The FUTURES advantage

Experienced market participants know that futures offer unique short-term trading benefits. For those unfamiliar with futures, Part I of our two-part guide explains basic principles, highlights key trading concepts and helps minimize the risks of trading in this arena.

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In a bear stock market, traders are often hard-pressed to find quality trading opportunities, especially if they are uncomfortable operating from the short side of the market. Sometimes, looking outside equities into arenas such as futures can present fresh trading possibilities. Even in bullish stock market conditions, there has always been that dedicated group of traders that prefers futures over stocks, for a number of reasons.

Unfortunately, to some long-time stock traders, futures are intimidating trading instruments. In reality, though, there's essentially no difference between stock and futures from a strategic perspective. For the most part, the same approaches used to exploit short-term trading opportunities in stocks can be applied to futures, and vice versa.

However, futures have characteristics that make trading them slightly different from trading stocks: In addition to low margin requirements and some unique terminology, futures are contracts, which, like option contracts, have a limited life span.

Stock equity vs. futures contracts

When you buy a stock, you purchase a slice of that company and become an "equity shareholder." You benefit from the company's profitability through an increase in share value, dividend distribution, or both. But for the most part, the bottom line is that if the price of your stock goes up, you make money; if it goes down, you lose money.

Futures are no different. If you're long a futures contract and the price goes up, you make money; if not, you lose money. If you're short and the price goes down, you profit; if it rallies, you don't. Stocks and futures are traded much the same way, on exchanges (either trading floors or electronic exchanges) that, in the U.S., are regulated by the federal government. You can open an account with a registered broker and buy and sell futures. The distinguishing characteristic of futures is that they are contracts — they do not represent equity ownership, as do stocks.

When you trade futures, you are not trading an actual commodity or financial instrument — crude oil, Japanese yen, soybeans, T-notes, the S&P 500 index or whatever the case may be — you're only entering into a contract to buy or sell these instruments at a predetermined point in the future. The relationship between futures contracts and their underlying markets is discussed in the next section.

A contractual agreement

If you go long December 2002 crude oil futures at 26.20, you haven't purchased crude oil — you've entered into a contract to buy crude oil at that price in December 2002. You will be obligated to honor this contract and "take delivery" of the physical crude oil unless you sell your futures contract to someone else before the end of the exchange-designated delivery period for the December 2002 crude oil contract.

If your crude oil futures rally to 27.65 and you sell your contracts by the appropriate time, you will make a profit of 1.45, which, because each point in crude oil futures is worth $1,000, comes out to $1,450 per contract.

Similarly, if you had gone short December crude oil futures and had failed to offset (in this case, buy back) your position by the delivery period, you would be obligated to sell crude oil ("make delivery") at 26.20 in December. If you bought back your contracts at 27.65, you would have lost $1,450 per contract.

Futures exchanges dictate the conditions by which physical commodities are exchanged as the result of a futures trade. These rules are part of the contract specifications of each futures contract. Table 1 (p. 75) shows the contract specifications for the S&P 500 E-Mini futures traded at the Chicago Mercantile Exchange (CME). "Futures market groups" (p. 75) lists the different kinds of futures and the (domestic) futures exchanges at which they're traded. Page 76 provides a reference with more detail on futures and options exchanges, both domestic and international, as well as professional organization and regulators.

Delivery vs. cash settled

Many futures contracts (mostly those on physical commodities such as crude oil, gold, soybeans, coffee, corn and so on) are deliverable — that is, they can be exchanged at the designated time for the physical commodity underlying the contract.

Cash-settled futures, such as the S&P 500 index and S&P 500 E-Mini contracts, are not deliverable; they cannot be

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FUTURES TERMINOLOGY

Back month(s): The contract months that follow the current front month. Sometimes "back month" is used specifically to identify the contract immediately following the front-month contract. For example, in October, the current front month in the S&P futures is the December contract, because it is nearest to expiration. The next month in the series, March (of the following calendar year), is the back month.

Basis: The price difference between a futures contract and its underlying market (i.e., S&P 500 futures and the S&P 500 cash index). The basis is sometimes referred to as "premium" or "discount," depending on whether the futures are trading above or below the cash market. For example, if the S&P 500 index is at 975 and the futures are trading at 977, the futures are trading at a 2-point premium to the cash index; if the futures are trading at 973, they are at a 2-point discount to the cash index.

Carrying costs (or "cost of carry"): The cost of storing a physical commodity such as corn, oil or coffee over a period of time. Carrying costs include insurance and interest. These costs are reflected in the price of a futures contract.

Cash market: The market for immediate delivery and payment for commodities, also referred to as the "spot" market. The index upon which an index futures contract is based is also often referred to as "cash."

Cash-settled: A futures contract that is not deliverable. Instead, it is marked-to-market at expiration on a cash basis, and the difference between the contract price and the settlement price is credited or debited to the trader's account.

Commodity Futures Trading Commission (CFTC): Established in 1975, the CFTC regulates all futures and futures options trading in the U.S.

Contract: The unit of trading in the futures market. The contract size represents either the amount of the underlying physical commodity being traded or the nominal cash value of a cash-settled contract. For example, one corn contract on the Chicago Board of Trade represents 5,000 bushels, while one S&P 500 index contract at the Chicago Mercantile Exchange is measured as $250 times the index. The terms of futures contracts are determined by each exchange and are called the "contract specifications."

Contract months: The designated months a given futures contract is traded in. Many financial futures, including stock index futures, trade in the "quarterly cycle" — March, June, September, December. When one month expires, trading switches to the next month in the cycle.

Daily price limit (or daily limit): How far prices can move above or below the previous day's closing price in the following trading session before trading in that contract is halted.

Deliverable: A futures contract that can result in the exchange of a physical commodity, such as crude oil, gold, T-bonds and various grain contracts.

Delivery: The process of exchanging a physical commodity (and making and taking payment) as a result of the execution of a futures contract. Although 98 percent of all futures contracts are not delivered, there are market participants who do take delivery of physically settled contracts such as wheat, crude oil and T-notes. Commodities generally are delivered to a designated warehouse; T-note delivery is taken by a book-entry transfer of ownership, although no certificates exchange hands.

Delivery period (delivery dates): The specific time period during which a delivery can occur for a futures contract. These dates vary from market to market and are determined by the exchange. They typically fall during the month designated by a specific contract — e.g., the delivery period for December T-notes will be a specific period in December.

Expiration: The final day of trading for a futures contract. Expiration days vary from market to market.

Front month: The contract month nearest to expiration. On Aug. 1, the September S&P futures contract is the front month and the next contract in the S&P series, December, is the back month. In most cases, but not all, volume is concentrated in the front-month contract.

Futures Clearing Merchant (FCM): A firm or person engaged in soliciting, accepting and placing futures orders, and managing accounts for individuals as well as institutional investors — i.e., a futures broker. Many FCMs are well-known companies such as Merrill Lynch and Goldman Sachs.

National Futures Association (NFA): The NFA, which began operations in 1982, is a self-regulatory organization for the U.S. futures industry designed to protect investors in the futures markets. Firms and individuals who trade futures on behalf of the public must become members of the NFA.

Rollover: The process of one futures contract month expiring and the next futures contract month becoming the new "front month." Traders who have open positions in the expiring contract month must "roll" their positions forward to the next contract month by liquidating the existing position and re-establishing it in the new contract. For example, a trader long September S&P futures who wants to maintain his position after the September contract expires must sell his September futures by Sept. 20 (the expiration day for the September contract) and go long the December 2002 contract.

Tick: The minimum price fluctuation in a futures contract. For example, a tick in the T-bond futures is 1/32 (each tick is worth $31.25); a tick in crude oil futures is .01 ($10). In the S&Ps, a tick is .10 ($25).

Quoting futures

A futures ticker symbol designates the commodity or financial instrument being traded, the contract month and year. Generally, every futures contract has a one- or two-character symbol: For example, crude oil is CL, the Japanese yen is JY and the S&P 500 is SP.

Futures trade in distinct contract months and each month is designated by a different letter, as shown below.

Month	Symbol
January	F
February	G
March	H
April	J
May	K
June	M
July	N
August	Q
September	U
October	V
November	X
December	Z

Also, because some futures contracts can trade several years into the future, there may be a month for which trading is taking place in more than one year (e.g., both Dec. 2002 and Dec. 2003). Accordingly, the third element of a futures ticker symbol is the year. Sometimes the year is expressed in two digits ("03" designating 2003); sometimes it is shown as a single digit ("3").

For example, there are four distinct S&P 500 futures contracts for a given calendar year: March, June, September and December. These have unique ticker symbols: The December 2002 contract is SPZ02 (or SPZ2), the March 2003 contract is SPH03 (or SPH3); the June 2003 contract is SPM03 (or SPM3), the September 2003 S&P futures contract is SPU03 (or SPU3), and so on.

The December 2002 Japanese yen contract would be JYZ02 (or JYZ2); January 2003 crude oil would be CLF03 (or CLF3).

exchanged for a physical commodity. Cash settlement involves marking-to-market all open positions when a futures contract expires and debiting or crediting the difference between the futures contract trade price and the settlement price of the contract at expiration, which will be the same as the cash price that day. For example, if you bought a December 2002 S&P futures at 975.00, held the contract until expiration, and the contract settled at 995.00, your account would be credited the difference — 20 points, or $5,000 ($250 per point*20).

Contrary to myth (the trader who was long wheat futures wakes up one morning to find a truck dumping a mountain of grain on his front lawn), the vast majority of futures trades do not involve making or taking delivery of the underlying instruments — especially for short-term traders. Those transactions that do typically involve large commercial dealers and hedgers such as grain merchants, oil refineries and so on.

Most trades — especially shorter-term ones — are offset before delivery enters the picture. Short-term futures traders, like their stock counterparts, try to profit from the price fluctuations of futures contracts. They are not interested in owning or selling physical commodities.

Characteristics of futures contracts

Like any other type of contract, including options, futures have finite life spans. Unlike stocks, which represent essentially the same asset (aside from their values) month after month and year after year, futures are traded in series of contract months, each of which is a unique asset.

For example, Oracle (ORCL) was Oracle last year and presumably still will be next year. By contrast, the crude oil available for delivery next month is not the same crude oil that will be available for delivery eight months from now; last season's corn crop is not the same as this season's. For the same commodity, each contract month is a specific asset with different factors affecting its price.

The S&Ps, T-notes, foreign currencies and many other financial futures trade in contract months of March, June, September and December, which is referred to as the "quarterly" expiration cycle. See "Quoting futures," left, for more information on futures contract months and price-quoting conventions.

Contract size refers to the amount of the underlying commodity represented by a single futures contract. For example, corn, wheat and some other agricultural commodities trade in contracts of 5,000 bushels. Crude oil trades in contracts of 1,000 barrels. To determine the value of a futures contract based on a physical commodity, simply multiply the contract size by the current contract price. With January crude oil futures trading at 26.10, the value of one December crude oil contract is $26,100 (26.10*1,000 barrels).

For some cash-settled futures, including stock index futures such as the S&P 500 futures, the contract size and value (which is nominal) is calculated by multiplying the contract price by a dollar figure. For example, the dollar multiplier for the S&P 500 futures contract is $250. With the December S&P futures trading at 975.00, the value of a single contract is $243,750 (975*$250). If the S&P E-mini futures, which are one-fifth the size of the regular S&P contract, were trading at 975, the contract value would be $48,750 (975*50).

Benefits: Flexibility and leverage

From a practical standpoint, the big differences between futures and stocks are the absence of short-selling regulations and lower margin requirements for futures.

Futures can be sold short as easily as they can be bought — it's not necessary to wait for an uptick, as is the case when short-selling stocks. This is a significant advantage for short-term traders who need to be able to operate on both sides of the market. (Index-tracking stocks such as SPYand QQQ, and options, provide similar benefits, as will be discussed in next month's installment.)

The second advantage of futures (although it has a downside, explained in the following section) is their increased leverage relative to stocks. Fifty percent margin (2-to-1 buying power) is the maximum allowable leverage for an overnight stock position (25 percent, or 4-to-1 buying power, for pattern day traders), but margin in the futures market varies from contract to contract and is often less than 10 percent.

In early August, the required margin (often referred to in the futures industry

TABLE 1 CONTRACT SPECIFICATIONS

Exchanges determine the contract size, expiration date, delivery terms and other contract details on the futures they trade. These contract "specs" are for the S&P 500 E-Mini futures.

Ticker Symbol	ES
Contract Size	$50 times E-mini S&P 500 futures price
Price Limits	5%, 10%, 15% and 20%
Minimum Price Fluctuation (Tick)	.25 index points = $12.50 per contract (Futures calendar spreads: .10 index points = $5 per contract)
Contract Months	March, June, Sept., Dec.
Regular Trading Hours (Central Time)	Virtually 24 hours per day (from 5:30 p.m. Sunday to 3:15 p.m. Friday)
Last Trading Day	Trading can occur up to 8:30 a.m. (CT) on the third Friday of the contract month
Final Settlement Date	The third Friday of the contract month
Position Limits	Position limits work in conjunction with existing S&P 500 position limits

Source: Chicago Mercantile Exchange (www.cme.com)

as the "performance bond" or "good-faith deposit") for the S&P futures was roughly 7 percent. This means that to buy one S&P contract trading at 975.00 (with a value of $243,750) you would need approximately $17,000 in margin to hold your position. Leveraging an equivalent dollar amount of stock would require $121,875 because of the 50-percent margin rate. This means that if the market rallies, your percentage gain will be much larger for your futures position than the comparable stock position.

The risk of futures: Leverage and liquidity

The leverage that makes large percentage gains possible in futures trading also makes possible equally large percentage losses. If your position moves against you when you are trading on minimum margin, you can lose more than your initial investment. This is why futures are often believed to be exceptionally risky.

However, traders who take conservative risk control measures — i.e., those who place and adhere to stop orders that keep losses small — reduce the risk that comes with increased leverage. For example, if you're trading the S&P futures and your stop order is 4 points away from your entry (with each point representing $250), your dollar risk is $1,000 per contract. Barring excessive slippage or a complete market meltdown, losing most or all of your money is not likely to happen. How much of a percentage risk $1,000 represents depends on how much cash you have in your trading account. If your current account equity is $50,000, your risk on this trade is 2 percent.

Also, traders sometimes forget that no one is forced to trade on minimum margin. Futures industry regulations and exchange margin rates may make it possible for you to trade on minimum margin (exchanges set futures margin rates and brokers can set higher, but not lower, rates), but they do not require you to do so. By trading with more money than is minimally required, you automatically reduce the risk of disproportional losses.

Another consideration in the futures markets is liquidity. The most popular contracts are highly liquid and pose few execution problems, except on occasion for the largest traders or in fast-market conditions. However, the lack of liquidity in less popular and new futures contracts can result in wide spreads and greater slippage.

Finally, some traders think having to deal with ongoing contract expirations and "rollovers" (carrying over an open futures position from one contract month to the next) makes futures trading more cumbersome and costly than stock trading. Next month, we'll examine this issue and other practical aspects of trading futures.

Futures market groups

Futures contracts fall into several broadly defined groups. Although futures were originally traded on agricultural products, financial futures now account for the vast majority of futures trading volume. The contracts listed here represent some of the higher-volume instruments in the different groups, but other contracts exist.

Financials
Stock indices: S&P 500 (and E-Mini); S&P Midcap 400 (and E-Mini); Nasdaq 100 (and E-mini); Dow Jones Industrials (and mini-sized; CBOT); Russell 2000 (and E-Mini); Nikkei 225; Fortune e-50.
Primary U.S. exchange: CME.

Interest rates: T-bonds; T-notes; Fed Funds; Eurodollars; T-bills; LIBOR.
Primary U.S. exchanges: CBOT and CME.

Currencies: Eurocurrency; Japanese yen; Swiss franc; British pound; Australian dollar; Canadian dollar; Mexican peso; Brazilian Real; Russian Ruble; New Zealand dollar.
Primary U.S. exchange: CME.

Energy
Crude oil; heating oil; gasoline; natural gas.
Primary U.S. exchange: NYMEX.

Metals
Gold; silver; platinum; copper; palladium; aluminum.
Primary U.S. exchange: NYMEX.

Agricultural
Soybeans; soybean oil; soybean meal; corn; wheat; rice; oats.
Primary U.S. exchange: CBOT.

Meats
Live cattle; feeder cattle; pork bellies; lean hogs; pork cutouts.
Primary U.S. exchange: CME.

Food and Fiber
Coffee; sugar; cocoa; lumber (CME); cotton; frozen concentrated orange juice.
Primary U.S. exchange: NYBT.