



New York
Mercantile Exchange

NYMEX/COMEX. Two divisions, one marketplace

Why do they need
to yell and make
funny gestures?



... And what is a
commodities exchange,
anyway?

Buy and Sell

three little words that make the world go round.

Each day, billions of dollars worth of energy products, metals, and other commodities are bought and sold on the trading floor of the New York Mercantile Exchange. And, shortly after the trading floor closes, overnight electronic trading picks up. That's because night and day, minute by minute, the value of these strategic commodities are changing, and those changes can have an effect on everything from the price you pay for gasoline at the pump to the cost of the copper tubing the plumber replaces after your pipes freeze in the winter.

The prices quoted for transactions on the Exchange are the basis for the prices that people throughout the United States and in many other countries pay for crude oil, heating oil, gasoline, natural gas, electricity, propane, gold, silver, platinum, palladium, copper, and aluminum. Trading is also conducted in the FTSE Eurotop 100® and 300® European stock indexes.

Yet the buying and selling on the Exchange occurs on the banks of the Hudson River, with nary an oil well or copper mine in sight. In fact, the many thousands



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of transactions conducted on the Exchange each day are accomplished without the participants ever seeing a gallon of heating oil or a bar of silver. If you visit the Exchange trading floor, you won't find samples of metal or barrels of oil scattered about, but you will see a lot of people standing in circles yelling at each other.

How can that be? How does the New York Mercantile Exchange work? What's all that shouting about?

And what is a commodities exchange, anyway?

Last Questions First

Starting around the middle of the 19th century in the United States, businessmen began organizing market forums to make the buying and selling of commodities easier. These central marketplaces provided a place for buyers and sellers — such as farmers and grain dealers — to meet, set quality and quantity standards, and establish rules of business. Over a period of about 50 years — from the mid- to late-19th century — about 1,600 exchanges had sprung up across the United States, mostly at major railheads, inland water ports, and seaports.

Agricultural commodities were the most commonly traded, but a market will flourish for almost any commodity as long as there is an active pool of buyers and sellers. There is no

telling what will lubricate the wheels of commerce — cat pelts were once a hot item in St. Louis and, today, dried cocoons are a major exchange-traded commodity in Japan.

In 1872, a group of Manhattan dairy merchants got together to bring some order to the chaotic conditions that were prevalent in the New York markets. The city had the nation's most poorly organized and least economical system for the storage, pricing, and transfer of agricultural products. The

merchants hoped that the newly established Butter and Cheese Exchange of New York would improve the efficiency of the marketplace.



Within a few years, the egg trade became an important part of the business conducted on the Exchange, and the name was modified to the Butter, Cheese and Egg Exchange.

Efforts were also made to attract traders of groceries, dried fruits, canned goods, and poultry, and, in 1882, the name was changed again, to the New York Mercantile Exchange.



As communications and transportation became more

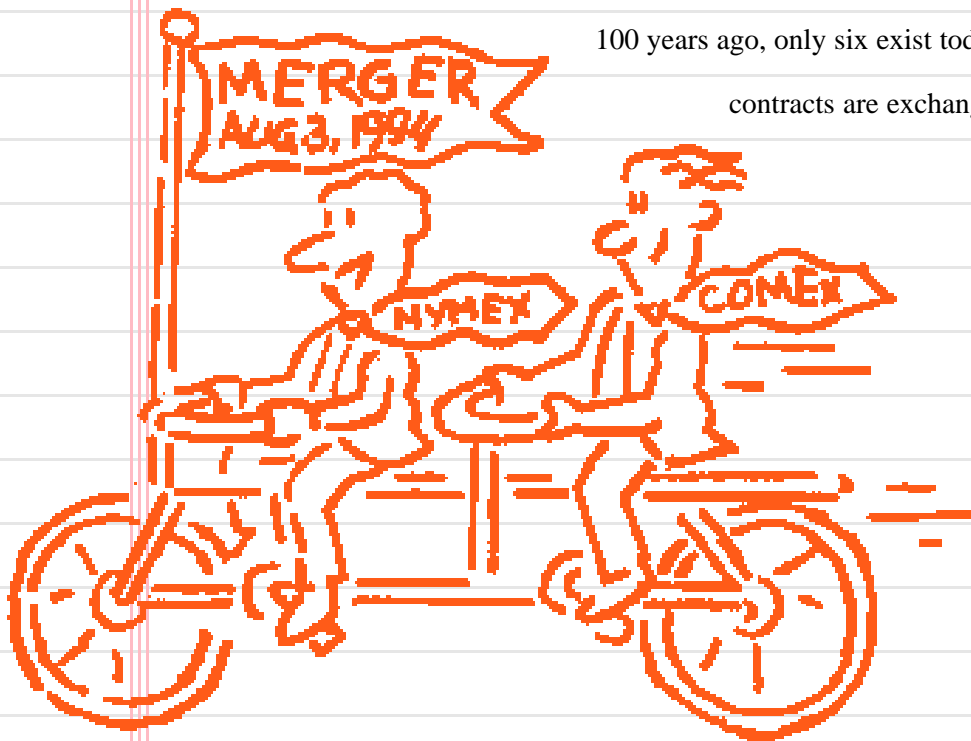


efficient in the early 20th Century; as centralized warehouses were built in principal market centers such as New York and Chicago that could be used to distribute goods more economically; and, as business expanded to become more national than regional, there wasn't a need for so many exchanges. The exchanges in the smaller cities began to disappear, while the competition in larger markets led to the consolidation of many big-city exchanges.

In 1933, during the Great Depression, the Commodity Exchange, Inc., was established in New York through the merger of four small exchanges — the National Metal Exchange, the Rubber Exchange of New York, the National Raw Silk Exchange, and the New York Hide Exchange. A variety of commodities were traded on the new exchange: copper, hides, rubber, silk, silver, and tin. Because of the national economic crisis at the time, the use of gold as money in the United States had been discontinued shortly before COMEX was founded. Private ownership of the metal was forbidden until December 31, 1974, when the restrictions were lifted, and gold finally opened for trading on COMEX.

On August 3, 1994, New York's two largest exchanges, the New York Mercantile Exchange and the Commodity Exchange, merged to become the world's largest physical commodity futures exchange (more on futures in a minute). Trading is conducted through two divisions, the NYMEX Division on which crude oil, heating oil, gasoline, natural gas, electricity, propane, platinum, and palladium trade; and the COMEX Division on which gold, silver, copper, aluminum, and the FTSE Eurotop 100® and 300® stock indexes trade.

Of the more than a thousand commodity exchanges that existed in the United States about 100 years ago, only six exist today, although nearly 600 million contracts are exchanged on their trading floors each year.



From Boxes, Barrels, and Bars to paper transactions

Years ago, exchange trading largely resembled a Middle Eastern bazaar. Merchants offering their commodities for sale brought samples to the exchange.

Buyers would come to the exchange to

examine the quality of the

offered merchandise and bid

on supplies. Businessmen

vied with other buyers

or sellers, each trying

to obtain the best price

for their products or to buy at the most competitive price.

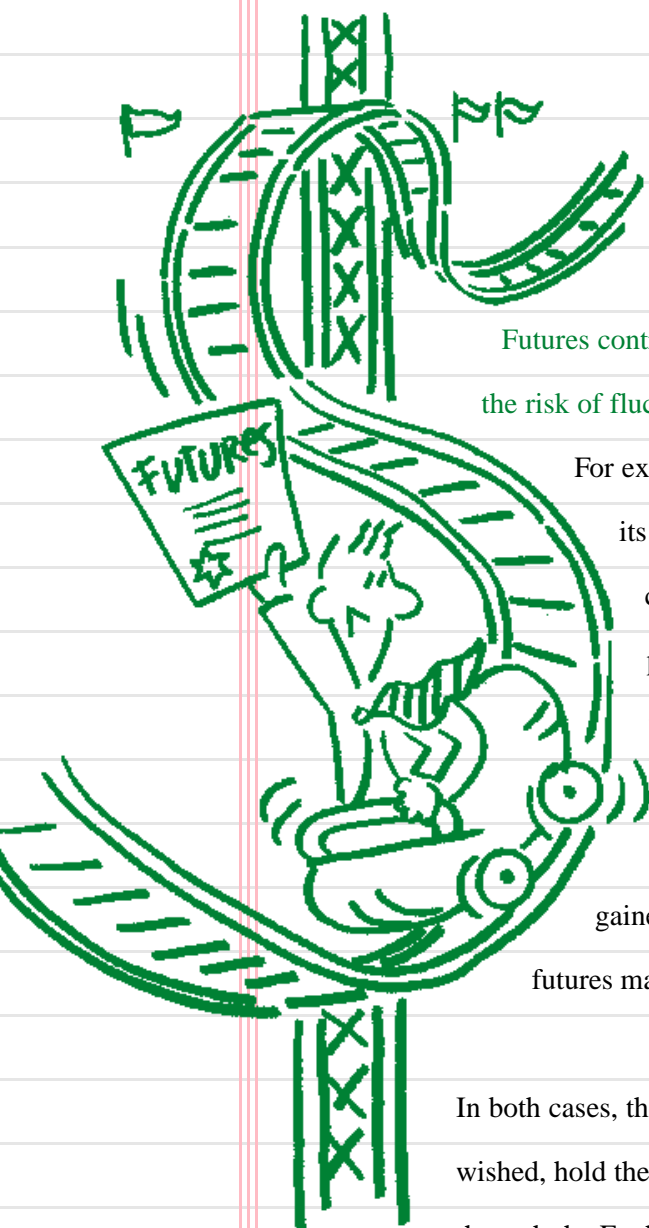


Today, physical supplies of the traded commodities are nowhere to be found in the offices of the New York Mercantile Exchange or on its trading floors. In fact, they are infrequently delivered through the Exchange at all, even though Exchange rules permit it. Instead the traders buy and sell on the Exchange through instruments called futures contracts.

A futures contract is a legally binding obligation for the holder of the contract to buy or sell a particular commodity at a specific price and location at a specific date in the future.

The contracts are standardized to make sure that the prices mean the same thing to everyone in the market; everyone trades contracts with the same specifications for quality, quantity, and delivery terms.

That way, if the price of heating oil is quoted on the Exchange at 50¢ a gallon, everyone knows that's the wholesale price for delivery of a specific grade and quality of oil in New York Harbor, the specified location. No one can say later that they thought it was the price for Bridgeport.



Futures contracts are most widely used for hedging. Hedging allows someone to offset the risk of fluctuating prices when he buys or sells physical supplies of a commodity.

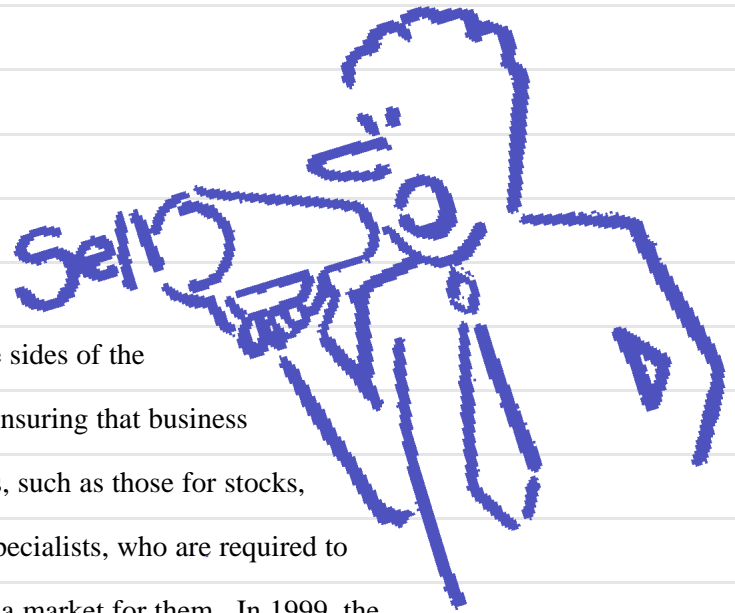
For example, a copper mining company might sell a futures contract to lock in its sales price and protect its source of revenue should the market value of copper fall. (If copper prices rise instead, then the increased value of the physical metal offsets its loss on the futures contract). At the same time, a wire manufacturer who buys copper to use as a raw material in the production of wire might buy a copper futures contract to lock in his raw materials cost. (If the price of copper falls, the cost advantage gained by buying the actual copper at a lower price offsets his loss in the futures market.)

In both cases, the copper mining company and the wire manufacturer could, if they wished, hold their futures contracts until they expired, and then make or take delivery through the Exchange at a warehouse designated as an Exchange delivery location.

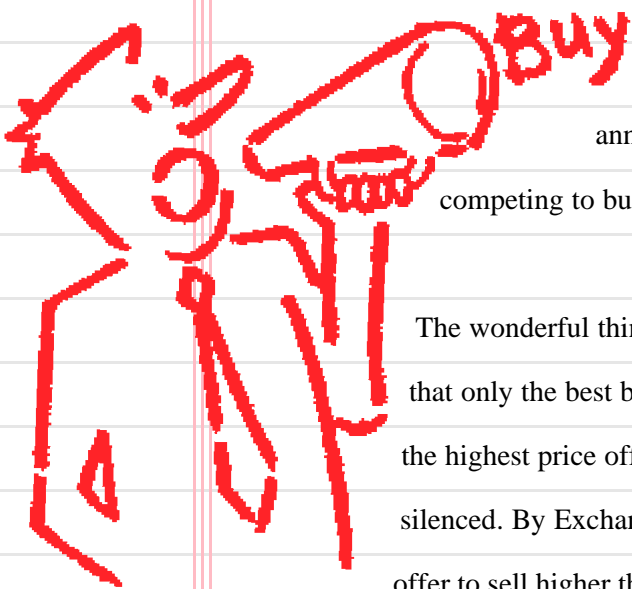
A point to remember: hedgers don't try to make a killing in the market. They use the futures to help stabilize their revenues or their costs. Speculators, on the other hand try to profit by buying low and selling high (or vice versa), taking a position in the futures market and hoping the market moves in their favor. Hedgers hold offsetting positions in the market for the physical commodity; speculators do not.

Some speculators study the trends of supply and demand (the fundamentals) of the underlying product to figure out which way the market will go. Others chart the movement of futures prices, often using computer programs to help them figure out the trends. Both types of speculators hope their price projections are right.

Speculators also play an important role in the market by adding liquidity. They often take the opposite sides of the bids or offers that are in the market, ensuring that business will be done. Some exchange markets, such as those for stocks, use a system of brokers, also called specialists, who are required to trade certain stocks, ensuring there is a market for them. In 1999, the Exchange instituted a market-maker program to help generate liquidity in newly introduced contracts. The market-maker function is similar to that of a stock exchange specialist.



It is also important to realize that the Exchange does not set the prices of the traded commodities. The prices are determined in an open and continuous auction on the Exchange floor by the members who are acting on behalf of their customers, the companies they represent, or themselves. The process of the auction is called open outcry. A strong or distinctive voice is a must for a trader.



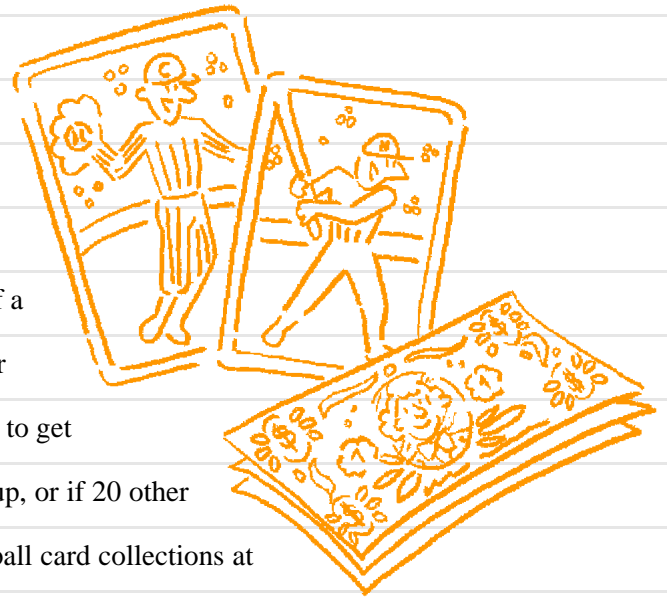
A big difference between a typical auction, where a single auctioneer announces the bids, and the Exchange is that people are not only competing to buy but also to sell.

The wonderful thing about open outcry, which also contributes to its apparent chaos, is that only the best bid and offer are allowed to come forward. If a trader is willing to pay the highest price offered, he announces that to the other traders, and all lower bids are silenced. By Exchange rules and by law, no one can bid under a higher bid, and no one can offer to sell higher than someone else's lower offer. That keeps the market as efficient as possible, and keeps the traders on their toes to make sure no one gets the purchase or sale before they do.

What Determines the Direction of The Market ?

That's easy. If there are more buyers than sellers, demand is greater than supply and prices will tend to rise. If the opposite is true, prices will fall.

For example, suppose you are selling your baseball card collection. You put an ad in the paper and wait for the would-be customers to flock to your door. If a lot of people are interested in your collection, you'll probably be able to get your price. But if very few show up, or if 20 other



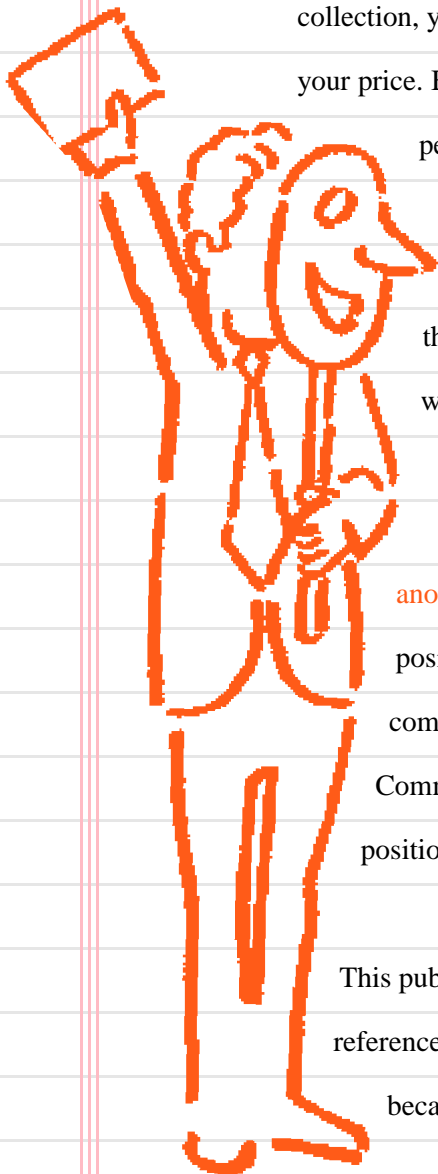
people are selling baseball card collections at

the same time but only 10 collectors are interested

in buying, chances are you'll have to cut your price to be competitive with the other sellers and to attract interest from the few buyers. The futures markets work the same way.

While each trader can see who the other floor trader is, customers remain anonymous. In fact, a customer who is seeking to take or liquidate a large position may act through several brokers so he does not tip his hand to his competitors. Of course, both the Exchange and the Commodity Futures Trading Commission (CFTC) are aware of the identity of anyone holding a substantial position.

This public, yet anonymous auction provides a readily available, widely accepted reference price for the underlying commodity, a process that is called price discovery because you can always discover the price.



A Visit to the Trading Floor is not for the Faint-Hearted

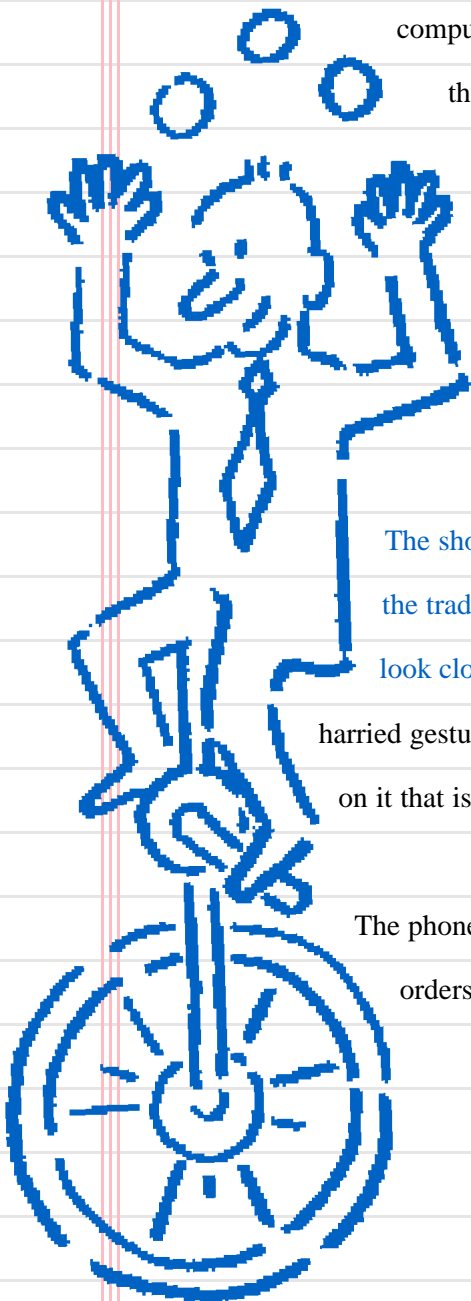
Traders, many wearing jackets with distinctive colors, stand in the trading rings or pits on the trading floor which are arranged like little amphitheaters with wide steps descending to the center.

They gesture wildly as they bark cryptic buy and sell orders to their counterparts across the pit. Men and women clad in bright yellow jackets stand nearby and punch the keys of what look like hand-held video games, transmitting the price changes to the Exchange's computer system, and to the news wire services and information vendors who tell the rest of the world how the markets are doing.

Still more people run back and forth through the crowded aisles, dodging tangles of telephone cord — the lifeblood of the Exchange. And dominating the entire scene are huge wallboards that flash a never-ending series of numbers with no apparent cohesion at all.

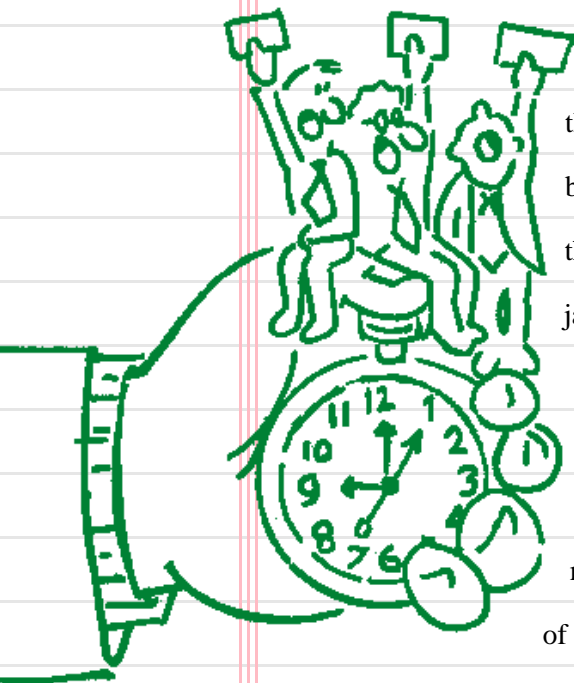
The shouting, the wild gesturing, the jumping around so as to be seen better gives the trading floor a chaotic atmosphere. Does anyone know what's going on? If you look closely, you'll see that there is an exquisite order to this. Each individual, each hurried gesture, each piece of paper passed to a clerk, and each card with numbers written on it that is thrown into the center of the trading ring has a purpose.

The phone cords are stretched up to the ring by phone clerks who take customer orders, time-stamp them, and hand them to their firm's brokers in the ring.



The cryptic-sounding orders the brokers shout to each other is actually a language all its own that allows thousands or millions of dollars worth of gold and crude oil to change hands on a couple of words and a gesture.

The buyers determine how much they are willing to pay and announce their bids to the other brokers in the ring. Sellers cry out their offers. When the minds meet on price and quantity, the cry of “sold” or “done” is heard, and the trade is recorded.



Each broker wears a colored badge with a two-, three-, or four-letter name that is used to identify him to the other brokers and exchange personnel. Some brokers also wear distinctive jackets so they can easily be found in the crowd of the trading floor. In fact, many firms require their employees to wear company jackets in order to expedite the handling of orders.

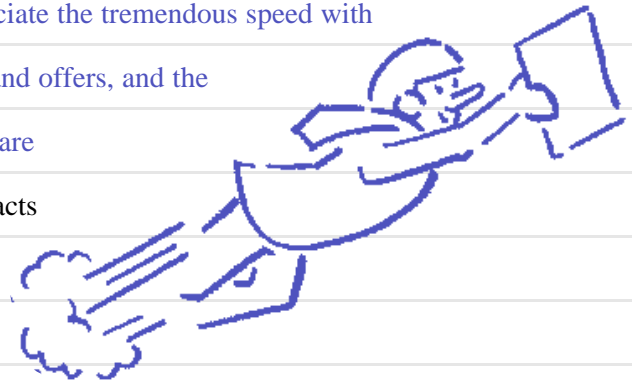
The heart of recording a trade on the NYMEX Division lies in the blizzard of cards tossed to the center of the rings. When a trade is executed, each broker must record each transaction on a pad of paper that contains cards about the size of an index card which shows the commodity, quantity, delivery month, price, broker's badge name, and that of the buyer. **The seller must toss the card into the center of the trading ring within one minute of the completion of a transaction. If the last line on the card is a “buy,” the buyer also submits the card to the center of the ring.**

An exchange employee, the card clocker, who sits in the center of the trading ring, time-stamps the card which is then rushed to the data entry room, where operators key the data into the Exchange central computer system. When the Exchange employees use the hand-held devices to key a trade into the computer the first time for dissemination to news

services, only the commodity, price, and delivery month are entered. Now, working from the card, the data entry clerks enter that information, along with the brokers' names and quantities involved, for the Exchange's internal records. When the broker fills out the information on the pad, it is also recorded on four-ply carbonless sheets. Copies are retained by the broker for later matchup with the cards, in the event they are collected by the Exchange or the CFTC. This system is the only dual audit trail that exists at any exchange.

On the COMEX Division, the price changes are keyed in by personnel in the trading ring, and cards must be submitted within 15 minutes after the completion of each half-hour trading period.

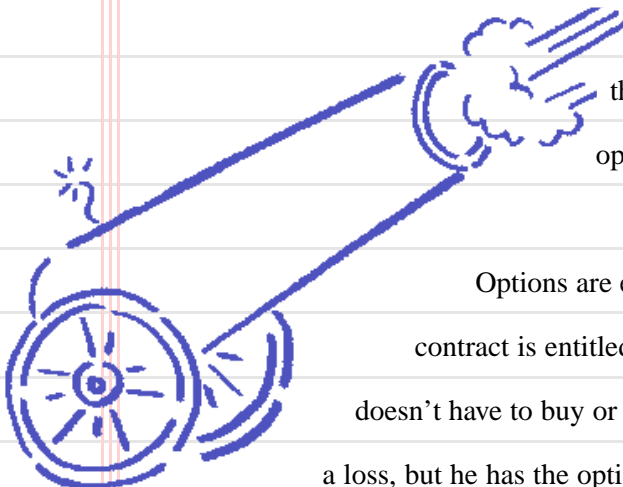
After watching for a while, you can appreciate the tremendous speed with which buyers and sellers make their bids and offers, and the speed and accuracy with which the trades are executed. After all, more than 1,000 contracts are bought and sold each minute.



If You Sell an Option, You Don't have a Choice

While futures make up most of the trading on the Exchange, there is a related contract that can be used as well, called an option.

Options are exactly what the name says. Someone who buys an options contract is entitled to buy or sell a futures contract of the same commodity. He doesn't have to buy or sell the futures contract, especially if he would have to do so at a loss, but he has the option to do so if the market moves in his favor.

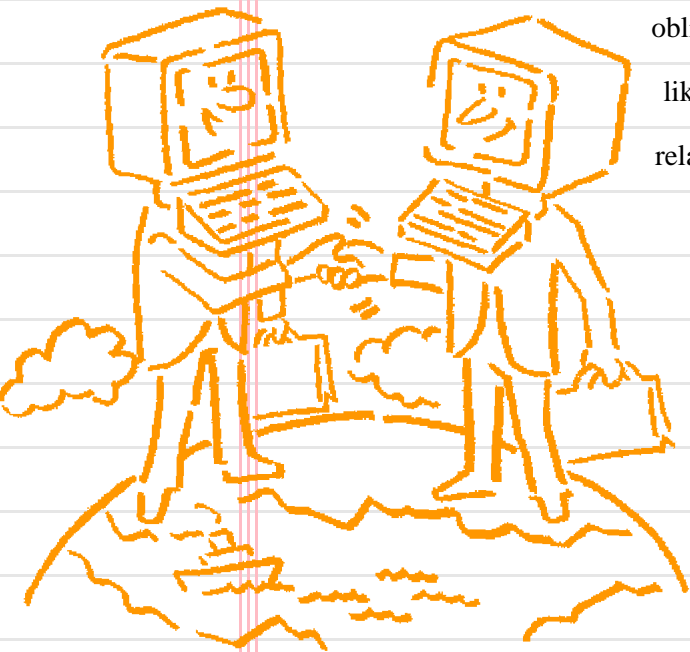


He can hold on to the option and try to sell it at a better price than he paid for it, or, if the market doesn't go his way, he can let it expire worthless.

Sellers of options, on the other hand, have obligations to perform if the buyer chooses to exercise his option.

In many ways, options are less expensive than futures but, in some ways, they carry more risk. For example, someone who sells an options contract called a put incurs the

obligation to buy a futures contract. In the event of falling prices, he most likely will have to fulfill his obligation and buy the contract at a relatively high price, even as prices are dropping.



Because business in the United States is so closely linked to markets in other parts of the world, such as Europe and Asia, and because the commodities traded on the New York Mercantile Exchange are used worldwide, events on the other side of the globe can affect the prices in the United States, and vice versa. So the six hours that the trading floor is open is often not

sufficient to allow everyone to meet his needs for hedging, or even speculating. In

1993, the Exchange opened its NYMEX ACCESS[®] electronic trading system. NYMEX ACCESS[®] allows buyers and sellers to trade futures and options contracts for crude oil, heating oil, gasoline, natural gas, electricity, and platinum, and futures on gold, silver, copper, aluminum, palladium, and propane through a worldwide computer network.

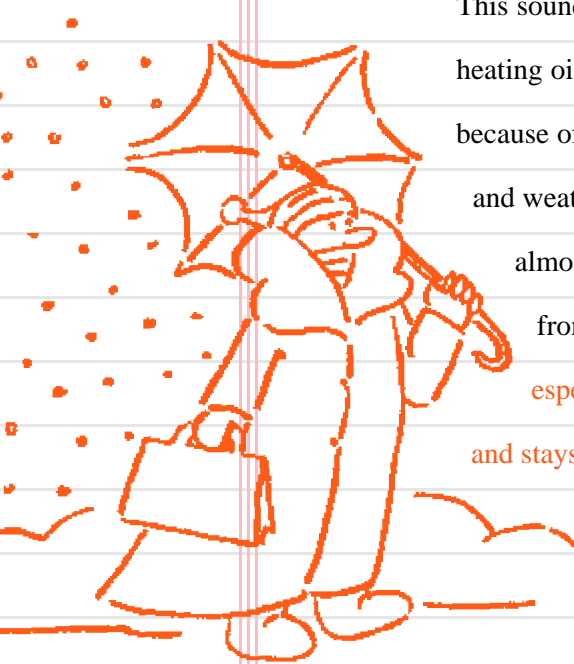
Electricity is traded on the system throughout the day and night and the other contracts are traded electronically when the trading floor is closed. When the hours for open outcry and NYMEX ACCESS[®] trading are combined, the Exchange is open for about 23 hours a day. Today, the markets never sleep.

What Happens if You Have to Buy or Sell a Commodity that is not Traded on an Exchange?

The basic principles of hedging can be used for many commodities for which no futures contract exists, because often they are similar to commodities that are traded. For example, diesel fuel and jet fuel are similar to heating oil, and the three are often priced within a few cents of each other. So, many people who have to buy or sell large quantities of diesel and jet fuel, such as trucking companies, airlines, and oil refiners, have found that they can hedge by using the heating oil futures contract, taking into account the differential between their product and heating oil.

This sounds neat and simple, but as everyone knows, life isn't neat and simple. Not all heating oil is used in the New York Harbor area, and the prices in other cities can vary because of differences in transportation and storage costs, supply and demand patterns, and weather. These differentials are called the basis. The basis is often pretty stable; it almost always costs two or three cents a gallon extra to get heating oil to Bridgeport from New York, let's say. Sometimes though, the differences widen substantially, especially if a wave of Canadian Arctic air heading south stalls just past Bridgeport and stays there all January. This is another element of risk present in the markets called **basis risk**. Basis risk is, almost always, still far less than the risk involved if you choose not to hedge at all.

Most hedgers, no matter what the commodity, close out their futures positions before the futures contracts expire, and then make or take their physical deliveries through the people with whom they usually buy or sell their actual supplies. Knowing that at any given time, however, someone may actually demand to buy your products, or sell their's to you at that price, helps keep the value true to life.

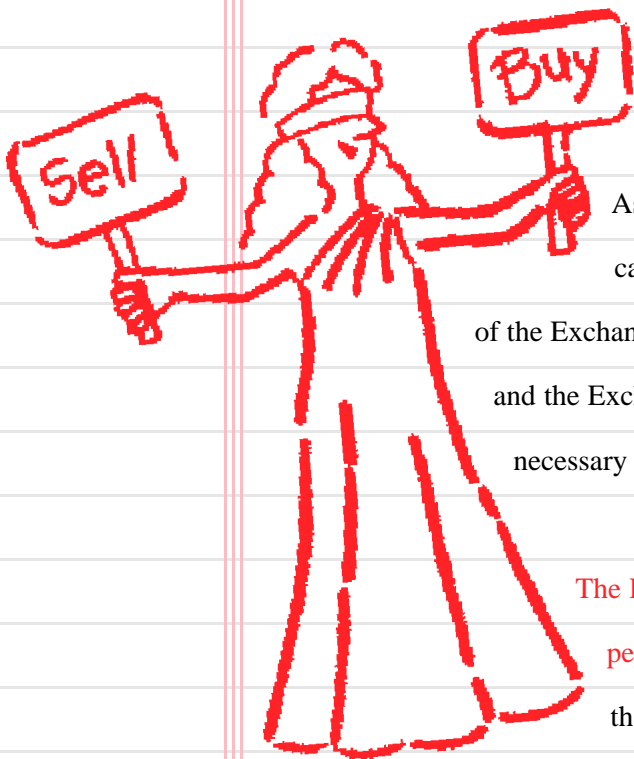


How Do I Know the Other Party Will Pay For What He Bought... or Deliver What He Sold? **We're glad you asked.**

It is the Exchange's job to guarantee each trade, ultimately acting as the seller to every buyer and the buyer to every seller. This is accomplished through a group of about 60 or 70 member firms called clearing members, who include some of the largest and best capitalized names in the banking and financial services industries.

It is through the clearing members that market participants must post good-faith deposits called margin. This is necessary because the Exchange must know that participants have sufficient funds to handle losses they may experience in the market. As soon as anyone buys or sells a futures contract, they must deposit with their clearing member an amount of money that the Exchange determines is sufficient to cover any one-day price move. As long as that person or firm holds or to the contract, the Exchange must maintain minimum

margin funds on deposit for that position, with the contract holder depositing additional funds whenever the market moves against him.



As a further safeguard, the clearing members contribute to a pool of funds, called a guaranty fund, that can be used in the event a member or customer of the Exchange defaults on his obligation after the customer's own clearing member and the Exchange itself have already contributed funds. So far, it has never been necessary to use the fund.

The Exchange does not take positions in the market, nor does it even advise people on what positions to take. Instead, it has the responsibility to ensure that the market is fair and orderly. It does this by setting and enforcing rules regarding margin deposits, trading and delivery procedures, membership qualifications, position sizes, and other aspects of trading. Members who violate the rules can be subject to fines or other sanctions. Looking over the Exchange's shoulder is the Commodity Futures Trading Commission, a U.S. government agency.

The Exchange is a Unique Place

There is no other place like the New York Mercantile Exchange with the same rules and products. Yet, there are a number of commodity exchanges throughout the world, where people participate in a public auction, buying and selling commodities they don't see, with other people whose identities are anonymous.

It might seem hectic and confusing but, in fact, the tried and true method of open outcry has been carefully honed through generations of traders and is supported by the most sophisticated technology currently available. **The individuals in the funny jackets gesturing with their hands are each highly skilled professionals with a great deal of responsibility resting on their shoulders.** The commodities must meet strict specifications for quality and quantity, and, because the Exchange ultimately

guarantees each purchase and sale, the market not only works, but is so effective that the quotations derived from these transactions are used as pricing standards by companies and individuals around the globe.

The marketplace provided by the Exchange with its price discovery, liquidity, and financial guarantees enables thousands of merchants — from huge oil companies who sell shiploads of crude petroleum to jewelry retailers — to operate more efficiently, and thus more competitively, something that is of vital importance in today's global economy.

