

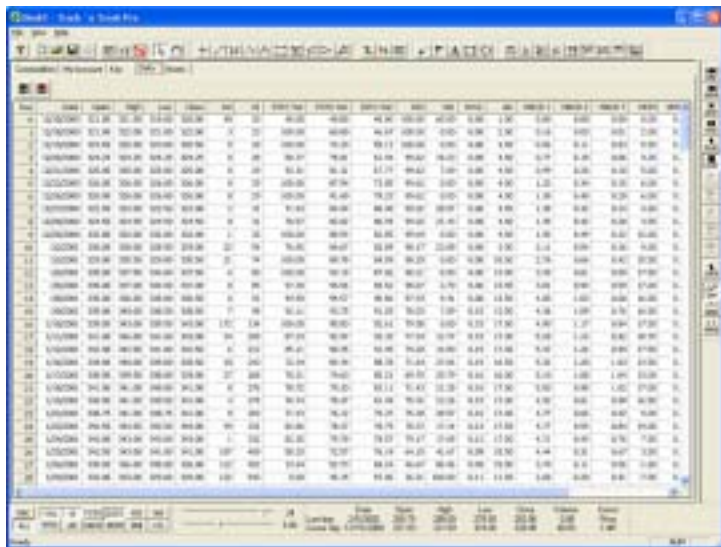
Track 'n Trade<sup>®</sup> Pro  
Version 3.0

*Accumulating Wealth One Tic at a Time!<sup>™</sup>*

Data Window

## Data Window

The Data Window displays the data in a spreadsheet format. In this window you are able to view the Date, Open, High, Low, Close, Volume, Open Interest and the values for all of the indicators included in Track 'n Trade Pro.



## Changing Data Values:

If you find a bad tick or a value that you would like to change, you can make modification to the data through this window. See instructions below:

1. Click on the cell with the data you would like to change.
2. Highlight the number and type in the correct value.
3. Once entered click on the "Save Data Changes" button located at the top left of the Data Window.

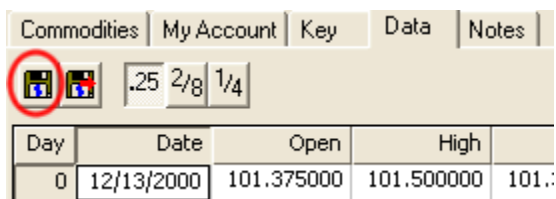


Chart 48: Save Data Changes Button

## Reloading Original Data:

If you have changed data values in the Data Window that you would like to have restored, click on the "Reload Data From Disk" button. Make sure that the Track 'n Trade Pro CD is in your computer.

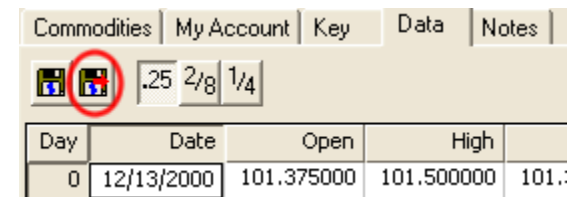


Chart 49: Reload Data from disk button.

## Data Formats:

In the data tab, you can view the data in decimal, fractional and simplified fractional formats. Click on the different formatting buttons to change the way the data is displayed.

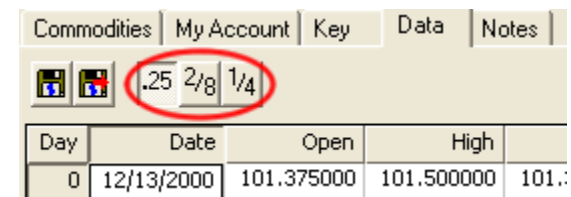


Chart 50: Data Formatting Buttons

## Copy and Pasting Data

In the Data Window, you may highlight a section of data and then press the "CTRL" and "C" keys at the same time to copy the data selected. Next press the "CTRL" and "V" keys after selecting a cell in an open spreadsheet document.

If you would like to select all cells in the data window, click on the corner grey cell left of the "Date" cell. See also Exporting Data in the Getting Started Section for other options.

1)

Track 'n Trade<sup>®</sup> Pro  
Version 3.0

*Accumulating Wealth One Tic at a Time!<sup>™</sup>*

Key & Notes Windows

## Key Window

The Key Window lists the different specifications for the current contract displayed in the Chart Window. These items are editable simply click on the value to highlight, type in your changes and then press the Enter key when finished to save the changes.

Label	Value
Symbol:	TU
Name:	2-Year T-Note
Group:	FINANCIALS
Exchange:	CBOT
Contract Size:	200000.00
Contract Units:	\$
Tick Size:	1 / 128
Minimum Move:	0.007813
Tick Units:	Points
Full Point Value:	2000.00
Init. Margin:	1100.00
Maint. Margin:	800.00
FND: First Notice Day:	5/16/2001
LTD: Last Trading Day:	6/28/2001

One contract represents 200000.00 \$ of 2-Year T-Note. A tick, or minimum move is 1 / 128 (0.007813) Points per \$ or 15.63 per contract. A full point movement in 2-Year T-Note is equal to 1 Points per \$, or \$2000.00 per contract.

## Notes Window

The Notes Window is for the user to keep notes that are saved with each chart in a book. For each Chart this notes window will be different.

Commodities	My Account	Key	Data	Notes
Type your notes here				

Track 'n Trade<sup>®</sup> Pro  
Version 3.0

*Accumulating Wealth One Tic at a Time!<sup>™</sup>*

Candlestick Charting

# An Introduction to Japanese Candlestick Charting

By Erik Gebhard

## Introduction...a New Way to Look at Prices

Would you like to learn about a commodity price chart that is possibly more effective than the type you are probably currently using? If so, keep reading. If you are brand new to the art/science of chart reading, don't worry, this stuff is really quite simple to learn.

## Technical Analysis...a Brief Background

Technical analysis is simply the study of prices as reflected on price charts. Technical analysis assumes that current prices should represent all known information about the markets. Prices not only reflect intrinsic facts, they also represent human emotion and the pervasive mass psychology and mood of the moment. Prices are, in the end, a function of supply and demand. However, on a moment to moment basis, human emotions...fear, greed, panic, hysteria, elation, etc. also dramatically effect prices. Markets may move based upon people's expectations, not necessarily facts. A market "technician" attempts to disregard the emotional component of trading by making his decisions based upon chart formations, assuming that prices reflect both facts and emotion.

Standard bar charts are commonly used to convey price activity into an easily readable chart. Usually four elements make up a bar chart, the Open, High, Low, and Close for the trading session/time period. A price bar can represent any time frame the user wishes, from 1 minute to 1 month. The total vertical length/height of the bar represents the entire trading range for the period. The top of the bar represents the highest price of the period, and the bottom of the bar represents the lowest price of the period. The Open is represented by a small dash to the left of the bar, and the Close for the session is a small dash to the right of the bar.

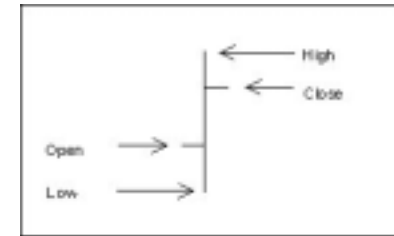


Figure 1: Candlesticks - Standard Bar Chart Example

## Candlestick Charts Explained

You may be asking yourself, "If I can already use bar charts to view prices, then why do I need another type of chart?"

The answer to this question may not seem obvious, but after going through the following candlestick chart explanations and examples, you will surely see value in the different perspective candlesticks bring to the table. In my opinion, they are much more visually appealing, and convey the price information in a quicker, easier manner.

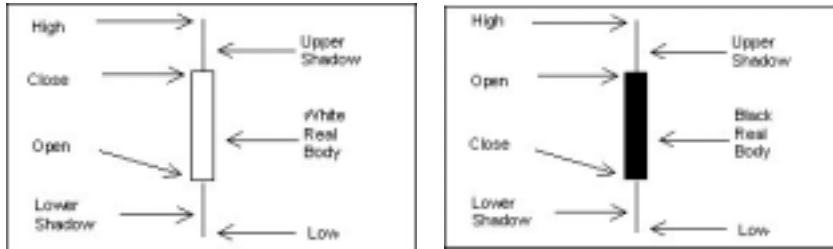
## What is the History of Candlestick Charts?

Candlestick charts are on record as being the oldest type of charts used for price prediction. They date back to the 1700's, when they were used for predicting rice prices. In fact, during this era in Japan, Munehisa Homma became a legendary rice trader and gained a huge fortune using candlestick analysis. He is said to have executed over 100 consecutive winning trades!

The candlesticks themselves and the formations they shape were given colorful names by the Japanese traders. Due in part to the military environment of the Japanese feudal system during this era, candlestick formations developed names such as "counter attack lines" and the "advancing three soldiers". Just as skill, strategy, and psychology are important in battle, so too are they important elements when in the midst of trading battle.

## What do Candlesticks Look Like?

Candlestick charts are much more visually appealing than a standard two-dimensional bar chart. As in a standard bar chart, there are four elements necessary to construct a candlestick chart, the OPEN, HIGH, LOW and CLOSING price for a given time period. Examples of candlesticks and a definition for each candlestick component are located below.



- The body of the candlestick is called the real body, and represents the range between the open and closing prices.
- A black or filled-in body represents that the close during that time period was lower than the open, (normally considered bearish) and when the body is open or white, that means the close was higher than the open (normally bullish).
- The thin vertical line above and/or below the real body is called the upper/lower shadow, representing the high/low price extremes for the period.

## Bar Compared to Candlestick Charts

Below is an example of the same price data conveyed in a standard bar chart and a candlestick chart. Notice how the candlestick chart appears 3-dimensional, as price data almost jumps out at you.



( 3a )

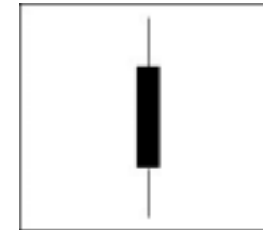
(3b)

The long, dark, filled-in *real bodies* represent a weak (bearish) close ( 3a ), while a long open, light-colored *real body* represents a strong (bullish) close ( 3b ). It is important to note that Japanese candlestick analysts traditionally view the open and closing prices as the most critical of the day. At a glance, notice how much easier it is with candlesticks to determine if the closing price was higher or lower than the opening price.

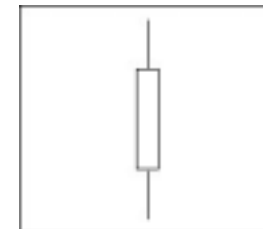
## Common Candlestick Terminology

The following is a list of some individual candlestick terms. It is important to realize that many formations occur within the context of prior candlesticks. What follows is merely a definition of terms, not formations.

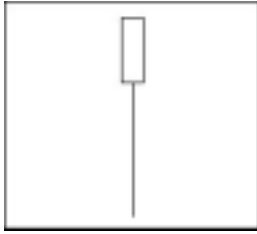
**The Black Candlestick** -- when the close is lower than the open.



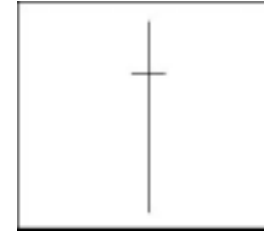
**The White Candlestick** -- when the close is higher than the open.



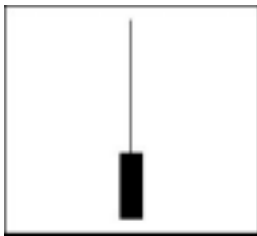
**The Shaven Head** -- a candlestick with no *upper shadow*.



**Doji Lines** -- have no *real body*, but instead have a horizontal line. This represents when the Open and Close are the same or very close. The length of the *shadow* can vary.



**The Shaven Bottom** -- a candlestick with no *lower shadow*.



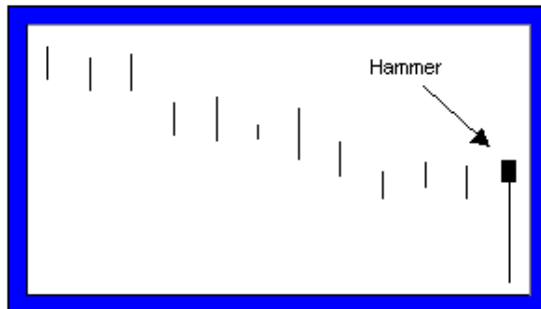
**Spinning Tops** -- candlesticks with small *real bodies*, and when appearing within a sideways choppy market, they represent equilibrium between the bulls and the bears. They can be either *white* or *black*.



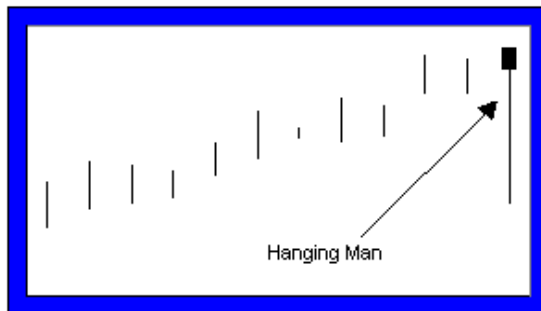
## Candlestick Reversal Patterns

Just as many traders look to bar charts for double tops and bottoms, head-and-shoulders, and technical indicators for reversal signals, so too can candlestick formations be looked upon for the same purpose. A reversal does not always mean that the current uptrend/downtrend will reverse direction, but merely that the current direction may end. The market may then decide to drift sideways. Candlestick reversal patterns must be viewed within the context of prior activity to be effective. In fact, identical candlesticks may have different meanings depending on where they occur within the context of prior trends and formations.

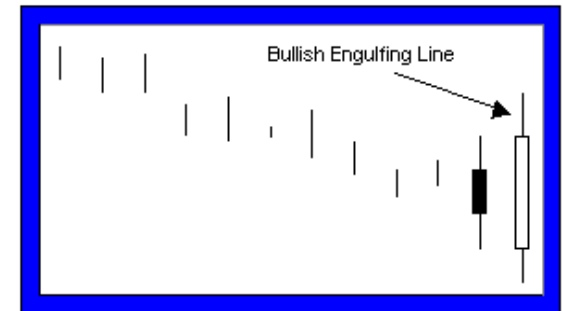
**Hammer:** a candlestick with a long lower shadow and small real body. The shadow should be at least twice the length of the real body, and there should be no or very little upper shadow. The body may be either black or white, but the key is that this candlestick must occur within the context of a downtrend to be considered a hammer. The market may be "hammering" out a bottom.



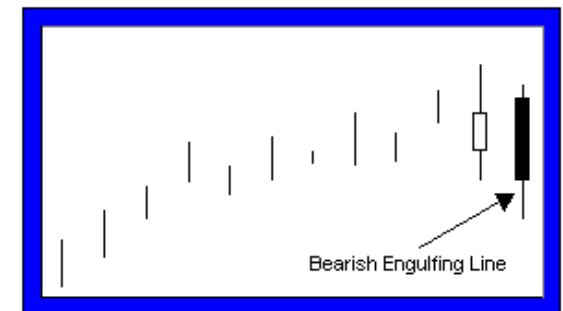
**Hanging Man** -- identical in appearance to the hammer, but appears within the context of an uptrend.



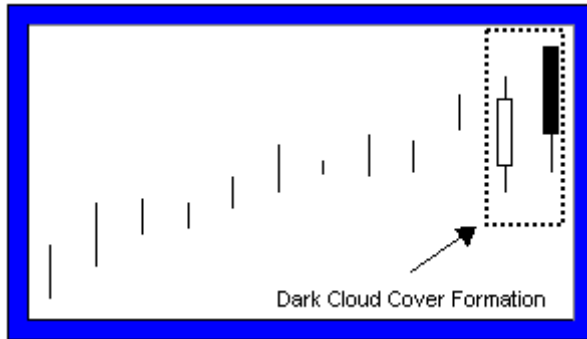
**Engulfing Patterns** -- Bullish -- when a *white, real body* totally covers, "engulfs" the prior day's *real body*. The market should be in a definable trend, not chopping around sideways. The shadows of the prior candlestick do not need to be engulfed.



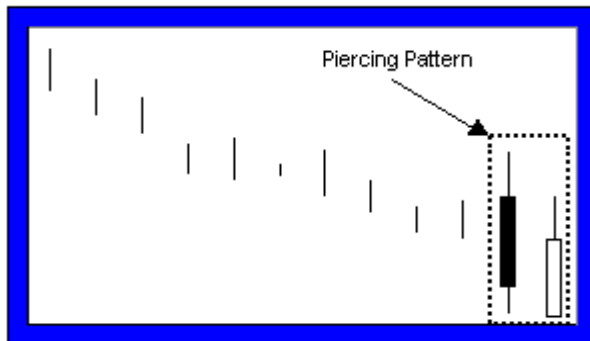
**Bearish** -- when a black, real body totally covers, "engulfs" the prior day's real body. The market should be in a definable trend, not chopping around sideways. The shadows of the prior candlestick do not need to be engulfed.



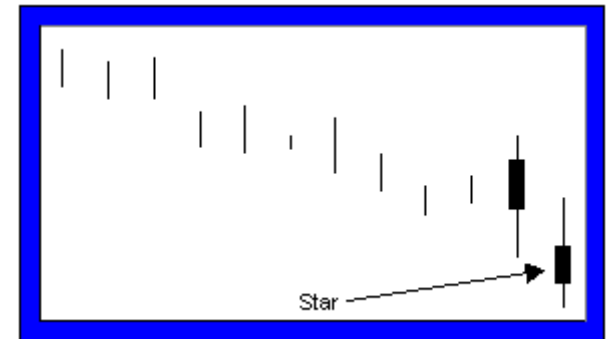
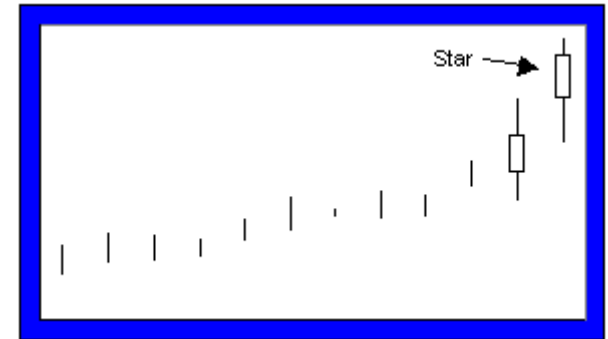
**Dark-Cloud Cover (bearish)**-- a top reversal formation where the first day of the pattern consists of a strong *white, real body*. The second day's price opens above the top of the upper shadow of the prior candlestick, but the close is at or near the low of the day, and well into the prior *white, real body*.



**Piercing Pattern (bullish)** -- opposite of the dark-cloud cover. Occurs within a downtrend. The first candlestick having a black, real body, and the second has a long, white, real body. The white day opens sharply lower, under the low of the prior black day. Then, prices close above the 50% point of the prior day's black real body.



## Stars

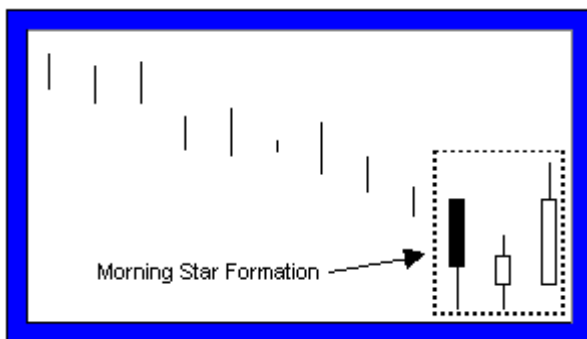


These candlestick formations consist of a small real body that gaps away from the real body preceding it. The real body of the star should not overlap the prior real body. The color of the star is not too important, and they can occur at either tops or bottoms. Stars are the equivalent of gaps on standard bar charts.

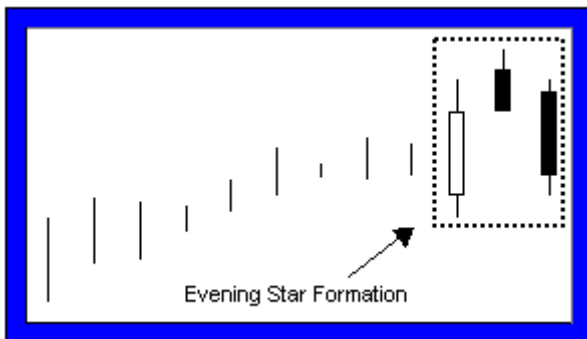
Stars make up part of four separate reversal patterns:

- Morning Star**
- Evening Star**
- Doji Star**
- Shooting Star (Inverted Hammer)**

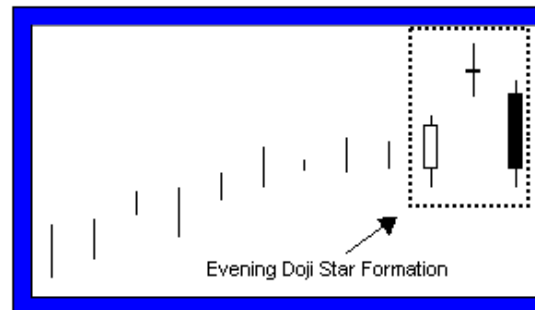
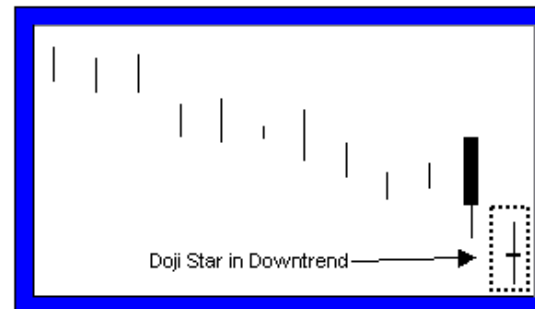
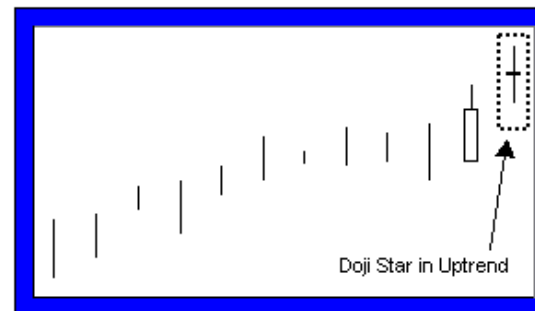
**Morning Star**-- this is a bullish bottom reversal pattern. The formation is comprised of 3 candlesticks. The first candlestick is a tall black real body followed by the second, a small real body, which gaps (opens), lower (a star pattern). The third candlestick is a white real body that moves well into the first period's black real body. This is similar to an island pattern on standard bar charts.



**Evening Star** --- a bearish top reversal pattern and counterpart to the Morning Star. Three candlesticks compose the evening star, the first being long and white. The second forms a star, followed by the third, which has a black real body that moves sharply into the first white candlestick.

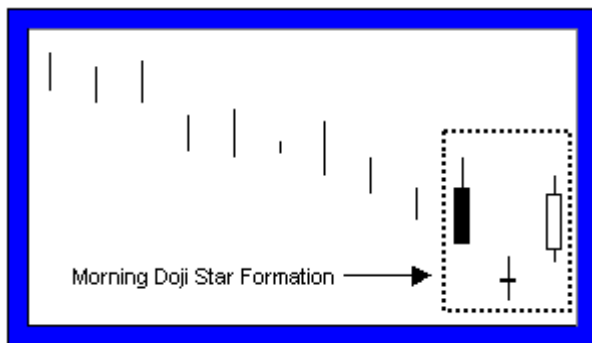


**Doji Stars** -- When a doji gaps above a real body in an uptrend, or gaps under a real body in a falling market, that particular doji is called a doji star. Two popular doji stars are the evening star and the morning star.

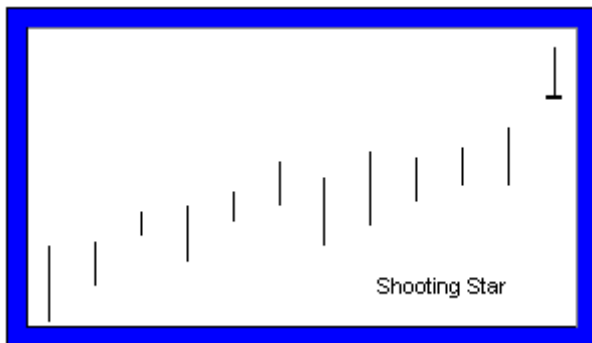


**Evening Doji Star:** a doji star in an uptrend followed by a long, black real body that closed well into the prior white real body. If the candlestick after the doji star is white and gapped higher, the bearishness of the doji is invalidated.

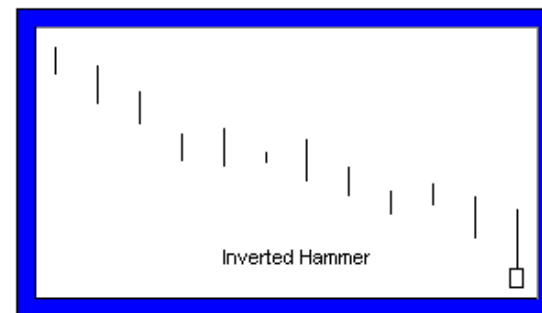
**Morning Doji Star** -- a doji star in a downtrend followed by a long, white real body that closes well into the prior black real body. If the candlestick after the doji star is black and gapped lower, the bullishness of the doji is invalidated.



**Shooting Star** -- a small real body near the lower end of the trading range, with a long upper shadow. The color of the body is not critical. Not usually considered a major reversal sign, only a warning.



**Inverted Hammer**-- not really a star, but does look like a shooting star. When occurring within a downtrend, may be a turning signal. Body color is not critical.



### Final Thoughts and Credits

It is important to realize that this introduction is just that, an introduction to candlestick analysis. After having read this, you will have merely scratched the surface of the many patterns and variables that can go into candlestick analysis. No attempt was made to provide a thorough analysis of each and every pattern. In fact, many formations were left out as they cross the border into more complicated analysis. For a more complete overview of candlestick analysis, it is highly recommended that you read the book that is referred to below.

A large portion of the material in this introduction is taken from an excellent book called [Japanese Candlestick Charting Techniques: A Contemporary Guide to the Ancient Investment Techniques of the Far East](#). (You can find this book in [The PitMaster's Bookstore](#).) In some cases, sentences were taken almost verbatim, as there was no better way to say what Mr. Steve Nison, the author, already said. In his book, Mr. Nison, completely explains candlesticks and their formations, but more importantly explains how to combine candlestick analysis with traditional technical analysis. It is highly recommended that you consider purchasing this book.

As traders, we need as many trading tools in our arsenal, and a basic knowledge of candlesticks provides a trader much needed ammunition. Also remember that no matter what the trading tool, no matter how advanced or ancient; it is only effective when put into practice properly. This is, of course, your job as the trader.

Track 'n Trade<sup>®</sup> Pro

Version 3.0

*Accumulating Wealth One Tic at a Time!<sup>™</sup>*

Glossary

## A

### **Accrued Interest:**

Interest earned between the most recent interest payment and the present date but not yet paid to the lender.

### **Actuals:**

See Cash Commodity.

### **Add-on Method:**

A method of paying interest where the interest is added onto the principal at maturity or interest payment dates.

### **Adjusted Futures Price:**

The cash-price equivalent reflected in the current futures price. This is calculated by taking the futures price times the conversion factor for the particular financial instrument (e.g., bond or note) being delivered.

### **Against Actuals:**

See Exchange for Physicals.

### **Arbitrage:**

The simultaneous purchase and sale of similar commodities in different markets to take advantage of price discrepancy.

### **Arbitration:**

The procedure of settling disputes between members, or between members and customers.

### **Assign:**

To make an option seller perform his obligation to assume a short futures position (as a seller of a call option) or a long futures position (as a seller of a put option).

### **Associated Person (AP):**

An individual who solicits orders, customers, or customer funds (or who supervises persons performing such duties) on behalf of a Futures Commission Merchant, an Introducing Broker, a Commodity Trading Adviser, or a Commodity Pool Operator.

### **Associate Membership:**

A Chicago Board of Trade membership that allows an individual to trade financial instrument futures and other designated markets.

## **At-the-Money Option:**

An option with a strike price that is equal, or approximately equal, to the current market price of the underlying futures contract.

## B

### **Balance of Payment:**

A summary of the international transactions of a country over a period of time including commodity and service transactions, and gold movements.

### **Bar Chart:**

A chart that graphs the high, low, and settlement prices for a specific trading session over a given period of time.

### **Basis:**

The difference between the current cash price and the futures price of the same commodity. Unless otherwise specified, the price of the nearby futures contract month is generally used to calculate the basis.

### **Bear:**

Someone who thinks market prices will decline.

### **Bear Market:**

A period of declining market prices.

### **Bear Spread:**

In most commodities and financial instruments, the term refers to selling the nearby contract month, and buying the deferred contract, to profit from a change in the price relationship.

### **Bid:**

An expression indicating a desire to buy a commodity at a given price, opposite of offer.

### **Board of Trade Clearing Corporation:**

An independent corporation that settles all trades made at the Chicago Board of Trade acting as a guarantor for all trades cleared by it, reconciles all clearing member firm accounts each day to ensure that all gains have been credited and all losses have been collected, and sets and adjusts clearing member firm margins for changing market conditions. Also referred to as clearing corporation. See Clearinghouse.

### **Book Entry Securities:**

Electronically recorded securities that include each creditor's name, address, Social Security or tax identification number, and dollar amount loaned, (i.e., no certificates are issued to bond holders, instead the transfer agent electronically credits

interest payments to each creditor's bank account on a designated date).

**Broker:**

A company or individual that executes futures and options orders on behalf of financial and commercial institutions and/or the general public.

**Brokerage Fee:**

See Commission Fee.

**Brokerage House:**

See Futures Commission Merchant.

**Bull:**

Someone who thinks market prices will rise.

**Bull Market:**

A period of rising market prices.

**Bull Spread:**

In most commodities and financial instruments, the term refers to buying the nearby month, and selling the deferred month, to profit from the change in the price relationship.

**Butterfly Spread:**

The placing of two interdelivery spreads in opposite directions with the center delivery month common to both spreads.

**Buying Hedge:**

See Purchasing Hedge.

**C**

**Calendar Spread:**

See Interdelivery Spread or Horizontal Spread.

**Call Option:**

An option that gives the buyer the right, but not the obligation, to purchase (go long) the underlying futures contract at the strike price on or before the expiration date.

**Canceling Order:**

An order that deletes a customer's previous order.

**Carrying Charge:**

For physical commodities such as grains and metals, the cost of storage space, insurance, and finance charges incurred by holding a physical commodity. In interest rate futures markets, it refers to the differential between the yield on a cash instrument and the cost of funds necessary to buy the instrument. See Cost of Carry.

**Carryover:**

Grain and oilseed commodities not consumed during the marketing year and remaining in storage at year's end. These stocks are "carried over" into the

next marketing year and added to the stocks produced during that crop year.

**Cash Commodity:**

An actual physical commodity someone is buying or selling, e.g., soybeans, corn, gold, silver, Treasury bonds, etc. Also referred to as actuals.

**Cash Contract:**

A sales agreement for either immediate or future delivery of the actual product.

**Cash Market:**

A place where people buy and sell the actual commodities, i.e., grain elevator, bank, etc. See Spot and Forward Contract.

**Cash Settlement:**

Transactions generally involving index-based futures contracts that are settled in cash based on the actual value of the index on the last trading day, in contrast to those that specify the delivery of a commodity or financial instrument.

**Certificate of Deposit (CD):**

A time deposit with a specific maturity evidenced by a certificate.

**Charting:**

The use of charts to analyze market behavior and anticipate future price movements. Those who use charting as a trading method plot such factors as high, low, and settlement prices; average price movements; volume; and open interest. Two basic price charts are bar charts and point-and-figure charts. See Technical Analysis.

**Cheap:**

Colloquialism implying that a commodity is under priced.

**Cheapest to Deliver:**

A method to determine which particular cash debt instrument is most profitable to deliver against a futures contract.

**Clear:**

The process by which a clearinghouse maintains records of all trades and settles margin flow on a daily mark-to-market basis for its clearing member.

**Clearing Corporation:**

See Board of Trade Clearing Corporation.

**Clearinghouse:**

An agency or separate corporation of a futures exchange that is responsible for settling trading accounts, clearing trades, collecting and maintaining

margin monies, regulating delivery, and reporting trading data. Clearinghouses act as third parties to all futures and options contracts—acting as a buyer to every clearing member seller and a seller to every clearing member buyer.

**Clearing Margin:**

Financial safeguards to ensure that clearing members (usually companies or corporations) perform on their customers' open futures and options contracts. Clearing margins are distinct from customer margins that individual buyers and sellers of futures and options contracts are required to deposit with brokers. See Customer Margin.

**Clearing Member:**

A member of an exchange clearinghouse. Memberships in clearing organizations are usually held by companies. Clearing members are responsible for the financial commitments of customers that clear through their firm.

**Closing Price:**

See Settlement Price.

**Closing Range:**

A range of prices at which buy and sell transactions took place during the market close.

**COM Membership:**

A Chicago Board of Trade membership that allows an individual to trade contracts listed in the commodity options market category.

**Commission Fee:**

A fee charged by a broker for executing a transaction. Also referred to as brokerage fee.

**Commission House:**

See Futures Commission Merchant (FCM).

**Commodity:**

An article of commerce or a product that can be used for commerce. In a narrow sense, products traded on an authorized commodity exchange. The types of commodities include agricultural products, metals, petroleum, foreign currencies, and financial instruments and index, to name a few.

**Commodity Credit Corp.:**

A branch of the U.S. Department of Agriculture, established in 1933, that supervises the government's farm loan and subsidy programs.

**Commodity Futures Trading Commission (CFTC):**

A federal regulatory agency established under the Commodity Futures Trading Commission Act, as amended in 1974, that oversees futures trading in the United States. The commission is comprised of five commissioners, one of whom is designated as chairman, all appointed by the President subject to Senate confirmation, and is independent of all cabinet departments.

**Commodity Pool:**

An enterprise in which funds contributed by a number of persons are combined for the purpose of trading futures contracts or commodity options.

**Commodity Pool Operator:**

An individual or organization that operates or solicits funds for a commodity pool.

**Commodity Trading Adviser:**

A person who, for compensation or profit, directly or indirectly advises others as to the value or the advisability of buying or selling futures contracts or commodity options. Advising indirectly includes exercising trading authority over a customer's account as well as providing recommendations through written publications or other media.

**Computerized Trading Reconstruction System:**

A Chicago Board of Trade computerized surveillance program that pinpoints in any trade the traders, the contract, the quantity, the price, and time of execution to the nearest minute.

**Concurrent Indicators:**

See Lagging Indicators.

**Consumer Price Index (CPI):**

A major inflation measure computed by the U.S. Department of Commerce. It measures the change in prices of a fixed market basket of some 385 goods and services in the previous month.

**Contract Grades:**

See Deliverable Grades.

**Contract Month:**

See Delivery Month.

**Controlled Account:**

See Discretionary Account.

**Convergence:**

A term referring to cash and futures prices tending to come together (i.e., the basis approaches zero) as the futures contract nears expiration.

**Conversion Factor:**

A factor used to equate the price of T-bond and T-note futures contracts with the various cash T-bonds and T-notes eligible for delivery. This factor is based on the relationship of the cash-instrument coupon to the required 8 percent deliverable grade of a futures contract as well as taking into account the cash instrument's maturity or call.

**Cost of Carry (or Carry):**

See Carrying Charge.

**Coupon:**

The interest rate on a debt instrument expressed in terms of a percent on an annualized basis that the issuer guarantees to pay the holder until maturity.

**Crop (Marketing) Year:**

The time span from harvest to harvest for agricultural commodities. The crop marketing year varies slightly with each ag commodity, but it tends to begin at harvest and end before the next year's harvest, e.g., the marketing year for soybeans begins September 1 and ends August 31. The futures contract month of November represents the first major new-crop marketing month, and the contract month of July represents the last major old-crop marketing month for soybeans.

**Crop Reports:**

Reports compiled by the U.S. Department of Agriculture on various ag-commodities that are released throughout the year. Information in the reports includes estimates on planted acreage, yield, and expected production, as well as comparison of production from previous years.

**Cross-Hedging:**

Hedging a cash commodity using a different but related futures contract when there is no futures contract for the cash commodity being hedged and the cash and futures markets follow similar price trends (e.g., using soybean meal futures to hedge fish meal).

**Crush Spread:**

The purchase of soybean futures and the simultaneous sale of soybean oil and meal futures. See Reverse Crush.

**Current Yield:**

The ratio of the coupon to the current market price of the debt instrument

**Customer Margin:**

Within the futures industry, financial guarantees required of both buyers and sellers of futures contracts and sellers of options contracts to ensure fulfilling of contract obligations. FCMs are responsible for overseeing customer margin accounts. Margins are determined on the basis of market risk and contract value. Also referred to as performance-bond margin. See Clearing Margin.

**D****Daily Trading Limit:**

The maximum price range set by the exchange cash day for a contract.

**Day Traders:**

Speculators who take positions in futures or options contracts and liquidate them prior to the close of the same trading day.

**Deferred (Delivery) Month:**

The more distant month(s) in which futures trading is taking place, as distinguished from the nearby (delivery) month.

**Deliverable Grades:**

The standard grades of commodities or instruments listed in the rules of the exchanges that must be met when delivering cash commodities against futures contracts. Grades are often accompanied by a schedule of discounts and premiums allowable for delivery of commodities of lesser or greater quality than the standard called for by the exchange. Also referred to as contract grades.

**Delivery:**

The transfer of the cash commodity from the seller of a futures contract to the buyer of a futures contract. Each futures exchange has specific procedures for delivery of a cash commodity. Some futures contracts, such as stock index contracts, are cash settled.

**Delivery Day:**

The third day in the delivery process at the Chicago Board of Trade, when the buyer's clearing firm presents the delivery notice with a certified check for the amount due at the office of the seller's clearing firm.

**Delivery Month:**

A specific month in which delivery may take place under the terms of a futures contract. Also referred to as contract month.

**Delivery Points:**

The locations and facilities designated by a futures exchange where stocks of a commodity may be delivered in fulfillment of a futures contract, under procedures established by the exchange.

**Delta:**

A measure of how much an option premium changes, given a unit change in the underlying futures price. Delta often is interpreted as the probability that the option will be in-the-money by expiration.

**Demand, Law of:**

The relationship between product demand and price.

**Differentials:**

Price differences between classes, grades, and delivery locations of various stocks of the same commodity.

**Discount Method:**

A method of paying interest by issuing a security at less than par and repaying par value at maturity. The difference between the higher par value and the lower purchase price is the interest.

**Discount Rate:**

The interest rate charged on loans by the Federal Reserve Bank.

**Discretionary Account:**

An arrangement by which the holder of the account gives written power of attorney to another person, often his broker, to make trading decisions. Also known as a controlled or managed account.

**E****Econometrics:**

The application of statistical and mathematical methods in the field of economics to test and quantify economic theories and the solutions to economic problems.

**Equilibrium Price:**

The market price at which the quantity supplied of a commodity equals the quantity demanded.

**Eurodollars:**

U.S. dollars on deposit with a bank outside of the United States and, consequently, outside the jurisdiction of the United States. The bank could be either a foreign bank or a subsidiary of a U.S. bank.

**European Terms:**

A method of quoting exchange rates, which measures the amount of foreign currency needed to buy one U.S. dollar, i.e., foreign currency unit per dollar. See Reciprocal of European Terms.

**Exchange for Physicals:**

A transaction generally used by two hedgers who want to exchange futures for cash positions. Also referred to as "against actuals" or "versus cash".

**Exercise:**

The action taken by the holder of a call option if he wishes to purchase the underlying futures contract or by the holder of a put option if he wishes to sell the underlying futures contract.

**Exercise Price:**

See Strike Price.

**Expanded Traded Hours:**

Additional trading hours of specific futures and options contracts at the Chicago Board of Trade that overlap with business hours in other time zones.

**Expiration Date:**

Options on futures generally expire on a specific date during the month preceding the futures contract delivery month. For example, an option on a March futures contract expires in February but is referred to as a March option because its exercise would result in a March futures contract position.

**Extrinsic Value:**

See Time Value.

**F****Face Value:**

The amount of money printed on the face of the certificate of a security; the original dollar amount of indebtedness incurred.

**Federal Funds:**

Member bank deposits at the Federal Reserve; these funds are loaned by member banks to other member banks.

**Federal Funds Rate:**

The rate of interest charged for the use of federal funds.

**Federal Housing Administration (FHA):**

A division of the U.S. Department of Housing and Urban Development that insures residential mortgage loans and sets construction standards.

**Federal Reserve System:**

A central banking system in the United States, created by the Federal Reserve Act in 1913, designed to assist the nation in attaining its economic and financial goals. The structure of the Federal Reserve System includes a Board of Governors, the Federal Open Market Committee, and 12 Federal Reserve Banks.

**Feed Ratio:**

A ratio used to express the relationship of feeding costs to the dollar value of livestock. See Hog/Corn Ratio and Steer/Corn Ratio.

**Fill-or Kill:**

A customer order that is a price limit order that must be filled immediately or canceled.

**Financial Analysis Auditing Compliance Tracking System (FACTS):**

The National Futures Association's computerized system of maintaining financial records of its member firms and monitoring their financial conditions. Financial Instrument: There are two basic types: (1) a debt instrument, which is a loan with an agreement to pay back funds with interest; (2) an equity security, which is share or stock in a company.

**First Notice Day:**

According to Chicago Board of Trade rules, the first day on which a notice of intent to deliver a commodity in fulfillment of a given month's futures contract can be made by the clearinghouse to a buyer. The clearinghouse also informs the sellers who they have been matched up with.

**Floor Broker (FB):**

An individual who executes orders for the purchase or sale of any commodity futures or options contract on any contract market for any other person.

**Floor Trader (FT):**

An individual who executes trades for the purchase or sale of any commodity futures or options contract on any contract market for such individual's own account.

**Foreign Exchange Market:**

See Forex Market.

**Forex Market:**

An over-the-counter market where buyers and sellers conduct foreign exchange business by

telephone and other means of communication. Also referred to as foreign exchange market.

**Forward (Cash) Contract:**

A cash contract in which a seller agrees to deliver a specific cash commodity to a buyer sometime in the future. Forward contracts, in contrast to futures contracts, are privately negotiated and are not standardized.

**Full Carrying Charge Market:**

A futures market where the price difference between delivery months reflects the total costs of interest, insurance, and storage.

**Full Membership (CBOT):**

A Chicago Board of Trade membership that allows an individual to trade all futures and options contracts listed by the exchange.

**Fundamental Analysis:**

A method of anticipating future price movement using supply and demand information.

**Futures Commission Merchant (FCM):**

An individual or organization that solicits or accepts orders to buy or sell futures contracts or options on futures and accepts money or other assets from customers to support such orders. Also referred to as "commission house" or "wire house."

**Futures Contract:**

A legally binding agreement, made on the trading floor of a futures exchange, to buy or sell a commodity or financial instrument sometime in the future. Futures contracts are standardized according to the quality, quantity, and delivery time and location for each commodity. The only variable is price, which is discovered on an exchange trading floor.

**Futures Exchange:**

A central marketplace with established rules and regulations where buyers and sellers meet to trade futures and options on futures contracts.

**G****Gamma:**

A measurement of how fast delta changes, given a unit change in the underlying futures price.

**GIM Membership (CBOT):**

A Chicago Board of Trade membership that allows an individual to trade all futures contracts listed in the government instrument market category.

**GLOBEX®:**

A global after-hours electronic trading system. Grain Terminal: Large grain elevator facility with the capacity to ship grain by rail and/or barge to domestic or foreign markets.

**Gross Domestic Product:**

The value of all final goods and services produced by an economy over a particular time period, normally a year.

**Gross National Product:**

Gross Domestic Product plus the income accruing to domestic residents as a result of investments abroad less income earned in domestic markets accruing to foreigners abroad.

**Gross Processing Margin:**

The difference between the cost of soybeans and the combined sales income of the processed soybean oil and meal.

**H****Hedger:**

An individual or company owning or planning to own a cash commodity (corn, soybeans, wheat, U.S. Treasury bonds, notes, bills etc.) and concerned that the cost of the commodity may change before either buying or selling it in the cash market. A hedger achieves protection against changing cash prices by purchasing (selling) futures contracts of the same or similar commodity and later offsetting that position by selling (purchasing) futures contracts of the same quantity and type as the initial transaction.

**Hedging:**

The practice of offsetting the price risk inherent in any cash market position by taking an equal but opposite position in the futures market. Hedgers use the futures markets to protect their business from adverse price changes. See Selling (Short)

**Hedge and Purchasing (Long) Hedge. High:**

The highest price of the day for a particular futures contract.

**Hog/Corn Ratio:**

The relationship of feeding costs to the dollar value of hogs. It is measured by dividing the price of hogs (\$/hundredweight) by the price of corn (\$/bushel). When corn prices are high relative to pork prices, fewer units of corn equal the dollar value of 100 pounds of pork. Conversely, when corn prices are low in relation to pork prices, more units of corn are

required to equal the value of 100 pounds of pork. See Feed Ratio.

**Holder:**

See Option Buyer.

**Horizontal Spread:**

The purchase of either a call or put option and the simultaneous sale of the same type of option with typically the same strike price but with a different expiration month. also referred to as a calendar spread.

**IIDEM Membership (CBOT):**

A Chicago Board of Trade membership of trading privileges for futures contract in the index, debt, and energy markets category (gold, municipal bond index, 30-day fed funds, and stock index futures).

**Initial Margin:**

See Original Margin

**Intercommodity Spread:**

The purchase of a given delivery month of one futures market and the simultaneous sale of the same delivery month of a different, but related, futures market.

**Interdelivery Spread:**

The purchase of one delivery month of a given futures contract and simultaneous sale of another delivery month of the same commodity on the same exchange. Also referred to as an intramarket or calendar spread.

**Intermarket Spread**

The sale of a given delivery month of a futures contract on one exchange and the simultaneous purchase of the same delivery month and futures contract on another exchange.

**In-the-Money Option:**

An option having intrinsic value. A call option is in-the-money if its strike price is below the current price of the underlying futures contract. A put option is in-the-money if its strike price is above the current price of the underlying futures contract. See Intrinsic Value.

**Intrinsic Value:**

The amount by which an option is in-the-money. See In-the-Money Option

**Introducing Broker:**

A person or organization that solicits or accepts orders to buy or sell futures contracts or commodity

options but does not accept money or other assets from customers to support such orders.

**Inverted Market:**

A futures market in which the relationship between two delivery months of the same commodity is abnormal.

**Invisible Supply:**

Uncounted stocks of a commodity in the hands of wholesalers, manufacturers, and producers that cannot be identified accurately; stocks outside commercial channels but theoretically available to the market.

**L**

**Lagging Indicators:**

Market indicators showing the general direction of the economy and confirming or denying the trend implied by the leading indicators. Also referred to as concurrent indicators.

**Last Trading Day:**

According to the Chicago Board of Trade rules, the final day when trading may occur in a given futures or option contract month. Futures contracts outstanding at the end of the last trading day must be settled by delivery of the underlying commodity or securities or by agreement for monetary settlement (in some cases by EFPs).

**Leading Indicators:**

Market indicators that signal the state of the economy for the coming months. Some of the leading indicators include: average manufacturing workweek, initial claims for unemployment insurance, orders for consumer goods and material, percentage of companies reporting slower deliveries, change in manufacturers' unfilled orders for durable goods, plant and equipment orders, new building permits, index of consumer expectations, change in material prices, prices of stocks, change in money supply.

**Leverage:**

The ability to control large dollar amounts of a commodity with a comparatively small amount of capital.

**Limit Order:**

An order in which the customer sets a limit on the price and/or time of execution.

**Limits:**

See Position Limit, Price Limit, Variable Limit.

**Linkage:**

The ability to buy (sell) contracts on one exchange (such as the Chicago Mercantile Exchange ) and later sell (buy) them on another exchange (such as the Singapore International Monetary Exchange.)

**Liquid:**

A characteristic of a security or commodity market with enough units outstanding to allow large transactions without a substantial change in price. Institutional investors are inclined to seek out liquid investments so that their trading activity will not influence the market price.

**Liquidate:**

Selling (or purchasing) futures contracts of the same delivery month purchased (or sold) during an earlier transaction or making (or taking) delivery of the cash commodity represented by the futures contract. See Offset.

**Liquidity Data Bank®**

A computerized profile of CBOT market activity, used by technical traders to analyze price trends and develop trading strategies. There is a specialized display of daily volume data and time distribution of prices for every commodity traded on the Chicago Board of Trade.

**Loan Program:**

A federal program in which the government lends money at preannounced rates to farmers and allows them to use the crops they plant for the upcoming crop year as collateral. Default on these loans is the primary method by which the government acquires stock of agricultural commodities.

**Loan Rate:**

The amount lent per unit of a commodity to farmers.

**Long:**

One who has bought futures contracts or owns a cash commodity.

**Long Hedge:**

See Purchasing Hedge.

**Low:**

The lowest price of the day for a particular futures contract.

**M**

**Maintenance:**

A set minimum margin (per outstanding futures contract) that a customer must maintain in his margin account.

**Managed Account:**

See Clearing Margin and Customer Margin.

**Managed Futures:**

Represents an industry comprised of professional money managers known as commodity trading advisors who manage client assets on a discretionary basis, using global futures markets as an investment medium.

**Margin:**

See Clearing Margin and Customer Margin.

**Margin Call:**

A call from a clearinghouse to a clearing member, or from a brokerage firm to a customer, to bring margin deposits up to a required minimum level.

**Market Information Data Inquiry System( MIDIS):**

Historical Chicago Board of Trade price, volume, open interest data and other market information accessible by computers within the Chicago Board of Trade building.

**Market Order:**

An order to buy or sell a futures contract of a given delivery month to be filled at the best possible price and as soon as possible.

**Market Price**

Reporting and Information Systems: The Chicago Board of Trade's computerized price-reporting system.

**Market Profile®:**

A Chicago Board of Trade information service that helps technical traders analyze price trends. Market Profile consists of the Time and Sales ticker and the Liquidity Data Bank®.

**Market Reporter:**

A person employed by the exchange and located in or near the trading pit who records prices as they occur during trading.

**Marking-to-Market:**

To debit or credit on a daily basis a margin account based on the close of that day's trading session. In this way, buyers and sellers are protected against the possibility of contract default.

**Minimum Price Fluctuation:**

See Tick.

**Money Supply:**

The amount of money in the economy, consisting primarily of currency in circulation plus deposits in banks: M-1—U.S. money supply consisting of

currency held by the public, traveler's checks, checking account funds, NOW and super- NOW accounts, automatic transfer service accounts, and balances in credit unions. M-2—U.S. money supply consisting M-1 plus savings and small time deposits (less than \$100,000) at depository institutions, overnight repurchase agreements at commercial banks, and money market mutual fund accounts. M-3—U.S. money supply consisting of M-2 plus large time deposits (\$100,000 or more) at depository institutions, repurchase agreements with maturities longer than one day at commercial banks, and institutional money market accounts.

**Moving-Average Charts:**

A statistical price analysis method of recognizing different price trends. A moving average is calculated by adding the prices for a predetermined number of days and then dividing by the number of days.

**Municipal Bonds:**

Debt securities issued by state and local governments, and special districts and counties.

**N****National Futures Association (NFA):**

An industrywide, industry-supported, self-regulatory organization for futures and options markets. The primary responsibilities of the NFA are to enforce ethical standards and customer protection rules, screen futures professionals for membership, audit and monitor professionals for financial and general compliance rules and provide for arbitration of futures-related disputes.

**Nearby (Delivery) Month:**

The futures contract month closest to expiration. Also referred to as spot month.

**Negative Yield Curve:**

See Yield Curve.

**Notice Day:**

According to Chicago Board of Trade rules, the second day of the three-day delivery process when the clearing corporation matches the buyer with the oldest reported long position to the delivering seller and notifies both parties. See First Notice Day.

**O****Offer:**

An expression indicating one's desire to sell a commodity at a given price; opposite of bid.

**Offset:**

Taking a second futures or options position opposite to the initial or opening position. See Liquidate.

**OPEC:**

Organization of Petroleum Exporting Countries, emerged as the major petroleum pricing power in 1973, when the ownership of oil production in the Middle East transferred from the operating companies to the governments of the producing countries or to their national oil companies. Members are: Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

**Opening Range:**

A range of prices at which buy and sell transactions took place during the opening of the market.

**Open Interest:**

The total number of futures or options contracts of a given commodity that have not yet been offset by an opposite futures or option transaction nor fulfilled by delivery of the commodity or option exercise. Each open transaction has a buyer and a seller, but for calculation of open interest, only one side of the contract is counted.

**Open Market Operation:**

The buying and selling of government securities—Treasury bills, notes, and bonds—by the Federal Reserve.

**Open Outcry:**

Method of public auction for making verbal bids and offers in the trading pits or rings of futures exchanges.

**Option:**

A contract that conveys the right, but not the obligation, to buy or sell a particular item at a certain price for a limited time. Only the seller of the option is obligated to perform.

**Option Buyer:**

The purchaser of either a call or put option. Option buyers receive the right, but not the obligation, to assume a futures position. Also referred to as the holder.

**Option Premium:**

The price of an option—the sum of money that the option buyer pays and the option seller receives for the rights granted by the option.

**Option Seller:**

The person who sells an option in return for a premium and is obligated to perform when the holder exercises his right under the option contract. Also referred to as the writer.

**Option Spread:**

The simultaneous purchase and sale of one or more options contracts, futures, and/or cash positions.

**Option Writer:**

See Option Seller.

**Original Margin:**

The amount a futures market participant must deposit into his margin account at the time he places an order to buy or sell a futures contract. Also referred to as initial margin.

**Out-of-the-Money Option:**

An option with no intrinsic value, i.e., a call whose strike price is above the current futures price or a put whose strike price is below the current futures price.

**Over-the-Counter Market:**

A market where products such as stocks, foreign currencies, and other cash items are bought and sold by telephone and other means of communications.

**P****Purchase and Sell Statement:**

A Statement sent by a commission house to a customer when his futures or options on futures position has changed, showing the number of contracts bought or sold, the prices at which the contracts were bought or sold, the gross profit or loss, the commission charges, and the net profit or loss on the transaction.

**Par:**

The face value of a security. For example, a bond selling at par is worth the same dollar amount it was issued for or at which it will be redeemed at maturity.

**Payment-In-Kind Program:**

A government program in which farmers who comply with a voluntary acreage-control program and set aside an additional percentage of acreage specified by the government receive certificates that can be redeemed for government-owned stocks of grain.

**Performance Bond Margin:**

The amount of money deposited by both buyer and seller of a futures contract or an options seller to ensure performance of the term of the contract.

Margin in commodities is not a payment of equity or down payment on the commodity itself, but rather it is a security deposit. See Customer Margin and Clearing Margin

**Pit:**

The area on the trading floor where futures and options on futures contracts are bought and sold. Pits are usually raised octagonal platforms with steps descending on the inside that permit buyers and sellers of contracts to see each other.

**PitMaster:**

The kindest man alive today, is willing to freely devote his time to help other's learn the ways of the pit.

**Point-and-Figure Charts:**

Charts that show price changes of a minimum amount regardless of the time period involved.

**Position:**

A market commitment. A buyer of a futures contract is said to have a long position and, conversely, a seller of futures contracts is said to have a short position.

**Position Day:**

According to the Chicago Board of Trade rules, the first day in the process of making or taking delivery of the actual commodity on a futures contract. The clearing firm representing the seller notifies the Board of Trade Clearing Corporation that its short customers want to deliver on a futures contract.

**Position Limit:**

The maximum number of speculative futures contracts one can hold as determined by the Commodity Futures Trading Commission and/or the exchange upon which the contract is traded. Also referred to as trading limit.

**Position Trader:**

An approach to trading in which the trader either buys or sells contracts and holds them for an extended period of time.

**Premium:**

(1) The additional payment allowed by exchange regulation for delivery of higher-than-required standards or grades of a commodity against a futures contract. (2) In speaking of price relationships between different delivery months of a given commodity, one is said to be "trading at a premium" over another when its price is greater than

that of the other. (3) In financial instruments, the dollar amount by which a security trades above its principal value. See Option Premium.

**Price Discovery:**

The generation of information about "future" cash market prices through the futures markets.

**Price Limit:**

The maximum advance or decline—from the previous day's settlement—permitted for a contract in one trading session by the rules of the exchange. See also Variable Limit.

**Price Limit Order:**

A customer order that specifies the price at which a trade can be executed.

**Primary Dealer:**

A designation given by the Federal Reserve System to commercial banks or broker/dealers who meet specific criteria. Among the criteria are capital requirements and meaningful participation in the Treasury auctions.

**Primary Market:**

Market of new issues of securities.

**Prime Rate:**

Interest rate charged by major banks to their most creditworthy customers.

**Producer Price Index (PPI):**

An index that shows the cost of resources needed to produce manufactured goods during the previous month.

**Pulpit:**

A raised structure adjacent to, or in the center of, the pit or ring at a futures exchange where market reporters, employed by the exchange, record price changes as they occur in the trading pit.

**Purchasing Hedge or Long Hedge:**

Buyer futures contracts to protect against a possible price increase of cash commodities that will be purchased in the future. At the time the cash commodities are bought, the open futures position is closed by selling an equal number and type of futures contracts as those that were initially purchased. Also referred to as a buying hedge. See Hedging.

**Put Option:**

An option that gives the option buyer the right but not the obligation to sell (go "short") the underlying

futures contract at the strike price on or before the expiration date.

## **R**

### **Range (Price):**

The price span during a given trading session, week, month, year, etc. Reciprocal of European Terms: One method of quoting exchange rates, which measured the U.S. dollar value of one foreign currency unit, i.e., U.S. dollars per foreign units. See European Terms.

### **Repurchase Agreements or (Repo):**

An agreement between a seller and a buyer, usually in U.S. government securities, in which the seller agrees to buy back the security at a later date.

### **Reserve Requirements:**

The minimum amount of cash and liquid assets as a percentage of demand deposits and time deposits that member banks of the Federal Reserve are required to maintain.

### **Resistance:**

A level above which prices have had difficulty penetrating.

### **Resumption:**

The reopening the following day of specific futures and options markets that also trade during the evening session at the Chicago Board of Trade.

### **Reverse Crush Spread:**

The sale of soybean futures and the simultaneous purchase of soybean oil and meal futures. See Crush Spread.

### **Runners:**

Messengers who rush orders received by phone clerks to brokers for execution in the pit.

## **S**

### **Scalper:**

A trader who trades for small, short-term profits during the course of a trading session, rarely carrying a position overnight.

### **Secondary Market:**

Market where previously issued securities are bought and sold.

### **Security:**

Common or preferred stock; a bond of a corporation, government, or quasi- government body.

### **Selling Hedge or Short Hedge:**

Selling futures contracts to protect against possible declining prices of commodities that will be sold in

the future. At the time the cash commodities are sold, the open futures position is closed by purchasing an equal number and type of futures contracts as those that were initially sold. See

### **Hedging. Settle:**

See Settlement Price.

### **Settlement Price:**

The last price paid for a commodity on any trading day. The exchange clearinghouse determines a firm's net gains or losses, margin requirements, and the next day's price limits, based on each futures and options contract settlement price. If there is a closing range of prices, the settlement price is determined by averaging those prices. Also referred to as settle or closing price.

### **Short (noun):**

One who has sold futures contracts or plans to purchase a cash commodity. (verb) Selling futures contracts or initiating a cash forward contract sale without offsetting a particular market position.

### **Short Hedge:**

See Selling Hedge.

### **Simulation Analysis of Financial Exposure:**

A sophisticated computer risk-analysis program that monitors the risk of clearing member and large-volume traders at the Chicago Board of Trade. It calculates the risk of change in market prices or volatility to a firm carrying open positions.

### **Speculator:**

A market participant who tries to profit from buying and selling futures and options contracts by anticipating future price movements. Speculators assume market price risk and add liquidity and capital to the futures markets.

### **Spot:**

Usually refers to a cash market price for a physical commodity that is available for immediate delivery.

### **Spot Month:**

See Nearby (Delivery) Month.

### **Spread:**

The price difference between two related markets or commodities.

### **Spreading:**

The simultaneous buying and selling of two related markets in the expectation that a profit will be made when the position is offset. Examples include: buying one futures contract and selling another

futures contract of the same commodity but different delivery month; buying and selling the same delivery month of the same commodity on different futures exchanges; buying a given delivery month of one futures market and selling the same delivery month of a different, but related, futures market.

**Steer/Corn Ratio:**

The relationship of cattle prices to feeding costs. It is measured by dividing the price of cattle (\$/hundredweight) by the price of corn (\$/bushel). When corn prices are high relative to cattle prices, fewer units of corn equal the dollar value of 100 pounds of cattle. Conversely, when corn prices are low in relation to cattle prices, more units of corn are required to equal the value of 100 pounds of beef. See Feed Ratio.

**Stock Index:**

An indicator used to measure and report value changes in a selected group of stocks. How a particular stock index tracks the market depends on its composition—the sampling of stocks, the weighing of individual stocks, and the method of averaging used to establish an index.

**Stock Market:**

A market in which shares of stock are bought and sold.

**Stop-Limit Order:**

A variation of a stop order in which a trade must be executed at the exact price or better. If the order cannot be executed, it is held until the stated price or better is reached again.

**Stop Order:**

An order to buy or sell when the market reaches a specified point. A stop order to buy becomes a market order when the futures contract trades (or is bid) at or above the stop price. A stop order to sell becomes a market order when the futures contract trades (or is offered) at or below the stop price.

**Strike Price:**

The price at which the futures contract underlying a call or put option can be purchased (if a call) or sold (if a put). Also referred to as exercise price.

**Supply, Law of:**

The relationship between product supply and its price.

**Support:**

The place on a chart where the buying of futures contracts is sufficient to halt a price decline.

**Suspension:**

The end of the evening session for specific futures and options markets traded at the Chicago Board of Trade.

**T**

**Technical Analysis:**

Anticipating future price movement using historical prices, trading volume, open interest and other trading data to study price patterns.

**Tick:**

The smallest allowable increment of price movement for a contract.

**Time Limit Order:**

A customer order that designates the time during which it can be executed.

**Time and Sales Ticker:**

Part of the Chicago Board of Trade Market Profile® system consisting of an on-line graphic service that transmits price and time information throughout the day.

**Time-Stamped:**

Part of the order-routing process in which the time of day is stamped on an order. An order is time-stamped when it is (1) received on the trading floor, and (2) completed.

**Time Value:**

The amount of money option buyer are willing to pay for an option in the anticipation that, over time, a change in the underlying futures price will cause the option to increase in value. In general, an option premium is the sum of time value and intrinsic value. Any amount by which an option premium exceeds the option's intrinsic value can be considered time value. Also referred to as extrinsic value.

**Trade Balance:**

The difference between a nation's imports and exports of merchandise.

**Trading Limit:**

See Position Limit.

**Treasury Bill:**

See U.S. Treasury Bill.

**Treasury Bond:**

See U.S. Treasury Bond.

**Treasury Note:**

See U.S. Treasury Note.

## U

### **Underlying Futures Contract:**

The specific futures contract that is bought or sold by exercising an option.

### **U.S. Treasury Bill:**

A short-term U.S. government debt instrument with an original maturity of one year or less. Bills are sold at a discount from par with the interest earned being the difference between the face value received at maturity and the price paid.

### **U.S. Treasury Bond:**

Government-debt security with a coupon and original maturity of more than 10 years. Interest is paid semiannually.

### **U.S. Treasury Note:**

Government-debt security with a coupon and original maturity of one to 10 years.

## V

### **Variable Limit:**

According to the Chicago Board of Trade rules, an expanded allowable price range set during volatile markets.

### **Variation Margin:**

During periods of great market volatility or in the case of high-risk accounts, additional margin deposited by a clearing member firm to an exchange.

### **Versus Cash:**

See Exchange for Physical.

### **Verticle Spread:**

Buying and selling puts or calls of the same expiration month but different strike prices.

### **Volatility:**

A measurement of the change in price over a given period. It is often expressed as a percentage and computed as the annualized standard deviation of the percentage change in daily price.

### **Volume:**

The number of purchases or sales of a commodity futures contract made during a specific period of time, often the total transactions for one trading day.

## W

### **Warehouse Receipt:**

Document guaranteeing the existence and availability of a given quantity and quality of a commodity in storage; commonly used as the instrument of transfer of ownership in both cash and futures transactions.

### **Wire House:**

See Futures Commission Merchant (FCM)

### **Writer:**

See Option Seller.

## Y

### **Yield:**

A measure of the annual return on an investment.

### **Yield Curve:**

A chart in which the yield level is plot on the vertical axis and the term to maturity of debt instruments of similar creditworthiness is plotted n the horizontal axis. The yield curve is positive when long-term rates are higher than short-term rates However, yield curve is negative or inverted.

### **Yield to Maturity:**

The rate of return an investor receives if a fixed-income security is held to maturity.

Information provided is taken from sources believed to be reliable but is not guaranteed as to its accuracy or completeness. The Rules and Regulations of the Chicago Board of Trade and/or the Mid-America Commodity Exchange should be consulted as the authoritative source for information.