the Client's trade. If the underlying instrument movement is in the Client's favour, the client may achieve a good profit, but an equally small adverse market movement can not only quickly result in the loss of the Clients' entire deposit but also any additional commissions and other expenses incurred.

Off-Exchange Transaction Risk

While some off-exchange markets are highly liquid, transactions in off-exchange or "non-transferable" derivatives may involve greater risk than investing in on-exchange derivatives because there is no exchange market on which to close out an open position. It may be impossible to liquidate an existing position, to assess the value of the position arising from an off-exchange transaction or to assess the exposure to risk. Bid prices and offer prices need not be quoted, and, even where they are, they will be established by dealers in these instruments and consequently, it may be difficult to establish what a fair price is.

4. Risks in investing in Emerging Markets

An **emerging market** is distinguished by the fact that there is rapid growth as well as industrialization in the nation's business and social activities.

Various standards may be used to declare particular countries emerging markets. Different international organizations might classify different countries as emerging markets. It is the Client responsibility to follow below mentioned organizations and update the list of emerging markets.

We may consider as **Emerging markets** the markets for securities trading in countries that possess one or more of the following characteristics:

- a certain degree of political instability,
- relatively unpredictable financial markets and economic growth patterns,
- a financial market that is still at the development stage,
- a weak economy

The **FTSE Group** classified the following 22 countries as emerging markets:

- Brazil, Czech Republic, Hungary, Mexico, Poland, South Africa, Taiwan, Malaysia, Turkey, Chile, China, Colombia, Egypt, India, Indonesia, Morocco, Pakistan, Peru, Philippines, Russia, Thailand, UAE.

As of May 2010, **MSCI Barra** classified the following 21 countries as emerging markets

- Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, South Korea, Taiwan, Thailand, Turkey

As of 31 December 2010, **Standard and Poor's** classified the following 19 countries as emerging markets

- Brazil, Chile, China, Czech Republic, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, Turkey

As of May 2010, **Dow Jones** classified the following 35 countries as emerging markets

- Argentina, Bahrain, Brazil, Bulgaria, Chile, China, Colombia, Czech Republic, Egypt, Estonia, Hungary, India, Indonesia, Jordan, Kuwait, Latvia, Lithuania, Malaysia, Mauritius, Mexico, Morocco, Oman, Pakistan, Peru, Philippines, Poland, Qatar, Romania, Russia, Slovakia, South Africa, Sri Lanka, Thailand, Turkey, United Arab Emirates.

There are risks linked to investments in emerging markets that are not encountered in their more established 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.

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

When investing in emerging markets, in addition to the risk inherent in securities transactions, the following risks should also be taken into account. This list is not exhaustive. Depending on the type of investment product, there may be additional risks involved as described elsewhere in this notice.

Political Risk

A government's political inexperience or the instability of the political system increase 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 a dramatic fall in the value of your assets in specific sectors of industry as a result of state intervention or the introduction of state monitoring and control mechanisms.

Economic Risk

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 established nations. Moreover, 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 monitoring.

Credit Risk

Investments in debt paper (e.g. bonds, 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 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.

Exchange Rate Risk

The currencies of emerging market nations are subject to major, unpredictable swings in value. Furthermore, it is important to note that some countries limit the export of their currency or can impose short-term restrictions. Hedging can help limit losses resulting from currency swings, but they can never be entirely eliminated.

Market Risk

The lack of sophistication in monitoring their financial markets can result in poor levels of market transparency, liquidity, efficiency and regulation in the emerging markets. 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.

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 established markets. In an extreme case, illiquidity can be the result. This can make it impossible for the investor to sell his/her investments.

Legal Risk

The absence or inadequacy of financial market monitoring can lead to investors' legal rights being difficult or impossible to enforce. Moreover, legal uncertainty may exist due to the inexperience of the emerging nation's judiciary.

Settlement Risk

Investment in emerging markets involves the execution, delivery and clearing of the transactions on an emerging market in which laws or regulations will vary depending on the relevant Exchange in which the transaction occurs, and the investors who engage in the transaction may not be afforded certain of the protections which apply to Member States transactions. The settlement and delivery systems of the Securities and/or the underlying goods in such Exchanges may be less developed or less standardized and, in some cases, less reliable. These factors may give rise to increased risk, including risks of fraud, delivery failure, or settlement confusion over precise payment and repayment and delivery terms and mechanisms, and other factors which may result in loss, loss of opportunities, delays and added operational and legal costs.

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 be inadequate or non-existent.

5. Risks on active trading (Day Trading)

You should carefully consider the following points before engaging in an active trading strategy or what is sometimes called "day trading."

Active trading or day trading may be described as engaging in frequent purchase and sale transactions (at least several per week and, for some active traders, often numerous transactions per day) using systematic or strategic approaches.

Active trading has a very high level of risk: Active trading generally is not appropriate for someone of limited resources or limited investment or trading experience or low-risk tolerance. You should be prepared to lose all of your funds that you invest in your trades. In particular, you should not fund this type of trading with retirement savings, student loans, second mortgages, emergency funds, funds set aside for purposes such as education or home ownership, or funds required to meet your living expenses.

Be cautious of claims of large profits from active trading: You should be wary of advertisements or other statements that emphasize the potential for large profits from active trading. Active trading may result in few or no profits, and worse, may lead to large financial losses very quickly.

Active trading requires sophisticated knowledge of securities markets: Active trading requires in-depth knowledge of the securities markets and of sophisticated and disciplined trading techniques and strategies. Also, you must compete with professional, licensed traders employed by securities firms and other knowledgeable, experienced and well-trained traders. You should have appropriate knowledge and experience before engaging in active trading.

Active trading requires in-depth knowledge of your broker's operations: An important part of executing active trading strategies is the quality and consistency of the order execution systems and procedures. Whether you use the services of professional brokers or electronic systems, your success will be affected by their strengths and weaknesses and the methods and practices of the brokerage firm in executing trades. You should develop an intimate knowledge of these matters before you engage in active trading.

Active trading may result in you paying large commissions: You pay commissions on each trade you make. The more actively you trade, the more commissions will increase your losses or reduce your profits.

Active trading on margin or short selling may result in losses beyond your initial investment account amount: When you actively trade with borrowed funds, you can lose more than you originally placed at risk. A decline in the value of the securities that are purchased may require you to provide additional funds to avoid the forced sale of those securities or other securities or collateral in or for your account. Short selling as part of your trading strategy also may lead to large losses, because you may have to purchase a stock at a very high price in order to cover a short position.

In summary, active trading is not a game. It is not recommended for inexperienced traders or for persons who do not have sufficient resources and time to devote to their trading activities. Active trading is a serious commitment that should not be undertaken unless you are able to handle high risk and high stress well, and are willing to consistently adhere to objective and disciplined trading strategies and approaches.

6. Extended trading hours risks

Risk of Lower Liquidity: Liquidity refers to the ability of market participants to buy and sell securities. Generally, the more orders that are available in a market, the greater the liquidity. Liquidity is important because with greater liquidity it is easier for investors to buy or sell securities and, as a result, investors are more likely to pay or receive a competitive price for securities purchased or sold. There may be lower liquidity in extended hours trading as compared to regular market hours. As a result, your order may only be partially executed, if at all.

Risk of Higher Volatility: Volatility refers to the changes in price that securities undergo when trading. Generally, the higher the volatility of a security, the greater its price swings. There may be greater volatility

in extended hours trading than in regular market hours. As a result, your order may only be partially executed, or not executed at all, or you may receive an inferior price in extended hours trading than you would during regular market hours.

Risk of Changing Prices: The prices of securities traded in extended hours trading may not reflect the prices either at the end of regular market hours, or upon the opening the next morning. As a result, you may receive a price in extended hours trading that is inferior to the one you would receive during regular market hours.

Risk of Unlinked Markets: Depending on the extended hours trading system or the time of day, the prices displayed on a particular extended hours trading system may not reflect the prices in other concurrently operating extended hours trading systems dealing in the same securities. Accordingly, you may receive a price in one extended hours trading system that is inferior to the one you would in another extended hours trading system.

Risk of News Announcements: Normally, issuers make news announcements that may affect the price of their securities after regular market hours. Similarly, important financial information is frequently announced outside of regular market hours. In extended hours trading, these announcements may occur during trading, and if combined with lower liquidity or higher volatility, may cause an exaggerated and unsustainable effect on the price of a security.

Risk of Wider Spreads: The spread refers to the difference in price between what you can buy a security for and what you can sell it for. Lower liquidity and higher volatility in extended hours trading may result in wider than normal spreads for a particular security.

7. Electronic Trading and order routing systems risks

Electronic trading and order routing systems differ from traditional open outcry pit trading and manual order routing methods. Transactions using an electronic system are subject to the rules and regulations of the exchange(s) offering the system and/or listing the contract. Before you engage in transactions using an electronic system, you should carefully review the rules and regulations of the exchange(s) offering the system and/or listing contracts you intend to trade.

Differences among electronic trading systems

Trading or routing orders through electronic systems varies widely among the different electronic systems. You should consult the rules and regulations of the exchange offering the electronic system and/or listing the contract traded or order routed to understand, among other things, in the case of trading systems, the system's order matching procedure, opening and closing procedures and prices, error trade policies, and trading limitations or requirements; and in the case of all systems, qualifications for access and grounds for termination and limitations on the types of orders that may be entered into the system. Each of these matters may present different risk factors with respect to trading on or using a particular system. Each system may also present risks related to system access, varying response times, and security. In the case of internet-based systems, there may be additional types of risks related to system access, varying response times and security, as well as risks related to service providers and the receipt and monitoring of electronic mail.

Risks associated with system failure

Trading through an electronic trading or order routing system exposes you to risks associated with system or component failure. In the event of system or component failure, it is possible that, for a certain time period, you may not be able to enter new orders, execute existing orders, or modify or cancel orders that were previously entered. System or component failure may also result in loss of orders or order priority.

Simultaneous open outcry and electronic trading

Some contracts offered on an electronic trading system may be traded electronically and through open outcry during the same trading hours. You should review the rules and regulations of the exchange offering the system and/or listing the contract to determine how orders that do not designate a particular process will be executed.

Internet Trading Risks

There are risks associated with utilizing an Internet-based deal execution trading system including, but not limited to, hardware malfunction, software failure, and Internet connection problems. Because we do not control signal power, reception or routing via Internet, the configuration of your equipment or the reliability of its connection, we shall not be responsible and liable for communication failures, distortions or delays you may experience while trading via the Internet. In addition, we are not responsible for the breach of any Internet security with respect to your Account. We have no liability or duty of indemnification related to unusable data, lost or corrupt Customer transactions or data, by whatever means, in whatever form, resulting in part or in whole from third-party software or networking goods or services or from internet related problems or from actions or events outside of our control

The Company has no responsibility for any loss that arises as a result of a system failure, including but not limited to:

- Hardware or software failure, malfunction or misuse either on the client's side or the Company's or both
- Poor internet connection either on the client's side or the Company's or both
- Incorrect settings in the Client terminal
- Delayed updates of the Client terminal

Limitation and liability

Exchanges offering an electronic trading or order routing system and/or listing the contract may have adopted rules to limit their liability, the liability of brokers, and software and communication system vendors and the amount of damages you may collect for system failure and delays. These limitations of liability provisions vary among the exchanges. You should consult the rules and regulations of the relevant exchange(s) in order to understand these liability limitations.

8. General information on Financial Instruments

8.1 What are securities?

A security is a fungible, negotiable instrument representing financial value. Securities are broadly categorized into debt securities, such as bonds and debentures, and equity securities, e.g. common stocks. The company or other entity issuing the security is called the issuer. They include equities, bonds, units of mutual funds, options, warrants and derivatives and may be traded in financial markets such as stock exchanges.

8.2 What are derivatives?

Derivatives are financial contracts for which the price is derived from the value of one or more other instruments. These are called underlying(s) of the derivative and they can be equities, bonds, commodities or precious metals, or benchmarks such as currencies, interest rates and indices.

Hence, for example, an equity option derives its value from the “underlying” equity. There are different types of derivatives, including forwards, futures and combinations as well as options, swaps and structure products.

8.3 Shares

A share is an instrument (security) representing a shareholder’s rights in a company. A share is an equal portion in the capital of the company. It represents ownership interest in a firm.

Investing in common shares involves all the advantages and disadvantages of the ownership in a firm and is a reasonably riskier investment compared to investing in bonds. Dividend payments and an increase in the value of the share are both possible but not guarantee.

8.3.1 Return

The yield on investments in shares is composed of dividend payments as well as price gains or losses and cannot be predicted with certainty.

The dividend is the amount of a company’s earnings distributed to shareholders. The amount of the dividend is decided by the shareholders’ meeting and is expressed either as an absolute amount per share or as a percentage of the nominal value of the share. The return achieved on the dividend in relation to the share price is called dividend yield.

Another part of the return on investments in shares is achieved from their performance/price increase.

8.3.2 Types of shares

A firm can have different types of shares, with different conditions and rights. Some of the types of shares are the following:

Ordinary shares: are standard shares without any special rights. Represents equity ownership in a company and entitles the owner to a vote in matters put before shareholders in proportion to their percentage ownership in the company. They have the potential to give the highest financial gains, but also have the highest risk, especially in the event of bankruptcy or insufficient profits to distribute a dividend. The holders of ordinary shares are entitled to a dividend, if any are available, only after the preference dividends have been paid. They are also entitled to their share of the residual economic value of the company should the business unwind, after bondholders and preferred shareholders. Ordinary shareholders are considered unsecured creditors.

Preference shares: Carry some preferential rights over other classes of shares. Usually they refer to the right to dividends and the right on winding up to receive priority repayment. A preferential dividend is a cumulative dividend. Preference shares do not carry the right to participate in any surplus profits of the company.

Cumulative preference shares: the holder has the right, if the dividend cannot be paid in one year, to have it carried to successive years.

Redeemable shares: come with an agreement according to which the firm can buy the shares back at some future time.

8.3.3 Risks

The biggest risks on shares are the market risk or systematic risk, which cannot be diversified away, and the unsystematic risk which can be reduced or eliminated by constructing a well diversified portfolio.

Furthermore dealing in shares may involve risks including but not limited to the following: credit risk, country risk, liquidity risk, exchange risk, and interest-rate risk (indirect).

8.4 Bonds

Bonds are negotiable debt instruments issued, in capital markets with the purpose of raising capital. Investors who acquire bonds are lenders to the issuers. Particularly, investors lend some amount of money, the principal, to the borrower. In return, the borrower promises to make periodic interest payments (coupon payments) and to pay back the principal at the maturity of the loan. The purchaser of the bond has a claim against the issuer, but no corporate ownership privileges, as stockholders do.

The par value represents the face value of a bond and the coupon rate refers to the actual interest rate on the bond. A zero-coupon bond makes no payments, but instead it is issued at a considerable discount to par value. The maturity date of the debt as well as the terms and conditions of repayment are determined in advance.

8.4.1 Features of bonds

The most important features of a bond are:

Nominal, principal, par or face amount: the amount on which the issuer pays interest, and which, most commonly, has to be repaid at the end. Some structured bonds can have a redemption amount which is different to the face amount and can be linked to performance of particular assets such as a stock or commodity index, foreign exchange rate or a fund. This can result in an investor receiving less or more than his original investment at maturity.

Issue price: the price at which investors buy the bonds when they are first issued, which will typically be approximately equal to the nominal amount. The net proceeds that the issuer receives are thus the issue price, less issuance fees.

Maturity date: the date on which the issuer has to repay the nominal amount. As long as all payments have been made, the issuer has no more obligations to the bond holders after the maturity date. The length of time until the maturity date is often referred to as the term or tenor or maturity of a bond. The maturity can be any length of time, although debt securities with a term of less than one year are generally designated money market instruments rather than bonds. In the market for U.S. Treasury securities, there are three groups of bond maturities:

- short term (bills): maturities up to one year
- medium term (notes): maturities between one and ten years
- long term (bonds): maturities greater than ten years

Coupon: the interest rate that the issuer pays to the bond holders. Usually this rate is fixed throughout the life of the bond. It can also vary with a money market index, such as LIBOR, or it can be even more exotic.

Coupon dates: the dates on which the issuer pays the coupon to the bond holders. In the U.S. and also in the U.K. and Europe, most bonds are semi-annual, which means that they pay a coupon every six months.

Callability: Some bonds give the issuer the right to repay the bond before the maturity date on the call dates (call options). These bonds are referred to as callable bonds. Most callable bonds allow the issuer to repay the bond at par. With some bonds, the issuer has to pay a premium, the so called call premium. This is mainly the case for high-yield bonds. These have very strict covenants, restricting the issuer in its operations. To be free from these covenants, the issuer can repay the bonds early, but only at a high cost.

Putability: Some bonds give the holder the right to force the issuer to repay the bond before the maturity date on the put dates (put option).

Call dates and Put dates: the dates on which callable and puttable bonds can be redeemed early.

8.4.2 Types of bonds

Note that there are different types of a bond (such as Government Bonds (Treasuries), Municipal Bonds, and Corporate Bonds). Corporate bonds are characterised by higher yields because there is higher probability of a firm defaulting than a government (riskier than Government Bonds). The upside is that corporate bonds can be the most rewarding bonds due to the risk that investors must take on. Investors should also consider the quality of a bond. The higher the quality, the lower the interest rate investors receive.

Government Bonds: Bonds issued by a government are called Treasuries. Treasuries are considered to be the safest bond investments since a government backs them and it is highly unlikely that a situation of default will occur. However, Treasuries with long maturities have more potential for inflation and credit risk.

Municipal Bonds: Municipal bonds are debt obligations of state or local governments. The funds may be used to support general governmental needs or special projects. Municipal bonds are considered riskier investments than Treasuries.

Corporate Bonds: Corporate bonds are debt instruments issued by private corporations. Corporate bonds come in various maturities. They are considered the riskiest of the bonds because there is much more of a credit risk with corporate bonds, but this usually means that the bondholder will be paid a higher interest rate. Corporations with low credit ratings issue bonds too, and these are speculative products called junk bonds.

The following descriptions are not mutually exclusive, and more than one of them may apply to a particular bond:

Convertible Bonds: are bonds that may be converted into another form of corporate security, usually shares of common stock. Conversion only occurs at specific times at specific prices under specific conditions and this will all be detailed at the time the bond is issued. They are equivalent to a regular bond plus a warrant. They allow the company to issue debt with a lower coupon than otherwise.

Fixed rate bonds: have a coupon that remains constant throughout the life of the bond.

Floating rate notes (FRN): have a variable coupon that is linked to a reference rate of interest, such as LIBOR or Euribor.

Zero-Coupon Bonds: These are bonds that do not pay interest periodically, but instead pay a lump sum of the principal and interest at maturity.

Inflation linked bonds: in which the principal amount and the interest payments are indexed to inflation. The interest rate is normally lower than for fixed rate bonds with a comparable maturity. However, as the principal amount grows, the payments increase with inflation.

Asset-backed securities: are bonds whose interest and principal payments are backed by underlying cash flows from other assets. Examples of asset-backed securities are mortgage-backed securities (MBS's), collateralized mortgage obligations (CMOs) and collateralized debt obligations (CDOs).

Subordinated bonds: are those that have a lower priority than other bonds of the issuer in case of liquidation. In case of bankruptcy, there is a hierarchy of creditors. First the liquidator is paid, then government taxes, etc. The first bond holders in line to be paid are those holding what is called senior bonds. After they have been paid, the subordinated bond holders are paid. As a result, the risk is higher. Therefore, subordinated bonds usually have a lower credit rating than senior bonds. The main examples of subordinated bonds can be found in bonds issued by banks, and asset-backed securities.

Perpetual bonds: are also often called perpetuities or 'Perps'. They have no maturity date.

Bearer bond: is an official certificate issued without a named holder. In other words, the person who has the paper certificate can claim the value of the bond. Often they are registered by a number to prevent counterfeiting, but may be traded like cash. Bearer bonds are very risky because they can be lost or stolen.

USA Bonds: In the US, bonds of maturity less than one year are called **bills** and are usually zero coupon. Bonds with maturity 2 to 10 years are called **notes**. They are coupon bearing with coupons every six months. Bonds with maturity greater than 10 years are called bonds, and they are coupon bearing. Bonds traded in the US foreign bond market but which are issued by non-US institutions are called **Yankee bonds**.

8.4.3 Bond Ratings

Standard & Poor's and Moody's Investors Service assign credit ratings to governments and corporations which provide the basis for assessment of issuer's creditworthiness. The ratings for bonds are in the table below. The ratings represent greater default risk as you read down the table. In general high-yield bonds are bonds with speculative characteristics and are rated with a low credit rating. These bonds carry a coupon that is relatively high to reflect the higher level of risk. Other factors remaining equal, bonds with a higher credit rating generally offer a lower interest rate.

The "quality" of the issue refers to the probability that the bondholders will receive the amounts promised at the due dates. This will depend on a wide range of factors. These bonds are also called junk bonds.

Quality	Moody's	Standard & Poor's
Highest Quality	Aaa	AAA
High Quality	Aa1, Aa2, Aa3	AA+, AA, AA-
Upper-medium grade	A1, A2, A3	A+, A, A-
Medium grade	Baa1, Baa2, Baa3	BBB+, BBB, BBB-
Somewhat speculative	Ba	BB
Speculative	B	B
Highly speculative	Caa	CCC
Most speculative	Ca	CC
Default	C	D

8.4.4 Risks

Trading bonds may not be suitable for all investors. Although bonds are often thought to be conservative investments, there are numerous risks involved in bond trading. If you are uncomfortable with any of the risks involved, you should not trade bonds.

Credit risk: When you purchase a corporate bond, you are lending money to a company. There is always the risk that the issuer will fail to make interest or principal payments when due or the issuer can go

bankrupt. If this happens, you will not receive your investment back. This is a risk of which you must be aware. Credit risk is figured into the pricing of bonds.

Prepayment risk: Prepayment risk involves the scenario where an issuer “calls” a bond. If this happens, your investment will be paid back early. Certain bonds are callable and others are not, and this information is detailed in the prospectus. If a bond is callable, the prospectus will detail a “yield-to-call” figure. Corporations may call their bonds when interest rates fall below current bond rates.

A “put” provision allows a bondholder to redeem a bond at par value before it matures. Investors may do this when interest rates are rising and they can get higher rates elsewhere. The issuer will assign specific dates to take advantage of a put provision. Prepayment risk is figured into the pricing of bonds.

Inflation risk: Inflation risk is the risk that the rate of the yield to call or maturity of the bond will not provide a positive return over the rate of inflation for the period of the investment. In other words, if the rate of inflation for the period of an investment is six percent and the yield to maturity of a bond is four percent, you will receive more money in interest and principal than you invested, but the value of that money returned is actually less than what was originally invested in the bond. As the inflation rate rises, so do interest rates. Although the yield on the bond increases, the price of the actual bond decreases.

Interest rate risk: Changes in interest rates during the term of any bond may affect the market value of the bond prior to call or the maturity date. When interest rates rise, bond prices of already issued fixed interest bonds decline since new bonds are issued bearing higher rates of interest than the already issued bonds. And vice versa, the price of already issued bonds increases when market interest rates decline.

Liquidity risk: Depends on several factors, among which the issued volume, time remaining to maturity, market conditions and specific market rules. Some bonds may not be able to be sold easily without any price concessions. Liquidity risk should be the main concern of investors who do not wish to hold the bond until maturity.

Reinvestment Risk: The variability of reinvestment returns due to changes in prevailing interest rates is known as reinvestment risk. It is the risk that the proceeds from a bond will be reinvested at a lower rate than the bond originally provided. The longer the bond, the greater the reinvestment risk. The only kind of bond which doesn't have any reinvestment risk is the zero coupon bond.

In summary the dealing in bonds may involve risks including but not limited to the following: credit risk, prepayment risk, market risk, country risk, liquidity risk, exchange risk (in the case of foreign currency bonds), inflation risk, interest-rate risk and reinvestment risk.

8.5 Warrants

A warrant is a time-limited right to subscribe for shares, debentures, loan stock or government securities and is exercisable against the original issuer of the underlying securities. It is an interest and dividend-free securities, granting the holder the right to buy (call warrants) or sell (put warrants) a certain underlying security (e.g. shares) at a predetermined price (exercise price) at a future time.

Company warrants are issued by companies on their own ordinary shares to raise capital for themselves. Their value depends on the value of the ordinary share which is the underlying security, which means that a warrant is a derivative product. As such, the warrant investor gains economic exposure to this underlying security without actually owning it.

The value of a warrant is determined by the underlying security price, the exercise price of the warrant, the volatility of the underlying security price, the time to expiry of the warrant, and the interest rate and the dividend yield of the underlying asset.

Investors buy the warrants at a fraction of the price of the underlying security and only upon exercise do they pay for the ordinary shares, when they will know the actual market price of the shares in comparison to the predetermined price that should be paid. Thus, the buyer has the right (but not the obligation) to buy this underlying security at a predetermined price (the Strike or Exercise Price) on or before a predetermined date (the "Expiry" Date).

To exercise a warrant means to exercise the rights attributed by the warrant. Hence, when a warrant holder exercises a warrant, it means that they want to buy the underlying security at the exercise price from the issuer.

The main difference between warrants and call options is that warrants are issued and guaranteed by the company, whereas options are exchange instruments and are not issued by the company. Also, the lifetime of a warrant is often measured in years, while the lifetime of a typical option is measured in months.

A warrant can be exercisable at any time during its life (American-style) or only at expiry (European-style)?

8.5.1 Return

The buyer of a call warrant has locked in the purchase price of the underlying security. A return can be achieved if the market price of the underlying security exceeds the agreed exercise price to be paid by the investor. The warrant holder can buy the underlying security at the strike price and sell it immediately at the ruling market price.

An increase in the price of the underlying security will usually lead to a proportionately higher percentage increase in the warrant price (leverage effect). Consequently, most warrant holders achieve a return by selling warrants.

The same applies, in the opposite direction, to put warrants. These usually rise in value if the price of the underlying security decreases.

The return on warrant transactions is not guaranteed and cannot be established in advance.

8.5.2 Main Characteristics

It is important to consider the following main characteristics:

Premium: A warrant's "premium" represents how much extra you have to pay for your shares when buying them through the warrant as compared to buying them in the regular way.

Exercise or Strike price: is the amount that must be paid in order to either buy the call warrant or sell the put warrant. The payment of the strike price results in a transfer of the specified amount of the underlying instrument.

Gearing (leverage): A warrant's "gearing" is the way to ascertain how much more exposure you have to the underlying shares using the warrant as compared to the exposure you would have if you buy shares through the market.

Expiration Date: This is the date the warrant expires. If you plan on exercising the warrant you must do so before the expiration date. The more time remaining until expiry, the more time for the underlying security

to appreciate, which, in turn, will increase the price of the warrant (unless it depreciates). Therefore, the expiry date is the date on which the right to exercise no longer exists.

Restrictions on exercise: Like options, there are different exercise types associated with warrants such as American style (holder can exercise anytime before expiration) or European style (holder can only exercise on expiration date).

Call warrant: represents a specific number of shares that can be purchased from the issuer at a specific price, on or before a certain date.

Put warrant: represents a certain amount of equity that can be sold back to the issuer at a specified price, on or before a stated date.

8.5.3 Risks

Warrants often involve a high degree of gearing so that a relatively small movement in the price of the underlying securities results in a disproportionately large movement, unfavourable or favourable, in the price of the warrant. The prices of warrants can therefore be volatile.

It is essential for anyone who is considering purchasing warrants to understand that the right to subscribe which a warrant confers is invariably limited in time with the consequence that if the investor fails to exercise this right within the predetermined timescale then the investment becomes worthless. So you should extremely careful when purchasing warrants which are close to expiry.

Investors should be aware that other factors being equal the value of derivative warrants will decrease over time. Therefore derivative warrants should never be viewed as products that are bought and held as long term investment. (Time Decay)

There are risks such as Liquidity risk, whereby in the face of insufficient buy orders, the market price of the warrant may be affected disproportionately and the warrant holder will not be able to sell his warrants for a reasonable price in the market, and the limited life of warrants due to the expiry date means that a warrant may become worthless if the buyer's expectations are not realized before expiry.

You should not buy a warrant unless you are prepared to sustain a total loss of the money you have invested plus any commission or other transaction charges.

Off-Market warrant transactions: Transactions in off-Market warrants may involve greater risk than dealing in Market traded warrants because there is no Market through which to liquidate your position, or to assess the value of the warrant or the exposure to risk. Bid and offer prices need not be quoted, and even where they are, they will be established by dealers in these instruments and consequently it may be difficult to establish what a fair price is.

In summary the dealing in warrants may involve risks including but not limited to the following: credit risk, inflation risk, market risk, country risk, liquidity risk, leverage risk, exchange risk, interest-rate risk (indirect) and leverage risk.

8.6 Rights

A security that gives the company's shareholder the option, but not the obligation, to purchase a predetermined number of the company's shares at a predetermined price (normally less than the current market price) in proportion to the number of shares already owned. These rights are typically distributed to existing shareholders, who can trade these rights on a stock exchange. Rights are issued only for a short

period of time, after which they expire. Rights give right holders the ability to buy the underlying shares, by paying the issuing company the exercise price thus receiving all the rights of ownership of the underlying asset.

8.6.1 Risks

Rights often involve high degree of leverage, so that a small movement in the price of the underlying security results in disproportionate large movement that can either be favorable or unfavorable in the price of the right. The prices of rights therefore can be very volatile.

In summary the dealing in rights may involve risks including but not limited to the following: credit risk, inflation risk, market risk, country risk, liquidity risk, leverage risk, exchange risk, interest-rate risk (indirect)

8.7 Options

Options transactions can involve major financial risks and should only be entered into by investors who are familiar with this type of transaction, have sufficient liquid resources at their disposal and are able to absorb potential losses.

8.7.1 Characteristic features

Definition

With an option the buyer acquires the right but not the obligation, against immediate payment of the option premium, to purchase (call option) or sell (put option) a certain quantity of the underlying instrument at a price stipulated in advance, either at any time during the life of the contract (American option) or on expiry date (European option).

By contrast, the writer of an option undertakes to deliver/sell (call option) or accept/buy (put option) the corresponding underlying instrument at the agreed price (striking price) if the option is exercised. Depending on the contract specifications, cash settlement can also be accepted in lieu of physical delivery.

The following may serve as underlying instruments:

- physical assets (equities, futures, bonds, commodities, precious metals)
- benchmarks (currencies, interest rates, indices)

American-style options: It is possible to exercise American-style options on any trading day up until the expiration date.

European-style options: It is only possible to exercise European-style options on their expiration date. This does not, however, limit their tradability on the secondary market (e.g. on a stock exchange).

Asian-style option: It is a variant of the European-style option. Alternatively referred to as an “average price” option, in an Asian-style option the reference price in relation to the underlying securities is derived from an agreed upon calculation, which, by way of example, may be based upon an average of the underlying securities’ market prices at predetermined dates occurring during a specified “averaging period,” with the exercise date (assuming the counterparty is the option buyer or holder) occurring at the end of such averaging period.

The investor should be aware that the calculation of an average value for the underlying securities in the case of the average-rate option can result in the value of the option on 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. For an average-strike option, the average strike price of a call option can be considerably higher than the price originally agreed. For an equivalent put option, the strike price can similarly be lower than the price originally agreed.

Currency option: A currency option gives its purchaser the right, but not the obligation, either to buy from the option writer, or to sell to the option writer, a stated quantity of foreign currency at a specified rate of exchange, on a given future date or at any time up to and including that given date. If the option is not exercised by this given date the agreement conferred upon the holder is deemed to have lapsed. If the holder has purchased the right to buy a foreign currency it is referred to as a call option. If the holder has purchased the right to sell foreign currency it is referred to as a put option.

“In the money”, “out of the money” and “at the money” options:

A call option is “in the money”, i.e. has an inherent value, if the current market value of the underlying instrument is higher than the striking price. A put option is “in the money” if the current market value of the underlying instrument is lower than the striking price. An option that is “in the money” is said to have an intrinsic value.

A call option is ‘out of the money’ if the current market value of the underlying instrument is lower than the striking price. A put option is “out of the money” if the current market value of the underlying instrument is higher than the striking price.

Call and put options are “at the money” if the current market value of the underlying instrument and the striking price are the same.

Premium: The amount paid for the contract initially

Underlying (asset): The financial instrument on which the option value depends.

Strike (price) or exercise price: The amount for which the underlying can be bought (call) or sold (put)

Expiration (date) or expiry date: Date on which the option can be exercised or date on which the option ceases to exist or give the holder any rights.

Intrinsic value: The payoff that would be received if the underlying is at its current level when the option expires. (Difference between strike price and stock price)

Time value: Value that the option has above its intrinsic. Uncertainty surrounding the future value of the underlying asset means that the option value is generally different from the intrinsic value.

Long position: A positive amount of a quantity, or a positive exposure to a quantity

Short position: A negative amount of a quantity, or a negative exposure to a quantity. Many assets can be sold short, with some constraints on the length of time before that must be bought back.

Value/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, especially the remaining life of the option and the volatility of the underlying. The time value of an option reflects the chance that it will be in the money. Hence, the time value is higher

for options with a long duration and a very volatile underlying. The same is true for options that are at the money.

8.7.2 Categories

Traded options are financial instruments whose contract sizes, striking prices and expiry dates are standardized and which are traded on exchanges.

Over-the-counter (OTC) options transactions are contracts with standardized contractual terms or contract specifications agreed upon individually between buyers and writers. OTC options transactions are neither securitised nor traded on-exchange.

Warrants are non-standardized financial instruments. Warrants are options in securitised form. Some of them are traded on exchanges but many are traded over-the-counter.

8.7.3 Margin requirement/Margin cover

A margin is fixed for sales of puts and short sales of calls when the contract is concluded. This margin is recalculated periodically during the entire life of the contract and may result in equivalent margin calls.

In the case of traded options these margins and their calculation are subject to the guidelines laid down by the exchange in question and are debited or credited daily. The securities dealers are entitled to request higher margins the required minimum rates. In the case of all other options transactions the securities dealers can set the margins at their discretion.

Investors must maintain the required margin cover with the securities dealer during the entire life of the contract. A margin shortfall usually results in the liquidation of the position in question by the securities dealer.

8.7.4 Closing out/Settlement

Contracts can be closed out at any time prior to expiry date. Depending on the type of contract and customary practice on the exchange in question, contracts are closed out either by means of an identical counter-transaction or by concluding an offsetting transaction in respect of the obligation, with otherwise identical specifications. In the latter case the delivery and acceptance obligations resulting from the two open contracts cancel each other out.

Obligations arising from the sale of options which are not closed out must always be settled on expiry date. In the case of contracts based on physical assets, settlement usually takes the form of a delivery of the underlying instrument. In the case of contracts based on benchmarks, a corresponding cash consideration is paid in lieu of physical delivery.

8.7.5 Risks

Options are extremely versatile securities that can be used for many different ways. Investors may use options either for speculation or protection (hedging). Many investors trade in options to speculate on the price movements of an underlying security which can be very risky. On the other hand, investors may use options to protect (or hedge) an open position in an attempt to minimize risk.

Investors should be aware that the buyer of the option has less risk than the writer of the option because if the price of the underlying asset moves against you, you can simply allow the option to lapse. The maximum loss that the buyer can suffer is the option premium plus any other commission and fees. On the other

hand, the writer of the option may lose significant amounts, since they have the obligation to buy the underlying no matter how far the market price has moved away from the exercise price. Investors should pay a great attention on the significant losses that they may have when the investor does not own the underlying and sell a call option due to the fact that the market price of the underlying may grow infinitely.

Risks because of changes in the value of the contract/underlying instrument

Generally speaking, if the 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. 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 also drop when the value of the underlying remains unchanged or rises. This can happen as the time value eases or if supply and demand factors are unfavourable. Put options behave in precisely the opposite manner.

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.

Risks as writer of a covered call option

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 rises above 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. The underlying assets must be 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 subject to the same risks as when writing an uncovered call option.

Risks as 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 or naked**. 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.

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

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 a physical settlement, it may be very expensive or even impossible to acquire the corresponding underlying assets.

You must be aware that your potential losses can be far greater than the value of the underlying assets you have lodged as collateral (margin cover).

Risks as 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.

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

Your potential losses can be far greater than the value of the underlying assets you have lodged as collateral (margin cover).

Difficulty or impossibility of closing out positions

In order to limit excessive price fluctuations, an exchange can fix price limits for certain contracts. The investor must be aware that when the price limit is reached closing out is considerably more difficult or even temporarily impossible. Every investor should therefore make enquiries about any existing price limits before concluding options transactions.

Physical delivery/Cash settlement

Investors are exposed to greater risks with contracts which have to be fulfilled by physical delivery than with those which are fulfilled by cash settlement. In the case of physical delivery the full contract value must be paid, whereas in the case of cash settlement only the difference between the price agreed upon when concluding the contract and the current market value on settlement date must be paid. Investors must therefore have greater liquid resources at their disposal for contracts with physical delivery than for contracts with cash settlement.

Special risks of over-the-counter options transactions and transactions with warrants and stock options

As a rule, the market for standardized OTC options transactions and for transactions in warrants and stock options listed on an exchange is transparent and liquid. Closing-out is therefore usually possible without any significant problems.

By contrast, there is no market as such for OTC options transactions with individual contract specifications and for transactions in warrants and stock options which are not listed on an exchange. Closing out is therefore only possible if counterparty is found who is prepared to conclude an offsetting contract.

Combined transactions

Combined transactions are understood to mean the conclusion of two or more options transactions on the same underlying instrument. In such cases the options differ at least in respect of type (call or put), quantity, striking price, expiry date and/or the position taken (long, short).

Due to the diversity of possible combinations, the risks arising in a specific instance cannot be dealt with in detail within the scope of this notice. They can also be altered substantially by closing out individual elements of a combined transaction. Before concluding a combined transaction, investors should therefore make detailed enquiries about its specific risks.

«Exotic» options»

Unlike “plain vanilla” put and call options exotic options (average rate options, currency-protected options, path-dependent options, complex basket options, compound options etc) are subject to additional conditions or agreements. They feature structures which cannot be created by any combinations of standard options alone or together with underlying instruments. «Exotic» options occur both as OTC options and also in the form of warrants.

The virtually unlimited possibilities for structuring «exotic» options mean that the risks arising in individual instances cannot be described within the scope of this notice. Investors should therefore seek detailed information about the risks involved before purchasing or selling instruments of this nature.

In addition to the above risks dealing in options involve also the following risks:

Calls (standardized purchase options):

- a) For the purchaser: credit risk, inflation risk, market risk, country risk, liquidity risk, exchange risk, interest-rate risk (indirect)
- b) For the writer (in uncovered trading): credit risk, high market risk due to leverage, country risk, liquidity risk, exchange risk, interest-rate risk (indirect), risk of having to sell the instruments underlying the call at less than the current market value

Puts (standardized selling options):

- a) For the purchaser: credit risk, inflation risk, market risk, country risk, liquidity risk, exchange risk, interest-rate risk (indirect)
- b) For the writer (in uncovered trading): credit risk, high market risk due to leverage, country risk, liquidity risk, exchange risk, interest-rate risk (indirect), risk of having to purchase the instruments underlying the put at more than the current market value

8.8 Forwards and Futures

Future and Forward transactions can involve major risks and should therefore only be entered into by investors who are familiar with this type of transaction, have sufficient liquid resources at their disposal and are able to absorb potential losses.

8.8.1 Characteristic features

Definition

A futures contract is a legally binding agreement between two parties to purchase or sell a specific quantity of a specific underlying instrument on a certain date in the future (expiry date) at a price agreed upon when concluding the contract. A person who buys a futures contract enters into a contract to purchase an underlying instrument and is said to be “long” the contract. A person who sells a futures contract enters into a contract to sell the underlying instrument and is said to be “short” the contract. The price at which the contract trades (the “contract price”) is determined by relative buying and selling interest on a regulated exchange. Buyers have a profit if the price increases and sellers have profit if the price decreases.

The following may serve as underlying instruments:

- physical assets (equities, warrants, options, commodities, precious metals)
- benchmarks (currencies, interest rates, indices).

Categories

Futures are forward transactions whose contract sizes and expiry dates are standardized and which are traded on an exchange.

Over-the-counter (OTC) forward transactions (so-called forwards) are contracts with standardized contractual terms or contract specifications agreed upon individually between purchasers and vendors. Forwards are not traded on an exchange.

Future – Forward – Option (differences)

The holder of future or forward contracts is obliged to trade at the maturity of the contract. The holder must take possession of the commodity, currency, etc., regardless of whether the asset has risen or fallen.

Options give their holders rights instead of obligations. So if the stock falls, we don't have to buy it.

Difference between futures and forwards

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 agreed between the buyer and seller.

Futures	Forward
Traded on organised exchanges	Traded on over the counter (OTC) market
Standardized contract	Not standardized
Greater liquidity	Lack liquidity
Range of delivery dates	Usually one specified delivery date
Marked-to-market - Settled daily (no default risk)	Not marked-to-market - Settled at the end of contract (subject to default risk)
Contract is usually closed out prior to maturity	Delivery or final cash settlement usually place

Margin requirement/Margin cover

An initial margin is stipulated for both purchases and forward short sales of underlying instruments when a contract is concluded. A variation margin is also calculated periodically during the entire life of the contract. The variation margin corresponds to the book gain or book loss arising by virtue of the change in value of the contract, i.e. the underlying instrument. In the process, the variation margin can rapidly amount to a multiple of the initial margin. In the case of futures these margins and their calculation are subject to the guidelines laid down by the exchange in question and are debited or credited daily. The securities dealers are entitled to request higher margins than the required minimum rates. In the case of forwards the securities dealers can set the margins at their discretion.

The investor is obliged to deposit the required initial or variation margin cover with the securities dealer for the entire life of the contract. A margin shortfall usually results in the liquidation of the position in question by the securities dealer.

Closing out / Settlement

Contracts can be closed out at any time prior to expiry date. Depending on the type of contract and customary practice on the exchange in question, contracts are closed out either by means of an identical counter-transaction or by concluding an offsetting transaction in respect of the obligation, with otherwise

identical specifications. In the latter case the delivery and acceptance obligations resulting from the two open contracts cancel each other out.

Contracts which are not closed out must be settled on expiry date. In the case of contracts based on physical assets, this usually takes the form of a delivery of the underlying instrument. In the case of contracts based on benchmarks, a corresponding cash consideration is paid in lieu of physical delivery.

The relevant contract specifications determine the further terms and conditions of settlement, especially for stipulating the place of performance.

8.8.2 Risks

General

Futures carry a high degree of risk. The 'gearing' or 'leverage' often obtainable in futures trading means that a small deposit or down payment can lead to large losses as well as gains. It also means that a relatively small movement can lead to a proportionately much larger movement in the value of your investment, and this can work against you as well as for you. Futures transactions have a contingent liability, and you should be aware of the implications of this.

Trading security futures contracts involves risk and may result in potentially unlimited losses that are greater than the amount deposited with your broker. As with any high risk financial product, you should not risk any funds that you cannot afford to lose, such as your retirement savings, medical and other emergency funds, funds set aside for purposes such as education or home ownership, proceeds from student loans or mortgages, or funds required to meet your living expenses.

Risk because of changes in the value of the contract/underlying instrument

Every investor has certain expectations in respect of the change in value of the contract, i.e. the corresponding underlying instrument, in the relevant period. If the actual change in value does not correspond to these expectations, he is exposed to the following risks:

If the value of the contract/underlying instrument rises, the seller for forward delivery must deliver the underlying instrument at the price originally agreed upon. That can be substantially lower than the current price market value.

If the value of the contract/underlying instrument falls, the purchaser for forward delivery must accept the underlying instrument at the price originally agreed upon. That can be substantially higher than the current price market value.

In both cases the risk lies in the difference between the price agreed upon when the contract was concluded and the actual market value on expiry date. The extent of this risk cannot be defined in advance.

Risk in purchase of the underlying instrument in the case of short sales

Anyone selling an underlying instrument for forward delivery without already being in possession of it when concluding the contract (short sale) is exposed to the risk of having to purchase the underlying instrument at an unfavourable – i.e. high – market value, in order to be able to meet his or her delivery obligations on expiry date. In this case the risk is especially high, indeed it is theoretically unlimited.

Risk-reducing orders or strategies

The placing of certain orders (such as a "stop-loss" orders, where permitted under local law, or stop-limit orders) which are intended to limit losses to certain amounts may not be effective because market conditions may make it impossible to execute such orders. Strategies using combinations of positions, such as "spread" and "straddle" positions may be as risky as taking simple "long" or "short" positions.

Risk because of difficulty or impossibility of closing out positions

In order to limit excessive price fluctuations, an exchange can fix price limits for certain contracts. The investor must be aware that when the price limit is reached closing-out is considerably more difficult or even temporarily impossible. Every investor should therefore make enquiries about any existing price limits before concluding forward transactions.

Physical delivery/Cash settlement

Investors are exposed to greater risks with contracts which have to be fulfilled by physical delivery than with those which are fulfilled by cash settlement. In the case of physical delivery the full contract value must be paid, whereas in the case of cash settlement only the difference between the price agreed upon when concluding the contract and the current market value on settlement date must be paid. Investors must therefore have greater liquid resources at their disposal for contracts with physical delivery than for contracts with cash settlement.

Special risks of over-the-counter forward transactions

As a rule, the market for standardized OTC forward transactions is transparent and liquid. Closing out is usually possible without any significant problems.

By contrast, there is no market as such for OTC forward transactions with individual contract specifications. Closing out is therefore only possible if counterparty is found who is prepared to conclude an offsetting contract.

Combined transactions

These transactions are understood to refer to various combinations of forward, spot and options transactions. Due to the diversity of possible variations, the risk structures arising in a specific instance cannot be dealt with in detail within the scope of this notice. Note that closing out individual elements of a combined transaction substantially alters the risk profile of the position as a whole, i.e. of the elements remaining open. Before investors conclude a transaction of this nature or close out individual elements of it, they should therefore make detailed enquiries about the specific risks involved.

In summary, in addition to the above risks, dealing in Future and Forwards may involve risks including but not limited to the following: credit risk, inflation risk, market risk, country risk, liquidity risk, leverage risk, exchange risk, other risks depending on underlying instruments

8.8.3 Additional risks common to futures and options

Terms and conditions of contracts

You should ask the firm with which you deal about the terms and conditions of the specific futures or options which you are trading and associated obligations (e.g., the circumstances under which you may become obligated to make or take delivery of the underlying interest of a futures contract and, in respect of options, expiration dates and restrictions on the time for exercise). Under certain circumstances the specifications

of outstanding contracts (including the exercise price of an option) may be modified by the exchange or clearing house to reflect changes in the underlying interest.

Suspension or restriction of trading and pricing relationships

Market conditions (e.g., illiquidity) and/or the operation of the rules of certain markets (e.g., the suspension of trading in any contract or contract month because of price limits or "circuit breakers") may increase the risk of loss by making it difficult or impossible to effect transactions or liquidate/offset positions. If you have sold options, this may increase the risk of loss. Placing a stop-loss order will not necessarily limit your losses to the intended amounts, because market conditions may make it impossible to execute such an order at the stipulated price.

Further, normal pricing relationships between the underlying interest and the future, and the underlying interest and the option may not exist. This can occur when, for example, the futures contract underlying the option is subject to price limits while the option is not. The absence of an underlying reference price may make it difficult to judge "fair" value.

Deposited cash and property

You should familiarize yourself with the protections accorded money or other property you deposit for domestic and foreign transactions, particularly in the event of a firm insolvency or bankruptcy. The extent to which you may recover your money or property may be governed by specific legislation or local rules. In some jurisdictions, property which had been specifically identifiable as yours will be pro-rated in the same manner as cash for purposes of distribution in the event of a shortfall.

Commissions and other charges

Before you begin to trade, you should obtain a clear explanation of all commissions, fees and other charges which you will or may incur for which you will or may be liable. These commissions, fees and charges will affect your net profit (if any) or increase your loss.

Transactions in other jurisdictions

Transactions on markets in other jurisdictions, including markets formally linked to a domestic market, may expose you to additional risk. Such markets may be subject to regulation which may offer different or diminished investor protection. Before you trade you should inquire about any rules relevant to your particular transactions. Your local regulatory authority will be unable to compel the enforcement of the rules of regulatory authorities or markets in other jurisdictions where your transactions have been effected. You should ask the firm with which you deal for details about the types of redress available in both your home jurisdiction and other relevant jurisdictions before you start to trade.

Trading facilities

Most open-outcry and electronic trading facilities are supported by computer-based component systems for the order routing, execution, matching, registration or clearing of trades. As with all facilities and systems, they are vulnerable to temporary disruption or failure. Your ability to recover certain losses may be subject to limits on liability imposed by the system provider, the market, the clearing house and/or member firms. Such limits may vary so you should ask the firm with which you deal for details in this respect.

Electronic trading

Trading on an electronic trading system may differ not only from trading in an open-outcry market but also from trading on other electronic trading systems. If you undertake transactions on an electronic trading system, you will be exposed to risks associated with the system including the failure of hardware and software. The result of any system failure may be that your order is either not executed according to your instructions or is not executed at all.

Off-exchange transactions

In some jurisdictions, and only then in restricted circumstances, firms are permitted to effect off-exchange transactions. The firm with which you deal may be acting as your counterparty to the transaction. In these situations, it may be difficult or impossible to liquidate an existing position, to assess the value, to determine

a firm price or to assess the exposure to risk. For these reasons, these transactions may involve increased risks. Off-exchange transactions may be less regulated or subject to a separate regulatory regime. Before you undertake such transactions, you should familiarize yourself with applicable rules and attendant risks.

8.9 Forward Rate Agreement (FRA)

Forward rate agreement (FRA) is an over-the-counter contract in which one party pays a fixed interest rate, and receives a floating interest rate equal to a reference rate (the underlying rate). The payments are calculated over a notional amount over a certain period, and netted, i.e. only the differential is paid. It is paid on the effective date.

Many banks and large corporations use FRAs to hedge future interest rate exposure. The buyer hedges against the risk of rising interest rates, while the seller hedges against the risk of falling interest rates. Other parties that use Forward Rate Agreements are speculators purely looking to make bets on future directional changes in interest rates.

The payer of the fixed interest rate is also known as the borrower or the buyer, whilst the receiver of the fixed interest rate is the lender or the seller.

What happens if the interest rate outlook changes after I have entered into the FRA?

If your view of interest rates changes at any time after you have entered into the FRA, you have two choices. You can terminate the FRA, in which case the Bank will calculate any residual value and either the Bank will pay you this amount or you will pay the amount to the Bank. The residual value will depend on current interest rates at the time of termination. Alternatively, you can enter into an equal but opposite FRA which cancels the original transaction, leaving a residual value to be paid on the commencement date of the new FRA.

8.9.1 Risks

By entering into a FRA you have expressed your view on interest rates. Should interest rate movements be different to your expectations the FRA may have the opposite effect to what you were trying to achieve with the transaction. Other risks are the country risk and credit risk.

8.10 SWAPS

A Swap is an agreement between two parties (the counterparties) to exchange a series of future cash flows at specified future times according to pre-specified conditions, typically with a notional principal and a stated maturity, often close to the date of the last cash flow.

The most common type is an **Interest Rate Swap**. **An interest rate swap is a contractual agreement between two counterparties under which each agrees to make periodic payment to the other for an agreed period of time based upon a notional amount of principal. The principal amount is notional because there is no need to exchange actual amounts of principal in a single currency transaction: there is no foreign exchange component to be taken account of. Equally, however, a notional amount of principal is required in order to compute the actual cash amounts that will be periodically exchanged.**

Under the commonest form of interest rate swap, a series of payments calculated by applying a fixed rate of interest to a notional principal amount is exchanged for a stream of payments similarly calculated but using a floating rate of interest. This is a fixed-for-floating interest rate swap. Alternatively, both series of cashflows to be exchanged could be calculated using floating rates of interest but floating rates that are based upon different underlying indices. Examples might be Libor and commercial paper or Treasury bills and Libor and this form of interest rate swap is known as a basis or money market swap.

Another common type of swap is **Currency Swaps**. It is contract which commits two counter-parties to exchange streams of interest payments in different currencies for an agreed period of time and to exchange principal amounts in different currencies at a pre-agreed exchange rate at maturity. In a currency swap, there is no exchange rate risk since the rate is set at the beginning of the contract.

8.10.1 Risks

In summary, in dealing in swap may involve risks including but not limited to the following: Interest rate risks, liquidity risk, credit risk and country risk

8.11 Structure products

Structured products are synthetic investment instruments specially created to meet specific needs that cannot be met from the standardized financial instruments available in the markets. Structured products can be used: as an alternative to a direct investment; as part of the asset allocation process to reduce risk exposure of a portfolio; or to utilize the current market trend; or investor view.

Structured products are usually issued by investment banks. They have a fixed maturity, and have two components: a note and a derivative. The derivative component is often an option. The note provides for periodic interest payments to the investor at a predetermined rate, and the derivative component provides for the payment at maturity. Some products use the derivative component as a put option written by the investor that gives the buyer of the put option the right to sell to the investor the security or securities at a predetermined price. Other products use the derivative component to provide for a call option written by the investor that gives the buyer of the call option the right to buy the security or securities from the investor at a predetermined price.

8.11.1 Risks

Structured transactions are complex and may involve a high risk of loss. Prior to entering into a transaction you should consult with your own legal, regulatory, tax, financial and accounting advisors to the extent you consider it necessary, and make your own investment, hedging and trading decisions (including decisions regarding the suitability of this transaction) based upon your own judgment and advice from those advisors you consider necessary.

Every structured product has its own risk profile since the risks of their individual components may be reduced, eliminated or increased. Since there is almost limitless potential to combine product elements, we cannot go into detail here about the risks involved in any particular case. Hence it is particularly important that you are fully aware of the risks involved before acquiring any such product. Such information can be found, for example, in the relevant product literature.

Before you invest in any structured product you should thoroughly review the particular investment's offering document(s) and related material(s) for a comprehensive description of risks and considerations associated with the particular investment. These may include but not be limited to, potential for loss; limited appreciation; issuer or guarantor credit risk; little or no secondary market; volatility of the underlying asset, potential for lower comparable yield than that of a conventional fixed rate debt security of the same issuer with comparable maturity; tax consequences and conflicts.

Structured products involve risks including but not limited to the following:

- Credit risk - structured products are unsecured debt from investment banks
- Lack of liquidity - structured products rarely trade after issuance and anyone looking to sell a structured product before maturity should expect to sell it at a significant discount

- No daily pricing - structured products are priced on a matrix, not net-asset-value. Matrix pricing is essentially a best-guess approach
- Highly complex - the complexity of the return calculations means few truly understand how the structured product will perform relative to simply owning the underlying asset.

8.12 Mutual Funds

An open-ended fund operated by an investment company which raises money from shareholders and invests in a group of assets, in accordance with a stated set of objectives. Mutual funds raise money by selling shares of the fund to the public, much like any other type of company can sell stock in itself to the public. Mutual funds then take the money they receive from the sale of their shares (along with any money made from previous investments) and use it to purchase various investment vehicles, such as stocks, bonds and money market instruments. In return for the money they give to the fund when purchasing shares, shareholders receive an equity position in the fund and, in effect, in each of its underlying securities. For most mutual funds, shareholders are free to sell their shares at any time, although the price of a share in a mutual fund will fluctuate daily, depending upon the performance of the securities held by the fund. Benefits of mutual funds include diversification and professional money management. Mutual funds offer choice, liquidity, and convenience, but charge fees and often require a minimum investment. There are many types of mutual funds, including aggressive growth fund, asset allocation fund, balanced fund, blend fund, bond fund, capital appreciation fund, closed fund, crossover fund, equity fund, fund of funds, global fund, growth fund, growth and income fund, hedge fund, income fund, index fund, international fund, money market fund, municipal bond fund, prime rate fund, regional fund, sector fund, specialty fund, stock fund, etc.

8.12.1 Advantages and Disadvantages

Every investment has advantages and disadvantages. But it's important to remember that features that matter to one investor may not be important to you. Whether any particular feature is an advantage for you will depend on your unique circumstances. For some investors, mutual funds provide an attractive investment choice because they generally offer the following features:

Professional Management: Professional money managers research, select, and monitor the performance of the securities the fund purchases.

Diversification: Diversification is an investing strategy that can be neatly summed up as "Don't put all your eggs in one basket." Spreading your investments across a wide range of companies and industry sectors can help lower your risk if a company or sector fails. Some investors find it easier to achieve diversification through ownership of mutual funds rather than through ownership of individual stocks or bonds.

Affordability: Some mutual funds accommodate investors who don't have a lot of money to invest by setting relatively low amounts for initial purchases, subsequent monthly purchases, or both.

Liquidity: Mutual fund investors can readily redeem their shares at the current NAV, plus any fees and charges assessed on redemption, at any time.

But mutual funds also have features that some investors might view as disadvantages, such as:

Costs Despite Negative Returns: Investors must pay sales charges, annual fees, and other expenses regardless of how the fund performs. And, depending on the timing of their investment, investors may also have to pay taxes on any capital gains distribution they receive - even if the fund went on to perform poorly after they bought shares.

Lack of Control: Investors typically cannot ascertain the exact make-up of a fund's portfolio at any given time, nor can they directly influence which securities the fund manager buys and sells or the timing of those trades.

Price Uncertainty: With an individual stock, you can obtain real-time (or close to real-time) pricing information with relative ease by checking financial websites or by calling your broker. You can also monitor how a stock's price changes from hour to hour, or even second to second. By contrast, with a mutual fund, the price at which you purchase or redeem shares will typically depend on the fund's NAV, which the fund might not calculate until many hours after you've placed your order.

8.12.2 Risk

Every type of investment, including mutual funds, involves risk. Risk refers to the possibility that you will lose money (both principal and any earnings) or fail to make money on an investment. A mutual fund's investment objective and its holdings are influential factors in determining how risky a mutual fund is. Reading the prospectus will help you to understand the risk associated with that particular mutual fund.

Generally speaking, risk and potential return are related. This is the risk/return trade-off. Higher risks are usually taken with the expectation of higher returns at the cost of increased volatility. While a mutual fund with higher risk has the potential for higher return, it also has the greater potential for losses or negative returns. The school of thought when investing in mutual funds suggests that the longer your investment time horizon is the less affected you should be by short-term volatility. Therefore, the shorter your investment time horizon, the more concerned you should be with short-term volatility and higher risk.

Different mutual fund categories have inherently different risk characteristics and should not be compared side by side. A bond fund with below-average risk, for example, should not be compared to a stock fund with below average risk. Even though both funds have low risk for their respective categories, stock funds overall have a higher risk/return potential than bond funds.

Mutual funds face risks based on the investments they hold. For example, a bond fund faces interest rate risk and income risk. Bond values are inversely related to interest rates. If interest rates go up, bond values will go down and vice versa. Bond income is also affected by the change in interest rates. Bond yields are directly related to interest rates falling as interest rates fall and rising as interest rise. Income risk is greater for a short-term bond fund than for a long-term bond fund.

Similarly, a sector stock fund (which invests in a single industry, such as telecommunications) is at risk that its price will decline due to developments in its industry. A stock fund that invests across many industries is more sheltered from this risk defined as industry risk.

Mutual funds involve risks, depending on the investments made, including but not limited to the following:

- **Call Risk.** The possibility that falling interest rates will cause a bond issuer to redeem - or call - its high-yielding bond before the bond's maturity date.
- **Country Risk.** The possibility that political events (a war, national elections), financial problems (rising inflation, government default), or natural disasters (an earthquake, a poor harvest) will weaken a country's economy and cause investments in that country to decline.
- **Credit Risk.** The possibility that a bond issuer will fail to repay interest and principal in a timely manner. Also called default risk.
- **Currency Risk.** The possibility that returns could be reduced by investing in foreign securities because of a rise in the value of the local currency against foreign currencies. Also called exchange-rate risk.

- **Income Risk.** The possibility that a fixed-income fund's dividends will decline as a result of falling overall interest rates.
- **Industry Risk.** The possibility that a group of stocks in a single industry will decline in price due to developments in that industry.
- **Inflation Risk.** The possibility that increases in the cost of living will reduce or eliminate a fund's real inflation-adjusted returns.
- **Interest Rate Risk.** The possibility that a bond fund will decline in value because of an increase in interest rates.
- **Manager Risk.** The possibility that an actively managed mutual fund's investment adviser will fail to execute the fund's investment strategy effectively resulting in the failure of stated objectives.
- **Market Risk.** The possibility that stock fund or bond fund prices overall will decline over short or even extended periods. Stock and bond markets tend to move in cycles, with periods when prices rise and other periods when prices fall.
- **Principal Risk.** The possibility that an investment will go down in value, or "lose money," from the original or invested amount.

As it is mentioned above, every type of mutual fund has its own risk profile. So it is particularly important that you are fully aware of the risks involved before acquiring any such product. Such information can be found, for example, in the relevant product literature (i.e. fund's prospectus etc).

8.13 UCITS - (Undertakings for Collective Investment in Transferable Securities)

UCITS are open-ended undertaking for collective investment in transferable securities. (UCITS) is an undertaking the sole object of which is the collective investment in transferable securities and/or in other liquid financial assets of capital raised from the public, and which operates on the principle of risk-spreading and the units of which are, at the request of holders, redeemed, directly or indirectly, out of this undertaking's assets. In plain terms, UCITS are open-ended collective funds raised from investors. These joint funds are being managed by a Management Company and are being safe kept by a Custodian. The funds (assets) of a UCITS are divided into equal units which belong in their entirety to the unit holders depending on the units that every unit holder possesses. Unit holders have a share in profits as well as in loss and costs that may arise while managing and investing UCITS's assets

- The net value of a UCITS unit is calculated upon the value of the UCITS's assets minus the liabilities and expenses divided by number of the units in circulation. Some of the UCITS liabilities and expenses include the remuneration of the Management Company, the Custodian's remuneration and other expenses and costs arising from the management and administration of a UCITS;
- The price at which an investor will purchase a UCITS unit is equal to its Issue Price (Issue price = net unit value + issue's commission percentage);
- The price at which an investor will redeem his/hers units is equal to the unit's redemption price (Redemption Price = net unit value – Redemption Commission Percentage);
- The Issue price and the Redemption price of a UCITS unit is possible to exceed or to fall short of the net unit value respectively, calculated in accordance with the issue's and Redemption's commission percentage respectively, according to the UCITS Regulation, Status or Articles of Incorporation.

8.13.1 Risks

From the point of view of investors, UCITS are subject to financial risks and to certain operational risks that can materialize into capital losses or poor investment performance.

Among financial risks, market risk is typically referred to as the liability to fluctuations in the market value of the securities invested by the funds, which may vary over time reflecting different market conditions.

When factors other than market risk become relevant, the overall financial exposure of an investment fund may depend also on additional specific risk drivers that emerge only at the aggregate portfolio level. This is the case, for instance, for concentration risk or for certain aspects of liquidity risk, when liquidity is understood as the ability of a UCITS to meet, at a reasonable cost, its obligations (redemptions or debt reimbursement) as they become due.

From the point of view of UCITS investors, operational risks are attached to the different features and quality of the trading, settlement and valuation procedures operated by the Companies, which may increase the chances of losses due to human or technical errors.

There are different types of UCITS and every type of UCITS has its own risk profile. So it is particularly important that you are fully aware of the risks involved before acquiring any such product. Such information can be found, for example, in the relevant product literature (i.e. UCITS's prospectus etc).

In summary the dealing in UCITS may involve risks, depending on the type of UCITS, including but not limited to the following: credit risk, legal risk, operational risk, market risk, country risk, liquidity risk, settlement risk, exchange risk, interest-rate risk.

8.14 Hedge Funds

A Hedge fund, usually used by wealthy individuals and institutions, which is allowed to use aggressive strategies that are unavailable to mutual funds, including short selling, leverage, swaps, arbitrage, and derivatives. Hedge funds are exempt from many of the rules and regulations governing other mutual funds, which allows them to accomplish aggressive investing goals.

Each fund has its own strategy which determines the type of investments and the methods of investment it undertakes. Hedge funds, as a class, invest in a broad range of investments including shares, debt, commodities and so forth.

As the name implies, hedge funds often seek to offset potential losses in the principal markets they invest in by hedging their investments using a variety of methods, most notably short selling. However, the term "hedge fund" has come to be applied to many funds that do not actually hedge their investments, and in particular to funds using short selling and other "hedging" methods to increase rather than reduce risk, with the expectation of increasing return.

The net asset value of a hedge fund can run into many billions of dollars, and this will usually be multiplied by leverage. Hedge funds dominate certain specialty markets such as trading within derivatives with high-yield ratings and distressed debt.

8.14.1 Risks

Positions in hedge funds may carry financial risks of a special kind and should only be taken up by investors who have sufficient knowledge of the particular hedge fund, substantial liquid resources and are able to carry potential losses.

In addition to the normal investment risks (credit risk, currency risk, interest rate risk), hedge funds carry further risks. These include the size risk (optimum size), operational risks (e. g. human risk, organizational risks) or strategy change risks. It is difficult for the investor to detect assess and control all these different aspects as the information policy of hedge funds is generally rather sparse and lacking in transparency.

The liquidity and tradability of hedge funds 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.

Hedge fund can take countless different forms. Hence we cannot go into detail here about the risks involved in any particular case. Before making any such investments, be sure to seek comprehensive advice about the particular risks involved and to carefully study any offers.

8.15 Repo (Repurchase agreement)

Repo is an agreement in which one party sells a security to another party and agrees to repurchase it on a specified date for a specified price. In other words it is an agreement with a commitment by the seller (borrower) to buy a security back from the purchaser (lender) at a specified price at a designated future date. Repo represents a collateralized short-term loan for which, where the collateral may be a Treasury security, money market instrument, or mortgage-backed security. From the purchaser's (lender) perspective, the deal is reported as a Reverse Repo.

So a Reverse Repo is simply the same repurchase agreement from the buyer's viewpoint, not the seller's. Hence, the seller executing the transaction would describe it as a "Repo", while the buyer in the same transaction would describe it a "Reverse Repo". So "Repo" and "Reverse Repo" are exactly the same kind of transaction, just described from opposite viewpoints.

A Repo is equivalent to a cash transaction combined with a forward contract. The cash transaction results in transfer of money to the borrower in exchange for legal transfer of the security to the lender, while the forward contract ensures repayment of the loan to the lender and return of the collateral of the borrower. The difference between the forward price and the spot price is the interest on the loan while the settlement date of the forward contract is the maturity date of the loan

8.15.1 Structure and terminology

A Repo is economically similar to a secured loan, with the buyer (effectively the lender or investor) receiving securities as collateral to protect against default of the seller (effectively the borrower). Almost any security may be employed in a Repo, though practically speaking highly liquid securities are preferred because they are more easily disposed of in the event of a default and, more importantly, they can be easily secured in the open market where the buyer has created a short position in the Repo security through a Reverse Repo and market sale. By the same token, illiquid securities are discouraged. Unlike a secured loan, however, legal title to the securities clearly passes from the seller to the buyer.

The following table summarizes the terminology:

	Repo	Reverse Repo
Participant	Borrower Seller Cash receiver	Lender Buyer Cash provider
Near leg	Sells securities	Buys securities



Far leg	Buys securities	Sells securities
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8.15.2 Risks

While classic Repos are generally credit-risk mitigated instruments, there are residual credit risks. Though it is essentially a collateralized transaction, the seller may fail to repurchase the securities sold at the maturity date. In other words, the Repo seller defaults on his obligation. Consequently, the buyer may keep the security, and liquidate the security in order to recover the cash lent. The security, however, may have lost value since the outset of the transaction as the security is subject to market movements. To mitigate this risk, Repos often are over collateralized as well as being subject to daily mark-to-market margining. Credit risk associated with Repo is subject to many factors: term of Repo, liquidity of security, the strength of the counterparties involved, etc.

Like other financial markets, Repo markets are subject to some credit risk, operational risk and liquidity risk. However, what distinguishes the credit risk on Repos from that associated with uncollateralised instruments is that Repo credit exposures arise from volatility (or market risk) in the value of collateral. For example, a decline in the price of securities serving as collateral can result in an under-collateralisation of the Repo. Liquidity risk arises from the possibility that a loss of liquidity in collateral markets will force liquidation of collateral at a discount in the event of a counterparty default. Leverage that is built up using Repos can increase these risks. While leverage facilitates the efficient operation of financial markets, rigorous risk management by market participants using leverage is important to maintain these risks at prudent levels.

APPENDIX 1
Risks inherent in securities transactions

Risks which are assigned to the individual types of securities are listed in the following table:

Type of security	Risk
Shares	<ul style="list-style-type: none"> • credit risk • market risk • unsystematic risk • country risk • liquidity risk • exchange risk • interest-rate risk (indirect)
Rights	limited to the duration of the subscription period: <ul style="list-style-type: none"> • market risk • liquidity risk
Mutual fund units (bond, equity, money market, mixed securities, precious metal, commodities, real-estate funds)	Vary depending on the investments made (fund rules and regulations): <ul style="list-style-type: none"> • credit risk • inflation risk • market risk • country risk • liquidity risk • exchange risk • interest-rate risk
<ul style="list-style-type: none"> - Debenture bonds - Eurobonds - Perpetual bonds 	<ul style="list-style-type: none"> • credit risk • inflation risk • market risk • country risk • liquidity risk • exchange risk (in the case of foreign currency bonds) • interest rate risk
Mortgage bonds	<ul style="list-style-type: none"> • inflation risk • market risk • liquidity risk • interest-rate risk
Medium-term, bank-issued bonds	<ul style="list-style-type: none"> • credit risk • inflation risk • market risk • liquidity risk • interest-rate risk
Treasury bonds	<ul style="list-style-type: none"> • monetary risk • market risk • exchange risk • interest-rate risk
Treasury bills	<ul style="list-style-type: none"> • inflation risk • market risk • liquidity risk • exchange risk
Certificates of Deposit (CD)	<ul style="list-style-type: none"> • credit risk • inflation risk • market risk



	<ul style="list-style-type: none"> • liquidity risk • exchange risk
<ul style="list-style-type: none"> - Convertible bonds - Warrant-linked bonds, with warrants 	<ul style="list-style-type: none"> • credit risk • inflation risk • market risk • country risk • liquidity risk • exchange risk • interest-rate risk
<ul style="list-style-type: none"> - Warrant-linked bonds, - Warrants (stock options) 	<ul style="list-style-type: none"> • credit risk • inflation risk (partial) • high market risk due to leverage • country risk • liquidity risk • exchange risk • interest-rate risk (indirect)
<p>Calls (standardized purchase options)</p>	<p>for the purchaser: Same as warrants</p> <p>for the writer: (in uncovered trading)</p> <ul style="list-style-type: none"> • credit risk • high market risk due to leverage • country risk • liquidity risk • exchange risk • interest-rate risk (indirect) • risk of having to sell the instruments underlying the call at less than the current market value
<p>Puts (standardized selling options)</p>	<p>for the purchaser: Same as warrants</p> <p>for the writer:</p> <ul style="list-style-type: none"> • credit risk • high market risk due to leverage • country risk • liquidity risk • exchange risk • interest-rate risk (indirect) • risk of having to purchase the instruments underlying the put at more than the current market value
<p>Futures (standardized forward contract)</p>	<ul style="list-style-type: none"> • high market risk due to leverage • country risk • exchange risk • other risks depending on underlying instruments
<p>Over-the-counter derivative instruments (non-standardized options and forward transactions)</p>	<p>Same as calls, puts, futures but with increased liquidity risk</p>