19BAE710-FINANCIAL DERIVATIVES

A futures contract is a legal agreement to buy or sell a particular commodity asset, or security at a predetermined price at a specified time in the future. Futures contracts are standardized for quality and quantity to facilitate trading on a futures exchange.

The buyer of a futures contract is taking on the obligation to buy and receive the underlying asset when the futures contract expires. The seller of the futures contract is taking on the obligation to provide and deliver the underlying asset at the expiration date.

Understanding Futures Contracts

Futures are derivative financial contracts that obligate the parties to transact an asset at a predetermined future date and price. Here, the buyer must purchase or the seller must sell the underlying asset at the set price, regardless of the current market price at the expiration date.

Underlying assets include physical commodities or other financial instruments. Futures contracts detail the quantity of the underlying asset and are standardized to facilitate trading on a futures exchange. Futures can be used for hedging or trade speculation.

"Futures contract" and "futures" refer to the same thing. For example, you might hear somebody say they bought oil futures, which means the same thing as an oil futures contract. When someone says "futures contract," they're typically referring to a specific type of future, such as oil, gold, bonds, or S&P 500 index futures. Futures contracts are also one of the most direct ways to invest in oil. The term "futures" is more general, and is often used to refer to the whole market, such as, "They're a futures trader."

Futures contracts are standardized, unlike forward contracts. Forwards are similar types of agreements that lock in a future price in the present, but forwards are traded over-the-counter (OTC) and have customizable terms that are arrived at between the counterparties. Futures contracts, on the other hand, will each have the same terms regardless of who is the counterparty.

Application of a Futures Contracts

Futures contracts are used by two categories of market participants: hedgers and speculators.

Hedgers

Producers or purchasers of an underlying asset hedge or guarantee the price at which the commodity is sold or purchased. They use futures contracts to ensure that they have a buyer and a satisfactory price, hedging against any changes in the market.

An oil producer needs to sell its oil. They may use futures contracts to lock in a price they will sell at, and then deliver the oil to the buyer when the futures contract expires. Similarly, a manufacturing company may need oil for making widgets. Since they like to plan ahead and always have oil coming in each month, they too may use futures contracts. This way they know in advance the price they will pay for oil (the futures contract price) and they know they will be taking delivery of the oil once the contract expires.

Speculators

Since many commodity prices tend to move in predictable patterns, it is possible to make a profit by trading futures, even if one does not have a direct interest in the underlying commodity. Traders and fund managers use futures to bet on the price of the underlying asset.

For example, a trader may buy grain futures if they expect the price of grain to increase before the delivery date. Any unexpected changes to the weather or growing conditions may cause the futures price to rise or drop.

Types of Futures Contracts

Futures contracts can be used to set prices on any type of commodity or asset, so long as there is a sufficiently large market for it. Some of the most frequently traded types of futures are outlined below:

- **Agricultural Futures:** These were the original futures contracts available at markets like the Chicago Mercantile Exchange. In addition to grain futures, there are also tradable futures contracts in fibers (such as cotton), lumber, milk, coffee, sugar, and even livestock.
- **Energy Futures:** These provide exposure to the most common fuels and energy products, such as crude oil and natural gas.
- **Metal Futures:** These contracts trade in industrial metals, such as gold, steel, and copper.
- **Currency Futures**: These contracts provide exposure to changes in the exchange rates and interest rates of different national currencies.
- **Financial Futures:** Contracts that trade in the future value of a security or index. For example, there are futures for the S&P 500 and Nasdaq indexes. There are also futures for debt products, such as Treasury bonds.