

# PROFESSIONAL ENGLISH by M. Belogash

## UNIT 9 DERIVATIVES

### 9.1 Getting started.

Starting in the 1970s and increasingly in the 1980s and 1990s, the world became a riskier place for financial institutions. Swings in interest rates widened, and the bond and stock markets became increasingly volatile. As a result of these developments, managers of financial institutions have become more concerned with reducing the risk their institutions face. The process of financial innovation came to the rescue by producing new financial instruments, called financial derivatives, whose payoffs are linked to previously issued securities and are extremely useful risk reduction tools.

In this unit we look at the most important financial derivatives: forward contracts, financial futures, options, and swaps. We examine not only how markets for each of these tools work but also how each can be used to reduce risk.

#### Discuss the following points:

1. Why do you think financial markets have become riskier and more volatile since the 1970s?
2. Why do you think such hedging instruments as swaps and options are highly risky?
3. Would you like to have a job which required you to buy and sell these products?

#### 9.2 Look through the following vocabulary notes which will help you understand the text and discuss the topic.

a financial institution	ФИНАНСОВЫЙ ИНСТИТУТ
volatile	ВОЛАТИЛЬНЫЙ, НЕУСТОЙЧИВЫЙ
volatility	ВОЛАТИЛЬНОСТЬ

a derivative	производный финансовый инструмент, дериватив
a forward contract	форвардный контракт (вид дериватива), соглашение о купле продаже товара или финансового инструмента с поставкой и расчетом в будущем.
a financial futures contract	фьючерсный контракт, фьючерс, срочная биржевая сделка с финансовыми или кредитными инструментами.
an option	опцион (вид дериватива), ценные бумаги, дающие их владельцу право купить или продать в течение установленного срока определенное количество акций, других ценных бумаг по фиксированной цене.
a swap	своп (вид дериватива), сделка с последующей контрсделкой.
a warrant	варрант, долгосрочные опционы на приобретение установленного количества обыкновенных акций по оговоренной цене.
a stock index	фондовый индекс
a stock index futures contract	фьючерсный контракт на фондовый индекс; фьючерс индексный, срочная биржевая сделка с контрактами, основанными на базе фондовых или других индексов.
a financial futures option	опцион на финансовый фьючерс, опцион, дающий право на покупку или продажу фьючерсного контракта с заданным месяцем поставки и определенным базисным активом. Обычно срок базисных фьючерсных контрактов заканчивается вскоре после даты истечения опционного контракта.
swaption	свопцион (вид дериватива), контракт, дающий право его покупателю заключить сделку «своп» на определённую дату в будущем.
credit option	кредитный опцион, производный инструмент, который зависит от кредитного рейтинга заемщиков; покупатель защиты

	выплачивает продавцу вознаграждение, за которое последний обязан компенсировать снижение кредитного рейтинга заемщика.
to eliminate risk	исключить риск
a long position	длинная позиция
a short position	короткая позиция
to expose to risk	подвергать риску
risk exposure	риск потенциальных убытков
to offset risks	компенсировать риски
to engage in	заниматься чем-либо
face value, nominal value, par value	номинальная стоимость
a treasury bond	казначейская облигация
a premium	премия по опциону
to lock in	зафиксировать
a counterparty	контрагент
default risk	риск невозврата, невыполнения обязательства
an exchange	биржа
to overcome risk	преодолеть риск
to standardize	стандартизировать
a clearing house	клиринговая (расчетная) палата, организация при фьючерсной бирже, при помощи которой производятся расчеты по сделкам, заключаемым в торговом зале биржи, посредством сверки всех покупок и продаж.
a margin requirement	предписываемая законом маржа
a margin account	маржинальный счет
to fluctuate	колебаться, быть неустойчивым
a brokerage firm	брокерская фирма
to be associated with	быть ассоциированным, связанным с
to be settled with a cash delivery	произвести расчет наличными
cash settlement	расчет наличными
a portfolio of	портфель ценных бумаг (акций, облигаций)

stocks	
option writer	продавец опциона
option buyer	покупатель опциона
Call option	опцион колл, опцион на покупку
Put option	опцион пут, опцион на продажу
to exercise an option	исполнить, погасить опцион
a strike price	цена страйк, заранее оговорённая цена базового актива? цена исполнения.
currency option	валютный опцион, контракт, который предоставляет право (но не обязательство) одному из участников сделки купить или продать определенной количество ин. валюты по фиксированной цене в течение определенного периода времени.
expiration date	срок истечения
an underlying asset	базовый актив, базовая переменная дериватива
currency swap	валютный своп, комбинация двух противоположных конверсионных сделок на одинаковую сумму с разными датами валютирования.
interest rate swap	процентный своп, соглашения между двумя сторонами об обмене процентными платежами на определенную, заранее оговоренную условную сумму.
fixed rate	фиксированная ставка
variable rate	переменная ставка
fraud	мошенничество, афера
to hedge	хеджировать, страховать от потерь
hedging	хеджирование, страхование
at-the-money option	опцион по цене контракта, опцион, цена исполнения которого равна рыночной стоимости обеспечивающих его активов.
out-of-the-money option	опцион без денег, неприбыльный опцион - - опцион колл, цена исполнения которого превышает рыночную цену базисного актива; или - опцион пут, цена исполнения которого ниже рыночной цены базисного

	актива.
in-the-money option	опцион в деньгах, опцион, который имеет внутреннюю стоимость. т.е. для опционов колл — это ситуация, когда текущая цена базового актива выше цены исполнения (страйка) колла. Для путов соответственно наоборот, когда цена базового актива ниже цены страйк пута.
Options Clearing Corporation or OCC	клиринговая (расчетная) корпорация по опционам
exercise request	просьба о погашении (исполнении) опциона
exercise notion	уведомление о погашении (исполнении) опциона
random selection	случайный выбор
assignment	переуступка, правопередача
assignee	назначенное лицо, правопреемник

### 9.3 Reading

#### Hedging with Financial Derivatives

Financial derivatives enable financial institutions to hedge or engage in financial transactions which reduce or eliminate risk. When a financial institution has bought an asset, it is said to have taken a long position, and this exposes the institution to risk if the returns on the asset are uncertain. On the other hand, if it has sold an asset that it has agreed to deliver to another party at a future date, it is said to have taken a short position, and this can also expose the institution to risk. Financial derivatives can be used to reduce risk by invoking the following basic principle of hedging: *Hedging risk involves engaging in a financial transaction that offsets a long position by taking an additional short position, or offsets a short position by taking an additional long position.* We first look at how this principle is applied using forward contracts.

*Forward contracts* are agreements by two parties to engage in a financial transaction at a future (forward) point in time. Here we focus on forward contracts that are linked to debt instruments, called interest-

rate forward contracts. An example of it might be an agreement for the First National Bank to sell to the Rock Solid Insurance Company, one year from today, \$5 million face value of Treasury bonds at a price that yields the same interest rate on these bonds as today's, say 6%. Rock Solid has taken a long position, while the First National has taken a short position. The previously bought \$5 million of Treasury bonds are long-term bonds and the First National is exposed to interest-rate risk. How to hedge this risk? Following the basic principle of hedging, the First National wants to offset its long position in bonds by an equal short position for the same bonds with a forward contract, that is to sell these bonds at a future date at a current par value price. By entering into this forward contract with Rock Solid, the First National has locked in the future price and eliminated the price risk from interest-rate changes.

Why would the Rock Solid Insurance Company want to enter into the forward contract with the First National Bank? It expects to receive premiums of \$5 million in one year's time that it will want to invest in the Treasury bonds but worries that interest rates on these bonds will decline between now and next year. By using this forward contract, it is able to lock in the 6% interest rate on the Treasury bonds which will be sold to it by the First National Bank.

The advantage of forward contracts is that they can be as flexible as the parties involved want them to be. However, forward contracts suffer from two problems. The first is that it may be very hard for an institution to find a counterparty to make the contract with. The second problem is that forward contracts are subject to default risk because there is no outside organization guaranteeing the contract. Given the default risk and liquidity problems in the interest-rate forward market, another solution to hedging interest-rate risk was needed. This solution was provided by the development of financial futures contracts by the Chicago Board of Trade starting in 1975.

A *financial futures contract* is similar to an interest-rate forward contract in that it specifies that a financial instrument must be delivered by one party to another on a stated future date. However, it differs from

an interest-rate forward contract in several ways that overcome some of the liquidity and default problems of forward markets.

The First National Bank can also use financial futures to hedge against the interest-rate risk on its holdings of \$5 million of Treasury bonds. The basic principle of hedging indicates that it needs to offset the long position in these bonds with a short position, so the bank has to sell 50 \$100,000 futures contracts to remove its interest-rate exposure from its \$5 million of Treasury bonds. Financial futures contracts are traded in the United States on organized exchanges such as the Chicago Board of Trade, the Chicago Mercantile Exchange, the New York Futures Exchange, etc. These exchanges are highly competitive with one another and are regulated by government authorities. In contrast to forward contracts, the quantities delivered and the delivery dates of futures contracts are standardized, making it more likely that different parties can be matched up in the futures market, thereby increasing the liquidity of the market. Trading in the futures market has been organized to overcome the default risk problems arising in forward contracts: buyers and sellers contract not with each other but with the clearinghouse associated with the futures exchange. To make sure that the clearinghouse is financially sound and does not run into difficulties, buyers and sellers of futures contracts must put in an initial deposit, called a margin requirement, of perhaps \$2,000 per Treasury bond contract into a margin account kept at their brokerage firm.

Financial institution managers, particularly those of mutual funds, pension funds, and insurance companies, also worry about stock market risk because stock prices fluctuate. *Stock index futures* were developed in 1982 to meet the need to manage stock market risk. Let's look at the Standard & Poor's 500 Index futures contract, the most widely traded stock index futures contract in the United States. Such contracts differ from most other financial futures contracts in that they are settled with a cash delivery rather than with the delivery of a security. Cash settlement makes these contracts highly liquid.

Suppose that in March 2010 the Rock Solid Insurance Company has a portfolio of stocks valued at \$100 million that moves with the S&P

Index. Suppose that the March 2011 S&P 500 Index futures contracts are currently selling at a price of 1,000 (that is \$250,000). How many of these contracts should Rock Solid sell so that it hedges the stock market risk of this portfolio over the next year? The company must offset the risk by taking a short position on which it sells 400 \$250,000 contracts.

Another vehicle for hedging interest-rate and stock market risk involves the use of *options on financial instruments*. Options are contracts that give the purchaser the option, or right, to buy or sell the underlying financial instrument at a specified price, called the exercise price or strike price, within a specific period of time. The seller (the writer) of the option is obligated to buy or sell the financial instrument to the purchaser if the owner of the option exercises the right to sell or buy. The owner or buyer of an option does not have to exercise the option; he or she can let the option expire without using it. The owner of an option is not obligated to take any action but rather has the right to exercise the contract if he or she chooses. The seller of an option, by contrast, has no choice in the matter: he or she must buy or sell the financial instrument if the owner exercises the option. Because the right to buy or sell has value, the owner of an option pays an amount for it called a premium. *American options* can be exercised at any time to the expiration date of the contract, and *European options* can be exercised only on the expiration date. Option contracts are written on a number of financial instruments. Options on individual stocks are called stock options. Option contracts on financial futures called *financial futures options*, or, more commonly, futures options, were developed in 1982 and have become the most widely traded option contracts. The regulation of option markets is split between the Securities and Exchange Commission (SEC), which regulates stock options, and the Commodity Futures Trading Commission (CAEC), which regulates futures options. Regulation focuses on ensuring that writers of options have enough capital to make good on their contractual obligations and on overseeing traders and exchanges to prevent fraud and ensure that the market is not being manipulated. The factors that determine the premium on an option contract are:

1. The higher the strike price, everything else being equal, the lower the premium on CALL (buy) options and the higher the premium on PUT (sell) options.
2. The greater the term of expiration, everything else being equal, the higher the premiums for both CALL and PUT options.
3. The greater the volatility of prices of the underlying financial instrument, everything else being equal, the higher the premiums for both CALL and PUT options.

In addition to forwards, futures, and options, financial institutions use one other important financial derivative to manage risk. *Swaps* are financial contracts that obligate each party to the contract to exchange (swap) a set of payments it owns for another set of payments owned by another party. There are two basic types of swaps: *currency swaps* involve the exchange of a set of payments in one currency for a set of payments in another currency. *Interest-rate swaps* involve the exchange of one set of (fixed rate) interest payments for another set of (variable rate) interest payments, all denominated in the same currency. The latter appeared in the United States in 1982 when there was an increase in the demand for financial instruments that could be used to reduce interest-rate risk.

## **9.4 Comprehension**

### **9.4.1 Answer the questions using the active vocabulary and Unit 7 Glossary.**

1. What are financial derivatives?
2. When is a financial institution said to have taken a long position? 3. When is a financial institution said to have taken a short position? 4. Why are both positions risky unless they offset each other?
5. What is the basic principle of hedging?
6. How can a forward contract be defined?
7. Give an example of an interest-rate forward contract. How does it hedge against interest rate risk?

8. What are the advantages and disadvantages of forward contracts? 9. How does a financial futures contract remedy the problems associated with forward contracts?
10. What is the difference between a forward contract and a futures contract?
11. Where are financial futures contracts traded?
12. Why is the financial futures market more liquid than the forward contracts market?
13. What are the functions of a clearing house?
14. What risks does a stock index futures contract eliminate?
15. What makes stock index futures contracts highly liquid?
16. What is an option? What makes it superior to forward or futures contracts in terms of hedging?
17. What kinds of options do you know?
18. What kind of option would you prefer to buy (call or put), if you expect the price of a stock to rise?
19. What kind of option would you prefer to sell (put or call), if you expect the price of a stock to rise?
20. How does the amount of premium depend on the strike price, the term of expiration, and the volatility of prices?
21. What do you know about different types of swaps?

**9.4.2 Mark these statements T(true) or F(false) according to the information in the Text and Glossary. If they are false say why.**

1. Derivatives are securities whose price is dependent upon or derived from one or more underlying assets.
2. The buying of a security such as a stock, commodity or currency, with the expectation that the asset will rise in value means to have a short position.
3. The sale of a borrowed security, commodity or currency with the expectation that the asset will fall in value means to have a long position.
4. Hedging is taking an offsetting position in a related security.

5. A forward contract is a cash market transaction in which delivery of the commodity is deferred until after the contract has been made.
6. Most forward contracts don't have standards and aren't traded on exchanges.
7. Futures contracts detail the quality and quantity of the underlying asset; they are standardized to facilitate trading on a futures exchange.
8. Financial futures contracts call for physical delivery of the asset.
9. Financial futures contracts are traded over the counter.
10. Stock index futures contracts are settled with a cash delivery rather than with the delivery of a security.
11. Put option is a contract giving the owner the right, but not the obligation, to sell a specified amount of an underlying security at a specified price within a specified time.
12. A call option gives the holder the right to buy shares.
13. A put becomes less valuable as the price of the underlying stock depreciates relative to the strike price.
14. Margin requirement is a sum of money that must be kept in an account at a brokerage firm.
15. There is generally less risk and volatility when using futures options instead of futures.
16. The higher the strike price, everything else being equal, the higher the premium on CALL (buy) options and the lower the premium on PUT (sell) options.
17. The greater the term of expiration, everything else being equal, the higher the premiums for both CALL and PUT options.
18. A plain vanilla option can be opposed to an exotic option.
19. Swap is traditionally the exchange of one security for another to change the maturity (bonds), quality of issues (stocks or bonds), or because investment objectives have changed.

## **9.5 Language practice**

### **9.5.1 Match the English terms in the left-hand column with the definition in the right-hand column.**

1	Warrant	A	A stock index in which each stock influences the index in proportion to its price per share.
2	Underlying asset	B	An advantageous arrangement between two parties (counterparties), in which one party pays a fixed rate, while the other pays a floating rate.
3	Swap	C	The total cost of an option.
4	Strike price	D	A futures contract on a stock or financial index.
5	Stock option	E	An exchange of one security for another to change the maturity (bonds), quality of issues (stocks or bonds), or because investment objectives have changed.
6	Russell 2500 index	F	An interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market.
7	Price-weighted index	G	An arrangement between two parties in which both parties pay a fixed interest rate that they could not otherwise obtain outside of a swap arrangement.
8	Premium	H	A derivative security that gives the holder the right to purchase securities (usually equity) from the issuer at a specific price within a certain time frame.
9	LIBOR	I	A contractual agreement, generally made on the trading floor of a futures exchange, to buy or sell a particular commodity or financial instrument at a pre-determined price in the future.
10	Interest rate swap	J	In the U.K., it is known as a "share option".

11	Index futures contract	K	The day on which an options or futures contract is no longer valid and, therefore, ceases to exist.
12	Hedge	L	A derivative security that gives the holder the right to purchase securities (usually equity) from the issuer at a specific price within a certain time frame.
13	Futures contract	M	An agreement between two parties (known as counterparties) where one stream of future interest payments is exchanged for another based on a specified principal amount.
14	Fixed-for-floating swap	N	A broad index featuring 2,500 stocks that cover the small and mid cap market capitalizations.
15	Fixed-for fixed swap	O	Making an investment to reduce the risk of adverse price movements in an asset.
16	Financial engineering	P	The price at which a specific derivative contract can be exercised.
17	Expiration date	Q	A multidisciplinary field relating to the creation of new financial instruments and strategies, typically exotic options and specialized interest rate derivatives.

**9.5.2 Complete the following text using the suitable words or phrases from the box.**

A	future date	E	sell
B	hedging	F	a security
C	long position	G	buy
D	conducts a hedge	H	short position

### **The Basic Principle of Hedging**

According to the basic principle of \_\_\_\_ (1) \_\_\_\_, if a financial institution has bought \_\_\_\_ (2) \_\_\_\_ and has therefore taken a

\_\_\_\_(3)\_\_\_\_, it conducts a hedge by contracting to \_\_\_\_ (4)\_\_\_\_ that security (take a short position) at some \_\_\_\_ (5)\_\_\_\_. Alternatively, if it has taken a \_\_\_\_ (6)\_\_\_\_ by selling a security that it needs to deliver at a future date, then it \_\_\_\_ (7)\_\_\_\_ by contracting to \_\_\_\_ (8)\_\_\_\_ that security (take a long position) at a future date.

### **9.5.3 Complete the text. Replace the Russian words and phrases by the English equivalents.**

#### **In-the-Money and Out-of-the-Money**

Selling or writing *опционные контракты* involves the *обязательство* either to deliver or to buy assets, if the buyer *погашает опцион* – chooses to make the trade. For this the seller (writer) receives a fee called *премия по опциону* from the buyer. But *продавцы опционов* do not expect them to be exercised. For example, if you expect the *цена акции* to rise from 100 to 120, you can buy a *опцион колл* giving the right to buy the stock at 110. If the stock price *не повысится* to 110, you will not *погасите* the option, and the *продавец опциона* will gain the premium. Your option will be *без денег*, as the stock is trading at *ниже цены страйк* or exercise price of 110, the price stated in the option. If *с другой стороны*, the *цена акции* rises above 110, you are *в деньгах*: you can *исполнить опцион* and you will gain the *разница* between the *текущая рыночная цена* and 110. If the market moves in an unexpected direction, the *продавцы опционов* can *потерять* enormous *суммы денег*.

### **9.5.4 Text for discussion.**

**a. Look up the dictionary or Unit 9 Glossary for the meaning and pronunciation of the following words and word-combinations and use them to discuss the problems outlined in the text.**

To exercise an option; options trading broker; chain of events; resolution of an options contract; cease to exist; exercise

request; Options Clearing Corporation or OCC; exercise notice; random selection; the underlying stock; account holders; assignees.

**b. Briefly scan the text and outline the list of major points.**

**c. Read the text more carefully and comment on the following items using the information given in Fig. 1:**

- the whole chain of events leading to the eventual resolution of an options contract;
- the importance of the Options Clearing Corporation or OCC and its functions;
- the reasons for using the random selection method in the process of clearing.

### **What Happens When an Option is Exercised?**

When you exercise an option, a request is sent to your options trading broker that sets off a whole chain of events leading to the eventual resolution of an options contract that will cease to exist after that. When the exercise request is received by your options broker, that request to exercise an option is sent to the Options Clearing Corporation or OCC in the form of an "Exercise Notice". The Options Clearing Corporation is the entity responsible for ensuring that all options contracts are successfully settled when exercised and is the biggest clearing organization in the world for financial derivative instruments. Once the exercise notice is received by the OCC, the OCC will randomly select a member firm that is short on that same options contract being exercised for assignment. The selected firm then fulfills the terms of the options contract by delivering the underlying stock if it is a call option being exercised or by paying for the underlying stock if it is a put option that is being exercised. After that, the selected firm selects one or more of its account holders who are short on that same options contract for assignment. The delivery of the stocks or the paying for the stocks by the firm would come from these selected assignees. Every broker or firm would have their own procedure for selecting accounts for assignment but the most commonly used method is random selection. This whole complex

process takes place all within just a few minutes with the net result reflected in your account.



Fig. 1 Process When You Exercise An Option

**9.6 Render the passage in English using the English equivalents of the italicized phrases given in Russian. Express the main idea of the passage in one sentence.**

### **Варранты и Свопы**

Некоторые компании *выпускают* (**issue**) варранты, которые *подобно* (**like**) опционам, дают право, а не обязательство, купить акции в будущем по *определенной* (**particular**) цене, *возможно* (**probably**) более высокой, чем текущая рыночная цена. Варранты обычно выпускаются *вместе с* (**along with**) облигациями, но они *могут быть отделены* (**can be detached**) от облигаций и *продаваться отдельно* (**traded separately**). *В отличие от* (**unlike**) опционов колл, которые *длятся* (**last**) три, шесть или девять месяцев, варранты имеют *большие сроки истечения* (**long maturities of**) до десяти лет.

Свопы – это *договоренности* (**arrangements**) между институтами обменяться процентными ставками или валютами (доллары на йены). На пример, компания, которая взяла в долг деньги, *выпустив векселя с плавающей процентной ставкой* (**by issuing floating-rate notes**) могла бы *защитить себя от*

повышения (**protect itself from a rise in**) процентных ставок, договорившись с банком (**by arranging with a bank**) обменять (**to swap**) свои платежи с плавающей ставкой на платежи с фиксированной ставкой, если банк *ожидает*, что процентные ставки упадут (**expects interest rates to fall**).

**Professional English**  
**Unit 9 Reading Self – Control Test**  
**Hedging with Financial Derivatives**

**1. Which of the following is the main idea of the text?**

- (A) Different types of forward contracts .
- (B) Advantages and disadvantages of hedging.
- (C) The basics of trading in options.
- (D) Hedging risk involves engaging in a financial transaction that offsets a long position by taking an additional short position, or offsets a short position by taking an additional long position by means of derived financial instruments of forward markets.

**2. What is most likely the audience the text is addressed to?**

- (A) commercial bankers
- (B) finance students
- (C) government officers
- (D) bank traders

**3. It can be derived from the text that**

- (A) the most common derivatives are futures and warrants.
- (B) most swaps are traded on the exchange futures markets such as the Chicago Mercantile Exchange Holdings Inc., the largest U.S. futures market, i.e. "tailor-made" for the counterparties, and some types of swaps are traded over-the-counter.

(C) a hedge is a financial term denoting an investment position intended to offset potential losses that may be incurred by a companion investment.

(D) swaps can only be used to speculate on changes in the expected direction of underlying prices.

#### **4. It can be inferred from the text that**

(A) the underlying asset to a financial futures contract can be commodities, currencies, securities.

(B) a futures contract is a standardized contract between two parties to exchange a specified asset of standardized quantity and quality for a price agreed today but with delivery occurring at a specified future date.

(C) most financial futures contracts are traded over-the-counter.

(D) forwards are highly standardized, being exchange-traded, whereas futures can be unique, being over-the-counter. .

#### **5. Judging by what you have derived from the text, which do you think of the following is the best to define the term ‘option’?**

(A) It gives the right, but not obligation, to buy stocks in the future at a particular price, but probably higher than the current market price.

(B) It is a financial product whose value depends on another financial product.

(C) It is an arrangement to exchange interest rates or currencies.

(D) It specifies a contract between two parties for a future transaction on an asset at a reference price. The buyer of the option gains the right, but not the obligation, to engage in that transaction, while the seller incurs the corresponding obligation to fulfill the transaction.

#### **6. Judging by what you have derived from the text, how do you think ‘index option’ can be described?**

(A) A statistical measure of change in an economy or a securities market.

(B) A call or put option on a financial index.

- (C) A futures contract on a stock or financial index.
- (D) An option with a built in mechanism to expire worthless should a specified price level be exceeded.

**7. It can be derived from the text that**

- (A) both parties can make money out of the same futures contract.
- (B) interest rate futures are related to stocks and shares.
- (C) the price of a derivative always depends on future price changes.
- (D) financial futures were created because exchange rates, interest rates, and stock prices all regularly change.

**8. It cannot be derived from the text that**

- (A) the advantage of forward contracts is that they are standardized and their market is illiquid.
- (B) financial futures can be used both to hedge and to speculate.
- (C) futures trading is a zero-sum game, because the amount of money gained by one party will be the same as the sum lost by the other.
- (D) stock index futures can be used to hedge stock market risk by reducing systematic risk in portfolios or by locking in stock prices.

**9. Which of the following statements would the author most probably disagree with?**

- (A) Financial assets fluctuate so financial futures are used to fix a value for the present date.
- (B) Futures trading is a zero-sum game, because the amount of money gained by one party will be the same as the sum lost by the other.
- (C) The buyer and the seller of a financial futures contract have different opinions about what will happen to exchange rates, interest rates and stock prices.
- (D) Buyers and sellers of financial futures contracts are both taking unlimited risk, because there could be huge changes in rates and prices during the period of the contract.

**10. What is most likely the subject of the extract which is missing from this text?**

- (A) credit derivatives
- (B) asymmetric information
- (C) asset management
- (D) credit rating agencies

### **Unit 9 Glossary**

**AMERICAN OPTION:** It is an option that can be exercised anytime during its life. The majority of exchange-traded options are American. Since investors have the freedom to exercise their American options at any point during the life of the contract, they are more valuable than European options which can only be exercised at maturity.

**ASIAN OPTION:** It is an option whose payoff depends on the average price of the underlying asset over a certain period of time as opposed to at maturity. Also known as an average option. This type of option contract is attractive because it tends to cost less than regular American options. An Asian option can protect an investor from the volatility risk that comes with the market.

**AT THE MONEY:** It means an option that is at-the-money if the strike price of the option equals the market price of the underlying security.

**AVERAGE STRIKE OPTION:** It is a type of stock option used on Asian exchanges. The strike price in this type of option is based on the average asset price during a certain period of time, defined by a range of dates called the "fixings." This type of option is less volatile than traditional options, which have a predetermined strike price.

**BARRIER OPTION:** It is a type of option whose payoff depends on whether or not the underlying asset has reached or exceeded a predetermined price. A barrier option is a type of exotic option. It can be either a knock-in or a knock-out.

**BASIS RATE SWAP:** It is a type of swap in which two parties swap variable interest rates based on different money markets. This is usually done to limit interest-rate risk that a company faces as a result of having differing lending and borrowing rates. For example, a company lends money to individuals at a variable rate that is tied to the London Interbank Offer (LIBOR) rate but they borrow money based on the Treasury Bill rate. This difference between the borrowing and lending rates (the spread) leads to interest-rate risk. By entering into a basis rate swap, where they exchange the T-Bill rate for the LIBOR rate, they eliminate this interest-rate risk.

**BENCHMARK:** It is a standard against which the performance of a security, mutual fund or investment manager can be measured. Generally, broad market and market-segment stock and bond indexes are used for this purpose. When evaluating the performance of any investment, it's important to compare it against an appropriate benchmark. In the financial field, there are dozens of indexes that analysts use to gauge the performance of any given investment including the S&P 500, the Dow Jones Industrial Average, the Russell 2000 Index and even competitor fund.

**BERMUDA OPTION:** It is a type of option that can only be exercised on predetermined dates, usually every month. Like the mixed culture of Bermuda, bermuda options are a combination of American and European style options.

**BOND SWAP:** It is a strategy in which an investor sells a bond and at the same time purchases a different bond with the proceeds from the sale. There are several reasons why people use a bond swap: to seek tax benefits, to change investment objectives, to upgrade a portfolio's credit quality or to speculate on the performance of a particular bond.

**CALL OPTION:** It is an agreement that gives an investor the right (but not the obligation) to buy a stock, bond, commodity, or other instrument at a specified price within a specific time period. It may help you to remember that a call option gives you the right to "call in"

(buy) an asset. You profit on a call when the underlying asset increases in price.

**CLEARING:** It is the procedure by which an organization acts as an intermediary and assumes the role of a buyer and seller for transactions in order to reconcile orders between transacting parties. Clearing is necessary for the matching of all buy and sell orders in the market. It provides smoother and more efficient markets, as parties can make transfers to the clearing corporation, rather than to each individual party with whom they have transacted.

**CLEARING HOUSE:** It is an agency or separate corporation of a futures exchange responsible for settling trading accounts, clearing trades, collecting and maintaining margin monies, regulating delivery and reporting trading data. Clearing houses act as third parties to all futures and options contracts - as a buyer to every clearing member seller and a seller to every clearing member buyer. Each futures exchange has its own clearing house. All members of an exchange are required to clear their trades through the clearing house at the end of each trading session and to deposit with the clearing house a sum of money (based on clearing house margin requirements) sufficient to cover the member's debit balance.

**COMMODITY SWAP:** It is a swap in which exchanged cash flows are dependent on the price of an underlying commodity. A commodity swap is usually used to hedge against the price of a commodity. The vast majority of commodity swaps involve oil. So, for example, a company that uses a lot of oil might use a commodity swap to secure a maximum price for oil. In return, the company receives payments based on the market price (usually an oil price index). On the other side, if a producer of oil wishes to fix its income, it would agree to pay the market price to a financial institution in return for receiving fixed payments for the commodity.

**CONVERTIBLES:** They are securities, usually bonds or preferred shares, that can be converted into common stock. Convertibles are

ideal for investors demanding greater potential for appreciation than bonds provide and higher income than common stocks offer.

**CREDIT DERIVATIVES:** They are privately held negotiable bilateral contracts that allow users to manage their exposure to credit risk. Credit derivatives are financial assets like forward contracts, swaps, and options for which the price is driven by the credit risk of economic agents (private investors or governments). For example, a bank concerned that one of its customers may not be able to repay a loan can protect itself against loss by transferring the credit risk to another party while keeping the loan on its books.

**CREST:** It is Crest Co Ltd. is the central securities depository for the U.K. markets and Irish stocks. More specifically, Crest operates an electronic settlement system, which was established in 1996 and is used to settle a vast number of international securities. The company can also physically hold stock certificates on the behalf of customers. By holding securities as well as maintaining an electronic clearing system, Crest can provide for same-day clearing of securities transactions if needed. Its overall ability to provide a fast transfer of title for the securities it handles is its most important advantage to investors.

**CURRENCY SWAP:** It is a swap that involves the exchange of principal and interest in one currency for the same in another currency. It is considered to be a foreign exchange transaction and is not required by law to be shown on a company's balance sheet. For example, suppose a U.S.-based company needs to acquire Swiss francs and a Swiss-based company needs to acquire U.S. dollars. These two companies could arrange to swap currencies by establishing an interest rate, an agreed upon amount and a common maturity date for the exchange. Currency swap maturities are negotiable for at least 10 years, making them a very flexible method

of foreign exchange. Currency swaps were originally done to get around exchange controls.

**DEEP IN THE MONEY:** It means an option with an exercise price, or strike price, significantly below (for a call option) or above (for a put option) the market price of the underlying asset. Significantly, below/above is considered one strike price below/above the market price of the underlying asset. For example, if the current price of the underlying stock was \$10, a call option with a strike price of \$5 would be considered deep in the money.

**DEEP OUT OF THE MONEY:** It means an option with a strike price that is significantly above (for a call option) or below (for a put option) the market price of the underlying asset. To be deemed deep out of the money, an option's strike price should be at least one strike price below/above the market price of the underlying asset's option chain.

**DERIVATIVE:** It is a security whose price is dependent upon or derived from one or more underlying assets. The derivative itself is merely a contract between two or more parties. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes. Most derivatives are characterized by high leverage. Futures contracts, forward contracts, options and swaps are the most common types of derivatives. Derivatives are contracts and can be used as an underlying asset. There are even derivatives based on weather data, such as the amount of rain or the number of sunny days in a particular region. Derivatives are generally used as an instrument to hedge risk, but can also be used for speculative purposes.

**DOWN-AND-OUT BARRIER OPTION:** It is a type of barrier option in which the spot price of the underlying is set above

the barrier level, and the price of the underlying must close lower in order for the option to be knocked out or cancelled. It is named "down-and-out" because the right to exercise the option disappears if the price of the underlying is below the barrier.

**EUROPEAN OPTION:** It is an option that can only be exercised at the end of its life, at its maturity. European options tend to sometimes trade at a discount to its comparable American option. This is because American options allow investors more opportunities to exercise the contract.

**EXOTIC OPTION:** It is an option that differs from common American or European options in terms of the underlying asset or the calculation of how or when the investor receives a certain payoff. These options are more complex than options that trade on an exchange, and generally trade over the counter.

**DELIVERY DATE:** It is 1. The final date by which the underlying commodity for a futures contract must be delivered in order for the terms of the contract to be fulfilled. 2. The maturity date of a currency forward contract. All futures and forward contracts have a delivery date upon which the underlying must be transferred to the contract holder if he or she holds the contract until maturity instead of offsetting it.

**DOW JONES INDUSTRIAL AVERAGE:** It is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange and the Nasdaq. The DJIA was invented by Charles Dow back in 1896. Often referred to as "the Dow", the DJIA is the oldest and single most watched index in the world. The DJIA includes companies like General Electric, Disney, Exxon and Microsoft. When the TV networks say "the market is up today", they are generally referring to the Dow.

**DOW JONES 65 COMPOSITE AVERAGE:** It is a composite index that measures changes within the 65 companies that make up three Dow Jones averages: the 30 stocks that form the Dow Jones Industrial

Average (DJIA), the 20 stocks that make up the Dow Jones Transportation Average (DJTA) and the 15 stocks of the Dow Jones Utility Average (DJUA). The Dow Jones 65 Composite, like the three sub-indexes, is price-weighted. All of the Dow Jones averages are price-weighted indexes. For this type of index, stocks with higher prices will influence the direction of the average more than lower prices, regardless of the actual size of the company. Most broad market indexes are market-cap weighted, such as the Nasdaq-100 and Standard & Poor's 500.

**EXPIRATION DATE:** It is the day on which an options or futures contract is no longer valid and, therefore, ceases to exist. The expiration date for all listed stock options in the U.S. is the third Friday of the expiration month (except when it falls on a holiday, in which case it is on Thursday).

**FINANCIAL ENGINEERING:** It is a multidisciplinary field relating to the creation of new financial instruments and strategies, typically exotic options and specialized interest rate derivatives. Financial engineering is also the process of creating new securities or processes, and designing new financial instruments, especially derivative securities. More importantly financial engineering is the process of employing mathematical, finance and computer modeling skills to make pricing, hedging, trading and portfolio management decisions. Utilizing various derivative securities and other methods, financial engineering aims to precisely control the financial risk that an entity takes on. Methods can be employed to take on unlimited risks under certain events, or completely eliminate other risks by utilizing combinations of derivative and other securities. Notable financial engineers include F. Black and M. Scholes for the pricing of options and corporate liabilities, Robert C. Merton for his theory of rational option pricing and the introduction of stochastic calculus in the study of finance. Robert F. Engle is also notable for the work in analyzing economic time-series with time-varying volatility. Clive W. J. Granger analyzed the economic time series with common trend.

**FIXED-FOR-FIXED SWAP:** It is an arrangement between two parties (known as counterparties) in which both parties pay a fixed interest rate that they could not otherwise obtain outside of a swap arrangement. To understand how investors benefit from these types of arrangements, consider a situation in which each party has a comparative advantage to take out a loan at a certain rate and currency. For example, an American firm can take out a loan in the United States at a 7% interest rate, but requires a loan in yen to finance an expansion project in Japan, where the interest rate is 10%. At the same time, a Japanese firm wishes to finance an expansion project in the U.S., but the interest rate is 12%, compared to the 9% interest rate in Japan. Each party can benefit from the other's interest rate through a fixed-for-fixed currency swap. In this case, the U.S. firm can borrow U.S. dollars for 7%, then lend the funds to the Japanese firm at 7%. The Japanese firm can borrow Japanese yen at 9%, then lend the funds to the U.S. firm for the same amount.

**FIXED-FOR-FLOATING SWAP:** It is an advantageous arrangement between two parties (counterparties), in which one party pays a fixed rate, while the other pays a floating rate. To understand how each party would benefit from this type of arrangement, consider a situation where each party has a comparative advantage to take out a loan at a certain rate and currency. For example, Company A can take out a loan with a one-year term in the U.S. for a fixed rate of 8% and a floating rate of Libor + 1% (which is comparatively cheaper, but they would prefer a fixed rate). On the other hand, Company B can obtain a loan on a one-year term for a fixed rate of 6%, or a floating rate of Libor +3%, consequently, they'd prefer a floating rate. Through an interest rate swap, each party can swap its interest rate with the other to obtain its preferred interest rate. Note that swap transactions are often facilitated by a swap dealer, who will act as the required counterparty for a fee.

**FORWARD CONTRACT:** It is a cash market transaction in which delivery of the commodity is deferred until after the contract has been made. Although the delivery is made in the future, the price is determined on the initial trade date. Most forward contracts don't have standards and aren't traded on exchanges. A farmer would use a forward contract to "lock-in" a price for his grain for the upcoming fall harvest.

**FRONT FEE:** It is an amount paid for initiating a compound or split-fee option contract. While all option contracts require a fee (the option premium) to be paid up-front to the seller, only compound or split-fee options require another amount (the back fee) for exercising them.

**FUTURES CONTRACT:** It is a contractual agreement, generally made on the trading floor of a futures exchange, to buy or sell a particular commodity or financial instrument at a pre-determined price in the future. Futures contracts detail the quality and quantity of the underlying asset; they are standardized to facilitate trading on a futures exchange. Some futures contracts may call for physical delivery of the asset, while others are settled in cash.

**HEDGE:** It is making an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract. An example of a hedge would be if you owned a stock, then sold a futures contract stating that you will sell your stock at a set price, therefore avoiding market fluctuations. Investors use this strategy when they are unsure of what the market will do. A perfect hedge reduces your risk to nothing (except for the cost of the hedge).

**INDEX:** It is a statistical measure of change in an economy or a securities market. In the case of financial markets, an index is an imaginary portfolio of securities representing a particular market or a portion of it. Each index has its own calculation methodology and is

usually expressed in terms of a change from a base value. Thus, the percentage change is more important than the actual numeric value. Stock and bond market indexes are used to construct index mutual funds and exchange-traded funds (ETFs) whose portfolios mirror the components of the index.

**INDEX OPTION:** It is a call or put option on a financial index. Investors trading index options are essentially betting on the overall movement of the stock market as represented by a basket of stocks. Options on the S&P 500 are some of the most actively traded options in the world.

**INDEX FUTURES CONTRACT:** It is a futures contract on a stock or financial index. For each index there may be a different multiple for determining the price of the futures contract. For example, the S&P 500 Index is one of the most widely traded index futures contracts in the U.S. Stock portfolio managers who want to hedge risk over a certain period of time often use S&P 500 futures to do so. By shorting these contracts, stock portfolio managers can protect themselves from the downside price risk of the broader market. However, by using this hedging strategy, if perfectly done, the manager's portfolio will not participate in any gains on the index; instead, the portfolio will lock in gains equivalent to the risk-free rate of interest.

**INTEREST RATE SWAP:** It is an agreement between two parties (known as counterparties) where one stream of future interest payments is exchanged for another based on a specified principal amount. Interest rate swaps often exchange a fixed payment for a floating payment that is linked to an interest rate (most often the LIBOR). A company will typically use interest rate swaps to limit or manage exposure to fluctuations in interest rates, or to obtain a marginally lower interest rate than it would have been able to get without the swap. Interest rate swaps are simply the exchange of one set of cash flows (based on interest rate specifications) for another.

Because they trade OTC, they are really just contracts set up between two or more parties, and thus can be customized in any number of ways. Generally speaking, swaps are sought by firms that desire a type of interest rate structure that another firm can provide less expensively. For example, let's say Cory's Tequila Company (CTC) is seeking to loan funds at a fixed interest rate, but Tom's Sports Inc. (TSI) has access to marginally cheaper fixed-rate funds. Tom's Sports can issue debt to investors at its low fixed rate and then trade the fixed-rate cash flow obligations to CTC for floating-rate obligations issued by TSI. Even though TSI may have a higher floating rate than CTC, by swapping the interest structures they are best able to obtain, their combined costs are decreased - a benefit that can be shared by both parties.

**IN THE MONEY:** It means 1. For a call option, when the option's strike price is below the market price of the underlying asset. 2. For a put option, when the strike price is above the market price of the underlying asset. Being in the money does not mean you will profit, it just means the option is worth exercising. This is because the option costs money to buy.

**KNOCK-IN OPTION:** It is a latent option contract that begins to function as a normal option ("knocks in") only once a certain price level is reached before expiration.

**KNOCK-OUT OPTION:** It is an option with a built in mechanism to expire worthless should a specified price level be exceeded.

**LONDON INTERBANK OFFERED RATE – LIBOR:** It is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. The LIBOR is fixed on a daily basis by the British Bankers' Association. The LIBOR is derived from a filtered average of the world's most creditworthy banks' interbank deposit rates for larger loans with maturities between overnight and one full year. The LIBOR is the world's most widely

used benchmark for short-term interest rates. It's important because it is the rate at which the world's most preferred borrowers are able to borrow money. It is also the rate upon which rates for less preferred borrowers are based. For example, a multinational corporation with a very good credit rating may be able to borrow money for one year at LIBOR plus four or five points. Countries that rely on the LIBOR for a reference rate include the United States, Canada, Switzerland and the U.K.

**LONG POSITION:** It is 1. The buying of a security such as a stock, commodity or currency, with the expectation that the asset will rise in value. 2. In the context of options, the buying of an options contract. Opposite of "short" (or short position).

**MARGIN ACCOUNT:** It is a brokerage account in which the broker lends the customer cash to purchase securities. The loan in the account is collateralized by the securities and cash. If the value of the stock drops sufficiently, the account holder will be required to deposit more cash or sell a portion of the stock. In a margin account, you are investing with your broker's money. By using leverage in such a way, you magnify both gains and losses.

**NEAR THE MONEY:** It means an options contract where the strike price is close to the current market price of the corresponding underlying security. An options contract is said to be near the money when the strike price and underlying security's price are close; it is at the money when the strike price is equal to the market price of the underlying security. At or near the money options contract typically cost more (i.e. there will be a higher premium) than out of the money options, where the underlying instrument's price is far away from the strike price. Also called close to the money.

**OFFSET:** It means 1. To liquidate a futures position by entering an equivalent, but opposite, transaction which eliminates the delivery obligation. 2. To reduce an investor's net position in an investment to zero, so that no further gains or losses will be experienced from that position. 1. Investors will offset futures contracts and other investment positions in order to remove themselves from any

associated liabilities. Almost all futures positions are offset before the terms of the futures contract are realized. Despite the fact that most positions are offset near the delivery term, the benefits of the futures contract as a hedging mechanism are still realized. 2. If the initial investment was a purchase, a sale is made to neutralize the position; to offset an initial sale, a purchase is made to neutralize the position. For example, if you wanted to offset a long position in a stock, you could short sell an identical number of shares. By doing so, your net ownership of the stock would be zero, and you would not incur any further gains or losses from the position.

**OPTION**: It is a financial derivative that represents a contract sold by one party (option writer) to another party (option holder). The contract offers the buyer the right, but not the obligation, to buy (call) or sell (put) a security or other financial asset at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date). Call options give the option to buy at certain price, so the buyer would want the stock to go up. Put options give the option to sell at a certain price, so the buyer would want the stock to go down. Options are extremely versatile securities that can be used in many different ways. Traders use options to speculate, which is a relatively risky practice, while hedgers use options to reduce the risk of holding an asset.

**OUT OF THE MONEY**: It means 1. For a call, when an option's strike price is higher than the market price of the underlying asset. 2. For a put, when the strike price is below the market price of the underlying asset.

**PLAIN VANILLA**: It is the most basic or standard version of a financial instrument, usually options, bonds, futures and swaps. Plain vanilla is the opposite of an exotic instrument, which alters the components of a traditional financial instrument, resulting in a more complex security. For example, a plain vanilla option is the standard type of option, one with a simple expiration date and strike price and no additional features. With an exotic option, such as a knock-in option, an additional contingency is added so that the option only becomes active once the underlying stock hits a set price point.

**PREMIUM:** It can be 1. The total cost of an option. 2. The difference between the higher price paid for a fixed-income security and the security's face amount at issue. 3. The specified amount of payment required periodically by an insurer to provide coverage under a given insurance plan for a defined period of time. The premium is paid by the insured party to the insurer, and primarily compensates the insurer for bearing the risk of a payout should the insurance agreement's coverage be required.

**PRICE-WEIGHTED INDEX:** It is a stock index in which each stock influences the index in proportion to its price per share. The value of the index is generated by adding the prices of each of the stocks in the index and dividing them by the total number of stocks. Stocks with a higher price will be given more weight and, therefore, will have a greater influence over the performance of the index. For example, assume that an index contains only two stocks, one priced at \$1 and one priced at \$10. The \$10 stock is weighted nine times higher than the \$1 stock. Overall, this means that this index is composed of 90% of the \$10 stocks and 10% of \$1 stock. In this case, a change in the value of the \$1 stock will not affect the index's value by a large amount, because it makes up such a small percentage of the index. A popular price-weighted stock market index is the Dow Jones Industrial Average. It includes a price-weighted average of 30 actively traded blue chip stocks.

**PUT OPTION:** It is an option contract giving the owner the right, but not the obligation, to sell a specified amount of an underlying security at a specified price within a specified time. This is the opposite of a call option, which gives the holder the right to buy shares. A put becomes more valuable as the price of the underlying stock depreciates relative to the strike price.

**RUSSELL 2000 INDEX:** It is an index measuring the performance of the 2,000 smallest companies in the Russell 3000 Index, which is

made up of 3,000 of the biggest U.S. stocks. The Russell 2000 serves as a benchmark for small cap stocks in the United States. The weighted average market capitalization for companies in the Russell 2000 is about US\$1 billion and the index itself is considered to be the benchmark for all small cap mutual funds.

**RUSSELL 2500 INDEX:** It is a broad index featuring 2,500 stocks that cover the small and mid cap market capitalizations. The Russell 2500 is a market cap weighted index that includes the smallest 2,500 companies covered in the Russell 3000 universe of United States-based listed equities.

**RUSSELL 3000 INDEX:** It is a market capitalization weighted equity index maintained by the Russell Investment Group that seeks to be a benchmark of the entire U.S. stock market. More specifically, this index encompasses the 3,000 largest U.S.-traded stocks, in which the underlying companies are all incorporated in the U.S.

**SHORT POSITION:** It can be 1. A sale of a borrowed security, commodity or currency with the expectation that the asset will fall in value. 2. In the context of options, it is the sale (also known as "writing") of an options contract. It is the opposite of "long (or long position)".

**SPECULATION IN OPTIONS:** In terms of speculation, option buyers and writers have conflicting views regarding the outlook on the performance of an underlying security. For example, because the option writer will need to provide the underlying shares in the event that the stock's market price will exceed the strike, an option writer that sells a call option believes that the underlying stock's price will drop relative to the option's strike price during the life of the option, as that is how he or she will reap maximum profit. This is exactly the opposite outlook of the option buyer. The buyer believes that the underlying stock will rise, because if this happens, the buyer will be able to acquire the stock for a lower price and then sell it for a profit.

**STANDARD & POOR'S 500:** It is one of the world's best known indexes, and is the most commonly used benchmark for the stock market. Other prominent indexes include the DJ Wilshire 5000 (total stock market), the MSCI EAFE (foreign stocks in Europe, Australasia, Far East) and the Lehman Brothers Aggregate Bond Index (total bond market). Because, technically, you can't actually invest in an index, index mutual funds and exchange-traded funds (based on indexes) allow investors to invest in securities representing broad market segments and/or the total market.

**STOCK OPTION:** It is a privilege, sold by one party to another, that gives the buyer the right, but not the obligation, to buy (call) or sell (put) a stock at an agreed-upon price within a certain period or on a specific date. In the U.K., it is known as a "share option".

**STRIKE PRICE:** It is the price at which a specific derivative contract can be exercised. Strike price is mostly used to describe stock and index options, in which strike prices are fixed in the contract. For call options, the strike price is where the security can be bought (up to the expiration date), while for put options the strike price is the price at which shares can be sold. The difference between the underlying security's current market price and the option's strike price represents the amount of profit per share gained upon the exercise or the sale of the option. This is true for options that are in the money; the maximum amount that can be lost is the premium paid. Also known as the "exercise price". Strike prices are one of the key determinants of the premium, which represents the market value of an options contract. Other determinants include the time until expiration, the volatility of the underlying security and prevailing interest rates. Strike prices are established when a contract is first written. Most strike prices are in increments of \$2.50 and \$5.

**SWAP:** It is traditionally, the exchange of one security for another to change the maturity (bonds), quality of issues (stocks or bonds), or

because investment objectives have changed. Recently, swaps have grown to include currency swaps and interest rate swaps.

**SWAPTION:** It is the option to enter into an interest rate swap. In exchange for an option premium, the buyer gains the right but not the obligation to enter into a specified swap agreement with the issuer on a specified future date. The agreement will specify whether the buyer of the swaption will be a fixed-rate receiver (like a call option on a bond) or a fixed-rate payer (like a put option on a bond).

**UNDERLYING ASSET:** It is a term used in derivatives trading, such as with options. A derivative is a financial instrument whose price is based (derived) from a different asset. The underlying asset is the financial instrument (e.g., stock, futures, commodity, currency, index) on which a derivative's price is based. For example, an option on a stock gives the holder the right to buy or sell the stock for a specified amount (strike price) at a certain date in the future (expiration). The underlying asset for the stock option contract is the company's stock.

**VANILLA OPTION:** It is a normal option with no special or unusual features.

**WARRANT:** It is a derivative security that gives the holder the right to purchase securities (usually equity) from the issuer at a specific price within a certain time frame. Warrants are often included in a new debt issue as a "sweetener" to entice investors. 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.

**WRITING AN OPTION:** It refers to the act of selling an option. An option is the right, but not the obligation, to buy or sell a particular trading instrument at a specified price, on or before its expiration. When someone writes (or "sells") an option, he or she must deliver to

the buyer a specified number of shares if the option is exercised. The writer has an obligation to perform a duty while the buyer has the option to take action. There are two general types of option writing: covered and naked. In a covered call, the option writer already owns the underlying trading instrument and wishes to make extra money from the position. He or she can write (or sell) an option based on the expectation that the price of the underlying will move in a particular way. The buyer pays the writer a premium in exchange for writing the option. If the option trades at a value that benefits the buyer, the seller is obligated to hand over the shares. If the option expires at a value that does not benefit the buyer, the seller retains the original shares. If the option writer does not own the underlying instrument, it is said to be a "naked" option. This is more risky than writing a covered call since the writer is still obligated to produce the specified number of shares of the particular contract (without already owning them).