

Derivative Markets

Futures, Options, OTC's and Swaps

The following chapter is meant to be a general introduction to derivative markets, including futures, options, OTC's and swaps. It is by no means intended to be comprehensive or exhaustive on the subject. The information and data contained in this chapter are taken from sources believed to be reliable, but does not warrant their accuracy or completeness.

The origin of the trading of futures and derivatives can be traced back to ancient history. In Ancient Mesopotamia, circa 1750 BC, the sixth Babylonian king, Hammurabi, created one of the earliest legal codes, the "Code of Hammurabi". The Code of Hammurabi allowed sales of goods and assets to be delivered at an agreed price at a future date, requiring contracts to be in writing and witnessed. Furthermore, it allowed the subsequent assignment of these contracts. The code facilitated the first derivatives in the form of forward and futures contracts. An active derivatives market existed, with trading carried out at temples. ⁱ

One of the earliest written records of futures trading can be found in Aristotle's Politics. There he tells the story of Thales, a poor philosopher from Miletus who developed a "financial device, which involves a principle of universal application". Thales used his skill in forecasting and predicted that the olive harvest would be exceptionally good in the autumn. Confident, he made agreements with local olive-press owners to guarantee him exclusive use of their olive presses at harvest. When the harvest arrives, and a sharp increase in demand for the olive presses outstripped supply, he sold his contracted use of the olive presses at an attractive rate, making a large amount of money. ⁱⁱ

Another early recognized futures trading exchange was the Dojima Rice Exchange, established in 1730 in Japan for the purpose of trading rice futures. The Tokugawa shogunate authorized a spot market to trade rice

bills and a futures market to trade representative brands of rice on a book in Dojima. This marked the inception of an official market known as Dojima Rice Exchange, which was equipped with a membership system and clearing function similar to exchanges in the modern era and is widely known as the forerunner to organized futures exchanges in the world.ⁱⁱⁱ

Early Nineteenth-Century U.S. agricultural producers and consumers were subject to drastic seasonal fluctuations in supply, reoccurring gluts and shortages, along with associated fluctuations in commodity prices. During this time production was unpredictable, storage and handling facilities were primitive, and markets were disorganized. It was through this period that centers of agricultural commerce at key transportation centers began to emerge, creating a stable regional market for producers and end users.

By 1848, the completion of Illinois & Michigan Canal and tributary railroad infrastructure centered around Chicago and linking the Great Lakes with the Mississippi River. Chicago soon became a key hub for agricultural commerce.^{iv}

The United States had the earliest official commodity trading exchange in the west, the Chicago Board of Trade (CBOT), formed in 1848, which would become the preeminent grain exchange. The CBOT arose in the aftermath of railroads and the telegraph connecting the agricultural marketplace hub of Chicago with New York and other cities in the eastern U.S.^v

The establishment of a central grain exchange allowed farmers and grain producers to sell their crops at set prices throughout the months between harvests, and allowed consumers to purchase grains at transparent prices throughout the year. After an initial period providing trading in forward contracts, the CBOT introduced standardized futures contracts in 1865. These centrally cleared contracts, secured with the payment of performance bond or margin payments by clearing members, introduced a level of reliability and security to buyers and sellers that stabilized markets against the possibility of default. The first traded futures contracts in the U.S. were for corn. Wheat and soybeans subsequently followed, and these three basic agricultural commodities still account for the bulk of trading business conducted at the CBOT.^{vi}

The next large market to begin trading futures contracts was the cotton market. Forward contracts in cotton began trading in New York in the 1850s, leading eventually to the establishment of the New York Cotton Exchange (NYCE) in 1870.^{vii} Futures contracts for other products developed over time, including commodities such as cocoa, orange juice

and sugar. Massive U.S. cattle production in the led to cattle and pork futures contracts.^{viii}

The Chicago Produce Exchange was established in 1874 as a dedicated exchange for the cash trade of butter and eggs, with defined product grades and rules of trade. To ensure quality, each keg of butter was individually smelled and tasted on the spot, and a price agreed upon. Surplus butter was salted and stored in the basement for future sale, which drove the introduction in 1882 of the “time contract”. In 1898, members of the Chicago Produce Exchange formed the Chicago Butter and Egg Board. Following World War I, in 1919, the Chicago Butter and Egg Board reconstituted as the Chicago Mercantile Exchange (CME), to form an organization to permit public participation under carefully supervised commodity trading regulations.^{ix}

The 1970s saw a large expansion in the futures trading markets.^x The Chicago Mercantile Exchange (CME) started offering futures trading in foreign currencies. The New York Mercantile Exchange (NYMEX) began offering trading in various financial futures, including U.S. Treasury bonds (T-bonds) and eventually futures in stock market indexes. The Commodities Exchange provided futures trading in gold, silver and copper, and later added platinum and palladium when gold ceased to be pegged to the U.S. dollar. The rapid expansion of trading in financial futures led to the creation of futures contracts on the Dow Jones and S&P 500 stock indexes.^{xi}

Today, agricultural derivatives, futures, options, over-the-counter and swap products are traded on exchanges around the world. However, the U.S. based exchanges remain the most widely traded. This is due in large part to the fact that the most heavily traded markets are based in the U.S. and widely supported by both domestic and international activity.

However, this approach to risk management is not limited to agricultural commodities. Many industries use the risk management potential of futures and options to manage price risk across a variety of assets, and for both essential inputs and production.

For example, the transportation industry may want to lock in the price of fuel for the next year, just as as the construction industry may want to do the same for key building materials such as steel and concrete. Knowing the cost of key inputs allows businesses to set prices with much more confidence.

Beyond physical goods (e.g. agriculture, energy, minerals, construction materials, etc.), businesses also can use the futures market to manage risks on foreign exchange rates and interest rates.

WHAT IS A DERIVATIVE?

In the most general sense, derivatives are financial instruments in which a buyer and seller establish a contract whose value is dependent on an underlying asset, group of assets, or benchmark.

A broad definition of a derivative would include products traded on established futures exchanges, both futures and options, as well as swaps and specially designed “over-the-counter” (OTC) products. A derivatives contract can be traded on an organized exchange or can be established between two or more parties in an OTC arrangement.

The market uses derivatives to access specific markets and trade different assets and asset classes. The price or value of a derivative is derived from fluctuations in value of an underlying asset, or combination of assets. The most common underlying assets for derivatives are stocks, bonds, commodities, currencies, interest rates, and market indexes. Contract values depend on changes in the prices of the underlying asset. Derivatives are based on a wide variety of transactions and have many more uses. There are even derivatives based on weather data, such as the amount of rain or the number of sunny days in a region.

Derivatives

In the trade, derivatives can be used as both a speculative, as well as a hedging tool to mitigate the risk of changes in price. The type of products offered across derivatives markets are diverse and varied. They continue to grow, offering products that can be designed to fit nearly any need or risk tolerance.

WHAT DO WE MEAN BY “LEVERAGED”?

Many derivative instruments are leveraged, which means a small amount of capital is required to have an interest in a large amount of value in the underlying asset. The ability to leverage may remind you of buying stocks on margin. However, in equity markets, buying on margin means you borrow money to make the purchase.

In the futures markets, your performance bond is not partial payment for the product. It is good-faith money you post to ensure you are able to meet the day-to-day obligations of holding that position. Both buyers and sellers in futures post performance bonds. Positions are then marked-to-market on a twice daily basis, where profits are credited, and losses are debited from your account.

As such, trading of derivatives can be very risky and a trader should have

a thorough understanding of the instrument to be used.

The most common types of derivatives are futures, options, and OTC swaps. The following is an overview of each of these types of derivatives.

EXCHANGE TRADED DERIVATIVES AND FUTURES

The most commonly traded derivatives are “futures” contracts traded on an organized exchange. Futures contracts are financial instruments that allow market participants to offset or assume the risk of a price change of an asset over time. A futures contract (commonly called “futures”) is a standardized contract, or agreement between two parties for the purchase and delivery of an asset at an agreed price at a future date.

A futures contract is distinct from a forward cash contract in two important ways:^{xii}

First, a futures contract is a legally binding agreement to buy or sell a standardized asset on a specific date or during a specific month. An exchange-traded futures contract specifies the quality, quantity, physical delivery time and location for the given product. This product can be an agricultural commodity, such as 5,000 bushels of corn to be delivered in the month of March.

Exchange Traded Futures

The specifications of the contract are identical for all participants. This characteristic of futures contracts allows buyer or seller to easily transfer contract ownership to another party by way of a trade. Given the standardization of the contract specifications, the only contract variable is price. Price is discovered by bidding and offering, also known as quoting, until a match, or trade, occurs.

Second, futures contracts are products created by regulated exchanges. Therefore, the exchange is responsible for standardizing the specifications of each contract. Exchange traded futures contracts are centrally cleared. This means that when a futures contract is bought or sold, the exchange becomes the buyer to every seller and the seller to every buyer. This greatly reduces the credit risk associated with the default of a single buyer or seller. The exchange thereby eliminates counterparty risk and, unlike a forward contract market, provides anonymity to futures market participants.

By bringing confident buyers and sellers together on the same trading

platform, the exchange enables participants to enter and exit the market with ease, making futures markets highly liquid and optimal for price discovery.

The fact that futures contracts are standardized and exchange-traded makes these instruments indispensable to commodity producers, end users, traders and investors.

Traders use a futures contract to mitigate or “hedge” their price risk or speculate on the price of an underlying asset. The parties involved are obligated to fulfill a commitment to buy or sell the underlying asset.

Feed Mill Example

For example, on the 1st of September a feed mill knows it will need to receive a large supply of corn in December, but is afraid the corn price will rise by then. The feed mill decides to eliminate this price risk by buying a futures contract for corn at a price of \$6.25 per bushel that expires on the 15th of December. The feed mill does this because it needs corn in December and is concerned that the price will rise before the company is able to buy the physical grain in the cash market at an unknown price.

Exchange Traded Futures

Buying a corn futures contract hedges the company's risk as the seller is obligated to deliver corn to the futures delivery market for \$6.25 per bushel once the contract enters its delivery period. In addition, the price of corn in the futures market is likely to change in correlation to the change in the price of corn delivered to the feed mill.

Let's assume corn prices rise to \$7.00 per bushel by the 1st of December. The feed mill can either then; a) accept delivery of the corn into the futures delivery market and pay \$6.25, or, b) purchase local corn for delivery to the feed mill and simultaneously sell the original futures contract. In doing this any profits (or loss) from the change in price of the futures contract will offset any change in price of corn bought into the feed mill.

In this example, the futures buyer has hedged their price risk. The feed mill needed corn in the future and wanted to offset the risk that the price may rise before December with a long position in a corn futures contract.

The seller may have been an Illinois corn farmer who was concerned about falling corn prices and wanted to eliminate the risk of falling prices by selling or shorting a futures contract. By doing so, the farmer fixed the price he would receive in December.

It is also possible that one of the parties may have been a speculator with the opposite opinion about the direction of December corn. In this case, one party may have benefitted from the change in the contract price, while the other was hedging the price risk.

For example, a futures contract for CBOT December Corn that trades on the CME and represents 5,000 bushels of No. 2 Yellow Corn. If the price of corn rose from \$6.25 to \$7.00 per bushel, the trader with the long futures position, i.e. the buyer, would have profited \$3,750 $[(\$7.00 - \$6.25) \times 5,000 = \$3,750]$ However, the trader with the short position, i.e. the seller, would have a loss of \$3,750.

EXCHANGE TRADED OPTIONS

An option on a futures contract, or commonly referred to as an **“option”**, is similar to a futures contract in that it is an agreement between two parties to buy or sell an asset at a predetermined future date for a specific price.

Traders and investors buy and sell options on futures contract for several reasons. As with futures, options may be used to hedge or speculate on the price of the underlying asset. Options speculation allows a trader to hold a leveraged position in an asset at a lower cost than buying the asset. Commercial traders use options to hedge or reduce the risk exposure on their physical positions.

Options on futures are contracts that represent the right, not the obligation, to either buy (i.e. go long, also known as a “Call”) or sell (i.e. go short, also known as a “Put”) a particular underlying futures contract at a specified price on or before a specified “expiration date”.^{xiii}

Note the difference: on the futures delivery date a physical commodity (e.g. wheat or corn) or financial instrument will change hands. On an option’s expiration date it is a futures contract that may change hands.

The key difference between options and futures is that with an option, the buyer has the right, but not the obligation, to exercise their agreement. Unlike futures, the holder is not required to buy or sell the asset if they decide against it. In this context, options can be thought of as an insurance policy.

Options are versatile financial products. These contracts involve a buyer and seller, where the buyer pays a **“premium”** for the rights granted by the seller, or **“writer”**, of the contract.

*Exchange
Traded
Options*

Each options contract will have a specific expiration date by which time the holder must decide whether they wish to exercise their option, or not. The options contract also has a stated price at which the contract may be exercised known as the “**strike price**”.

Calls and Puts

There are two types of option contracts, Calls and Puts. Buyers are long option contracts, and hold (or own) these long positions. Buyers with long options are sometimes referred to as “holders” or “owners.”^{xiv}

A **Call option** conveys to its buyer the right to buy (go long) a particular underlying futures contract, at a stated strike price, on or before a specified date in the future.

A **Put option** conveys to its buyer the right to sell (go short) a particular underlying futures contract, at a stated strike price, on or before a specified date in the future.

Only the option buyer can “exercise” an option. If the option holder decides to actually exercise the option, [i.e. (buy/go long) the underlying futures contract at the strike price, in the case of a Call option, or, (sell/go short) the underlying futures at the strike price, in the case of a Put option], the right to do so must be exercised. This requires instructing their brokerage firm of their intention to exercise their long option contracts. This decision is totally up to the option holder.

American-Style vs. European-Style^{xv}

All options have an expiration date, after which the options cease to exist; option buyers no longer have rights and sellers no longer have obligations. The last day to exercise, and therefore the last day on which assignment may be made, depends on an option’s exercise style. There are two styles: American and European.

American-Style option contracts may be exercised/assigned on any trading day up to and including the expiration date.

European-style option contracts may be exercised/assigned only on the expiration date.

Whether an option is American- or European-style depends on its contract specifications which are set by the exchange. Most commodity, stocks and exchange-traded funds have American-style options, while equity indices, including the S&P 500, have European-style options.

Why use options?

Traders and investors buy and sell options for several reasons. As with futures, options may be used to hedge or speculate on the price of the underlying asset. Options speculation allows a trader to hold a leveraged position in an asset at a lower cost than buying the asset. Commercial traders use options to hedge or reduce the risk exposure on their physical positions.

Exchange Traded Options

For grains consumers and producers, the most common use of options is as a form of price insurance. Strategies can be constructed in many differing ways. Some of the more common uses are to manage the maximum price an end user might pay for an input commodity, or, the minimum price a producer might receive for season production of corn.

In sum, options can be a multi-faceted risk management tool which can create opportunity and profit for both buyers and sellers of grain if used properly. An exchange traded option can minimize risk, while leaving open potential reward for risk managers in the feed grains market.

Note – It is the intent here to introduce subject of options, and not to provide a comprehensive understanding of the subject. Further information and understanding needs to be attained by the reader.

OVER-THE-COUNTER PRODUCTS AND SWAPS

Another common form a derivative and risk management tool available to market participants are Over-The-Counter (OTCs) or Swaps.

The principal value of swaps is their ability to hedge previously unhedgeable risks. Swaps and OTC derivatives are a private contract between two parties, they carry differing risk profiles. As such, they can be customized to fit a particular situation and to effectively manage specific risks. Unlike most standardized options and futures contracts, swaps are not exchange-traded instruments. Financial institutions dominate the swaps market, with few (if any) individuals ever participating. Retail investors do not generally engage in swaps.

OTS and swap products can be quite complex. They require a good understanding of both how the product is constructed, as well as a good understanding of the underlying markets incorporated into the product structure. A thorough assessment of risk implications and potential financial impacts also need to be undertaken.

*OTC's
and
Swaps*

The only limitation one has in creating a swap is imagination and the willingness of another party to accept the risk that is being bought or sold. It is the ultimate freestyle contract which may include customized terms, with individually tailored size and specifications. Swaps may use indices as obscure as published values in trade journals or broker's quotes for settlement. They are ultimately flexible and therefore can be useful in managing risk. As such, there is a large variety of products which may be available to the market, and too numerous to list and discuss here.

Because swaps occur on the OTC market, there is always the risk of a counterparty defaulting on the swap.

Swaps have several advantages over futures and cash contracts. They may be constructed so as to hedge risks that may not be covered by exchange or cash traded instruments.

Following is an incomplete list of both advantages and disadvantages.

Advantages

- can be tailored to meet specific and unique, needs of a particular situation;
- Can be used to lock in price outcomes and hedge against risk
- Can be leveraged;
- Can be used to diversify a portfolio.

Disadvantages

- Can be complex to difficult understand;
- Sensitive to a more complex range of supply and demand factors;
- Can be difficult to value or mark to market at any point in time, and subject to counterparty's valuation of the market (if OTC).
- Are an illiquid financial instrument and can be difficult to liquidate or trade out of;
- Subject to greater counterparty risk and default (if OTC);

OTC and swaps are between two private parties and are less regulated than exchange trade futures. To hedge this risk, the investor could purchase a currency derivative to lock in a specific exchange rate. Derivatives that could be used to hedge this kind of risk include currency futures and currency swaps.

Due to the potential scope of risks associated with OTC's and swap products, not all parties are eligible to use some OTCs and swaps as a risk management tool. The following legal guidelines exist for participation in these markets in the United States:

- Broker-Dealers
- Futures Commission Merchants
- Individuals with total assets exceeding \$10 million.
- Corporations or other entities with total assets exceeding \$10 million or net worth exceeding \$1 million who are entering into swap transaction in conjunction with the conduct of their business.
- Employee benefit plans subject to ERISA with total assets exceeding \$10 million.

** These regulatory limitations may change from time to time.*

The limitations and restriction placed on OTC and swap instruments by the Dodd-Frank Act of 2010 led to a significant decline in the number of institutions willing to participate in these types of products, and a sharp decline in their use.

ORGANIZED FUTURES EXCHANGE

An organized futures exchange is a marketplace where a diverse range of commodities futures, index futures, and options on futures contracts are bought and sold.

The function of a futures exchange is to standardize and promote futures trading for as many participants as possible. The incentive mechanisms for those who run the exchange are roughly based on the volume and dollar value of what is traded, i.e. the more the better. That means they work to bring in as many participants making as many trades as is possible. This has led to many innovations in recent years, driving increased participation through electronic networks.

Those who are allowed access to the exchange are brokers and commercial traders who are members of the exchange. Members need to be registered with the National Futures Association (NFA) and the Commodity Futures Trading Commission (CFTC). Individuals who want to trade futures contracts must do so by establishing an account with a registered broker. Futures exchanges also provide clearing and settlement functions.

Futures exchanges used to be physical places where business took place on a trading floor during strictly specified hours. Examples of famous exchanges include the Chicago Board of Trade (CBOT), the Kansas City Board of Trade (KCBT), Chicago Mercantile Exchange (CME) or the New York Mercantile Exchange (NYMEX).

With the advent of automation, trading now happens on an electronic platform and computer of anyone connected through the internet to an exchange-member broker. This has made trading a highly decentralized global activity occurring nearly 24 hours a day during the week, around the world.

Organized exchanges provide pricing information, disseminated by information vendor. Pricing information, including price, bids, and offers, and volume is publicly available. This information sharing allows for transparency in price, volumes, and trading activities promoting a fair and open market to all.

To encourage as much participation and liquidity as possible, contracts trading on an exchange have standardized sizes, expiration dates, and, for options, strike prices. This standardization is in contrast to over-the-counter (OTC) contracts where buyers and sellers agree to highly specialize bespoke terms.

U.S. AGRICULTURAL COMMODITY EXCHANGES

The major organized exchanges in the United States which trade agricultural commodities, are domiciled in Chicago and New York with several exchanges in other locations within the country. Due to historical precedent, each exchange specializes in its own contracts. All of the exchanges are constantly developing new risk management tools which compete for trading business with the other exchanges and the off-exchange markets.

Organized Futures Exchange

CME Group Inc.

The **CME Group Inc.** (*Chicago Mercantile Exchange, Chicago Board of Trade, New York Mercantile Exchange, The Commodity Exchange*) is an American global markets company. It is the world's largest financial derivatives exchange, and trades in asset classes that include agricultural products, currencies, energy, interest rates, metals, stock indexes and cryptocurrencies futures. The company offers futures contracts and options on futures using its CME Globex trading platforms, fixed income trading via BrokerTec and foreign exchange trading on the EBS platform.

In addition, the CME Group operates a central counterparty clearing provider, CME Clearing. With a range of pre- and post-trade products and services underpinning the entire lifecycle of a trade, CME Group also offers optimization and reconciliation services through TriOptima, and trade processing services through Traiana.

On the 17th of October 2006, The **Chicago Mercantile Exchange** announced a merger with its historic rival the **Chicago Board of Trade** for \$8 billion in stock, joining the two financial institutions as **CME Group Inc.** The merger agreement was modified on 20 December 2006, 11 May 2007, 14 June 2007 and on 6 July 2007. The merger was approved by shareholders of both CME and the Chicago Board of Trade on the 9th of July 2007 and closed on the 12th of July 2007, and the overarching holding company began life as CME Group.

The Chicago Board of Trade (CBOT) was established in Chicago in 1848. Commodities traded on the CBOT include corn, gold, silver, soybeans, wheat, oats, rice, and ethanol. The Chicago Mercantile Exchange (CME) traded commodities such as milk, butter, feeder cattle, cattle, pork bellies, lumber, and lean hogs.

On the 17th of March 2008, the **New York Mercantile Exchange** (NYMEX) (owner of both the NYMEX exchange and the **Commodity Exchange** (COMEX)) accepted an offer from CME Group, to purchase NYMEX for \$8.9 billion in cash and CME Group Stock. The acquisition was formally completed on 22 August 2008, and the NYMEX systems were fully integrated by 30 September 2009. Also in 2007, NYMEX in a joint venture with partners on the Arabian Peninsula opened the **Dubai Mercantile Exchange** (DME).

*Organized
Futures
Exchange*

The New York Mercantile Exchange (NYMEX) trades commodities on its exchange such as oil, gold, silver, copper, aluminum, palladium, platinum, heating oil, propane, and electricity.

On the 10th of February 2010, CME announced its purchase of 90% of **Dow Jones Indexes**, including the Dow Jones Industrial Average. The CME subsequently contributed Dow Jones Indexes to the formation of **S&P Dow Jones Indices** in exchange for a 24.4% ownership interest. In April 2013, CME purchased the remaining 10% interest in Dow Jones Indexes for \$80.0 million. As a result, CME's interest in S&P Dow Jones Indices increased from 24.4% to 27.0%.

On the 17th of October 2012, CME Group announced it would acquire the **Kansas City Board of Trade** (KCBT) for \$126 million in cash. KCBOT was the dominant venue for the sale of hard red winter wheat. The Chicago Board of Trade was the leading trade platform for soft red winter wheat.

On the 29th of March 2018, CME Group announced that it was buying London-based NEX Group for \$5.5 billion. The acquisition was completed on the 2nd of November 2018.

Intercontinental Exchange

The **Intercontinental Exchange** (ICE) operates global exchanges, clearing houses and provides mortgage technology, data and listing services. The company owns exchanges for financial and commodity markets, and operates 12 regulated exchanges and marketplaces. This includes ICE futures exchanges in the United States, Canada and Europe, the Liffe futures exchanges in Europe, the New York Stock Exchange, equity options exchanges and OTC energy, credit and equity markets.

Formerly known as the **New York Board of Trade** (NYBOT), ICE Futures U.S. commodities include coffee, cocoa, orange juice, sugar, and ethanol trading on its exchange.

ICE also owns and operates six central clearing houses: ICE Clear U.S., ICE Clear Europe, ICE Clear Singapore, ICE Clear Credit, ICE Clear Netherlands and ICE NGX. ICE has offices in Atlanta, New York, London, Chicago, Bedford, Houston, Winnipeg, Amsterdam, Calgary, Washington, D.C., San Francisco, Tel Aviv, Rome, Hyderabad and Singapore.

Organized Futures Exchange **Minneapolis Grain Exchange**

The **Minneapolis Grain Exchange** (MGEX) is a commodities and futures exchange of grain products. It was formed in 1881 in Minneapolis, Minnesota, United States as a regional cash marketplace to promote fair trade and to prevent trade abuses in wheat, oats and corn.

MGEX offers five financially settled agricultural index products: Hard Red Spring Wheat Index (HRSI), Hard Red Winter Wheat Index (HRWI), Soft Red Winter Wheat Index (SRWI), National Corn Index (NCI) and National Soybean Index (NSI). Futures are traded exclusively and electronically on the CME Globex platform. Options are traded side-by-side.

MGEX has been the principal market for Hard Red Spring Wheat (HRSW) since 1881, offering futures and options contracts based on its unique commodity. HRSW is one of the highest-protein wheats. It is found in bagels, pizzas, high-quality breads and cereals, and some noodles and cookies. It is planted mostly in the U.S. Northern Plains and the Canadian Prairies.

In an agreement with Data Transmission Network (now Telvent DTN), a business-to-business electronic commerce and information services company in Omaha, Nebraska, MGEX has exclusive rights to DTNs

agriculture and weather data bases, which the exchange uses to develop index products.

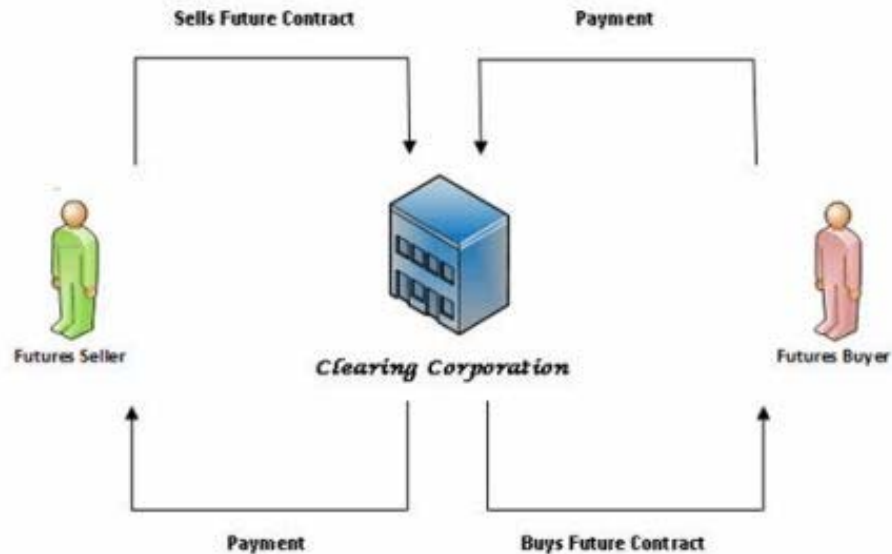
WHAT IS THE FUNCTION OF THE CLEARING HOUSE?

Another very important aspect of an organized exchange are the clearing services they provided. Each futures exchange has its own clearing house through which all members of an exchange are required to match each day's purchases and sales, clear their trades at the end of each trading session, and keep records of transactions between exchange members.

An exchange's clearinghouse is made up of "Clearing Members". These are not limited to individual living persons as is exchange membership, but is also open to corporations and partnerships.

Functions of a Clearing House

The clearinghouse stands between buyers and sellers and acts as the guarantor of each contract. In this way the clearing house guarantees all matched transactions occurring through the exchange. Due to the way the clearinghouse system operates, futures buyers do not know who might be responsible for providing the commodity they have agreed to purchase; and similarly, sellers do not know who might receive their commodity if they actually deliver it. This anonymity exists because the clearinghouse acts as the seller to each buyer and as the buyer to each seller.



A clearing house is an intermediary between buyers and sellers in the derivatives market. As the intermediary, or counterparty, to every trade, the clearing house acts as the buyer for every seller and the seller for

*Functions
of a
Clearing
House*

every buyer for every trade. By acting as the counterparty for every trade, clearing helps you mitigate counterparty risk by maintaining a matched book and risk-neutral position.

Clearing also establishes and monitors financial requirements for clearing members and sets minimum performance bond levels for all products traded on markets for which it provides clearing services. At the end of each trading day the clearinghouse balances every customer's account.

Clearing maintains a risk management framework and financial safeguards to provide stability to market participants though changing market conditions. The clearing functions enables market participants to significantly mitigate and manage their risk exposures. You do not have to worry about the counterparty risk of your trades. The clearing function lets novated off setting purchases and sales.

In addition, clearing ensures that market participants do not have to worry about the financial risk of their trade's counterparty failing to deliver or meeting their financial obligations.

While a number of firms, or clearing members, may provide these clearing services, the exchange standardizes the charges and the performance of that service. In addition, clearing member collect all deposit any sums of money sufficient to cover margining requirement, as well as to distribute moneys in excess of margining requirements.

These supporting activities make trading derivatives and futures on an organized exchange a very simple proposition for all, and encourages short-term speculators continued participation in the market.

Clearing Members: Clearing members provide access to clearing for customers and must be registered as a **Futures Commission Merchant (FCM)**. The FCM guarantees the financial obligations of the customer to CME. Collateral deposited by customers must be segregated from an FCM's own funds.

Performance Bonds: Clearing collects performance bonds (initial margins) on a daily basis, collateralizing the risk of potential future losses on positions and performs daily mark-to-market of all open positions to eliminate the accumulation of debt obligations in the market.

Performance bonds are good-faith deposits to guaranty performance of open positions against potential future losses. Performance bond requirements provide coverage for a minimum of 99% of market volatility for a given historical period. Requirements are recalculated

twice daily for most products, and at least once daily for all products.

Clearing members collect performance bond from their customers and CME Clearing collects performance bond from clearing members. Performance bond requirements vary by product and reflect changes in market volatility.

Mark-To-Market: A mark-to-market prevents the accumulation of exposures on positions. Clearing member positions are marked-to-market at the end of each clearing cycle, resulting in the movement of cash for gains and losses on clearing member and customer portfolios.

Net mark-to-market positions must be met with cash. However, some exchanges allow performance bond requirements to be met with cash, non-cash collateral, or a diverse portfolio of liquid assets as collateral.

MARGINING REQUIREMENTS ^{xvi}

Functions of a Clearing House

The term “**margin**” is used across multiple financial markets. However, there is a difference between securities margins and futures margins. Understanding these differences is essential, prior to trading futures contracts.

For securities, margin is the money you borrow as a partial down payment, up to 50% of the purchase price, to buy and own a stock, bond, or ETF. This practice is often referred to as buying on margin.

Futures margin is the amount of money that you must deposit and keep on hand with your broker when you open a futures position. It is not a down payment, and you do not own the underlying commodity.

Margins serve to act as performance bonds for all trading at U.S. futures exchanges. They are managed by clearing firms and commission merchants and their customers to facilitate trade and manage the credit risk inherent in all futures trading.

In futures markets, margin is the amount of money that you must deposit and keep on hand with your broker when you open a futures position. It is not a down payment and you do not own the underlying commodity.

For futures markets, the margin requirements generally represent a smaller percentage of the notional value of the contract, typically 3-12% of the value of a futures contract. This compares to up to 50% of the face value of securities purchased on margin.

Margin requirements may fluctuate based on market conditions. When markets are changing rapidly and daily price moves become more volatile clearinghouse margin methodology may result in higher margin requirements to account for increased risk. In contrast, when market conditions and the margin methodology warrant, margin requirements may be reduced.

Initial Margin - Initial margin is the amount of funds required by CME Clearing to initiate a futures position. While CME Clearing sets the margin amount, your broker may be required to collect additional funds for deposit.

When market conditions and the margin methodology warrant, initial margin requirements may be change; i.e increased or reduced.

Maintenance Margin – Maintenance margin is the minimum amount that must be maintained at any given time in your account. If the funds in your account drop below this level, you may receive a margin call requiring you to add funds immediately to bring the account back up to the initial margin level. This will change each day as market values change.

*Functions
of a
Clearing
House*

If the “marked-to-market” value of an account drops below the requirement, the customer will not be obligated immediately to deposit additional margin. The customer will receive a "margin call," meaning the customer will be called upon to deposit additional funds into the related account to bring the balance back up to the current required level.

For example, suppose the initial margin on a trade is \$1,000 and the maintenance margin set by the rules of a particular exchange for that trade is \$800. Then suppose the value of the futures contract held by the trader falls to a level that is only high enough to provide \$810 worth of margin guarantee. Nothing happens because the trader has not fallen through the maintenance margin level. But if the contract value declines further and is only high enough to provide \$790 worth of margin guarantee, the customer will get a margin call for \$210 - enough to bring the customer back to the initial \$1,000 margin level.

If the funds in your account drop below the maintenance margin level, a few things can happen:

- You may receive a “margin call” where you will be required to add more funds immediately to bring the account back up to the initial margin level.

- If you do not or cannot meet the margin call, you may be able to reduce your position in accordance with the amount of funds remaining in your account.
- Your position may be liquidated automatically once it drops below the maintenance margin level.

It is important to note that futures positions are highly leveraged. A small change in a futures price can translate into a huge gain or loss, so understanding how futures margin works is essential to maximize the capital efficiencies that futures afford.

Margin requirements for “spread” trades are lower than those for hedgers and speculators, as price movements between two futures contracts in a bought vs sold position are usually less volatile than fluctuations in the absolute flat price of a commodity.

UNDERSTANDING CLEARING FIRM ACCOUNTS

A clearing firm may have one or more house accounts, which are used to manage that firm’s proprietary trading activity.

Functions of a Clearing House

Pursuant to CFTC regulations, all customer position and performance bond accounts are segregated from the house accounts of clearing members and their affiliates. Clearing’s Financial and Regulatory Surveillance (FRS) department operates a financial surveillance program to monitor compliance with customer segregation requirements.

It is pertinent an understanding is attained of the required account structure and its role as it relates to clearing and risk management function for clearing. The basic account structure associated with a clearing firm to pursue “normal clearing” includes these four account types: 1) position account, 2) performance bond account, 3) settlement account and 4) asset accounts, These coincide with the account organizational structure within the exchange clearing house.

Let’s take a closer look at the setup of the accounts within the account structure and see how these different accounts are related to the functions performed when a trade is executed and cleared.

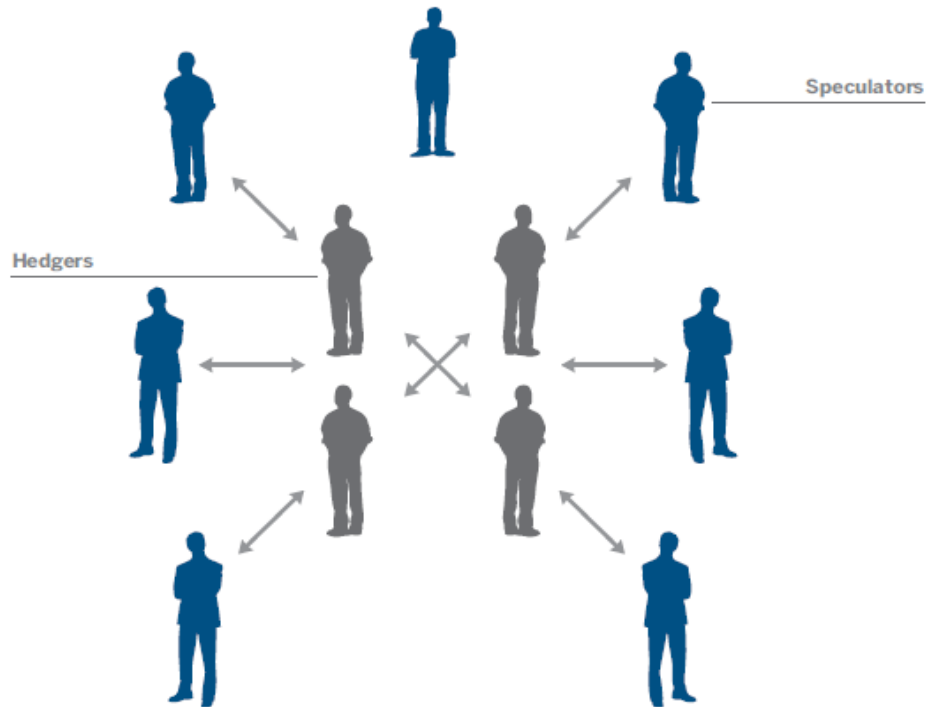
Position Account: The position account contains your position details. Futures mark-to-market and options premium are calculated at the position account level by the clearing house. Each of the clearing firm’s position accounts must be associated with a performance bond account and a settlement account.

Performance Bond Account: Performance bond accounts hold performance bonds and are used for the purpose of calculating performance bond requirements. Performance bond, deposits, also known as initial margin, are held at the exchange's clearing house to ensure that clearing members have sufficient funds to meet obligations. Performance bond calculations vary by asset class and fluctuate with market volatility.

Settlement Account: Settlement accounts hold funds used during the settlement cycle. Unless specified otherwise in the contract terms, the exchanges clearing house determines settlement prices for each active contract. Settlement pricing data can be derived from cleared prices, pricing data from market participants, the settlement prices of related products and any other pricing data from sources deemed to be reliable. Similar to position and performance bond, settlement customer funds are always segregated from their clearing firm's settlement house funds.

Asset Accounts: Collateral supplied by the clearing firm to the clearing house is held in the asset account. Clearing firms can access their asset accounts through a clearing application, where they are able to review assets on deposit and authorize deposits and withdrawals.

MARKET PARTICIPANTS



Futures market participants fall into two general categories: Hedgers and Speculators.^{xvii}

HEDGER

Hedgers are primary participants in agricultural derivative and futures markets. The word hedge means protection. The dictionary states that to hedge is “to try to avoid or lessen a loss by making counterbalancing investments ...” In the context of futures trading, that is precisely what a hedge is: a counterbalancing transaction involving a position in the futures market that is opposite one’s current position in the cash market.

A hedger is any individual or firm that buys or sells the actual physical commodity, and who wants to remove or reduce the risk of unforeseen price movements in the future by using a technique that shifts price risk to others.

Many hedgers are producers, wholesalers, end users, manufacturers or retailer, and they are affected by changes in commodity prices, exchange rates, and interest rates. Since the physical cash market price and futures market price of a commodity tend to move up and down together, any loss or gain in the cash market will be roughly offset or counterbalanced in the futures market.^{xviii}

Market Participants

- **“Long” Hedgers:** Concerned about rising commodity prices

An example of this is a grain grower who is growing corn in July and wants to establish a price for corn they will receive at harvest time in the fall could do so by hedging – by selling a corn futures contract, and, then later when he sells his physical corn in to the local cash market and simultaneously buying back his futures contract.

- **“Short” Hedgers:** Concerned about falling commodity prices
An example of this is an importer who produces chickens, and who wants to establish in July the cost of corn needed to procure chicken feed in December can do so by hedging – by using the futures market in July to buy a futures contract and later offsetting it by selling a contract before the delivery date.
- **Merchandisers:** They both buy and sell commodities. Their risk is different than the directional risk of a traditional buying and selling hedger. Their risk is in their “margin”, or difference between the purchase and selling prices that determines their profitability.

When it comes to hedging, there are a variety of market participants who

buy and sell physical commodities, and whom may benefit from the added price protection offered by futures and options contracts.

- **Farmers, Livestock Producers** – who need protection against declining prices for crops or livestock, or against rising prices of purchased inputs such as feed.
- **Merchandisers, Elevators & Warehouse Operators** – who need protection against lower prices between the time they purchase or contract to purchase grain from farmers and the time it is sold.
- **Food Processors, Feed Manufacturers, End Users** – who need protection against increasing raw material costs or against decreasing inventory values.
- **Exporters** – who need protection against higher prices for grain contracted for future delivery but not yet purchased
- **Importers** – who want to take advantage of lower prices for grain contracted for future delivery but not yet received

The hedger may be someone who wants to lock in the price the hedger will get at some future date for a product growing in the hedger's fields or stored in the warehouse, or the hedger may be someone who wants to lock in the price the hedger will have to pay at some future date for a commodity that will be used in the hedger's business.

*Market
Participants*

SPECULATOR

Speculators are primary participants in a futures market. A speculator is any individual or firm that accepts risk in order to make a profit. Speculators can achieve these profits by buying low and selling high. But in the case of the futures market, they could just as easily sell first and later buy at a lower price.^{xix}

Speculators aiming to profit in the futures market come in a variety of types. Speculators can be individual traders, proprietary trading firms, portfolio managers, hedge funds or market makers.

In contrast to buyers and sellers who are commercial hedgers and have a vested interest in the underlying physical asset, speculators bring an appetite for risk to the market. In doing so, they can provide significant market liquidity.

An important role of the speculator is to bring significant capital flows into the market with the hopes of achieving profits through the successful

anticipation of price movements. These capital flows are an important conduit that bring investment into the agricultural commodity sectors.

It is important to note that speculators are unlikely to be inclined to “take” or “make” delivery of the actual physical commodity as they are not using the futures market in connection with the commercial use of the product like a hedger.

Individual Traders: For individuals trading their own funds, electronic trading has helped to level the playing field by improving access to price and trade information. The speed and ease of trade execution, combined with the application of modern risk management, gives the individual trader access to markets and strategies that were once reserved for institutions.^{xx}

Proprietary Trading Firms: Proprietary trading firms, sometimes known as prop shops, profit as a direct result of their traders’ activity in the marketplace. These firms supply their traders with the education and capital required to execute a large number of trades per day. By using the capital resources of the prop shop, traders gain access to more capital than they would if they were trading on their own account. They also may have access to the same type of research and strategies developed by larger institutions.^{xxi}

*Market
Participants*

Portfolio or Investment Managers: A portfolio or investment manager is responsible for investing or hedging the assets of a mutual fund, exchange-traded fund or closed-end fund. The portfolio manager implements the fund’s investment strategy and manages the day-to-day trading. Futures markets are often used to increase or decrease the overall market exposure of a portfolio without disrupting the delicate balance of investments that may have taken a significant effort to build.^{xxii}

Hedge Funds: A hedge fund is a managed portfolio of investments that uses advanced investment strategies to maximize returns, either in an absolute sense or relative to a specified market benchmark.^{xxiii}

The name hedge fund is mostly historical, as the first hedge funds tried to hedge against the risk of a bear market by shorting the market. Today, hedge funds use hundreds of different strategies in an effort to maximize returns.

The diverse and highly liquid futures marketplace offer hedge funds the ability to execute large transactions and either increase or decrease the market exposure of their portfolio.

Investor: Investors can be considered to be a subset of Hedge Funds, but

differing in their strategic objective from participation in the market. Investors in the futures market are those that view the futures market as an alternative to the cash market (i.e. the underlying market).

An important role of the Investor is to direct capital into those areas and commodities that require financial investment.

For example, an investor may wish to earn the All Share Index (ALSI) and, instead of buying the shares in the proportions that make up the index, can achieve this by buying the appropriate number of ALSI futures contracts. They may do this for the sake of convenience, to avoid transactions costs (depending on the fair value price) or she may view the underlying market as lacking in liquidity.

An investor may also use long-term instruments and short futures contracts to invest short-term, or use short-term financial instruments and long futures contracts to invest long term.

Market Makers: Market makers are trading firms that have contractually agreed to provide liquidity to the markets, continually providing both bids and offers, usually in exchange for a reduction in trading fees.^{xxiv}

Market makers are important to the trading ecosystem as they help facilitate the movement of large transactions without effecting a substantial change in price. Market makers often profit from capturing the spread, the small difference between the bid and offer prices over a large number of transactions, or by trading related futures markets that they view as being priced to provide opportunity.

Conclusion: Providing liquidity is a crucial market function that enables individuals to efficiently enter and exit the market. It is the diversity of market participants that create efficient and liquid markets allowing all players to benefit.

WHO CAN BROKER EXCHANGE TRADED DERIVATIVES AND FUTURES?

In the United States other firms and individuals who are often referred to as commodity brokers include:

Floor Broker/Trader: an individual who trades commodity contracts on the floor of a commodities exchange. When executing trades on behalf of a client in exchange for a commission he is acting in the role of a broker. When trading on behalf of his own account, or for the account of his

employer, he is acting in the role of a trader.

Historically, a floor trading was conducted in the pits of a commodity exchange via open outcry. A “floor broker” is different from a "floor trader" he or she also works on the floor of the exchange, makes trades as a principal for his or her own account.

Futures Commission Merchant (FCM): a firm or individual that solicits or accepts orders for commodity contracts traded on an exchange and holds client funds to margin, similar to a securities broker-dealer. Most individual traders do not work directly with a FCM, but rather through an IB or CTA.

Loosely speaking, an FCM is a commodity brokerage firm which is in the business of buying and selling futures either for its own account and/or for others, and which is a member of a futures exchange.

Introducing Broker (IB): a firm or individual that solicits or accepts orders for commodity contracts traded on an exchange. IBs do not actually hold customer funds to margin. Client funds to margin are held by a FCM associated with the IB.

Commodity Trading Advisor (CTA): a firm or individual that issue analyses or reports concerning commodities, including the advisability of trading in commodity futures or options, in exchange for payment. They may advise commodity pools and offer managed futures accounts. Like an IB, a CTA does not hold customer funds to margin; they are held at a FCM. CTAs exercise discretion over their clients' accounts, meaning that they have power of attorney to trade the clients account on his behalf according to the client's trading objectives. A CTA is generally the commodity equivalent to a financial advisor or mutual fund manager.

Commodity Pool Operator (CPO): a firm or individual that operates a commodity pool(s) and are advised by a CTA. They are similar to investment trusts that solicit or accept funds, securities or property for the purpose of trading commodity futures contracts or commodity options. A commodity pool is essentially the commodity equivalent to a mutual fund.

Registered Commodity Representative (RCR)/Associated Person (AP): an employee, partner or officer of a FCM, IB, CTA, or CPO, duly registered and licensed to conduct the activities of a FCM, IB, CTA, or CPO. This is the commodity equivalent to a registered representative.

FUTURES ACCOUNTS AND TRADING PROCEDURES

Before you will be able to place your first trade, you need to open an account with a registered futures broker. This broker will maintain your account and guarantee your trades.

In the futures business, brokerage firms are known as either a futures commission merchant (FCM), or an introducing broker (IB). Many securities brokers are also registered to deal in futures.

Working with a knowledgeable and trusted broker with a quality firm will play an important role in your long-term trading success. Contact several brokers until you find the right combination of cost and service.

Be sure to check the background of any potential broker or firm with the National Futures Association (NFA). The NFA directly supervises the activities of all futures brokers and provides background information on all of its members. The NFA provides the complete registration history, as well as complaints, fines and suspensions for all registered brokers and firms.

All members of the NFA must observe high levels of conduct that extend beyond the legal requirements. For more information, visit nfa.futures.org.

Individuals and firms entering the futures markets to hedge their risks on grain imported from the United States, or for any other reason, need to fully understand the processes, procedures, financial requirement and related risks.

FUTURES ORDER TYPES

When a trader wants to buy or sell derivatives, futures, or options; an trading order is given to an introducing broker who handles the trader's account.

Futures orders are submitted through an introducing broker. Orders to buy or sell can be submitted with specific conditions and can take various forms depending on the needs of the individual. These conditions allow traders to create orders that meet the criteria they set for the trade, and to define how, and at what, price the orders will be filled. These differing conditions are referred to as order types, the most common of which are: 1) market orders, 2) limit orders, and 3) stop orders.

Futures Order Types

The following describes the common types of orders that are used in the execution of futures trades:

Market Order: The most common order that a futures buyer or seller uses is the market order. In a market order, the customer states the number of contracts of a given delivery month the customer wishes to buy or sell and the customer does not specify the price. The customer wants the trade made immediately at the best available price. An order may specify "buy 10 July corn futures contracts at the market." This directs the trading representative on the futures market floor to buy 10 July corn contracts at the lowest price being offered at the time that the order enters the trading pit. "Sell five December corn futures at the market" is a directive to sell five December corn futures at the highest bid available at the time the order is entered into the trading pit.

Limit Order: A limit order has a price limit at which it must be executed. When a customer gives the customer's broker a limit order, the customer sets the maximum price that the customer is willing to pay when purchasing, or a minimum price that the customer is willing to accept when selling. "Buy 20 December corn contracts at \$2.50" means to purchase at \$2.50 or lower. The advantage of a limit order is that the customer knows the worst price the customer will receive if the customer's order is executed. The disadvantage of a limit order is that the customer's order might not be filled.

Stop Order: A stop order is really a delayed market order which cannot be activated for trading until some specified development occurs. Stop orders are usually used to liquidate previously entered transactions. For example, "buy 10 December corn contracts at \$3.00 stop" means to buy at any price (a market order) AFTER another trade occurs at \$3.00 or higher. Buy-stop orders are always pegged to prices above the current market. "Sell 10 corn contracts at \$2.80 stop" means to sell at any price (a market order) but not UNTIL another trade occurs at \$2.80 or lower. Sell-stop orders are always below the market.

Futures Order Types

A stop order is activated, triggered or elected once the indicated price is reached. Stop orders can also be activated even if there is no actual trade at the stop price. A buy-stop order is triggered by a bid at the stop order price - a sell-stop order by an offer at the stop order price. Stop orders are also called "contingent orders" because they depend on the occurrence of a specified price change.

Stop orders also can be used to establish positions or enter the market. Stop orders are often used as defensive devices to protect profits and restrict losses.

Time Limits on Orders

In addition to price levels, orders placed through your broker have a time limit that they are active.

Typically, futures orders are submitted as day orders. This means that the order is only active until the end of that day's trading session, if the order does not get filled.

Traders can also place orders that are valid until cancelled by the trader. These orders are typically called "Good Till Cancel" (GTC) orders and will remain active until the trader cancels the order or the order is filled.

Traders can also exit multi-contract positions at different prices. Traders can exit part of their position at one price and the remainder of their position at a different price.

HOW TO READ COMMODITY FUTURES QUOTES

Commodities trading on organized futures exchanges has a long history dating back to the early 1800's. Back then market information, including price, bids, offered, etc., were sent by telegraph, ticker tapes, wire, telex, and other early forms of communication which were slow and expensive. Back then, fees for such early forms of communications were charged by the letter. As such, the industry created a set of abbreviated short form codes for trading terms, commodities, dates, etc... Many for these are still commonly used today when listing futures contract details.

The following is a list letter codes frequently used in the commodities trade and related futures contracts.

CME Group Trade Agricultural Futures:

Contract/Symbol	Contract	Size	Months
Corn/C	5,000	Bushels	H,K,N,U,Z
Oat Futures/O	5,000	Bushels	H,K,N,U,Z
Soybean/S	5,000	Bushels	F,H,K,N,Q,U,X
Soybean Oil/BO	60,000	Pounds	F,H,K,N,Q,U,V,Z
Soybean Meal/SM	100	Tons	F,H,K,N,Q,U,V,Z
CBOT Wheat/W	5,000	Bushels	H,K,N,U,Z
KC Wheat/KW	5,000	Bushels	H,K,N,U,Z

(1 pound = .4534 kilograms)

Often these codes consists of one to two letters to indicate a specific commodity contract, followed by a letter to indicate the delivery month, and finally a number to indicate the year of the contract.

Futures or Options Delivery Months:

<u>Current Year</u>	<u>Month</u>
F	JANUARY
G	FEBRUARY
H	MARCH
J	APRIL
K	MAY
M	JUNE
N	JULY
Q	AUGUST
U	SEPTEMBER
V	OCTOBER
X	NOVEMBER
Z	DECEMBER

Options on the futures traded at all of the exchanges are listed using the same symbols and month codes, along with specific codes representing the strike price and whether it is a call or a put.

DAILY PRICE MOVEMENT LIMITS

There are several measures in place to ensure that our markets continue to work in an efficient and orderly manner during volatile market conditions. The establishment of price movement limits specific to each product, the exchange can help restrict a market from moving too far or too fast in a specific period of time.

A price movement limit is the maximum price range, up or down, permitted for a futures contract to move in each trading session. These limits are set to help maintain the ability of the markets to provide effective price discovery and risk-transfer functions. These limits can be changed when the exchange determine that the changes are needed.

When markets hit the price movement limit, different actions occur depending on the product being traded. Markets may temporarily halt until price limits can be expanded, remain in a limit condition or stop trading for the day, based on regulatory rules.

How are price limits calculated?

For the CME exchanges, twice a year, and prior to the resetting of price limits, daily futures settlement prices for each product are collected and averaged over a 45-day period. The average of these prices is multiplied by a specific percentage to get the effective price limit for the next six months.^{xxv}

There are different percentages applied in this calculation depending on the product. For example, Corn is multiplied by 7% while Lumber is multiplied by 5%. These percentages were established by looking at historical daily percentage price changes by product to capture, on average, daily price movements 99% of the time. Secondly, some of the contracts round their price limits, while others may not.^{xxvi}

Are all contract months subject to price limits?

In grain and oilseed contracts, price limits are removed on the business day prior to first notice day of an expiring contract month. This results in the nearby “spot” month contracts having not price movement limits when they are in the delivery period. This allows efficient convergence of the spot physical cash markets and the futures contract.^{xxvii}

What are expanded price limits?

Generally, expanded limits for grain and oilseed contracts are triggered when two or more futures contract months within the first five to eight (depending on the contract) listed non-spot contracts settle at limit.

Expanded price limits are approximately 50% higher than daily price limits and remain in place until no futures contracts settle at limit.

The triggering of expanded limits in either Chicago Wheat futures or KC HRW Wheat futures triggers expanded limits in the other. Similarly, the triggering of expanded limits in one Soybean Complex (Soybean, Soybean Meal, and Soybean Oil) futures triggers expanded limits in the others.^{xxviii}

It is important to know what these limits are on any trading session.

REGULATION AND OVERSIGHT

All U.S. exchanges are regulated under a system that provides several layers of protection for persons who use the markets. The integrity of trade on the exchanges is supported by the clearing corporations that

stand behind all transactions. The exchanges are also constantly monitoring their own activity through self-regulation. Market firms, their performance and employees are all monitored by the commodity futures exchange, and also by an industry group, the National Futures Association.

Another layer of protection is provided under U.S. law by a regulatory agency of the U.S. government, the Commodity Futures Trading Commission (CFTC). All exchanges have written rules regarding conduct of members, membership, trading practices, position limits and price movements. These rules vary among exchanges and are also developing constantly as innovation continues in the marketplace. Those who wish to trade on any exchange should consult that exchange's constitution and rules for specific details.

For further information on the futures markets, contact:

National Futures Association

NFA Offices

Chicago

300 S. Riverside Plaza, #1800

Chicago, IL 60606-6615

Phone: 800-621-3570

Phone: 312-781-1300

Fax: 312-781-1467

New York

One New York Plaza, #4300

New York, NY 10004

Phone: 212-608-8660

Fax: 212-964-3913

Website: www.nfa.futures.org

The **National Futures Association (NFA)**, founded in 1982, is the self-regulatory organization for the U.S. derivatives industry, including on-exchange traded futures, retail off-exchange foreign currency and OTC derivatives. NFA is headquartered in Chicago and maintains an office in New York City.

Commodities Futures Trading Commission (CFTC)

Three Lafayette Centre

1155 21st Street, NW

Washington, D.C. 20581 U.S.A.

Phone: (202) 418-5000

FAX: (202) 418-5521

Website: <https://www.cftc.gov/About/index.htm>

The **Commodity Futures Trading Commission (CFTC)** is an independent agency of the US government created in 1974, that regulates the U.S. derivatives markets, which includes futures, swaps, and certain kinds of options.

CFTC committees currently include:

- Agricultural Advisory Committee.
- Energy and Environmental Markets Advisory Committee.
- Global Markets Advisory Committee.
- Market Risk Advisory Committee.
- Technology Advisory Committee.
- CFTC-SEC Joint Advisory Committee (Inactive)

The CFTC's mission is to foster open, competitive, and financially sound markets and to protect market users and the public from fraud, manipulation, abusive practices and systemic risk related to derivatives that are subject to the Commodity Exchange Act.

U.S. Securities and Exchange Commission

100 F St., NE

Washington, DC 20549 USA

Phone: 1-202-551-6551

Website: <https://www.sec.gov/about.shtml>

The **U.S. Securities and Exchange Commission (SEC)** oversees securities exchanges, securities brokers and dealers, investment advisors, and mutual funds in an effort to promote fair dealing, the disclosure of important market information, and to prevent fraud.

The SEC is an independent agency of the United States federal government, created the 6th of June 2934 in the aftermath of the Wall Street Crash of 1929. The primary purpose of the SEC is to enforce the law against market manipulation.

Federal Trade Commission

Headquarters

600 Pennsylvania Avenue, NW

Washington, DC 20580 USA

Telephone: (202) 326-2222

Constitution Center

Federal Trade Commission

400 7th St., SW
Washington, DC 20024 USA
Telephone: (202) 326-2222
Website: <https://www.ftc.gov/about-ftc>

The **Federal Trade Commission (FTC)** is an independent agency of the United States government, created in 1914, whose principal mission is the enforcement of civil U.S. antitrust law and the promotion of consumer protection. The FTC shares jurisdiction over federal civil antitrust enforcement with the Department of Justice Antitrust Division.

The Federal Trade Commission works to promote competition, and protect and educate consumers.

DISCLAIMER

This chapter is meant to be a general introduction to derivative markets, including futures, options, OTC's and swaps. It is by no means intended to be comprehensive or exhaustive in its content on the subject. The information and data contained herein have been obtained from sources believed to be reliable, but does not warrant their accuracy or completeness.

This material and information is intended for educational use and professional development. It is not intended, nor does it necessarily represent enforceable standards, industry consensus, mandatory requirements, nor all possible solutions or ideas.

Opinions contained herein reflect the judgment of the writer as of the date written, are based on certain assumptions, only some of which are noted herein, as different assumptions could yield substantially different results, and are subject to change without notice. Neither the information nor the recommendations and opinions expressed herein constitutes an offer to sell or buy any security, futures or option contract, or other instrument. Readers should therefore consult their own advisors regarding the market, tax, accounting, and legal implications of the recommended strategies before transactions are affected.

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ⁱ Edmund Parker & Geoffrey Parker, Head of Derivatives at Mayer Brown “A History of Derivatives: Ancient Mesopotamia to Trading Places”
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ⁱⁱⁱ Japan Exchange Group. "Dojima Rice Exchange." <https://www.jpx.co.jp/dojima/en/index.html> 1st Sighted March 2022

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<https://www.cmegroup.com/education/whitepapers/fundamentals-of-options-on-futures.html>
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