

Common Types of Derivatives

Video Title: Section 2 Common Types of Derivatives

Last time we talked about what Derivatives are, and in the following section, we will be talking about the different types of derivatives and their natures. There are various types of derivatives in the market, and here we will focus on two main types, “Futures” and “Options”.

Let’s take a look at them in detail and highlight the differences between them.

Let’s talk about the first type of derivatives.

“Futures” refers to contracts between a buyer and a seller, who mutually agreed to trade underlying assets (e.g. stocks, currencies, gold, etc.) on a specific future date (e.g. one month later) at a specific 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.

In addition, “Futures” can also be further classified into two types: “Listed” and “Non-listed” (also known as “Over-the-counter”). Those futures products listed on an exchange are called “Futures Contracts”. You may have heard about the “Hang Seng Index Futures” on the financial news, that is an example of futures contracts listed on the exchange. For those that are not listed on the exchange, they are called “Forward Contracts”. Sometimes, you may hear about something called a “Swap”, such as “Currency Swap” or “Interest Rate Swap”. Actually, these “Swap” products usually consist of a pair of forward contracts.

For example, investor could buy and sell two different forward contracts at the same time, and use a swap to exchange two different currencies at specified prices and dates.

For example, assume that you want 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, say, in one month, you would like to convert the Australian Dollars back into Hong Kong Dollars at a predetermined exchange rate. To do this, you 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.

Now, let's focus on futures contracts that are listed on the exchange, these futures contracts have a common characteristic, which is called the "Standardized Contract". What does this mean? 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 what we mean by the "Standardized Contract". Forward Contracts are not listed on the exchange. Unlike futures contracts, forward contracts are not "Standardized Contracts". Settlement prices and trading amounts can be tailor-made according to the needs of individual investors. 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 investors make a currency forward contract with a financial institution based on their particular needs. The investor can negotiate the contract details, such as settlement prices and settlement dates, with the financial institution. Consider parents who buy foreign currencies to pay for their children's overseas school fees, but worry that the exchange rates will increase in the near future. Therefore, they can buy a currency forward contract, perhaps a 3-month contract from the financial institution in order to lock in a certain foreign exchange rate at the end of the 3 months, as specified in the contract. This action could avoid currency rate fluctuations. Having already talked about "Futures", let's go on to talk about another type of derivative product; the "Option".

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. Within option products, you ought to 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 you often hear of are a kind of "call option" product. Sometimes, you may read in the newspaper that senior management of listed companies receives stock options from the companies. These are also "call option" products. Now let's move on to the three different kinds of "Moneyness of Options": "In-the-money" : When the underlying asset's price is higher than the call option's exercise price or lower than the put option's exercise price, the option is said to be "In- the-money".

"At-the-money": When the underlying asset's price is equal is to the call or put option's exercise price, the option is said to be "At- the-money".

"Out-of-the-money": When the underlying asset's price is lower than the call option's exercise price or higher than the put option's exercise price, the option is said to be "Out-of-the-money".

To make this clearer, consider this "call option" example. Assuming that a buyer and a seller entered into a call option contract, where the buyer can buy a pack of salt from the seller at the price of \$2 after one month. Even if the market price of a pack of salt rises to \$20 after a month, the buyer can still buy from the seller at the price of \$2. For the buyer of the call option

contract, the salt is \$18 cheaper than the current price. However, the seller will lose \$18 at that time. In the market, you can act as the buyer of an option with the right to buy or to sell the underlying assets, but you have to pay the "Option Premium", in exchange for that right. The seller will earn the "Option Premium", but, at the same time, he or she also must bear the risk of market price fluctuations, which may result in possible losses. You might ask why someone would want to be an option seller if there is a chance of losing money. Firstly, no one knows what the price will be after one month; secondly, the option contract seller received a specific amount from the buyer as the price of buying the contract. This is the "Option Premium" which we mentioned earlier.

The "Option Premium" can be viewed as a cost of buying a right. While the sellers receive the Option Premium, they may potentially enhance their returns. Investment products that consist of different derivatives are often called "Structured Products". Equity-Linked Deposits, or Currency-Linked Deposits, are common examples of "Structured Products". 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 you invest in "Structured Products" which are mixtures of derivatives, a clear understanding of the detailed contract provisions is particularly important, for example, whether it is "principal-protected" or, "non-principal-protected". Of course, when trading structured products, you always required to bear in mind the risk of significant market price fluctuations, which may result in possible losses.

We have just covered "Futures" and "Options", but in fact, there are many examples of these derivatives in the market, including the "listed products" and "non-listed products" you usually read about in the newspaper. Warrants, or the Callable Bull/Bear Contracts, are common examples of "listed products", which are a kind of option. "Non-listed products", such as equity-linked deposits or currency-linked deposits, are commonly available at any bank or financial institution. Now let's make use of an equity-linked deposit for a further explanation. Its structure contains an equity option, which means that the investor who buys the equity-linked deposit acts as the option seller, who receives the option premium as earlier mentioned. In this case, 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 significant market movement of the underlying stock.

Now for a quick summary. Do you remember the two types of derivative products we have talked about? They are "Futures" and "Options". And what are their differences?

"Futures" are contracts between a buyer and a seller, who mutually agreed to trade specific underlying assets, at a specific price on a specified future date.

Among option products, you ought to know the difference between a “Call Option” and a “Put Option”. For example, a “Call Option” gives the buyer a right but no an obligation to exercise the contract; in order words, to buy the underlying asset from the seller at a pre-determined price on (or before) a certain future date. What about the characteristics of “Structured Products”? Most structured products are embedded with derivatives, some are “principal-protected”, and some are “non-principal-protected”.

Next time, we will talk about the application of derivative products.

See you next time!

VIDEO END
