

The NFA logo consists of the letters 'NFA' in a bold, blue, sans-serif font, enclosed within a thin, yellow, curved line that arches over the letters.

NFA

NATIONAL  
FUTURES  
ASSOCIATION



# *Opportunity* AND *Risk*



An Educational Guide to  
Trading  
Futures  
and  
Options on  
Futures

National Futures Association is a congressionally authorized self-regulatory organization of the United States futures industry. Its mission is to provide innovative regulatory programs and services that protect investors and ensure market integrity.

NFA has prepared this book as part of its continuing public education efforts to provide information to potential investors. The booklet provides a necessary overview of the opportunities and risks in trading futures and options on futures by presenting important information that investors need to know before they invest.

---

**PUBLISHER**

National Futures Association  
300 South Riverside Plaza, Suite 1800  
Chicago, IL 60606  
**800-621-3570** • [www.nfa.futures.org](http://www.nfa.futures.org)

**DESIGN**

Lenz Design • Chicago, Illinois • [www.lenzdesign.com](http://www.lenzdesign.com)

**ILLUSTRATION**

Philip Nicholson • Varberg, Sweden • [www.illustrations.se](http://www.illustrations.se)

---

© 2006 National Futures Association All Rights Reserved.

No part of this book may be reproduced, stored, or transmitted by any means, including electronic, mechanical, photocopying, recording, or otherwise, without written permission from National Futures Association. The publication is designed to provide accurate and authoritative information in regard to the subject matter covered. While great care was taken in the preparation of this book, National Futures Association disclaims any legal responsibility for any errors or omissions and disclaims any liability for losses or damages incurred through the use of the information in the book. If legal advice, financial advice, or other expert assistance is required, the services of a competent professional person should be sought.



# *Opportunity* AND *Risk*

An Educational Guide to  
Trading Futures  
and  
Options on Futures

# Opportunity AND Risk

Introduction .....	6	How to Participate in Futures Trading .....	38
How the Markets are Regulated .....	10	<i>Trade Your Own Account</i> .....	40
<i>Conducting Business with a Registered Firm</i> .....	12	<i>Have Someone Manage Your Account</i> .....	42
Introduction to Futures Trading .....	14	<i>Use a Commodity Trading Advisor</i> .....	44
<i>Futures Contracts</i> .....	14	<i>Participate in a Commodity Pool</i> .....	46
<i>How Prices are Quoted</i> .....	16	<i>Establishing an Account</i> .....	50
<i>The Market Participants</i> .....	17	Introduction to Options on Futures .....	52
<i>Hedgers</i> .....	17	<i>The Arithmetic of Option Premiums</i> .....	54
<i>Speculators</i> .....	19	<i>Intrinsic Value</i> .....	54
<i>The Process of Price Discovery</i> .....	20	<i>Time Value</i> .....	55
<i>Minimum Price Changes</i> .....	21	<i>Understanding Options Transaction Fees</i> .....	56
<i>Daily Price Limits</i> .....	21	<i>Leverage</i> .....	58
<i>Position Limits</i> .....	22	<i>Calculating the Break-Even Price</i> .....	58
<i>Daily Close</i> .....	23	<i>Factors Affecting the Choice of an Option</i> .....	62
<i>The Arithmetic of Futures Trading</i> .....	24	<i>After You Buy an Option</i> .....	64
<i>Leverage</i> .....	24	<i>Offset the Option</i> .....	64
<i>Margins</i> .....	27	<i>Continue to Hold the Option</i> .....	66
<i>Basic Trading Strategies</i> .....	30	<i>Exercise the Option</i> .....	66
<i>Buying (Going Long) to Profit from an Expected Price Increase</i> .....	30	<i>Who Writes Options and Why</i> .....	68
<i>Selling (Going Short) to Profit from an Expected Price Decrease</i> .....	32	If a Dispute Should Arise .....	72
<i>Spreads</i> .....	34	Glossary of Terms .....	75
<i>Stop Orders</i> .....	36	Additional Resources .....	93

# Introduction

For nearly a century and a half, futures markets have fulfilled an important economic function: providing an efficient and effective mechanism for the management of price risks. Beginning with agricultural futures contracts traded on the Chicago Board of Trade in 1865, the U.S. futures markets now list an ever-expanding number of instruments, including metals, energy, financial instruments, foreign currencies, stock indexes, prediction markets and event futures. Additionally, the industry introduced trading in options on futures contracts in 1982.

Just as the types of instruments traded on futures exchanges have evolved, so has the method of trading those instruments. Until the 1990s, futures trading was conducted primarily on the floor of the exchanges. Traders crowded into trading “pits” or “rings”, shouting and signaling bids and offers to each other. This type of trading, known as open-outcry, resulted in competitive, organized price discovery.

In the 1990s, exchanges introduced electronic trading on certain contracts during off-exchange hours. Since then, electronic trading has expanded to include side-by-side open outcry and electronic trading, as well as contracts that are exclusively traded electronically. Futures trading has truly become a 24 hours a day, seven days a week financial marketplace.

Participants in today’s futures markets include mortgage bankers as well as farmers, bond dealers

*mortgage bankers*

*bond dealers*



## Who Trades?

as well as grain merchants, lending institutions and individual speculators. By buying or selling futures contracts—contracts that establish a price level now for items to be delivered later—individuals and businesses seek to achieve what amounts to insurance against adverse price changes. This is called hedging.

Other futures market participants are speculative investors who accept the price risks that

hedgers seek to avoid. Most speculators have no intention of making or taking delivery of the commodity. They seek instead to profit from a change in the price. That is, they buy when they anticipate rising prices and sell when they anticipate declining prices. The interaction of hedgers and speculators helps to provide active, liquid and competitive markets.

Speculative participation in futures trading has become increasingly widespread with the availability of alternative methods of participation. Whereas many futures traders continue to prefer to make their own trading decisions—such as what to buy and sell and when to buy and sell—others choose to utilize the services of a professional trading advisor, or to avoid day-to-day trading responsibilities by establishing a fully managed trading account or participating in a commodity pool which is similar in concept to a mutual fund.

For those individuals who fully understand and can afford the risks which are involved, the allocation of some portion of their capital to futures trading can provide a means of achieving greater diversification and a potentially higher overall rate of return on their investments. There are also a number of ways in which futures can be used in combination with stocks, bonds and other investments.

**Speculation in futures contracts, however, is clearly not appropriate for everyone. Just as it is possible to realize substantial profits in a short period of time, it is also possible to incur substantial losses in a short period of time.**

The possibility of large profits or losses in relation to the initial commitment of capital stems principally from the fact that futures trading is a highly leveraged form of speculation. Only a relatively small amount of money is required to control assets having a much greater value. As we will discuss and illustrate, the leverage of futures trading can work for you when prices move in the direction you anticipate or against you when prices move in the opposite direction.

The pages which follow are intended to help provide you with the kinds of information you should obtain—and the questions you should seek answers to—before making any decision to trade futures and/or options on futures.

Topics covered include:

- *The regulatory structure of the futures industry*
- *How to conduct a background check of a futures firm*
- *How futures contracts are traded*
- *The costs of trading*
- *How gains and losses are realized*
- *How options on futures are traded*
- *How to resolve futures-related disputes*

We have also included a Glossary at the back of this Guide for easy reference. In fact, we suggest that you become familiar with some of the terms included in the Glossary before continuing.

It is not the purpose of this Guide to suggest that you should—or should not—participate in futures and/or options on futures trading. That is a decision you should make only after consultation with your broker or financial advisor and in light of your own financial situation and objectives.

Finally, this Guide focuses primarily on exchange-traded futures and options on futures contracts. For information regarding off-exchange foreign currency (forex) futures and options, consult the NFA brochure “Trading in the Off-Exchange Foreign Currency Market: What Investors Need to Know.” The brochure is available free of charge on NFA’s Web site ([www.nfa.futures.org](http://www.nfa.futures.org)).



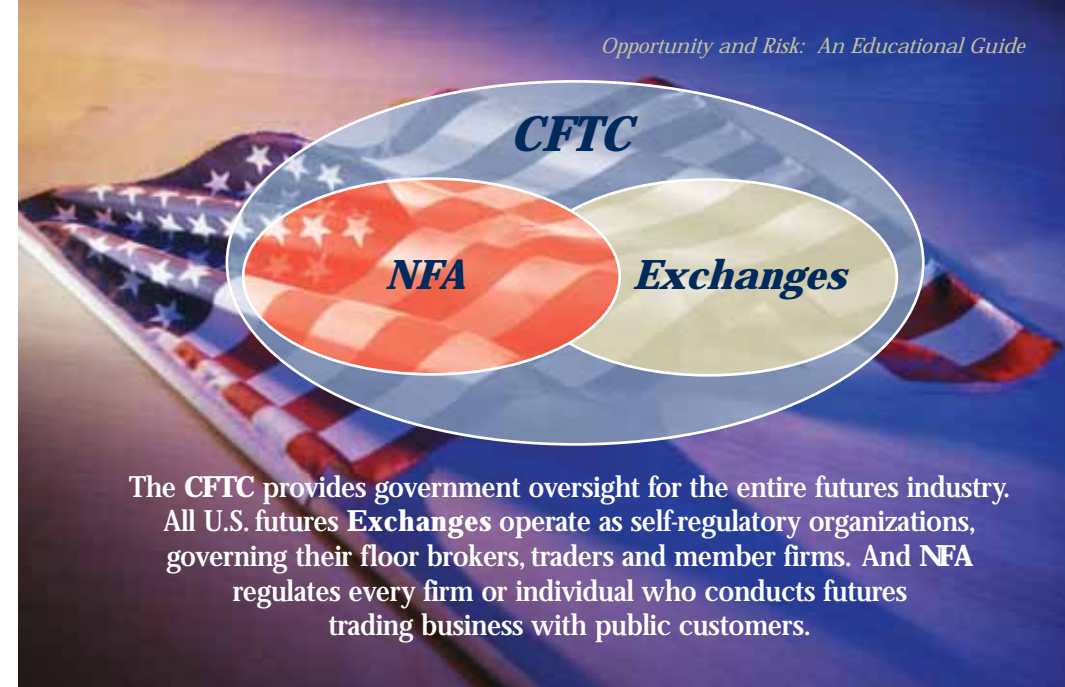
# How the Markets are Regulated

The U.S. futures industry has experienced unprecedented growth in trading volume over the past several years, reflecting the high level of trust and confidence that customers have in the marketplace. This confidence is due in part to a strong, effective regulatory structure that safeguards market integrity and protects investors. This regulatory structure has three main components.

**The Commodity Futures Trading Commission (CFTC).** In 1974 Congress established the CFTC, a federal regulatory agency with jurisdiction over futures trading. The enforcement powers of the CFTC are

similar to those of other major federal regulatory agencies, including the power to seek criminal prosecution by the Department of Justice where circumstances warrant such action.

**National Futures Association (NFA).** The same legislation authorized the creation of “registered futures associations,” giving the futures industry the opportunity to create a nationwide self-regulatory organization. NFA is the industrywide, self-regulatory organization for the U.S. futures industry. NFA’s mission is to develop rules, programs and services that safeguard market integrity, protect investors and help its Members meet their regulatory responsibilities. Firms and individuals that violate NFA rules of professional ethics and conduct or



## Regulatory Relationships

that fail to comply with financial and record-keeping requirements can, if circumstances warrant, be permanently barred from engaging in any futures-related business with the public.

**U.S. futures exchanges and clearing organizations.** Futures Commission Merchants (FCMs) which are members of an exchange are subject to not only CFTC and NFA regulation but also to regulation by the exchanges and clearing organizations of which they are members. Exchange and clearing corporation staffs are responsi-

ble, subject to CFTC oversight, for monitoring the business conduct and financial responsibility of their member firms. Violations of exchange rules can result in substantial fines, suspension or revocation of trading privileges, and loss of exchange or clearing corporation membership.

Although the various regulatory organizations in the futures industry have their own specific areas of authority, together they form a regulatory partnership that oversees all industry participants.

## Conducting Business with a Registered Firm

Membership in NFA is mandatory, assuring that everyone conducting business with the public on the U.S. futures exchanges—more than 4,000 firms and 55,000 associates—must adhere to the same high standards of professional conduct. You can quickly verify whether a particular firm or person is currently registered with the CFTC and is an NFA Member through NFA's Background Affiliation Status Information Center (BASIC), found on NFA's Web site ([www.nfa.futures.org](http://www.nfa.futures.org)).

BASIC contains current and historical registration informa-



tion concerning all current and former CFTC registrants, including name, business address and registration history in the futures industry. BASIC also contains information concerning disciplinary actions taken by NFA, the CFTC and all the U.S. futures exchanges. If you are researching a firm, you should also conduct a background check of all the individuals listed as principals of the firm, as well as the firm's salespeople.

**A BASIC background check will tell everything you need to know about the status of your financial firm or advisor ([www.nfa.futures.org](http://www.nfa.futures.org)).**

Sometimes the firm will have no disciplinary history, but one or more of the principals or salespeople may have been disciplined while working at other firms.

In addition, BASIC gives you details concerning NFA arbitration matters involving disputes between investors and NFA

Members if the case went to hearing and an award was issued after January 1, 1990. You will also find summary data concerning the number of cases filed by investors against registered firms and individuals with the CFTC reparations program.



# Introduction to Futures Trading

## Futures Contracts



A futures contract is a legally binding agreement to buy or sell a commodity or financial instrument at a later date. Futures contracts are standardized according to the quality, quantity and delivery time and location for each commodity. The only variable is price.

There are two types of futures contracts, those that provide for physical delivery of a particular commodity or item and those which call for a cash settlement. The month during which delivery or settlement is to occur is specified. For example, a July futures contract is one providing for delivery or settlement in July.

It should be noted that even in the case of delivery-type

futures contracts very few actually result in delivery. Not many speculators have the desire to take or make delivery of 5,000 bushels of wheat or 112,000 pounds of sugar. Rather, the vast majority of speculators in futures markets choose to realize their gains or losses by buying or selling offsetting futures contracts prior to the delivery date.

Selling a contract that was previously purchased liquidates a futures position in exactly the same way, for example, that selling 100 shares of IBM stock liquidates an earlier purchase of 100 shares of IBM stock. Similarly, a futures contract that was initially sold can be liquidated by an offsetting purchase. In either case, the resulting gain or loss is the difference between the buying price and the selling price less transaction costs (commissions and fees).

Since delivery on futures contracts is the exception rather than the rule, why do most contracts even have a delivery provision? There are two reasons. One is that it offers buyers and sellers the opportunity to take or make delivery of the physical commodity if they so choose. More importantly, however, the fact that buyers and sellers *can* take or make delivery helps to assure that futures prices will accurately reflect the cash market value of the commodity at the time the contract expires—i.e., that futures and cash prices will eventually converge. It is convergence that makes hedging an effective way to obtain protection against an adverse price movement in the cash market.

Cash settlement futures contracts are precisely that, contracts which are settled in cash rather than by delivery at the time the contract expires. Stock index futures contracts, for example, are settled in cash on the basis of the index number used for the final settlement. There is no provision for delivery of the shares of stock that make up the various indexes. That would be impractical. With a cash settlement contract, convergence is automatic.

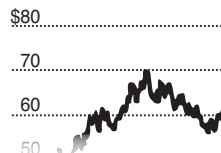
Futures prices are established through competitive bidding and are immediately and continuously relayed around the world by wire and satellite. A farmer in Nebraska, a merchant in Amsterdam, an importer in Tokyo and a speculator in Ohio have simultaneous access to the latest market-derived price quotations. And, should they choose, they can establish a price level for future delivery—or for speculative purposes—simply by having their broker buy or sell the appropriate contracts.



**FUTURES**

Future	Exchange	Monetary units per quantity	Lifetime		Date	Open	High	Low	Settle	Change	Open Interest
			High	Low							
<b>AGRICULTURAL</b>											
Corn	CBT	¢ / bushel	302 3/4	217 1/4	Jul 06	238 1/4	243	238 1/4	240	+ 2	576,182
Soybeans	CBT	¢ / bushel	736	485	Jul 06	606	612	604 1/4	606	+ 1 1/2	225,894
Soybean Meal	CBT	\$/ ton	227.00	158.70	Jul 06	180.00	181.50	178.20	178.80	- 70	93,312
Soybean Oil	CBT	¢ / lb	26.57	19.61	Jul 06	25.10	25.35	25.01	25.28	+ 20	162,452
Wheat	CBT	¢ / bushel	418 1/4	268 3/4	Jul 06	384 1/4	389 1/4	383 1/4	384 1/4	- 1/4	240,326
Winter Wheat	KC	¢ / bushel	474 1/4	342	Jul 06	468 1/4	472 1/4	465	465 1/4	- 2 1/4	83,750
Oats	CBT	¢ / bushel	270 1/4	133 1/4	Jul 06	189	190 1/4	187 1/4	189	- 1/4	8,505
Rough Rice	CBT	\$/ CWT	9.210	6.900	Jul 06	8.460	8.560	8.450	8.545	+ .085	5,695

Crude Oil



# The Market Participants

Should you at some time decide to trade in futures contracts, either for speculation or in connection with a risk management strategy, your orders to buy or sell will be communicated from the brokerage office you use to the appropriate trading pit or electronic trading platform for execution. If you are a buyer, your order will seek a seller at the lowest available price. If you are a seller, your order will seek a buyer at the highest available price. Market fluctuation is a process of finding fair prices for both buyers and sellers.

In either case, the person who takes the opposite side of your trade may be or may represent someone who is a commercial hedger or perhaps someone who is a public speculator. Or, quite possibly, the other party may be an independent trader. In becoming acquainted with futures markets, you should have at least a general understanding of who these various market participants are, what they are doing and why.

## Hedgers

The details of hedging can be somewhat complex but the principle is simple. Hedgers are individuals and firms that make purchases and sales in the futures market for the purpose of establishing a known price level—weeks or months in advance—for something they later intend to buy or sell in the cash market (such as at a grain

In newspaper financial sections

## How Prices are Quoted

Futures prices are usually quoted the same way prices are quoted in the underlying cash market.

That is, in dollars, cents, and sometimes fractions of a cent, per bushel, pound or ounce; also in dollars, cents and increments of a cent for foreign

currencies; and in points and percentages of a point for financial instruments. Cash settled index contract prices are quoted in terms of an index number, usually stated to two decimal points. Be certain you understand the price quotation system for the particular futures contract you are considering.

On financial services websites

SOYBEANS Delayed Futures -09:20 - Monday, 8 May  
( [Go to Daily](#) ) ( [Profile](#) ) (Click on Contract for Chart)

Contract	Last	Change	Open	High	Low	Prev. Stl.	Time
<a href="#">May '06 (SK06)</a>	594-4	+3-6	597-0	601-4	593-0	590-6	05/05/06
<a href="#">Jul '06 (SN06)</a>	606-4	+2-6	609-4	614-4	605-0	603-6	05/05/06
<a href="#">Aug '06 (SQ06)</a>	612-0	+3-0	615-0	619-0	611-0	609-0	05/05/06
<a href="#">Sep '06 (SU06)</a>	615-4	+2-2	620-0	622-0	614-0	613-2	05/05/06
<a href="#">Nov '06 (SX06)</a>	625-2	+3-0	627-4	631-0	623-4	622-2	05/05/06
<a href="#">Jan '07 (SF07)</a>	632-2	+3-0	636-0	636-0	632-0	629-2	05/05/06
<a href="#">Mar '07 (SH07)</a>	639-0	+4-0	641-0	644-0	636-0	635-0	05/05/06
<a href="#">May '07 (SK07)</a>	640-0	+3-0	641-0	643-0	638-0	637-0	05/05/06
<a href="#">Jul '07 (SN07)</a>	643-0	+3-0	645-0	647-0	643-0	640-0	05/05/06

elevator or in the bond market). In this way they attempt to protect themselves against the risk of an unfavorable price change in the interim. *Consider this example:*

A jewelry manufacturer will need to buy additional gold from his supplier in six months. Between now and then, however, he fears the price of gold may increase. That could be a problem because he has already published his catalog for the year ahead.

To lock in the price level at which gold is presently being quoted for delivery in six months, he buys a futures contract at a price of \$550 an ounce.

If, six months later, the cash market price of gold has risen, he will have to pay his supplier that increased amount to acquire gold. However, the extra cost may be offset by a corresponding profit when the futures contract bought at \$550 is sold for \$570. In effect, the hedge

provided insurance against an increase in the price of gold. It locked in a net cost, regardless of what happened to the cash market price of gold. Had the price of gold declined instead of risen, he would have incurred a loss on his futures position, but this would have been offset by the lower cost of acquiring gold in the cash market.

The number and variety of hedging possibilities are practically limitless. A cattle feeder can hedge against a decline in livestock prices and a meat packer or supermarket chain can hedge against an increase in livestock prices. Borrowers can hedge against higher interest rates, and lenders against lower interest rates. In addition, investors can hedge against a decline in stock prices.

Whatever the hedging strategy, the common denominator is that hedgers willingly give up the opportunity to benefit from favorable price changes in order to achieve protection against unfavorable price changes.



## ***Speculators***

Were you to speculate in futures contracts, the person taking the opposite side of your trade on any given occasion could be a hedger or it might well be a speculator—someone whose opinion about the probable direction of prices may differ from your own.

The arithmetic of speculation in futures contracts—including the opportunities it offers and the risks it involves—will be discussed in detail later on. For now, just know that speculators are individuals and firms who seek to profit from anticipated increases or decreases in futures prices. In so doing, they help provide the risk capital needed to facilitate hedging.

Someone who expects a futures price to increase would purchase futures contracts in the hope of later being able to sell them at a higher price. This is known as “going long.” Conversely, someone who expects a futures price to decline would sell futures contracts in the hope of later being able to buy back identical and offsetting contracts at a lower price. The practice of selling futures contracts in anticipation of lower prices is known as “going short.” One of the unique features of futures trading is that one can initiate a transaction with a sale as well as with a purchase.

	Reasons for <b>BUYING</b> futures contracts	Reasons for <b>SELLING</b> futures contracts
<b>HEDGERS</b>	To lock in a price and thereby obtain protection against rising cash prices	To lock in a price and thereby obtain protection against declining cash prices
<b>SPECULATORS</b>	To profit from rising futures prices	To profit from declining future prices

## The Process of Price Discovery

Futures prices increase and decrease largely because of the myriad factors that influence buyers' and sellers' judgments about what a particular product will be worth at a given time in the future (anywhere from less than a month to more than two years).

As new supply and demand developments occur and as new and more current information becomes available, these judgments

are reassessed, and the price of a particular futures contract may be bid upward or downward. The process of reassessment (price discovery) is continuous.

Thus, in January, the price of a July futures contract would reflect the consensus of buyers' and sellers' opinions at that time as to what the value of a commodity or item will be when the contract expires in July. On any given day, with the arrival of new or more accurate information, the price of the July futures contract might increase or decrease

in response to changing expectations. As the term indicates, futures markets “discover”—or reflect—cash market prices. They do not set them.

Competitive price discovery is a major economic function—and, indeed, a major economic benefit—of futures trading. In summary, futures prices are an ever changing barometer of supply and demand and, in a dynamic market, the only certainty is that prices will change.

### Minimum Price Changes

Exchanges establish the minimum amount that the price can fluctuate upward or downward. This is known as the “tick.” For example, each tick for grain is .0025¢ per bushel. On a 5,000 bushel futures contract, that's \$12.50. On a gold futures contract, the tick is 10¢ per ounce, so one tick on a 100 ounce contract is \$10. You'll want to familiarize yourself with the minimum price fluctuation—the tick size—for whatever

futures contracts you plan to trade. You'll also need to know how a price change of any given amount will affect the value of the contract.

### Daily Price Limits

Exchanges establish daily price limits for trading in some futures contracts. The limits are stated in terms of the previous day's closing price plus and minus so many cents or dollars per trading unit. Once a futures price has increased by its daily limit, there can be no trading at any higher price until the next trading session. Conversely, once a futures price has declined by its daily limit, there can be no trading at any lower price until the next session. Thus, if the daily limit for a particular grain is currently 10¢ a bushel and the previous day's settlement was \$3.00, there cannot be trading during the current day at any price below 2.90 or above 3.10. The price is allowed to increase or decrease by the limit amount each day.



For some contracts, daily price limits are eliminated during the month in which the contract expires. Because prices can become particularly volatile during the expiration month (also called the “delivery” or “spot” month), persons lacking experience in futures trading may wish to liquidate their positions prior to that time. At the very least, they should trade cautiously and with an understanding of the risks which may be involved.

Daily price limits set by the exchanges are subject to change. They can, for example, be increased or decreased on successive days. Because of daily price limits, there may be occasions when it is not possible to liquidate an existing futures posi-

tion at will. In this event, possible alternative strategies should be discussed with a broker.

### ***Position Limits***

Although the average trader is unlikely to ever approach them, exchanges and the CFTC establish limits on the maximum speculative position that any one person can have at one time in any one futures contract. The purpose is to prevent one buyer or seller from being able to exert undue influence on the price in either the establishment or liquidation of positions. Position limits are stated in number of contracts or total units of the commodity.

The easiest way to obtain the types of information just discussed is to ask your broker or other advisor to provide you with a copy of the contract specifications for the specific futures contracts you are thinking about trading. You can also obtain the information from the exchange where the contract is traded.

## ***Daily Close***

At the end of a day’s trading, the exchange’s clearing organization matches each clearing firm’s purchases made that day with corresponding sales and tallies each clearing firm’s gains or losses based on that session’s price changes—a massive undertaking considering that several million futures contracts are bought and sold on an average day. Each firm, in turn, calculates the gains and losses for each of its customers having futures contracts.

Gains and losses on futures contracts are not only calculated on a daily basis, they are credited and deducted by the clearing firm on a daily basis.

For example, if a speculator were to have a \$300 profit as a result of the day’s price changes, that amount would be immediately credited to his brokerage account and, unless required for other purposes, could be withdrawn. On the other hand, if the day’s price changes had resulted in a \$300 loss, his account would be immediately debited for that amount.

The process just described is known as a daily cash settlement and is an important feature of futures trading. As will be seen when we discuss margin requirements (see page 27), it is also the reason a customer who incurs a loss on a futures position may be called on to deposit additional funds to his account.

## The Arithmetic of Futures Trading

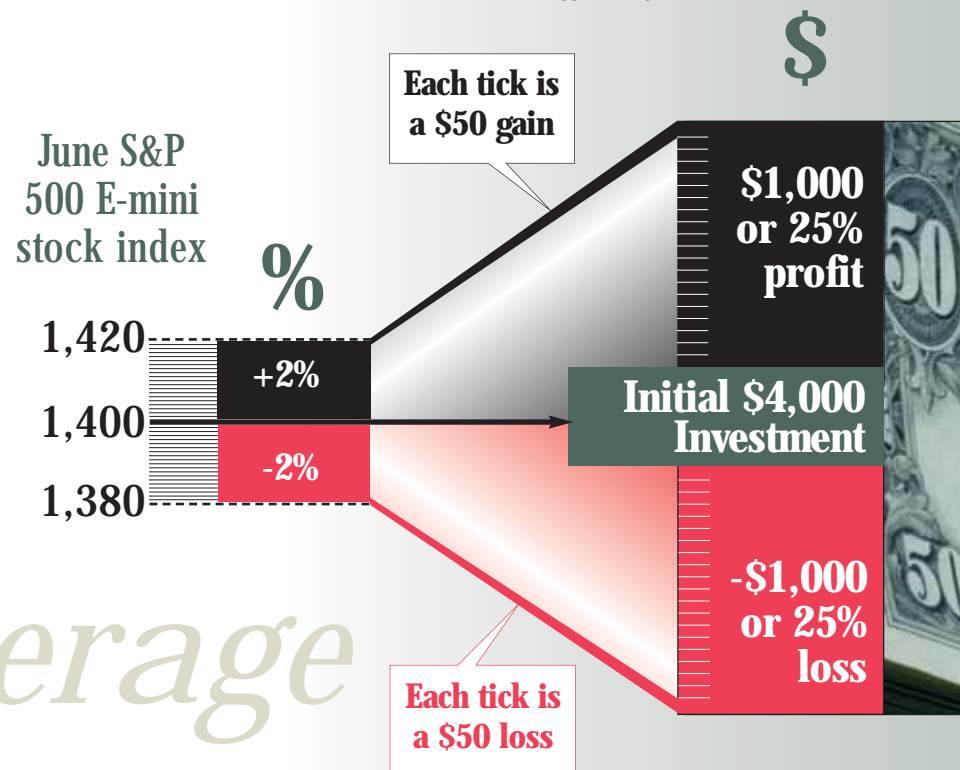
### Leverage

To say that gains and losses in futures trading are the result of price changes is an accurate explanation but by no means a complete explanation. Perhaps more so than in any other form of speculation or investment, gains and losses in futures trading are highly leveraged. An understanding of leverage—and of how it can work to your advantage or disadvantage—is crucial to an understanding of futures trading.

The leverage of futures trading stems from the fact that only a relatively small amount of money (known as initial margin) is required to buy or sell a futures contract. On a particular day, a margin deposit of only \$1,000 might enable you to buy or sell a futures contract covering \$25,000 worth of soybeans. Or for \$20,000, you might be able to purchase a futures contract covering common stocks worth



# leverage



\$200,000. The smaller the margin in relation to the value of the futures contract, the greater the leverage will be.

If you speculate in futures contracts and the price moves in the direction you anticipated, high leverage can produce large profits in relation to your initial margin. Conversely, if prices move in the opposite direction, high leverage can produce large losses in relation to your initial margin. Leverage is a two-edged sword.

**Small movements in the market can create big changes in your account.**

For example, assume that in anticipation of rising stock prices you buy one June S&P 500 E-mini stock index futures contract at a time when the June index is trading at 1400. And assume your initial margin requirement is \$4,000. Since the value of the futures contract is 50 times the index, each one point change in the index represents a \$50 gain or loss.

Thus, an increase in the index from 1400 to 1420 would produce a \$1,000 profit (20 x \$50) and a decrease from 1400 to 1380 would be a \$1,000 loss on your \$4,000 margin deposit. That's a 25 percent gain or loss as the result of less than a 2 percent change in the stock index.

Said another way, while buying (or selling) a futures contract provides exactly the same dollars and cents profit potential as owning (or selling short) the actual commodities or items covered by the contract, low margin requirements sharply increase the percentage profit or loss potential.

Futures trading, therefore, requires not only the necessary financial resources but also the

necessary emotional tempering. For example, it can be one thing to have the value of your portfolio of common stocks decline from \$200,000 to \$190,000 (a five percent loss) but quite another, at least emotionally, to deposit \$20,000 as margin and end up losing half of it as the result of only a five percent decline.

It is essential for anyone considering trading in futures contracts—whether it's sugar or stock indexes, pork bellies or petroleum—to clearly understand the concept of leverage as well as the amount of gain or loss that will result from any given change in the futures price of the particular futures contract you would be trading. If you cannot afford the risk, or even if you are uncomfortable with the risk, the only sound advice is don't trade. Futures trading is not for everyone.

## ***Margins***

As is apparent from the preceding discussion, the arithmetic of leverage is the arithmetic of margins. An understanding of margins—and of the several different kinds of margin—is essential to an understanding of futures trading.

If your previous investment experience has mainly involved common stocks, you know that the term margin—as used in connection with securities—has to do with the cash down payment and money borrowed from a broker to purchase stocks. But used in connection with futures trading, margin has an altogether different meaning and serves an altogether different purpose.

Rather than providing a down payment, the margin required to buy or sell a futures contract is solely a deposit of good faith money that can be drawn on by your brokerage firm to cover losses that you may incur in the course of

futures trading. It is much like money held in an escrow account.

Minimum margin requirements for a particular futures contract at a particular time are set by the exchange on which the contract is traded. They are typically about five percent of the current value of the futures contract.

Exchanges continuously monitor market conditions and risks and, as necessary, raise or reduce their margin requirements. Individual brokerage firms may require higher margin amounts from their customers than the exchange-set minimums.

There are two margin-related terms you should know: initial margin and maintenance margin.

Initial margin (sometimes called original margin) is the sum of money that the customer must deposit with the brokerage firm for each futures contract to be bought or sold. On any day that profits accrue on your open positions, the profits will be added to



*Initial Margin Needed*  
\$2,000

*Maintenance Margin Requirement*  
\$1,500

*Margin Call*  
\$600

*If Your Account Drops to*  
\$1,400

# margin

the balance in your margin account. On any day losses accrue, the losses will be deducted from the balance in your margin account.

If and when the funds remaining available in your margin account are reduced by losses to below a certain level—known as the maintenance margin require-

ment—your broker will require that you deposit additional funds to bring the account back to the level of the initial margin. You may also be asked for additional margin if the exchange or your brokerage firm raises its margin requirements. Requests for additional margin are known as margin calls.

Before trading in futures contracts, be sure you understand the brokerage firm's Margin Agreement and know how and when the firm expects margin calls to be met. Some firms may require only that you mail a personal check. Others may insist you wire transfer funds from your bank or provide same-day or next-day delivery of a certified or cashier's check. If margin calls are not met in the prescribed time and form, the firm can protect itself by liquidating your open positions at the available market price (possibly resulting in a loss for which you would be liable).

## Basic Trading Strategies

Even if you should decide to participate in futures trading in a way that doesn't involve having to make day-to-day trading decisions (such as a managed account or commodity pool), it is nonetheless useful to understand the dollars and cents of how futures trading gains and losses are realized. If you intend to trade your own account, such an understanding is essential.

Dozens of different strategies and variations of strategies are employed by futures traders in pursuit of speculative profits. Here is a brief description and illustration of several basic strategies.



### ***Buying (Going Long) to Profit from an Expected Price Increase***

Someone expecting the price of a particular commodity or item to increase over a given period of time can seek to profit by buying futures contracts. If correct in forecasting the direction and timing of the price change, the futures contract can later be sold for the higher price, thereby yielding a profit.\* If the price declines rather than increases, the trade will result in a loss. Because of leverage, the gain or loss may be greater than the initial margin deposit.

For example, assume it's now January, the July soybean futures contract is presently quoted at \$6.00 a bushel, and over the coming months you expect the price to increase. You decide to deposit the required initial margin of \$1,000 and buy one July soybean futures contract. Further assume that by April the July soybean futures price has risen to \$6.40, and you decide to take your profit by selling. Since each contract is for 5,000 bushels, your 40-cent a bushel profit would be 5,000 bushels x 40¢ or \$2,000 less transaction costs.

		Price Per Bushel	Value of 5,000 Bushel Contract
<b>January</b>	Buy 1 July soybean futures contract	\$6.00	\$30,000
<b>April</b>	Sell 1 July soybean futures contract	\$6.40	\$32,000
	<b>GAIN</b>	\$ .40	\$ 2,000

*\*For simplicity, examples do not take into account commissions and other transaction costs. These costs are important, however, and you should be sure you fully understand them.*

		Price Per Bushel	Value of 5,000 Bushel Contract
<b>January</b>	Buy 1 July soybean futures contract	\$6.00	\$30,000
<b>April</b>	Sell 1 July soybean futures contract	\$5.60	\$28,000
	<b>LOSS</b>	\$ .40	\$ 2,000

Suppose, however, that rather than rising to \$6.40, the July soybean futures price had declined to \$5.60 and that, in order to avoid the possibility of further loss, you elect to sell the contract at that price. On 5,000 bushels your 40-cent a bushel loss would thus come to \$2,000 plus transaction costs.

Note that the loss in this example exceeded your \$1,000 initial deposit. Your broker would then call upon you, as needed, for additional funds to cover the loss. Had you not offset the position and the soybean contract was open in your account, your broker would ask you to deposit more margin funds into your account to

cover the projected losses marked to the settlement price.

### ***Selling (Going Short) to Profit from an Expected Price Decrease***

The only way going short to profit from an expected price decrease differs from going long to profit from an expected price increase is the sequence of the trades. Instead of first buying a futures contract, you first sell a futures contract. If, as expected, the price declines, a profit can be realized by later purchasing an offsetting futures contract at the lower price. The gain per unit will be the amount by which the purchase price is below the earlier selling price.

For example, assume that in January your research or other available information indicates a probable decrease in cattle prices over the next several months. In the hope of profiting, you deposit an initial margin of \$700 and sell one April live cattle futures contract at a price of, say, 85¢ a pound. Each contract is for 40,000 pounds, meaning each 1¢ a pound change in price will increase or decrease the value of the futures contract by \$400. If, by March, the price has declined to 80¢ a pound, an offsetting futures contract can be purchased at 5¢ a pound below the original

selling price. On the 40,000 pound contract, that's a gain of 5¢ x 40,000 lbs. or \$2,000 less transaction costs.



		Price Per Pound	Value of 40,000 Pound Contract
<b>January</b>	Sell 1 April live cattle futures contract	85¢	\$34,000
<b>March</b>	Buy 1 April live cattle futures contract	80¢	\$32,000
	<b>GAIN</b>	5¢	\$ 2,000



		Price Per Pound	Value of 40,000 Pound Contract
<b>January</b>	Sell 1 April live cattle futures contract	85¢	\$34,000
<b>March</b>	Buy 1 April live cattle futures contract	90¢	\$36,000
	<b>LOSS</b>	5¢	\$ 2,000

Assume you were wrong. Instead of decreasing, the April live cattle futures price increases to 90¢ a pound by the time in March when you eventually liquidate your short futures position through an offsetting purchase. The outcome would be as shown above.

In this example, the loss of 5¢ a pound on the future transaction resulted in a total loss of the \$2,000 plus transaction costs.

### Spreads

While most speculative futures transactions involve a simple purchase of futures contracts to profit from an expected price increase—or an equally simple sale to profit from an expected price decrease—numerous other possible strategies exist. Spreads are one example.

A spread, at least in its simplest form, involves buying one futures contract and selling another futures contract. The purpose is to profit from an expected change in the relationship between the purchase price of one and the selling price of the other.

As an illustration, assume it's now November, that the March CBOT mini Wheat futures price is presently \$3.50 a bushel and the May CBOT mini Wheat futures price is presently \$3.55 a bushel, a difference of 5¢. Your analysis of market conditions indicates that, over the next few months, the price difference between the two contracts will widen to become greater than 5¢. To profit if you are right, you could sell the March futures contract (the lower priced contract) and buy the May futures contract (the higher priced contract).

Assume time and events prove you right and that, by February, the March futures price has risen to \$3.60 and May futures price is \$3.75, a difference of 15¢. By liquidating both contracts at this time, you can realize a net gain of 10¢ a bushel. Since each contract is 1,000 bushels, the total gain is \$100.

	Spread		
<b>November</b>	Sell March Mini Wheat @ 3.50 bu.	Buy March Mini Wheat @ 3.55 bu.	5¢
<b>February</b>	Buy March Mini Wheat @ 3.60 bu.	Sell March Mini Wheat @ 3.75 bu.	15¢
	<b>\$ .10 LOSS</b>	<b>\$ .20 GAIN</b>	
	Net gain = 10¢ per bushel Gain on 1,000 bushel contract = \$100		

Had the spread (the price difference) narrowed by 10¢ a bushel rather than widened by 10¢ a bushel, the transactions just illustrated would have resulted in a loss of \$100.

Because of the potential of one leg of the spread to hedge against price loss in the other leg and because gains and losses occur only as the result of a change in the price difference—rather than as a result of a change in the overall level of futures prices—spreads are often considered more conservative and less risky than having an outright long or short futures position. In general, this may be the case.

It should be recognized, though, that the loss from a spread can be as great as—or even greater than—that which might be incurred in having an outright futures position. An adverse widening or narrowing of the spread during a particular time period may exceed the change in the overall level of futures prices, and it is possible

to experience losses on both of the futures contracts involved (that is, on both legs of the spread).

Virtually unlimited numbers and types of spread possibilities exist, as do many other, even more complex futures trading strategies. These, however, are beyond the scope of an introductory booklet and should be considered only by someone who fully understands the risk/reward arithmetic involved.



### ***Stop Orders***

A stop order is an order placed with your broker to buy or sell a particular futures contract if and when the price reaches a specified level. Stop orders are often used by futures traders in an effort to limit the amount they might lose if the futures price moves against their position.

For example, were you to purchase a crude oil futures contract at \$61 a barrel and wished to limit your loss to \$1 a barrel, you might place a stop order to sell an offsetting contract if the price should fall to \$60 a barrel. If and when the market reaches whatever price you specify, a stop order becomes an order to execute the desired trade.

There can be no guarantee, however, that it will be possible under all market conditions to execute the order at the price specified. In an active, volatile market, the market price may be declining (or rising) so rapidly that there is no opportunity to liquidate your position at the stop price you have designated. It is important to understand each exchange's rules and regulations as to the type of orders permitted and the nuances of each.

In the event that prices have risen or fallen in a market that utilizes a maximum daily limit, and there is presently no trading in the contract (known as a "lock limit" market), it may not

be possible to execute your order at *any* price. In addition, although it happens infrequently, it is possible that markets may be lock limit for more than one day, resulting in substantial losses to futures traders who may find it impossible to liquidate losing futures positions.

Subject to the kinds of limitations just discussed, stop orders can nonetheless provide a useful tool for the futures trader who seeks to limit his losses.

In addition to providing a way to limit losses, stop orders can also be employed to protect profits.

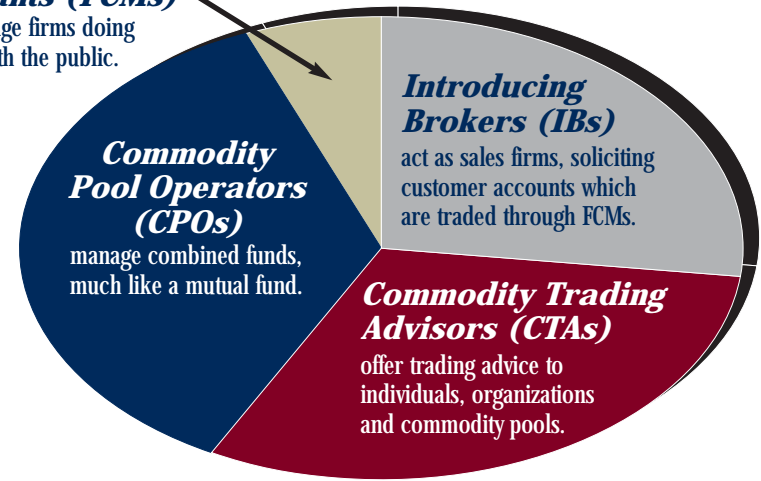
For instance, if you have bought crude oil futures at \$61 a barrel and the price is now at \$64 a barrel, you might wish to place a stop order to sell if and when the price declines to \$63. This (again subject to the described limitations of stop orders) could protect \$2 of your existing \$3 profit while still allowing your position to benefit from any continued increase in price.

# How to Participate in Futures Trading

Now that you have an overview of what futures markets are, why they exist and how they work, the next step is to consider various ways in which you may be able to participate in futures trading. There are a number of alternatives and the only best alternative—if you decide to participate at all—is whichever one is best for you. In addition to describing several possibilities, the pages that follow suggest questions you should ask and information you should obtain before making a decision.

Choosing a method of participating in the futures markets is largely a matter of deciding how directly and extensively you, personally, want to be involved in making trading decisions and managing your account. Many futures traders prefer to do their own research and analysis and make their own decisions about what and when to buy and sell. That is, they manage their own futures trades in much the same way they would manage their own stock portfolios. Others choose to rely on or at least consider the recommendations of a brokerage firm or account executive. Some purchase independent trading advice. Others would rather have someone else be responsible for trading their account and therefore give trading authority to their broker or a trading advisor. Still others purchase an interest in a commodity trading pool.

**Futures Commission Merchants (FCMs)**  
are brokerage firms doing business with the public.



## Categories of NFA Members

There's no formula for deciding. Your decision should, however, take into account such things as your knowledge of and any previous experience in futures trading, how much time and attention you are able to devote to trading, the amount of capital you can afford to commit to futures, and, perhaps most importantly, your individual temperament and tolerance for risk. Some individuals thrive on being directly involved in the fast pace of futures trading. Others are unable, reluctant, or lack the time to make the immediate decisions that are fre-

quently required. Some recognize and accept the fact that futures trading all but inevitably involves having some losing trades. Others lack the necessary disposition or discipline to acknowledge that they were wrong on this particular occasion and liquidate the position.

Many experienced traders suggest that, of all the things you need to know before trading in futures contracts, one of the most important is to know *yourself*. This can help you make the right decision about whether to participate at all and, if so, in what way.



It bears repeating, that you should never participate in futures trading unless the capital you would commit is risk capital. That is, capital you can afford to lose. It should be capital over and above that needed for necessities, emergencies, savings and achieving your long-term investment objectives. You should also understand that, because of the leverage involved in futures, the profit and loss fluctuations may be wider than in most types of investment activity and you may be required to cover deficiencies due to losses over and above what you had expected to commit to futures.

## ***Trade Your Own Account***

This involves opening your individual trading account and—with or without the recommendations of the brokerage firm—making your own trading decisions. You will also be responsible for assuring that adequate funds are on deposit with the brokerage firm for margin purposes, or that such funds are promptly provided as needed.

Practically all of the major brokerage firms you are familiar with, and many you may not be familiar with, have departments or even separate divisions to serve clients who want to allocate some portion of their investment capital to futures trading. All brokerage firms conducting



futures business with the public must be registered with the CFTC as Futures Commission Merchants (FCMs) or Introducing Brokers (IBs) and must be Members of NFA.

Different firms offer different services. Some, for example, have extensive research departments and can provide current information and analysis concerning market developments as well as specific trading suggestions. Others tailor their services to clients who prefer to make market judgments and arrive at trading decisions on their own. Still others offer various combinations of these and other services.

An individual trading account can be opened either directly with an FCM or through an IB. Whichever course you choose, the account itself will be carried by an FCM, as will your money. IBs do not accept or handle customer funds but most offer a variety of trading-related services. FCMs are required to maintain the funds and property of their customers in segregated accounts, separate from the firm's own money, if used for trading futures or options on futures on an exchange.

In addition to the particular services a firm provides, you should also discuss the commissions and trading costs that will be involved. And, as mentioned, clearly understand how the firm requires that any margin calls be met. ***Remember, you should always conduct a background check on the firm using NFA's BASIC system on NFA's Web site ([www.nfa.futures.org](http://www.nfa.futures.org)) or contact NFA's Information Center toll-free at 800-621-3570.***

## ***Have Someone Manage Your Account***

A managed account is also your individual account. The major difference is that you give someone else—an account manager—written power of attorney to make and execute decisions about what and when to trade. He or she will have discretionary authority to buy or sell for your account or will contact you for approval to make trades he or she suggests. You, of course, remain fully responsible for any losses which may be incurred and, as necessary, for meeting margin calls, including making up any deficiencies that exceed your margin deposits.

Although an account manager is likely to be managing the accounts of other persons at the same time, there is no sharing of gains or losses of other customers. Trading gains or losses in your account will result solely from trades which were made for your account.

Many FCMs and IBs accept managed accounts. In most instances, the amount of money needed to open a managed account is larger than the amount required to establish an account you intend to trade yourself. Different firms and account managers, however, have different requirements and the range can be quite wide. Be certain to read and understand all of the literature and agreements you receive from the broker.

Some account managers have their own trading approaches and accept only clients to whom that approach

is acceptable. Others tailor their trading to a client's objectives. In either case, obtain enough information and ask enough questions to assure yourself that your money will be managed in a way that's consistent with your goals.

**Discuss fees.** In addition to commissions on trades made for your account, it is not uncommon for account managers to charge a management fee, and/or there may be some arrangement for the manager to participate in the net profits that his management produces. These charges are required to be fully disclosed in advance. Make sure you know about every charge to be made to your account and what each charge is for.



Finally, take note of whether the account management agreement includes a provision to automatically liquidate positions and close out the account if and when losses exceed a certain amount. And, of course, you should know and agree on what will be done with profits, and what, if any, restrictions apply to withdrawals from the account.

## ***Use a Commodity Trading Advisor***

As the term implies, a Commodity Trading Advisor (CTA) is an individual (or firm) that, for a fee, provides advice on commodity trading, including specific trading recommendations such as when to establish a particular long or short position and when to liquidate that position. Generally, to help you choose trading strategies that match your trading objectives, advisors offer analysis and judgments as to the prospective rewards and risks of the trades they suggest. Trading recommendations may be communicated by phone, electronically via the

Internet or through the mail. Some provide a frequently updated hot-line or Web site you can access for current information and trading advice.

Even though you may trade on the basis of an advisor's recommendations, you will need to open your own account with, and send your margin payments directly to, an FCM. CTAs cannot accept or handle their customers' funds unless they are also registered as FCMs.

Some CTAs offer managed accounts, with the advisor designated in writing to make and execute trading decisions on a discretionary basis. The account itself, however, must still be with an FCM and in your name.

**CFTC Regulations require that CTAs provide their customers, in advance, with what is called a Disclosure Document. Read it carefully and ask the CTA to explain any points you don't understand. If your money is important to you, so is the information contained in the Disclosure Document!**

The prospectus-like document contains information about the advisor, his experience and his current (and any previous) performance records. If you use an advisor to manage your account, he must first obtain a signed acknowledgment from you that you have received and understood the Disclosure Document. As in any method of participating in futures trading, discuss and understand the advisor's fee arrangements. And if he will be managing your account, ask the

same questions you would ask of any account manager you are considering.

Most CTAs must be registered as such with the CFTC, and registered CTAs that accept authority to manage customer accounts must also be Members of NFA.

***You can verify whether an advisor is registered and an NFA Member by conducting a background check using NFA's BASIC system on NFA's Web site ([www.nfa.futures.org](http://www.nfa.futures.org)) or by calling NFA toll-free at 800-621-3570.***



## Participate in a Commodity Pool

Another alternative method of participating in futures trading is through a commodity pool, which is similar in concept to a common stock mutual fund. It is the only method of participation in which you will not have your own individual trading account. Instead, your money will be combined with that of other pool participants and, in effect, traded as a single account. You share in the profits or losses of the pool in proportion to your investment in the pool. One potential advantage is greater diversification of risks than you might obtain

if you were to establish your own trading account. Another is that your risk of loss is generally limited to your investment in the pool, because most pools are formed as limited partnerships. And you won't be subject to margin calls.

Bear in mind, however, that the risks which a pool incurs in any given futures transaction are no different than the risks

risks incurred by an individual trader. The pool still trades in futures contracts which are highly leveraged and in markets which can be highly volatile. And like an individual trader, the pool can suffer substantial losses. A major consideration, therefore, is who will be managing the pool in terms of directing its trading.

While a pool must execute all of its trades through a brokerage firm which is registered with the CFTC as an FCM, it may or may not have any other affiliation with the brokerage firm. Some brokerage firms, to serve those customers who prefer to participate in commodity trading through a pool, either operate or have a relationship with one or more commodity trading pools. Other pools operate independently.

In most instances, a Commodity Pool Operator (CPO) cannot accept your money until it has provided you

with a Disclosure Document that contains information about the pool operator, the pool's principals and any outside persons who will be providing trading advice or making trading decisions. It must also disclose the previous performance records, if any, of all persons who will be operating or advising the pool (or, if none, a statement to that effect). Disclosure Documents contain important information and should be carefully read before you invest your money. Another requirement is that the Disclosure Document advise you of the risks involved.

In the case of a new pool, there is frequently a provision that the pool will not begin trading until (and unless) a certain amount of money is raised. Normally, a time deadline is set and the CPO is required to state in the Disclosure Document what that deadline is (or, if there is none, that the time period for raising funds is indefinite). Be sure you understand the terms, including how your money will



be invested in the meantime, what interest you will earn (if any), and how and when your investment will be returned in the event the pool does not commence trading.

Determine whether you will be responsible for any losses in excess of your investment in the pool. If so, this must be indicated prominently at the beginning of the pool's Disclosure Document.

Ask about fees and other costs, including what, if any, initial charges will be made against your investment for organizational or administrative expenses. Such information should be noted in the Disclosure Document. You should also determine from the Disclosure Document how the pool's operator and advisor are compensated. Understand, too, the procedure for redeeming your shares in the pool, any restrictions that may exist, and provisions for liquidating and dissolving the pool if more than a certain percentage of the capital were to be lost.

Ask about the pool operator's general trading philosophy, what types of contracts will be traded, whether they will be day-traded, etc.

# *fees*   *costs* *restrictions* *disclosures*

***With a few exceptions, CPOs must be registered with the CFTC and be Members of NFA. You can verify that these requirements have been met by conducting a background search on NFA's BASIC system at NFA's Web site ([www.nfa.futures.org](http://www.nfa.futures.org)) or by contacting NFA toll-free at 800-621-3570.***



## ***Establishing an Account***

At the time you apply to establish a futures trading account, you can expect to be asked for certain information beyond simply your name, address and phone number. The requested information will generally include (but not necessarily be limited to) your income, net worth, what previous investment or futures trading experience you have had, and any other information needed in order to advise you of the risks involved in trading futures contracts. You will also be required to provide proof of identity to comply with federal law.



At a minimum, the person or firm who will handle your account is required to provide you with risk disclosure documents or statements specified by the CFTC and obtain written acknowledgment that you have received and understood them.

Opening a futures account is a serious decision and should obviously be approached as such.

Just as you wouldn't consider buying a car or a house without carefully reading and understanding the terms of the contract, neither should you establish a trading account without first reading and understanding the Account Agreement and all other documents supplied by your broker. It is in your interest and the firm's interest that you clearly

know your rights and obligations as well as the rights and obligations of the firm with which you are dealing before you enter into any futures transaction. If you have questions about exactly what any provisions of the Agreement mean, don't hesitate to ask. A good and continuing relationship can exist only if both parties have, from the outset, a clear understanding of the relationship.

Nor should you be hesitant to ask, in advance, what services you will be getting for the trading commissions the firm charges. As indicated earlier, not all firms offer identical services, and not all clients have identical needs. If it is important to you, for example, you might inquire about the firm's research capability and whatever reports it makes available to clients. Other subjects of inquiry could be how transaction and statement information will be provided, and how your orders will be handled and executed.



# Introduction to Options on Futures

Although futures contracts have been traded on U.S. exchanges since 1865, options on futures contracts were not introduced until 1982. There are two styles of options—American and European. For the purposes of this discussion, we will focus on American-style options.

An option on a futures contract gives the option buyer the right—but not the obligation—to buy or sell a particular futures contract at a stated price at any time prior to a specified date. There are two types of options: calls and puts.

A call option conveys to the option buyer the right to pur-

chase a particular futures contract at a stated price at any time during the life of the option. A put option conveys to the option buyer the right to sell a particular futures contract at a stated

price at any time during the life of the option.

Options on futures contracts can offer a wide range of investment opportunities.

However, options trading is a speculative investment and should be treated as such. Even though the purchase of options on futures contracts limits your potential losses to the amount of the investment, it is nonetheless possible to lose your entire investment in a short period of time. And for investors who sell rather than buy options, there may be no limit at all to the size of potential losses.



## The Arithmetic of Option Premiums

An option premium is the price paid by the buyer of the option and received by the seller of the option. At the time you purchase a particular option, its premium cost may be \$1,000. A month or so later, the same option may be worth only \$800 or \$700 or \$600. Or it could be worth \$1,200 or \$1,300 or \$1,400.

Since an option is something that most people buy with the intention of eventually liquidating (hopefully at a higher price), it's important to have at least a basic understanding of the components which make up the premium. There are

two, known as intrinsic value and time value. The premium is the sum of these.

$$\text{Premium} = \text{Intrinsic Value} + \text{Time Value}$$

### Intrinsic Value

Intrinsic value is the amount of money that could currently be realized by exercising the option at its strike price and liquidating the acquired futures position at the present price of the futures contract

For example, at a time when a U.S. Treasury bond futures contract is trading at a price of 120-00, a call option conveying the right to purchase the futures contract at a below-the-market strike price of 115-00 would have an intrinsic value of \$5,000.

An option that currently has intrinsic value is said to be “in-the-money” (by the amount of its intrinsic value). An option that does not currently have intrinsic value is said to be either “at-the-money” or “out-of-the-money.”

For example, at a time when a U.S. Treasury bond futures contract is trading at 120-00, a call option with a strike price of 123-00 would be “out-of-the-money” by \$3,000.

### Time Value

Options also have time value. In fact, if a given option has no intrinsic value—currently “out-of-the-money”—its premium will consist entirely of time value.

Time value is the amount option buyers are presently willing to pay (and option sellers are willing to accept)—over and above any intrinsic value the option may have—for the specific rights that a given option conveys. It reflects, in effect, a

consensus opinion as to the likelihood of the option's increasing in value prior to its expiration.

The three principal factors that affect an option's time value are:



- 1 Time remaining until expiration.** Time value declines as the option approaches expiration. At expiration, it will no longer have any time value. (This is why an option is said to be a wasting asset.)
- 2 Relationship between the option strike price and the current price of the underlying futures contract.** The further an option is removed from being worthwhile to exercise—the further “out-of-the-money” it is—the less time value it is likely to have.

**3 Volatility.** The more volatile a market is, the more likely it is that a price change may eventually make the option worthwhile to exercise. Thus, the option's time value and premium are generally higher in volatile markets.

## Understanding Options Transaction Fees

Before you decide to buy and/or sell (write) options, you should understand the other costs involved in the transaction—commissions and fees.

Commission is the amount of money, per option purchased or sold, that is paid to the brokerage firm for its services, including the execution of the order on the trading floor of the exchange. The commission charge increases the cost of purchasing an option and reduces the sum of money received from selling an option. In both cases, the premium and the commission should be stated separately.

Each firm is free to set its own commission charges, but the charges must be fully disclosed in a manner that is not misleading. In considering an

option investment, you should be aware that:

- n Commission can be charged on a per-trade or a round-turn basis, covering both the purchase and sale.
- n Commission charges can differ significantly from one brokerage firm to another.
- n Some firms charge commissions per option transaction and others charge a percentage of the option premium, usually subject to a certain minimum charge.
- n Commission charges based on a percentage of the premium can be substantial, particularly if the option is one that has a high premium.
- n Commission charges can have a major impact on your chances of making a profit. A high commission charge reduces your potential profit and increases your potential loss.

You should fully understand what a firm's commission charges will be and how they're calculated. If the charges seem high—either on a dollar basis or as a percentage of the option premium—you might want to seek comparison quotes from one or two other firms. If a firm seeks to justify an unusually high commission charge on the basis of its services or performance record, you might want to ask for a detailed explanation or documentation in writing. In addition to commissions, some firms will include a separate charge for exchange and NFA fees.





## Leverage

Just as in futures trading, leverage plays an important role in trading options on futures. The premium paid for an option is only a small percentage of the value of the assets covered by the underlying futures contract. Therefore, even a small change in the futures contract price can result in a much larger percentage profit—or a much large percentage loss—in relation to the premium. Consider the following example:

An investor pays \$200 for a 100-ounce gold call option with a strike price of \$500 an ounce at a time when the gold futures price is \$500 an ounce. If, at expiration, the futures price has risen to \$503 (an increase of less than one percent), the option value will increase by \$300 (a gain of 150 percent on your original investment of \$200).

But always remember that leverage is a two-edged sword. In the above example, unless the futures price at expiration had been above the option's \$500 strike price, the option would have expired worthless, and the

investor would have lost 100 percent of his investment plus any commissions and fees.

## Calculating the Break-Even Price

Before purchasing any option, it's essential to determine precisely what the underlying futures price must be in order for the option to be profitable at expiration. The break-even point may vary if you choose to offset the option prior to expiration, because it may have time value. The calculation isn't difficult. All you need to know to figure a given option's break-even price is the following:

- n The option's strike price;
- n The premium cost; and
- n Commission and other transaction costs.

Use the following formula to determine the break-even price for a call option if you are the purchaser:

$$\begin{array}{r} \text{Option} \\ \text{Strike} \\ \text{Price} \end{array} + \begin{array}{r} \text{Option} \\ \text{Premium} \end{array} + \begin{array}{r} \text{Commission \&} \\ \text{Transaction} \\ \text{Costs} \end{array} = \begin{array}{r} \text{Break} \\ \text{Even} \\ \text{Price} \end{array}$$

Example: It's January and the 1,000 barrel April crude oil futures contract is currently trading at around \$62.50 a barrel. Expecting a potentially significant increase in the futures price over the next several months, you decide to buy an April crude oil call option with a strike price of \$63. Assume the premium for the option is 95¢ a barrel and that the commission and other transaction costs are \$0.05, which amounts to 5¢ a barrel.

Before investing, you need to know how much the April crude oil futures price must increase by expiration in order for the option to break even or yield a net profit after expenses. The answer is that the futures price must increase to \$64.00 for you to break even and to above \$64.00 for you to realize any profit.

$$\begin{array}{r} \text{Option} \\ \text{Strike Price} \end{array} \quad \$63.00$$

$$\begin{array}{r} \text{Premium} \\ \text{Commission} \\ \text{\& Transaction} \\ \text{Costs} \end{array} \quad + \quad .95$$


---


$$\begin{array}{r} \text{Break-Even} \\ \text{Price} \end{array} \quad \$64.00$$

The option will exactly break even if the April crude oil futures price at expiration is \$64.00 a barrel. For each \$1 a barrel the price is above \$64.00, the option will yield a profit of \$1,000.

If the futures price at expiration is \$64.00 or less, there will be a loss. But in no event can the loss exceed the \$1,000 total of the premium, commission and transaction costs.

The arithmetic for determining the break-even price for purchasing a put option is the same as for a call option except that instead of adding the premium, commission and transaction costs to the strike price, you subtract them.



$$\text{Option Strike Price} - \text{Option Premium} - \text{Commission \& Transaction Costs} = \text{Break Even Price}$$

Example: The price of gold is currently about \$500 an ounce, but during the next few months you think there may be a sharp decline. To profit from the price decrease if you are right, you consider buying a put option with a strike price of \$495 an ounce. The option would give you the right to sell a specific gold futures contract at \$495 an ounce at any time prior to the expiration of the option.

Assume the premium for the put option is \$3.70 an ounce (\$370 in total) and the commission and transaction costs are \$50 (equal to 50¢ an ounce).

For the option to break even at expiration, the futures price must decline to \$490.80 an ounce or lower.



*Option Strike Price*     \$495.00

*Premium*     - 3.70

*Commission & Transaction Costs*     - .50

---

*Break-Even Price*     \$490.80

The option will exactly break even at expiration if the futures price is \$490.80 an ounce. For each \$1 an ounce the futures price is below \$490.80 it will yield a profit of \$100.

If the futures price at expiration is above \$490.80, there will be a loss. But in no case can the loss exceed \$420—the sum of the premium (\$370) plus commission and other transaction costs (\$50).

## Factors Affecting the Choice of an Option

If you expect a price increase, you'll want to consider the purchase of a call option. If you expect a price decline, you'll want to consider the purchase of a put option. However, in addition to price expectations, there are two other factors that affect the choice of option:

- n The amount of time until the expiration of the option (time value); *and*
- n The option strike price (intrinsic value).

### The length of an option

One of the attractive features of options is that they allow time for your price expectations to be realized. The more time you allow, the greater likelihood the option could eventually become profitable. This could influence your decision about whether to buy, for example, an option on a March futures

contract or an option on a June futures contract.

Bear in mind that the length of an option (such as whether it has three months to expiration or six months) is an important variable affecting the cost of the option. An option with more time commands a higher premium.

### The option strike price

The relationship between the strike price of an option and the current price of the underlying futures contract is, along with the length of the option, a major factor affecting the option premium. At any given time there may be trading in options with a half dozen or more strike prices—some of them below the current price of the underlying futures contract and some of them above.

A call option with a lower strike price will have a higher premium cost than a call option with a higher strike price because the lower strike price will more likely and more quickly

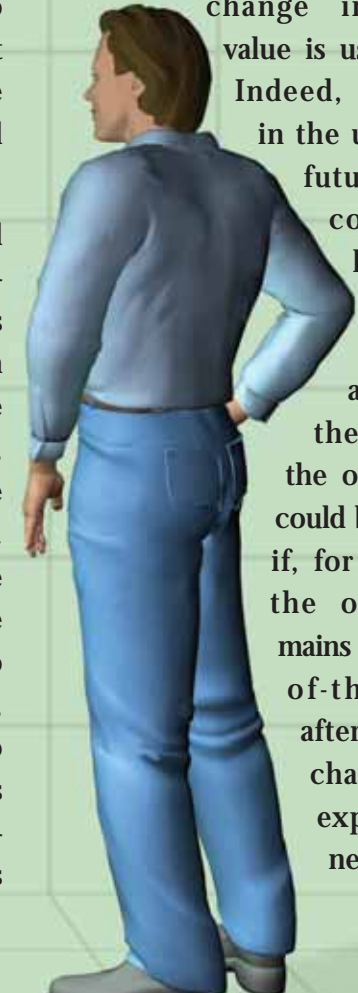
become worthwhile to exercise. For example, the right to buy a crude oil futures contract at \$61 a barrel is more valuable than the right to buy a crude oil futures contract at \$62 a barrel.

Conversely, a put option with a higher exercise price will have a higher premium cost than a put option with a lower exercise price. For example, the right to sell a crude oil futures contract at \$62 a barrel is more valuable than the right to sell a crude oil futures contract at \$61 a barrel.

While the choice of a call option or put option will be dictated by your price expectations and your choice of expiration month by when you look for the expected price change to occur, the choice of strike price is somewhat more complex. That's because the strike price will influence not only the option's premium cost but also how the value of the option, once purchased, is likely to respond to subsequent changes in the underlying futures contract price. Specifically, options

that are out-of-the-money do not normally respond to changes in the underlying futures price the same as options that are at-the-money or in-the-money.

Generally speaking, premiums for out-of-the-money options do not reflect, on a dollar for dollar basis, changes in the underlying futures price. The change in option value is usually less. Indeed, a change in the underlying futures price could have little effect, or even no effect at all, on the value of the option. This could be the case if, for instance, the option remains deeply out-of-the-money after the price change or if expiration is near.





## After You Buy an Option

At any time prior to the expiration of an option, you can:

- n Offset the option;
- n Continue to hold the option; *or*
- n Exercise the option.

### Offset the Option

Liquidating an option in the same marketplace where it was bought is the most frequent method of realizing option profits. Liquidating an option prior to its expiration for whatever value it may still have is also a way to reduce your loss (by recovering a portion of your investment) in case the futures price hasn't performed as you expected it would, or if the price outlook has changed.

In active markets, there are usually other investors who are willing to pay for the rights your option conveys. How much they are willing to pay (it may be more or less than you paid) will depend on (1) the current futures price in relation to the option's strike price, (2) the length of time still remaining until expiration of the option and (3) market volatility.

Net profit or loss, after allowance for commission charges and other transaction costs, will be the difference between the premium you paid to buy the option and the premium you receive when you liquidate the option.

Example: In anticipation of rising sugar prices, you bought a call option on a sugar futures contract. The premium cost was \$950 and the commission and transaction costs were \$50. Sugar prices have subsequently risen and the option now commands a premium of \$1,250. By liquidating the option at this price, your net gain is \$250. That's the selling price of \$1,250 minus the \$950 premium paid for the option minus \$50 in commission and transaction costs.

<i>Premium paid for option</i>	<i>\$ 950</i>
<i>Premium received when option is liquidated</i>	<i>\$ 1,250</i>
<i>Increase in premium</i>	<i>\$ 300</i>
<i>Less transaction costs</i>	<i>\$ 50</i>
<hr/>	
<i>Net profit</i>	<i>\$ 250</i>

You should be aware, however, that there is no guarantee that there will actually be an active market for the option at the time you decide you want to liquidate. If an option is too far removed from being worthwhile to exercise or if there is too little time remaining until expiration, there may not be a market for the option at any price.

Assuming, though, that there's still an active market, the price you get when you liquidate will depend on the option's premium at that time. Premiums are arrived at through open competition between buyers and sellers according to the rules of an exchange.



## ***Continue to Hold the Option***

The second alternative you have after you buy an option is to hold an option right up to the final date for exercising or liquidating it. This means that even if the price change you've anticipated doesn't occur as soon as you expected—or even if the price initially moves in the opposite direction—you can continue to hold the option if you still believe the market will prove you right. If you are wrong, you will have lost the opportunity to limit your losses through offset. On the other hand, the most you can lose by continuing to hold the option is the sum of the premium and transaction costs. This is why it is sometimes said that option buyers have the advantage of staying power. You should be aware, however, that options typically decline in value as they approach expiration. (See “Time Value” on page 55).

## ***Exercise the Option***

You can also exercise the option at any time prior to the expiration of the option. It does not have to be held until expiration. It is essential to understand, however, that exercising an option on a futures contract means that you will acquire either a long or short position in the underlying futures contract—a long futures position if you exercise a call and a short futures position if you exercise a put.

**Example:** You've bought a call option with a strike price of 70¢ a pound on a 40,000 pound live cattle futures contract. The futures price has risen to 75¢ a pound. Were you to exercise the option, you would acquire a long cattle futures position at 70¢ with a “paper gain” of 5¢ a pound (\$2,000). And if the futures price were to continue to climb, so would your gain.

*hold*  
*exercise*  
*offset*

But there are both costs and significant risks involved in acquiring a position in the futures market. For one thing, the broker will require a margin deposit to provide protection against possible fluctuations in the futures price. And if the futures price moves adversely to your position, you could be called upon—perhaps even within hours—to make additional margin deposits. There is no upper limit to the extent of these margin calls.

Secondly, unlike buying an option, which limits potential losses, a futures position has potentially unlimited risk. The further the futures price moves against your position, the larger your loss.

Even if you were to exercise an option with the intention of promptly liquidating the futures position acquired through exercise, there's the risk that the futures price which existed at the moment may no longer be available by the time you are able to liquidate the futures position. Futures prices can and often do change rapidly.

For all these reasons, only a small percentage of option buyers elect to realize option trading profits by exercising an option. Most choose the alternative of having the broker offset—i.e., liquidate—the option at its currently quoted premium value.

## ***Who Sells (Writes) Options and Why***

Up to now, we have discussed only the buying of options. But it stands to reason that when someone buys an option, someone else sells it. In any given transaction, the seller may be someone who previously bought an option and is now liquidating it. Or the seller may be an individual who is participating in the type of investment activity known as options writing.

The attraction of option writing to some investors is the opportunity to receive the premium that the option buyer pays. An option buyer anticipates that a change in the option's underlying futures price at some point in time prior to expiration will make the option worthwhile to exercise. An option writer, on the other hand, anticipates that such a price change won't occur—in which event the option will expire worthless and he will retain the entire amount of the option premium that was received for writing the option.

Example: At a time when the March U.S. Treasury Bond futures price is 125-00, an investor expecting stable or lower futures prices (meaning stable or higher interest rates) earns a premium of \$400 by writing a call option with a strike price of 129. If the futures price at expiration is below 129-00, the call will expire worthless and the option writer will retain the entire \$400 premium. His profit will be that amount less the transaction costs.

While option writing can be a profitable activity, it is also an extremely high risk activity. In fact, an option writer may have an unlimited risk. Except for the premium received for writing the option, the writer of an option stands to lose any amount the option is in-the-money at the time of expiration (unless he has liquidated his option position in the meantime by making an offsetting purchase).



In the previous example, an investor earned a premium of \$400 by writing a U.S. Treasury Bond call option with a strike price of 129. If, by expiration, the futures price has climbed above the option strike price by more than the \$400 premium received, the investor will incur a loss. For instance, if the futures price at expiration has risen to 131-00, the loss will be \$1,600. That's the \$2,000 the option is in-the-money less the \$400 premium received for writing the option (not including transaction costs).

As you can see from this example, option writers as well as option buyers need to calcu-

late a break-even price. For the writer of a call, the break-even price is the option strike price plus the net premium received after transaction costs. For the writer of a put, the break-even price is the option strike price minus the premium received after transaction costs.

An option writer's potential profit is limited to the amount of the premium less transaction costs. The option writer's potential losses may be unlimited. And an option writer may need to deposit funds necessary to cover losses as often as daily.

Option writing as an investment is absolutely inappropriate for anyone who does not fully understand the nature and the extent of the risks involved and who cannot afford the possibility of a potentially unlimited loss. It is also possible in a market where prices are changing rapidly that an option writer may have no ability to control the extent of his losses. Option writers should be sure to read and thoroughly understand the Risk Disclosure Statement that is provided to them.



## ***If a Dispute Should Arise***

All but a small percentage of transactions involving regulated futures and options on futures contracts take place without problems or misunderstandings. However, in any business in which millions of contracts are traded each day, occasional disagreements are inevitable. Obviously, the best way to resolve a disagreement is through direct discussions by the parties involved. Failing this, however, participants in futures markets have several alternatives (unless some particular method has been agreed to in advance).

In many circumstances, it may be possible to seek resolution through the exchange where the futures contracts were traded or to file a claim for reparations with the CFTC. Unless you have signed a pre-dispute arbitration agreement, you can also file a claim in court. However, most investors choose to resolve the disagreement through the arbitration program conducted by National Futures Association.



The best way to resolve a disagreement is through direct discussions by the parties involved.

### *There are several advantages:*

- n It tends to be faster and less expensive than the other alternatives.
- n You have a choice of selecting industry or non-industry related arbitrators.
- n You do not necessarily have to know what the law is to successfully prove your claim.
- n In some cases, it may be possible to conduct arbitration entirely through written submissions.
- n If a hearing is required, it can generally be scheduled at a time and place convenient for both parties.
- n Unless you wish to do so, you do not have to employ an attorney.

For a plain language explanation of the arbitration program and how it works, write or phone NFA for a copy of *Arbitration: A Way to Resolve Futures-Related Disputes*. This free booklet is also available on NFA's Web site.

## ***In Closing***

This Guide ends where it began, with the statement that it is not our intention to suggest either that you should or should not participate in futures markets. Low margins, high leverage, frequently volatile prices, and the continuing needs of hedgers to manage the price uncertainties inherent in their business create opportunities to realize potentially substantial profits. But for each such opportunity, there is commensurate risk. Trading futures and options on futures, as stated at the outset, is not for everyone.

Hopefully, the preceding pages have helped to provide a better understanding of the opportunities and the risks alike, as well as an understanding of what futures markets are, how they work, who uses them, alternative methods of participation and, by no means least, the vital economic function which futures markets perform.

In no way, it should be emphasized, should anything discussed herein be considered trading advice or recommendations. That should be provided by your broker or advisor. Similarly, your broker or advisor—as well as the exchanges where futures contracts are traded—are your best sources for additional, more detailed information about futures trading.

# ***Glossary of Terms***

## Trading Futures and Options on Futures



**Actuals**

*See Cash Commodity.*

**Aggregation**

The policy under which all futures positions owned or controlled by one trader or a group of traders are combined to determine reportable positions and speculative limits.

**Arbitrage**

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

**Arbitration**

The process of resolving disputes between parties by a person or persons (arbitrators) chosen or agreed to by them. NFA's arbitration program provides a forum for resolving futures-related disputes between NFA Members or between Members and customers.

**Associated Person (AP)**

An individual who solicits orders, customers or customer funds on behalf of a Futures Commission Merchant, an Introducing Broker, a Commodity Trading Advisor or a Commodity Pool Operator and who is registered with the Commodity Futures Trading Commission.

**At-the-Money Option**

An option whose strike price is equal—or approximately equal—to the current market price of the underlying futures contract.

**Basis**

The difference between the current cash price of a commodity and the futures price of the same commodity.

**Bear Market (Bear/Bearish)**

A market in which prices are declining. A market participant who believes prices will move lower is called a “bear.” A news item is considered bearish if it is expected to result in lower prices.

**Bid**

An expression of willingness to buy a commodity at a given price; the opposite of Offer.

**Board of Trade**

*See Contract Market.*

**Broker**

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

**Bull Market (Bull/Bullish)**

A market in which prices are rising. A market participant who believes prices will move higher is called a “bull.” A news item is considered bullish if it is expected to result in higher prices.

**Call Option (American Style)**

An option which 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.

**Carrying Broker**

A member of a futures exchange, usually a clearinghouse member, through which another firm, broker or customer chooses to clear all or some trades.

**Cash Commodity**

The actual physical commodity as distinguished from the futures contract based on the physical commodity. Also referred to as Actuals.

**Cash Market**

A place where people buy and sell the actual commodities (i.e., grain elevator, bank, etc.).

*See also Forward (Cash) Contract and Spot.*

**Cash Settlement**

A method of settling certain futures or options contracts whereby the market participants settle in cash (payment of money rather than delivery of the commodity).

**Charting**

The use of graphs and charts in the technical analysis of futures markets to plot price movements, volume, open interest or other statistical indicators of price movement.

*See also Technical Analysis.*

**Churning**

Excessive trading that results in the broker deriving a profit from commissions while disregarding the best interests of the customers.

**Circuit Breaker**

A system of trading halts and price limits on equities and derivatives markets designed to provide a cooling-off period during large, intraday market declines or rises.

**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 members.

**Clearinghouse**

A corporation or separate division of a futures exchange that is responsible for settling trading accounts, collecting and maintaining margin monies, regulating delivery and reporting trade data. The clearinghouse becomes the buyer to each seller (and the seller to each buyer) and assumes responsibility for protecting buyers and sellers from financial loss by assuring performance on each contract.

**Clearing Member**

A member of an exchange clearinghouse responsible for the financial commitments of its customers. All trades of a non-clearing member must be registered and eventually settled through a clearing member.

**Closing Price**

*See Settlement Price.*

**Closing Range**

A range of prices at which futures transactions took place during the close of the market.

**Commission**

A fee charged by a broker to a customer for executing a transaction.

**Commission House**

*See Futures Commission Merchant.*

**Commodity Exchange Act (CEA)**

The federal act that provides for federal regulation of futures trading.

**Commodity Futures Trading Commission (CFTC)**

The federal regulatory agency established in 1974 that administers the Commodity Exchange Act. The CFTC monitors the futures and options on futures markets in the United States.

**Commodity Pool**

An enterprise in which funds contributed by a number of persons are combined for the purpose of trading futures or options contracts. The concept is similar to a mutual fund in the securities industry. Also referred to as a Pool.

**Commodity Pool Operator (CPO)**

An individual or organization which operates or solicits funds for a commodity pool. A CPO may be required to be registered with the CFTC.

**Commodity Trading Advisor (CTA)**

A person who, for compensation or profit, directly or indirectly advises others as to the advisability of buying or selling futures or commodity options. Providing advice includes exercising trading authority over a customer's account. A CTA may be required to be registered with the CFTC.

**Confirmation Statement**

A statement sent by a Futures Commission Merchant to a customer when a futures or options position has been initiated. The statement shows the price and the number of contracts bought or sold. Sometimes combined with a Purchase and Sale Statement.

**Contract Market**

A board of trade designated by the CFTC to trade futures or options contracts on a particular commodity. Commonly used to mean any exchange on which futures are traded. Also referred to as an Exchange.

**Contract Month**

The month in which delivery is to be made in accordance with the terms of the futures contract. Also referred to as Delivery Month.

**Convergence**

The tendency for prices of physical commodities and futures to approach one another, usually during the delivery month.

**Covered Option**

A short call or put option position which is covered by the sale or purchase of the underlying futures contract or physical commodity.

**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 market follow similar price trends (e.g., using soybean meal futures to hedge fish meal).

**Customer Segregated Funds**

*See Segregated Account.*

**Day Order**

An order that if not executed expires automatically at the end of the trading session on the day it was entered.

**Day Trader**

A speculator who will normally initiate and offset a position within a single trading session.

**Default**

The failure to perform on a futures contract as required by exchange rules, such as a failure to meet a margin call or to make or take delivery.

**Deferred Delivery Month**

The distant delivery months in which futures trading is taking place, as distinguished from the nearby futures delivery month.

**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 Month**

*See Contract Month.*

**Derivative**

A financial instrument, traded on or off an exchange, the price of which is directly dependent upon the value of one or more underlying securities, equity indices, debt instruments, commodities, other derivative instruments, or any agreed upon pricing index or arrangement. Derivatives involve the trading of rights or obligations based on the underlying product but do not directly transfer that product. They are generally used to hedge risk.

**Designated Self-Regulatory Organization (DSRO)**

When a Futures Commission Merchant (FCM) is a member of more than one Self-Regulatory Organization (SRO), the SROs may decide among themselves which of them will be primarily responsible for enforcing minimum financial and sales practice requirements. The SRO will be appointed DSRO for that particular FCM. NFA is the DSRO for all non-exchange member FCMs.

*See also Self-Regulatory Organization.*

**Disclosure Document**

The statement that some CPOs must provide to customers. It describes trading strategy, fees, performance, etc.

**Discount**

(1) The amount a price would be reduced to purchase a commodity of lesser grade; (2) sometimes used to refer to the price differences between futures of different delivery months, as in the phrase “July is trading at a discount to May,” indicating that the price of the July future is lower than that of May; (3) applied to cash grain prices that are below the futures price.

**Discretionary Account**

An arrangement by which the owner of the account gives written power of attorney to someone else, usually the broker or a Commodity Trading Advisor, to buy and sell without prior approval of the account owner. Also referred to as a Managed Account.

**Electronic Order**

An order placed electronically (without the use of a broker) either via the Internet or an electronic trading system.

**Electronic Trading Systems**

Systems that allow participating exchanges to list their products for trading electronically. These systems may replace, supplement or run along side of the open outcry trading.

**Equity**

1) The value of a futures trading account if all open positions were offset at the current market price; 2) an ownership interest in a company, such as stock.



**Exchange**

*See Contract Market.*

**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.*

**Expiration Date**

Generally the last date on which an option may be exercised. It is not uncommon for an option to expire on a specified date during the month prior to the delivery month for the underlying futures contracts.

**Extrinsic Value**

*See Time Value.*

**First Notice Day**

The first day on which notice of intent to deliver a commodity in fulfillment of an expiring futures contract can be given to the clearinghouse by a seller and assigned by the clearinghouse to a buyer. Varies from contract to contract. 1) The value of a futures trading account if all open positions were offset at the current market price; 2) an ownership interest in a company, such as stock.

**Floor Broker**

An individual who executes orders on the trading floor of an exchange for any other person.

**Floor Trader**

An individual who is a member of an exchange and trades for his own account on the floor of the exchange.

**Forward (Cash) Contract**

A contract which requires a seller to agree to deliver a specified cash commodity to a buyer sometime in the future, where the parties expect delivery to occur. All terms of the contract may be customized, in contrast to futures contracts whose terms are standardized.

**Fully Disclosed**

An account carried by a Futures Commission Merchant in the name of an individual customer; the opposite of an Omnibus Account.

**Fundamental Analysis**

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

**Futures Commission Merchant (FCM)**

An individual or organization which solicits or accepts orders to buy or sell futures contracts or commodity options and accepts money or other assets from customers in connection with such orders. An FCM must be registered with the CFTC.

**Futures Contract**

A legally binding agreement to buy or sell a commodity or financial instrument at a later date. Futures contracts are normally standardized according to the quality, quantity, delivery time and location for each commodity, with price as the only variable.

**Grantor**

*See Writer.*

**Guaranteed Introducing Broker**

A Guaranteed Introducing Broker is an IB that has a written agreement with a Futures Commission Merchant that obligates the FCM to assume financial and disciplinary responsibility for the performance of the Guaranteed Introducing Broker in connection with futures and options customers. A Guaranteed Introducing Broker is not subject to minimum financial requirements.

**Hedging**

The practice of offsetting the price risk inherent in any cash market position by taking an opposite position in the futures market. A long hedge involves buying futures contracts to protect against possible increasing prices of commodities. A short hedge involves selling futures contracts to protect against possible declining prices of commodities.

**High**

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

**Holder**

The opposite of a Grantor.

*See also Option Buyer.*

**In-the-Money Option**

An option that has 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.

**Independent Introducing Broker**

An Independent Introducing Broker is an IB subject to minimum capital requirements.

**Initial Margin**

The amount a futures market participant must deposit into a margin account at the time an order is placed to buy or sell a futures contract.

*See also Margin.*

**Intrinsic Value**

The amount by which an option is in-the-money.

**Introducing Broker (IB)**

A firm or individual that solicits and accepts commodity futures orders from customers but does not accept money, securities or property from the customer. All Introducing Brokers must be registered with the CFTC.

**Last Trading Day**

The last day on which trading may occur in a given futures or option.

**Leverage**

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

**Limit**

*See Position Limit, Price Limit, Variable Limit.*

**Liquidate**

To sell a previously purchased futures or options contract or to buy back a previously sold futures or options position. Also referred to as Offset.

**Liquidity (Liquid Market)**

A characteristic of a security or commodity market with enough units outstanding and enough buyers and sellers to allow large transactions without a substantial change in price.

**Local**

A member of an exchange who trades for his own account.

**Long**

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

**Low**

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

**Maintenance Margin**

A set minimum amount (per outstanding futures contract) that a customer must maintain in his margin account to retain the futures position.

*See also Margin.*

**Managed Account**

*See Discretionary Account.*

**Margin**

An amount of money deposited by both buyers and sellers of futures contracts and by sellers of options contracts to ensure performance of the terms of the contract (the making or taking delivery of the commodity or the cancellation of the position by a subsequent offsetting trade). Margin in commodities is not a down payment, as in securities, but rather a performance bond.

*See also Initial Margin, Maintenance Margin and Variation Margin.*

**Margin Call**

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

**Mark-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.

**Market Order**

An order to buy or sell a futures or options contract at whatever price is obtainable when the order reaches the trading floor.

**Maximum Price Fluctuation**

*See Price Limit.*

**Minimum Price Fluctuation**

*See Tick.*

**Naked Option**

*See Uncovered Option.*

**National Futures Association (NFA)**

Authorized by Congress in 1974 and designated by the CFTC in 1982 as a “registered futures association,” NFA is the industrywide self-regulatory organization of the futures industry.

**Nearby Delivery Month**

The futures contract month closest to expiration. Also referred to as the Spot Month.

**Net Asset Value**

The value of each unit of participation in a commodity pool. Basically a calculation of assets minus liabilities plus or minus the value of open positions when marked to the market, divided by the total number of outstanding units.

**Net Performance**

An increase or decrease in net asset value exclusive of additions, withdrawals and redemptions.

**Offer**

An indication of willingness to sell a futures contract at a given price; the opposite of Bid.

**Offset**

*See Liquidate.*

**Omnibus Account**

An account carried by one Futures Commission Merchant (FCM) with another FCM in which the transactions of two or more persons are combined and carried in the name of the originating FCM rather than of the individual customers; the opposite of Fully Disclosed.

**Open**

The period at the beginning of the trading session officially designated by the exchange during which all transactions are considered made “at the open.”

**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 Outcry**

A method of public auction for making bids and offers in the trading pits of futures exchanges.

**Open Trade Equity**

The unrealized gain or loss on open positions.

**Opening Range**

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

**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 a Holder.

**Option Contract**

A contract which gives the buyer the right, but not the obligation, to buy or sell a specified quantity of a commodity or a futures contract at a specific price within a specified period of time. The seller of the option has the obligation to sell the commodity or futures contract or to buy it from the option buyer at the exercise price if the option is exercised.

*See also Call Option and Put Option.*

**Option Premium**

The price a buyer pays (and a seller receives) for an option. Premiums are arrived at through the market process. There are two components in determining this price—extrinsic (or time) value and intrinsic value.

**Option Seller**

*See Writer.*

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

A call option with a strike price higher or a put option with a strike price lower than the current market value of the underlying asset (i.e., an option that does not have any intrinsic value).

**Over-the-Counter Market (OTC)**

A market where products such as stocks, foreign currencies and other cash items are bought and sold by telephone, Internet and other electronic means of communication rather than on a designated futures exchange.

**Pit**

The area on the trading floor where trading in futures or options contracts is conducted by open outcry. Also referred to as a ring.

**Pool**

*See Commodity Pool.*

**Position**

A commitment, either long or short, in the market.

**Position Limit**

The maximum number of speculative futures contracts one can hold as determined by the CFTC and/or the exchange where the contract is traded.

*See also Price Limit, Variation Limit.*

**Position Trader**

A trader who either buys or sells contracts and holds them for an extended period of time, as distinguished from a day trader.

**Premium**

Refers to (1) the price paid by the buyer of an option; (2) the price received by the seller of an option; (3) cash prices that are above the futures price; (4) the amount a price would be increased to purchase a better quality commodity; or (5) a futures delivery month selling at a higher price than another.

**Price Discovery**

The determination of the price of a commodity by the market process.

**Price Limit**

The maximum advance or decline, from the previous day's settlement price, permitted for a futures contract in one trading session. Also referred to as Maximum Price Fluctuation.

*See also Position Limit, Variation Limit.*

**Purchase and Sale Statement (P&S)**

A statement sent by a Futures Commission Merchant to a customer when a futures or options position has been liquidated or offset. The statement shows 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. Sometimes combined with a Confirmation Statement.

**Put Option**

An option which gives the buyer the right, but not the obligation, to sell the underlying futures contract at a particular price (strike or exercise price) on or before a particular date.

**Quotation**

The actual price or the bid or ask price of either cash commodities or futures or options contracts at a particular time.

**Range**

The difference between the high and low price of a commodity during a given trading session, week, month, year, etc.

**Regulations (CFTC)**

The regulations adopted and enforced by the CFTC in order to administer the Commodity Exchange Act.

**Reparations**

The term is used in conjunction with the CFTC's customer claims procedure to recover civil damages.

**Reportable Positions**

The number of open contracts specified by the CFTC when a firm or individual must begin reporting total positions by delivery month to the authorized exchange and/or the CFTC.

**Round Turn**

A completed futures transaction involving both a purchase and a liquidating sale, or a sale followed by a covering purchase.

**Rules (NFA)**

The standards and requirements to which participants who are required to be Members of National Futures Association must subscribe and conform.



**Scalper**

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

**Segregated Account**

A special account used to hold and separate customers' assets for trading on futures exchanges from those of the broker or firm. Also referred to as Customer Segregated Funds.

**Self-Regulatory Organization (SRO)**

Self-regulatory organizations (i.e., the futures exchanges and National Futures Association) enforce minimum financial and sales practice requirements for their members.

*See also Designated Self-Regulatory Organization.*

**Settlement Price**

The last price paid for a futures contract on any trading day. Settlement prices are used to determine open trade equity, margin calls and invoice prices for deliveries. Also referred to as Closing Price.

**Short**

One who has sold futures contracts or plans to purchase a cash commodity.

**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 for a physical commodity where the parties generally expect immediate delivery of the actual commodity.

**Spot Month**

*See Nearby Delivery Month.*

**Spreading**

The buying and selling of two different delivery months or related commodities in the expectation that a profit will be made when the position is offset.

**Stop Order**

An order that becomes a market order when the futures contract reaches a particular price level. A sell stop is placed below the market, a buy stop is placed above the market.

**Strike Price**

The price at which the buyer of a call (put) option may choose to exercise his right to purchase (sell) the underlying futures contract. Also called Exercise Price.

**Technical Analysis**

An approach to analysis of futures markets which examines patterns of price change, rates of change, and changes in volume of trading, open interest and other statistical indicators.

*See also Charting.*

**Tick**

The smallest increment of price movement for a futures contract. Also referred to as Minimum Price Fluctuation.

**Time Value**

The amount of money options buyers are willing to pay for an option in 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.

**Uncovered Option**

A short call or put option position which is not covered by the purchase or sale of the underlying futures contract or physical commodity. Also referred to as a Naked Option.

**Underlying Futures Contract**

The specific futures contract that the option conveys the right to buy (in case of a call) or sell (in the case of a put).

**Variable Limit**

A price system that allows for larger than normal allowable price movements under certain conditions. In periods of extreme volatility, some exchanges permit trading at price levels that exceed regular daily price limits.

*See also Position Limit, Price Limit.*

**Variation Margin**

Additional margin required to be deposited by a clearing member firm to the clearinghouse during periods of great market volatility or in the case of high-risk accounts.

**Volatility**

A measurement of the change in price over a given time period.

**Volume**

The number of purchases and sales of futures contracts made during a specified period of time, often the total transactions for one trading day.

**Writer**

A person who sells an option and assumes the potential obligation to sell (in the case of a call) or buy (in the case of a put) the underlying futures contract at the exercise price. Also referred to as an Option Grantor.

**Yield**

A measure of the annual return on an investment.

## Additional Resources

Commodity Futures Trading  
Commission (CFTC)  
Three Lafayette Centre  
1155 21st Street, NW  
Washington, DC 20581  
(202) 418-5800  
[www.cftc.gov](http://www.cftc.gov)

CBOE Futures Exchange (CFE)  
400 S. LaSalle St.  
Chicago, IL 60605  
(312) 786-5600  
[www.cfe.cboe.com](http://www.cfe.cboe.com)

Chicago Board of Trade (CBOT)  
141 W. Jackson Blvd.  
Chicago, IL 60604  
(312) 435-3500  
[www.cbott.com](http://www.cbott.com)

Chicago Climate Futures Exchange (CCFE)  
400 S. LaSalle St.  
Chicago, IL 60605  
(312) 554-3350  
[www.chicagoclimatex.com](http://www.chicagoclimatex.com)

Chicago Mercantile Exchange (CME)  
30 S. Wacker Dr.  
Chicago, IL 60606  
(312) 930-1000  
[www.cme.com](http://www.cme.com)

HedgeStreet  
1825 S. Grant St., Suite 500  
San Mateo, Ca 94402  
[www.hedgestreet.com](http://www.hedgestreet.com)

Kansas City Board of Trade (KCBT)  
4800 Main St., Suite 303  
Kansas City, MO 64112  
(816) 753-7500  
[www.kcibt.com](http://www.kcibt.com)

Minneapolis Grain Exchange (MGE)  
400 S. Fourth St.  
Minneapolis, MN 55415  
(612) 321-7101  
[www.mgex.com](http://www.mgex.com)

New York Board of Trade (NYBOT)  
174 Hudson St.  
New York, NY 10013  
(718) 391-7000  
[www.nybot.com](http://www.nybot.com)

New York Mercantile Exchange (NYMEX)  
One North End Avenue  
World Financial Center  
New York, NY 10282-1101  
(212) 299-2000  
[www.nymex.com](http://www.nymex.com)

OneChicago  
141 W. Jackson Blvd., Suite 2240  
Chicago, IL 60604  
(312) 424-8500  
[www.onechicago.com](http://www.onechicago.com)

Philadelphia Board of Trade (PBOT)  
1900 Market St.  
Philadelphia, PA 19103  
(215) 496-5000  
[www.phlx.com/pbot](http://www.phlx.com/pbot)

U.S. Futures Exchange (Eurex US)  
233 S. Wacker Dr., Suite 2450  
Chicago, IL 60606  
(312) 544-1100  
[www.eurexus.com](http://www.eurexus.com)