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Curso de inglés económico, de finanzas y tributos
Module 9

Derivatives

Introduction to Derivatives

The financial instruments we've considered so far - stocks, bonds, commodities and currencies - are generally referred to as cash instruments (or sometimes, primary instruments). The value of cash instruments is determined directly by markets.

By contrast, a derivative derives its value from the value of some other financial asset or variable. The asset from which a derivative derives its value is referred to as the **underlying asset**. The price of a derivative rises and falls in accordance with the value of the underlying asset.

Derivatives can be used to manage the risks associated with securities, to protect against fluctuations in value, or to speculate. The main kinds of these are options, futures and swaps.

Futures & Forwards

A **future** is a contract to buy or sell a stock on a specified future date at a preset price. An investor who wants to buy in the future wants to lock in a low price. An investor who wants to sell in the future wants to lock in a high price.

On the other hand, a **forward** is an individual, non-standardized contract between two parties, traded over the counter (directly between two companies or financial institutions).

Futures are traded on a wide range of agricultural products, industrial metals, precious metals and oil. These products are known as commodities. Futures were invented to enable regular buyers and sellers of commodities to protect themselves against losses or future changes in the Price. The futures price for a commodity is normally higher than its **spot price** (the price that would be paid for immediate delivery). Sometimes, however, short-demand pushes the spot price above the future Price, which is known as **backwardation**.

Financial futures are standardized contracts, traded on exchanges, to buy and sell **financial assets** (such as currencies, interest rates, stocks and stock market indexes) that fluctuate so financial futures are used to fix a value for a specified future date. They can be used to hedge or to speculate.

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.

There are different types of Financial Futures:

- Currency Futures/Forwards contracts which specify the price at which a certain currency will be bought or sold on a specified date;
- Interest rate Futures agreements to issue fixed income securities (bonds, money market instruments) at a future date;
- Stock Futures contracts which fix a price for stock (or stock index) on a certain date.

Options

An **option** is a contract giving the investor the right, but not the obligation, to buy or sell stock at a future date at a pre-set price.

As you can see, the difference between a future and an option is that a futures contract requires the investor to buy or sell, while an option contract offers the possibility of buying or selling but does not require it. In options trading, an investor pays a small fraction of a stock's current price for an option to buy or sell the stock at a better price in the future.

There are two kinds of options:

	Call Option	Put Option
Definition:	Buyer has the right, but it is not required, to buy an agreed quantity by a certain date for a certain price (the strike price).	Buyer has the right, but is not required, to sell an agreed quantity by a certain date for the strike price.
Costs:	Premium paid by Buyer	Premium paid by Buyer
Obligations:	Seller obligated to sell	Seller obligated to buy

Value:	Increases as value of the asset increases	Increases as value of the asset decreases

Selling or writing options contracts involves the obligation either to deliver or to buy assets, if the buyer exercises the option (chooses to make the trade). For this, the seller receives a fee called a **Premium** from the buyer.

But, sellers of options do not expect them to be exercised. If you expect the price of stock to rise from 100 to 120, you can buy a call option to buy stock at 110.

If the price of stock does not rise to 110, you will not exercise the option, and the seller of the option will gain the Premium. Your option will be **out of the money**, as the stock is trading at below the **strike price** or exercise price of 110, the price stated in the option.

If, on the other hand, the stock prices rises above 110, you are **in the money**, as you can exercise the option and you'll gain the difference between the current price market and 110.

Warrants & Swaps

Some companies issue **warrants** which give the right but not the obligation to buy stocks in the future at a particular price, probably higher than the market price.

They are usually issued along with bonds, but they can be traded separately. Unlike call options, warrants have long maturities of up to 10 years.

Swaps are arrangements between institutions to exchange interest rates or currencies.

For example, a company that has borrowed money by issuing with floating-rate notes could protect itself from a rise in interest rate by arranging with a bank to swap its floating-rate payments for a fixed-rate payment (if the bank expected interest rates to fall).

Hedge funds

Hedge Funds are private investment funds for wealthy investors, run by partners who have made big personal investments in the fund. They pool or put together their money and investors' money and trade in securities and derivatives, and try to get high returns whether the market move up or down. They can make big profits, but also big losses if things go wrong.

Hedge funds do not necessarily use **hedging techniques** – protecting themselves against future Price changes. In fact, they tend to specialize in high risk, short-term speculation on stock options, bonds, currencies and derivatives. As they are private, hedge funds are not required to follow as many rules as mutual funds.

Investors who do not have sufficient funds to join a hedge fund can buy **structured products** from Banks. These are customized- non-standard – over-the-counter financial instruments. They use derivative products in a way similar to hedge funds, depending on the customer's requirements and changes in the market.

Most hedge funds use these techniques:

- **Leverage (gearing):** borrowing money to increase the capital for investment. Investors can take long positions (buy securities that are expected increase in value) or short positions (sell securities that are expected to decrease in value but not yet purchased)

- **Long or Short-selling:** Investors take **long positions** by buying securities that are expected increase in value. At the same time, they sell securities that are expected to decrease in value but they have not yet purchased. This is called taking **short positions**. If the Price does fall, they can buy them at a lower Price, and then sell them at a profit.

Example:
Suppose 1,000 shares are short sold by an investor at $25 apiece and $25,000 is then put into that investor's account. Let's say the shares fall to $20 and the investor closes out the position. To close out the position, the investor will need to purchase 1,000 shares at $20 each ($20,000). The investor captures the difference between the amount that he or she receives from the short sale and the amount that was paid to close the position, or $5,000.

- **Arbitrage:** buying a security/currency in one market and simultaneously selling it (or a related product) in another market at a slightly higher price. Investors benefit from the price differences.

Example:
A trader may buy a stock on a foreign exchange where the price has not yet adjusted for the constantly fluctuating exchange rate. The price of the stock on the foreign exchange is therefore undervalued compared to the price on the local exchange, and the trader makes a profit from this difference.

It is important to note that even when markets have a discrepancy in pricing between two equal goods, there is not always an arbitrage opportunity. Transaction costs can turn a possible arbitrage situation into one that has no benefit to the potential arbitrager.

Merger and acquisitions

In the modern business world, the ownership of companies often changes. This can happen by a merger or takeover or acquisition.

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When one company takes over another and clearly established itself as the new owner, the purchase is called **an acquisition**. From a legal point of view, the target company ceases to exist, the buyer "swallows" the business and the buyer's stock continues to be traded.

In the pure sense of the term, a merger happens when two firms, often of about the same size, agree to go forward as a single new company rather than remain separately owned and operated.

This kind of action is more precisely referred to as a "merger of equals." Both companies' stocks are surrendered and new company stock is issued in its place. For example, both Daimler-Benz and Chrysler ceased to exist when the two firms merged, and a new company, DaimlerChrysler, was created.

Being bought out often carries negative connotations, therefore, by describing the deal as a merger, deal makers and top managers try to make the takeover more palatable.

Varieties of Mergers

From the perspective of business structures, there is a whole host of different mergers.

Here are a few types, distinguished by the relationship between the two companies that are merging:

- Horizontal merger - Two companies that are in direct competition and share the same product lines and markets.
- Vertical merger - A customer and company or a supplier and company. Think of a cone supplier merging with an ice cream maker.
- Conglomeration - Two companies that have no common business areas.

In the case of a vertical merger, there are these possibilities:

- **Backward integration:** acquiring suppliers of raw materials;
- **Forward integration:** buying distributors or retails outlets;
- **Diversification:** companies buy businesses in completely different fields in order to reduce the risk involved in operating in only one industry.

Takeover Bid or Raid

When a company offers to buy all the shareholders' shares at a certain price (higher than the market price) during a limited period of time, there is a takeover bid.

There are two types of takeover bid:

If the Company's board of directors agrees to a takeover, it is a friendly bid, and if the shareholders agree to sell, it becomes a **friendly takeover**.

If it is the opposite, there is a hostile bid, and, if successful, a **hostile takeover**.

Companies has various ways of defending themselves against hostile bid. They can try to find a **White knight** - finding another Company that they would prefer to be bought by.

Or they can use the **poison pill defence** (eat me and you'll die), which involves issuing new shares at a big discount. This reduces the holding of the Company attempting the takeover and makes it much more expensive.

Another form of takeover is the **raid**, by which a company buys as many shares as possible on the stock market to gain a **majority**.

Sinergy - Conglomerates

A series of takeovers can result in a parent Company controlling a number of subsidiaries: smaller companies that it owns. When the subsidiaries operate in many different business areas, the Company is known as a Conglomerate.

Large conglomerates tend to become inefficient. Top executives leave after hostile takeovers and too much diversification makes the Company not concentrate on its core business. Takeovers do not always result in **sinergy** – combined production that is greater than the sum of its separate parts.

An inefficient conglomerate with too low profits and a low stock Price can fall below the value of its assets. Therefore, it becomes more profitable for another Company to buy the conglomerate and either split it up and sell it as individuals companies, or close the Company and sell the assets. This practice is called **asset-stripping**.

LBO & MBO

If individuals or companies who want to take over other companies (known as corporate raiders) borrow money to do so, generally by issuing bonds, the takeover is called a **leveraged buyot – LBO**. This means that the takeover is largely financed by borrowed capital. After the takeover, the raider sells subsidiaries of the Company in order to pay back the bondholders.

Sometimes, a Company's own managers want to buy the Company and re-organize it. This is a **management buyout or MBO**. If the buyout is financed by issuing preference shares and convertibles, this is known as *mezzanine finance*, being halfway between debt and equity.