

Introduction 引言

Through different media channels, we always hear about financial products such as futures, options and warrants, and all these financial products are normally referred to as "Derivatives". This training can help you know more about derivatives, and understand their nature, types, applications, as well as their related risks. However, different derivatives have different natures, when investing in these financial products, it is advised to consult your professional investment advisor for further information before you invest.

在日常生活中,不同的傳媒都會經常提及期貨、期權、及認股權證等金融產品,而這些金融產品均被稱為「衍生產品」。以下的課程內容主要解釋衍生產品的性質、常見 種類、用途以及相關之風險,以增加投資者對衍生產品的認識。由於衍生產品的種類眾多,而且各有特性,建議投資者在投資衍生產品前,須先向有關專業投資顧問查 詢有關衍生產品的特性及相關之風險,清楚了解後才做出投資決定。

Introduction to Derivatives 衍生產品簡介

In the financial market, derivatives are usually derived from spot market products (e.g. currency, stocks, gold etc.), which are called the "Underlying Assets". As derivatives are based on their underlying assets, their values will definitely be influenced by the underlying assets. Apart from this, derivatives' values can also be

affected by other market factors such as interest rate changes and economic environment etc. 在金融市場中,衍生產品通常由現貨市場產品 (如外幣、證券或黃金)演變而成。相關的現貨市場產品稱為「相關資產」。衍生產品的價值會受相關資產的價值升跌而 有所波動,此外,衍生產品亦都會受到很多其他市場因素,如利率改變及經濟環境等而影響其價格。

"Warrant" is an example of derivative products; its value is directly related to the movement of its underlying stock price. As derivatives and spot market products are closely related, and derivatives evolved from spot market underlying asset, so these financial products are called "Derivatives". 以認股權證(俗稱「窩輪」)為例,它便是一種衍生產品,與現貨市場的相關股票價格之波幅有直接的關係。由於衍生產品和現貨市場產品關係密切,而衍生產品是由現貨市場的相關資產衍生出來,因此,這類金融產品會被統稱為「衍生產品」。

"Spot market products" are those products that can be settled between buyers and sellers in a very short time. In the financial market, investor can settle the trade for currencies or stocks, usually within a day or a very short period. Thus, those products are called spot market products. 「現貨市場」是指產品可以在短時間之內,讓買家和賣家進行交易,買家付出金錢,而賣家就以現貨做交收。於金融市場內,買賣外幣或股票一般亦可在即日或短時間 內交收,故這些產品被稱為現貨市場產品。

Normally, the difference in settlement times is a way to differentiate spot market products and derivative products. In addition, if the prices drop rapidly after investor

bought spot market products, investor would not have immediate losses unless investor realizes the holding. But, if investor bought derivative products, which must

be settled before a specific future date (e.g. a month later); when the prices drop rapidly, investor would bear the risk of losses. 一般而言,不同的交收時間亦是其中一樣現貨市場產品有別於衍生產品之特徵。若投資者已購買現貨市場產品,即使其價格大幅下跌,只要不將持有之產品賣出,都不 會有即時的損失。相反,若已購買衍生產品,由於須在指定日期交收,當相關資產價格大幅下跌時,往往有機會承受損失。

Common Types of Derivatives 衍生產品常見種類

There are various types of derivatives in the market. Two of the most common derivatives are (1") Futures" and (2") Options". 市面上的衍生產品種類繁多,一般投資者較常見的有兩大類,分別是 (1)「期貨類」及 (2)「期權類」。

Futures 期貨類

(1) Futures 期貨類 "Futures" refers to contracts between a buyer and a seller, who mutually agreed to trade underlying assets like stocks, currencies, gold etc. on a specified future date (e.g. one month later) at a specified price. On the designated date, both the buyer and seller have to follow the arrangements in the contract, including the price and the quantity of the underlying assets. That means, the buyer has to pay the exact amount as defined in the contract for the seller's underlying assets. Similarly, the

seller has to abide by the agreed price as specified in the contract when selling the underlying assets to the buyer. 「期貨類」產品是要求買賣雙方承諾在某個指定日期(例如一個月後),按一個指定價格,買賣雙方買入或沽出相關資產(如證券、外幣、黃金等)之一份合約。在雙方指定 交收的日期(即一般稱的「到期日」),雙方必須履行合約所訂之安排,按照合約上指定的價格及資產數量進行交收,即合約的買家要按指定的價格買入相關資產,而合 約的賣家須按指定的價格將相關資產賣給買家。

In addition, "Futures" can also be further classified into two types: "Exchange Traded" and "Non-Exchange Traded".

至於「期貨類」產品大致可分為兩種:一種是在「交易所買賣」的,而另一種是在「非交易所買賣」的。 Those exchange traded futures products are called "Futures Contracts", where the "Hang Seng Index Futures" is an example of futures contracts traded on the exchange. For those that are not traded on the exchange, they are called "Forward Contracts". A pair of forward contracts (i.e. two forward contracts) being combined, that is buying and selling two different forward contracts at the same time, is called a "Swap", such as "Currency Swap" or "Interest Rate Swap". Using a swap product, investor could exchange two different currencies or interest rates at specified prices and dates. 在交易所買賣的期貨類產品一般稱為「期貨合約」,例如「恆生指數期貨」就是在交易所買賣的期貨合約之一。而在非交易所買賣的期貨類產品,就稱為「遠期合約」。

For example, assume that investor wants to exchange his/her Hong Kong Dollars into Australian Dollars two days later, and then set them aside as a fixed deposit to earn interest. When the fixed deposit matures, investor would like to convert the Australian Dollars back into Hong Kong Dollars at a pre-determined exchange rate. Investor can buy and sell two different forward contracts at the same time today, so to lock-up the exchange rate now to avoid the impact of future fluctuations in the foreign exchange rates.

例如投資者希望於兩日後將港幣兌換成澳幣,然後敘做定期外匯存款以賺取利息,並預期到期時,以一個預定的外匯價格將澳幣轉回港幣。投資者便可以在今日同時買 入及賣出兩張澳幣遠期合約,鎖定兌換價,避免外匯價格波動。

Concerning futures contracts that are traded on the exchange, they have a common characteristic, which is called the "Standardized Contract". For example, each index point of the Hang Seng Index Futures is priced at \$50 by the exchange. That means, when any investor trades the Hang Seng Index Futures, all other investors use the same formula of one point equaling \$50. This is the feature of the "Standardized Contract". 在交易所買賣的期貨合約都有一個相同的特徵,就是「標準化合約」。例如交易所已經訂定恒生指數期貨的每一點子價值為 50 元,即每一位參與買賣恒生指數期貨的投資者,都是以指定的 50 元為一點子的價格計算,這就是標準化合約的特徵。

Non-exchange traded forward contracts are unlike exchange traded forward contracts (i.e. Futures Contracts). Non-exchange traded forward contracts are not "Standardized Contracts". Settlement prices and trading amounts can be customized according to the needs of individual investor. If the contract is not traded on the exchange, we call it an "Over-the-Counter" or OTC contract. A "Currency Forward Contract" is a common example of OTC contracts, where investor makes a currency forward contract with a financial institution based on his/her particular needs. The investor can negotiate the contract details, such as settlement prices and settlement dates, with the financial institution.

dates, with the indicatent indicatent institution. 至於非交易所買賣的遠期合約則有別於交易所買賣的期貨合約。非交易所買賣的遠期合約之價格及交易金額都可以按買賣雙方的需要而制訂。如果某產品不是在交易所 進行買賣,該產品會被稱為「場外交易市場」產品。較為常見的例子為「外匯遠期合約」,客戶可以按自己的需求與金融機構制訂一份外匯遠期合約。

Options 期權類

An "Option" is a contract, involving a buyer and a seller, which gives the buyer a right, but not an obligation, to buy or sell the underlying asset with the seller of the option. The underlying asset's quantity, price and the contract period are fixed at the time when the contract is made. If the buyer exercises the option, the seller must follow the contract specifications for settlement of the underlying asset.

「期權」是一種涉及買賣雙方的合約,合約賦予買家權利而並非責任,從賣家買入或向賣家賣出相關資產。合約在訂立時就已經釐訂了相關資產的數量、價格及期權的 有效期限。如買家行使期權,賣家就必須根據合約的細則進行交收。

Within option products, investor should know the difference between a "Call Option" and a "Put Option". A "Call" means buying the underlying asset, while a "Put" is selling the underlying asset. Call warrants, one of the common products, are a kind of "call option" products. Further, there are news that senior management of listed

companies receives stock options from the companies, which are also "call option" products. 在期權類產品中,投資者必須要認識「認購期權」和「認沽期權」兩者之間的分別(「認購」,就代表買入相關資產的意思;而「認沽」,就代表沽出或賣出相關資產的意 思)。日常生活所看到的「認股權證」,均屬認購期權產品。另外,在報章上報導一些企業的高級管理層會有可能得到一批由個別企業分發的股票認購權,這亦屬於「認 購期權」產品。

In the market, investor can act as the buyer or seller of an option. The buyer has the right to buy or to sell the underlying assets, but he/ she has to pay the "Option Premium", in exchange for that right. The seller will earn the "Option Premium", but, at the same time, he/she also must bear the risk of possible losses resulting from market price fluctuations. 在市場上,投資者可以選擇做合約的買家或賣家。合約的買家有權買入或沽出相關資產,買家需要支付「期權金」(Option Premium)以換取權利;而合約的賣家就會收

取「期權金」作為回報,但同時亦須承受市場價格波動而有機會虧損的風險。

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General Knowledge on Derivatives Course 一般衍生工具知識課程

Although there is a chance of losing money, investor would still want to be an option seller. Firstly, no one can precisely anticipate the price after one month; secondly, the option contract seller will receive a specified amount from the buyer as the price of buying the contract. This is the foresaid "Option Premium", which can be viewed as a cost of buying a right. While the seller receives the Option Premium, he/she may potentially enhance his/her returns.

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合約賣家會向買家收取一個金額作為買合約的價錢,就是上文所述的「期權金」,即買入權利之成本,亦都是最主要原因。期權合約的賣收到這些期權金,從而可 b 以提高其潛在回報。

Investment products that consist of different derivatives are often called "Structured Products". "Equity-Linked Notes", "Currency-Linked Notes" and "Credit-Linked Notes" are common examples of "Structured Products". 由不同衍生產品組合而成的投資產品稱為「結構性產品」。常見的結構性產品包括「股票掛鉤票據 / 股票連結票據」、「外匯掛鉤票據 / 外匯連結票據」或「信貸掛鉤票

據 / 信用連結票據」。

Most of these structured products consist of derivatives; that is, a combination of different derivatives, some of which are "principal- protected", and some of which are "non-principal-protected". Therefore, when investing in "Structured Products" which are mixtures of derivatives, investor must have a clear understanding of the detailed contract provisions, for example, whether it is "principal-protected" or, "non-principal-protected". Of course, when trading structured products, investor is always required

to bear in mind the risk of possible losses resulting from market price fluctuations. 結構性產品大多數都包含了衍生產品在內,即由不同衍生產品結合而成,當中有些是「保本」,有些是「非保本」的,所以投資者購買這些包含了衍生產品的結構性產品時,必須清楚查詢有關條款,理解其性質。當然,買賣結構性產品始終要承受市場價格波動而有機會虧損的風險。 Except that, there are also many examples of these derivatives in the market, including the "Exchange Traded products" and "Non- Exchange Traded products". Warrants, or the Callable Bull/Bear Contracts, are common examples of "Exchange Traded products", which are a kind of options. "Non- Exchange Traded products",

such as equity-linked notes or currency-linked notes, are commonly available at any bank or financial institution. 除此之外,市面上亦有許多衍生產品的例子,如交易所買賣的認股權證及牛熊證等,這些均屬期權類產品。而較常見的非交易所買賣的產品,就如透過金融機構買到的 股票掛鉤票據/股票連結票據及外匯掛鉤票據/外匯連結票據等。

Take an equity-linked note as an example for a further explanation. Its structure contains an equity option, which means that the investor who buys the equity-linked note acts as the option seller, who sells the right in exchange for option premium. If the underlying stock price does not fall below a specified price, referred to as the "Exercise Price" in the option; the investor can earn the option premium and thereby enhancing his/her potential return. On the other hand, the investor also has to bear the downside risk resulting from market movement of the underlying stock.

以股票掛鉤票據 / 股票連結票據為例,這種產品的結構包含一個期權產品在內,購買了股票掛鉤票據 / 股票連結票據的客戶,等同於一個期權合約的賣家 (即賣方會收 取期權金)。如果掛鉤的有關股票之價格未低過一個指定的價格,即「行使價」, 投資者就可以賺取到這個期權金,從而增加投資者的回報,當然,投資者同時亦要承受 市場價格波動而有機會虧損的風險。

Applications of Derivative 衍生產品的用途

There are many applications of derivatives. They are usually used for the following four purposes:

衍生產品用途廣泛。主要用途有四種: (1) Speculation – Yield Enhancement 第一種:投機活動 - 提高收益;

(2) (3)

- Access to Different Asset Classes 第二種:可以參與不同類別的資產; Leverage Effect 第三種:槓桿效應;and 及 Long / Short Exposures & Risk Hedging 第四種:可以看漲,亦可以看淡以作為風險對沖。 (4)

(1) Speculation - Yield Enhancement 投機活動 - 提高收益 Suppose an investor has an insight that the stock market will not drop significantly in the coming month, and even if certain stocks drop below a certain price, the investor is willing to buy those stocks at that price. If so, the investor can use the equity-linked note by selling a put option. If the stock price does not fall below a certain level, the investor can enhance his/her investment yield by receiving the option premium and he/she does not have to actually buy the stock. But if the market drops, then the investor needs to buy the stock at a price higher than the market price, and if the stock price falls sharply, there will be a greater risk of loss.

假設某投機者有一投資的看法,認為股市未來一個月不會大跌,即使跌低於某一個指定價格,該投資者都願意用這個指定價格買入這批股票。 如果這樣,該名投資者便 可以利用股票掛鉤票據 / 股票連結票據成為一個認購期權的賣家。如果有關的股票價格沒有跌低過指定價格,就可以在不需要買入股票的情況下收取期權金,提高其投 資收益,但如果有關的股票價格跌低過指定價格就需要以高於市價買入股票,若股票大幅下跌,就會有大幅虧損的風險。

Access to Different Asset Classes 可以參與不同類別的資產

Access to Different Asset Classes" means that investor can participate in, or buy and sell, different assets like stock and foreign currency through derivatives. As an example, the "A-share" market in Mainland China is a market that foreigners could not participate in; however, through Synthetic ETFs, investors can indirectly participate in the "A-share" market. These Synthetic ETFs make use of derivatives to track (or replicate) the performance of a market index as the main investment objective. Through the Synthetic ETFs, although investor cannot hold "A-shares" directly, the performance of "A-shares" can be reflected by the Synthetic ETFs the investor holds.

THY 540 FIXES 投資者可以透過衍生產品來參與或者買入或沽出各種不同類別的資產。舉例來說,國外人士無法參與 A 股市場,但透過一些「合成交易所買賣基金」就可以間接參與 A 股市場。這些合成交易所買賣基金運用衍生產品跟蹤或模擬某市場指數的表現為主要投資目標,透過這些合成交易所買賣基金,投資者雖然不能直接持有 A 股,但相關 A股的表現卻可以反映於投資者持有的合成交易所買賣基金內。

Leverage Effect 槓桿效應 (3)

Buying a board lot of shares in the stock market may cost a number of tens thousands dollars, which may put pressure on cash flow; but if the investor chooses to buy a warrant, it may only cost a few thousand and the investor can achieve the same effect as buying a board lot. This is called the "Leverage Effect". The investor can achieve the same effect as buying a board lot. This is called the "Leverage Effect". The investor can invest in the same board lot of shares at a lower cost. But, by doing this, investor must be aware of risk of losses due to the market price fluctuation because he/she is trading derivatives, but not the stocks themselves.

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(4) Long / Short Exposures & Risk Hedging 可以看漲,亦可以看淡以作為風險對沖 Investor can buy a call warrant when he/she expects the market to rise or buy a put warrant when he/she expects the market to fall. Put warrants can help investor to hedge against the downside risk of the market. For example, if investor holds some stocks, he/she can buy a put warrant when he/she anticipates that the market will fall. If the stock price does fall, the put warrant can provide an extra yield to compensate for some of the losses from holding the stocks. 投資者可以在市場買入一種看漲市場的認購權證,或可以買入一種看淡市場的認沽權證。認沽權證產品可以幫助投資者對沖一些市場下跌的風險。例如,若投資者擁有

一些股票及看淡股市,可以買入一個認沽權證,如果市場價格真的下跌,其購入的認沽權證就可以帶來額外的收益,以補償其持有股票的部分損失。

Key Risks Associated with Derivatives 衍生產品所涉及的風險

Counterparty Risk 交易對手風險

Derivatives are issued by third parties, such as listed companies or financial institutions, which are collectively referred as "issuers". If these issuers encounter financial problems and this leads to a decrease in their credit rating, or if they collapse because of solvency problems, the derivatives' values will be affected and may even lose all value

为在。前,datacu 衍生產品的以由上市公司或金融機構等第三者發行,統稱為「發行商」。倘若發行商的財政狀況出現問題而導致其信貸評級被調降,或因償付能力出現困難,甚至倒閉 時,衍生產品的價格都會受到影響,甚至失去全部價值。

Investment Risk of the Underlying Asset 相關資產風險

Derivatives' prices depend on the value of their underlying assets. Normally, fluctuations in the underlying assets prices will affect derivatives' prices directly. This is the Investment Risk of the Underlying Asset.

如上文所述,衍生產品的價格取決於相關資產之價格。一般情況下,相關資產的價格波動,都會直接影響該衍生產品的價格,這就是相關資產的風險。



General Knowledge on Derivatives Course 一般衍生工具知識課程

Early Redemption & Potential Capital Loss Risk 提早贖回與及潛在損失資本的風險

Regardless of whether the investor chooses to redeem early, or the issuer has to terminate the products because of early redemption, these actions may cause the investor to lose money because he/she may receive an amount less than what he/she has invested. Therefore, investor should pay attention to the early redemption provision, and consider if it would affect the amount he/she invests. 無論是投資者選擇提早贖回,或是發行商選擇提早終止產品,有關的提早贖回行動或者會令投資者收取少於最初投資的金額而蒙受損失,故投資者須注意有關提早贖回

條款,確認是否會影響其投資金額。

Liquidity Risk 流通風險

There may be a risk that the derivatives cannot be easily sold or converted into cash with low cost. Before the expiry, some derivatives may be harder to sell and convert into cash. If it is not possible to sell them, investor will have to wait until the derivatives expire before he/ she can get his/her funds back 衍生產品或會出現因不能在次級市場沽出難以變現或變現成本昻貴的風險。有些衍生產品在到期前或會比較難套現。如果未能成功沽出,投資者的資金可能須要於衍生 產品到期時才會有機會取回。

Interest Rate Risk 利率風險

interest rate and the values of all derivative products are closely related. Any derivative will ultimately be exchanged for an "asset" and "money", or exchanged between two currencies. The fact is that "money" is necessarily linked to interest rates; therefore, interest rate changes will definitely affect the values of derivative products. 「利率」和所有衍生產品價格都有密切關係。由於任何衍生產品最後也會將「資產」和「金錢」交換、或者涉及兩種貨幣的交換,而「金錢」就一定與利息有關,故利 率的變化會影響衍生產品的價格。

Leverage Risk 槓桿風險 (6)

Although derivative warrants may cost a fraction of the price of the underlying assets, a derivative warrant may change in value more or less rapidly than the underlying assets. In the worst case the value of the derivative warrants may fall to zero and holders will lose their entire purchase price 儘管衍生產品價格遠低於相關資產的價格,但衍生產品價格升跌的幅度亦遠較相關資產的為大。在最差的情況下,衍生產品可跌至零,投資者會損失最初投入的全部資 金,

The above risks are common ones, and because of the rapid changes in the financial markets, when investor trades derivatives, he/she should make sure he/she is aware of the specific provisions and risks of each.

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The content above is to provide a general knowledge of derivatives and their risks. Since derivatives have different kinds of characteristics, when investor trades derivatives, please seek professional investment advisor for detailed information about the derivatives and the risks involved. 以上內容提供衍生產品所涉及的風險和基本認識。但由於衍生產品種類繁多,且各有特性,投資者在買賣個別衍生產品時,請向專業投資顧問查詢產品的性質和涉及的 風險。

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