

Short Course in Futures and Options

Rutsen Meier Belmont (RMB) Group

This material has been prepared by a sales or trading employee or agent of R.J. O'Brien and is, or is in the nature of, a solicitation. This material is not a research report prepared by R.J. O'Brien's Research Department. By accepting this communication, you agree that you are an experienced user of the futures markets, capable of making independent trading decisions, and agree that you are not, and will not, rely solely on this communication in making trading decisions.

DISTRIBUTION IN SOME JURISDICTIONS MAY BE PROHIBITED OR RESTRICTED BY LAW. PERSONS IN POSSESSION OF THIS COMMUNICATION INDIRECTLY SHOULD INFORM THEMSELVES ABOUT AND OBSERVE ANY SUCH PROHIBITION OR RESTRICTIONS. TO THE EXTENT THAT YOU HAVE RECEIVED THIS COMMUNICATION INDIRECTLY AND SOLICITATIONS ARE PROHIBITED IN YOUR JURISDICTION WITHOUT REGISTRATION, THE MARKET COMMENTARY IN THIS COMMUNICATION SHOULD NOT BE CONSIDERED A SOLICITATION.

The risk of loss in trading futures and/or options is substantial and each investor and/or trader must consider whether this is a suitable investment. Past performance, whether actual or indicated by simulated historical tests of strategies, is not indicative of future results. Trading advice is based on information taken from trades and statistical services and other sources that R.J. O'Brien believes are reliable. We do not guarantee that such information is accurate or complete and it should not be relied upon as such. Trading advice reflects our good faith judgment at a specific time and is subject to change without notice. There is no guarantee that the advice we give will result in profitable trades.

SHORT COURSE IN FUTURES AND OPTIONS

WELCOME TO THE WORLD OF FUTURES AND OPTIONS!

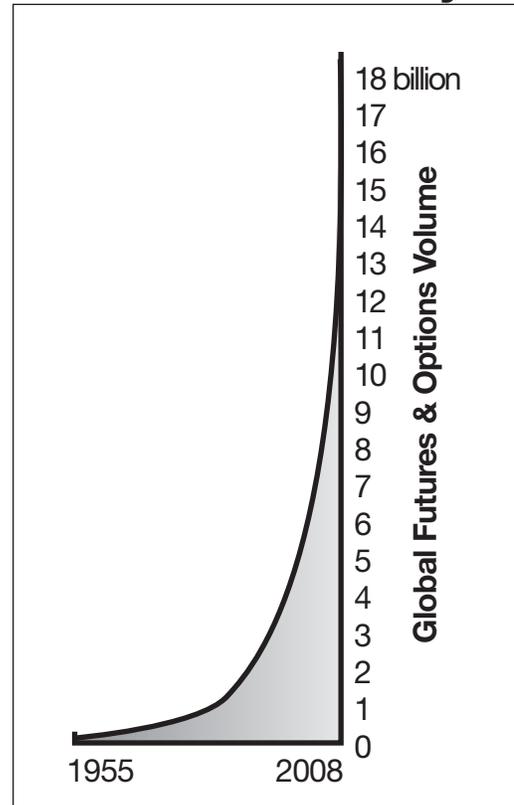
The success of the international futures and options markets is one of the most incredible investment stories of all time. The popularity of these once-obscure trading instruments has grown exponentially in a very short time. From 1988 to 2000, volume more than quadrupled — from under 500 million contracts to over 2 billion contracts — and then quadrupled again in just 4 years.

Approximately 9 billion futures and options contracts changed hands in 2004. In 2008, 17.7 billion contracts were traded, nearly double again. There is a reason for this incredible growth: futures and options may enable large corporations, professional money managers and savvy individual investors to *actually reduce risk and increase returns in their portfolios*.

Once you've read and processed the information in this report, you'll have at hand the *professional investment techniques* covering markets from soybeans to the stock market that, until recently, were "well-kept secrets" of a select few.

Formerly the domain of agricultural products like soybeans and coffee or hard assets like silver and gold, futures and futures options have become an indispensable part of global finance — as important to the American economy as the New York Stock Exchange, as critical to the world economy as the European and Asian bourses that have recently grabbed the attention of the American investor. Today there are futures and options contracts covering everything from foreign currencies to natural gas and from short-term Eurodollars to the NASDAQ 100. There are even futures contracts on individual stocks.

Grand Success Story



Since ancient Greece first traded olives, the simplicity and flexibility of options and futures contracts have made them one of the world's premier investment vehicles, in large part, because they offer pure price plays not available in any other investment vehicle. The chart above reveals this explosive growth from 1955 — when only 4.1 million contracts traded — to over 17 billion in 2008.

Data Source: Futures Industry Association

FUTURES ARE LIQUID AND VISIBLE

In nearly every case, these markets are liquid and public. Prices are determined by the “open outcry” of trades in a “ring” or “pit” or via an electronic auction taking place at light-speed in a computer. What does this mean for the individual investor? It means you enjoy the same advantages professional traders have for years, just as cheaply.

Whether you know it or not, you are probably participating in the futures and option markets already. The next time you receive a prospectus from a mutual fund, open it up and actually read it! The chances are good your fund uses futures and options to insure itself against catastrophic losses in its portfolio. *You* can use futures and options in exactly the same way. In fact, you can use them *in place of* traditional instruments like stocks, bonds and mutual funds, often with greater safety and for less cost than many “traditional” investment alternatives.

For most of their 2,000-year history, options have been a mystery to most investors. While that is changing, most individual investors have only a vague notion of options. What we aim to do is remove some of the mystery by explaining options in clear and concise terms.

This report will introduce you to some simple tools you can use to help plan for and profit from emerging trends in the global marketplace without “betting the farm” or committing more than a small share of your financial resources at any one time. In many cases, these tools will work as well for investors with a few thousand dollars as they will for investors with millions of dollars. Don’t worry if you don’t “get it” right away. Read this report, put it down for a day or two and then go over it again. A couple of careful readings can help clarify things for you.

FUTURES CONTRACTS

MYTHS AND REALITIES / RISKS AND REWARDS

There is a great deal of mystique surrounding futures contracts. Many respected financial professionals, including most stockbrokers and financial advisors, will caution you against getting involved in futures and options. Many will dismiss these markets as nothing more than pure speculation. In part they are right. If you use the traditional “roll the dice” methodology practiced by many beginning traders and brokers your odds of success are very low. Because they can involve a high degree of leverage, futures and options may entail a high degree of risk. But when used properly, they may provide exciting and very substantial rewards.

A futures or “commodity” contract is an agreement between two people. The “seller” of a futures contract agrees to deliver a specific item to the “buyer” of the contract for a certain price on a fixed date in the future. The buyer of a futures contract agrees to take delivery of the same item under the same terms. The buyer of a futures contract is said to be “long” the market. The “seller” of a futures contract is said to be “short” the market.

Futures contracts are essentially “paper transactions” in that they do not involve the purchase and sale of the actual investment instruments themselves. They are contracts for *delivery* at a future date. Because no delivery takes place prior to a specified period, no money actually changes hands.

The buyer of a futures contract does not have to pay money and the seller of a contract does not receive any money. Rather, both the buyer and the seller must post margin with their respective brokers. Margin requirements are set by the individual exchanges and, for the most part, are based upon volatility and not price. Unlike stocks, the treatment of long and short futures contracts positions is identical. Unlike a short seller in stocks, the seller of a futures contract does not need to “borrow” his contract from another party — making it just as easy to sell as to buy.



Unlike stock margin, margin to trade a futures contract is not a down payment on a loan. It is a performance bond that guarantees your broker that you are good for a fixed amount of losses. Not only do you not pay interest on a margin deposit, you can receive interest while using the money to back up your positions. How? By posting margin with your broker in the form of a U.S. Treasury bill. Since a T-bill is backed by the U.S. government it is nearly as good as cash, so most brokers accept it. Meanwhile, you get to keep the interest.

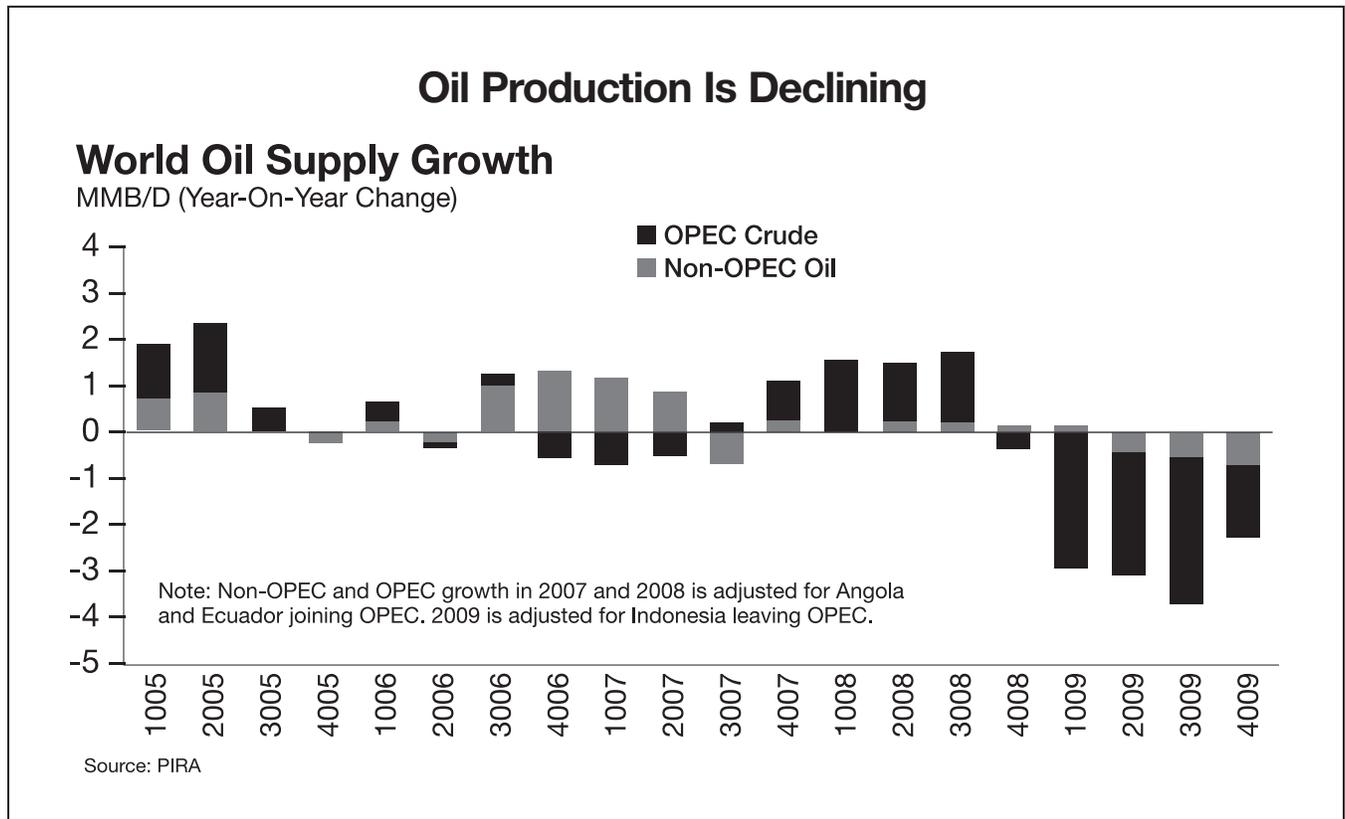
LEARNING EXAMPLE

CREATE YOUR OWN OIL WELL USING FUTURES CONTRACTS

Even with the economic meltdown of 2008, one of the biggest macro-economic stories of our era is the growth of the global economy. Exploding growth in Latin America, India and China have dramatically increased the market for essential commodities. The

world's most essential commodity is crude oil. Not only does the global economy run on crude oil, but most of the world's supply comes from the politically unstable Middle East. This makes "black gold" extremely vulnerable to price spikes.

There are five possible ways to profit from higher crude oil prices: 1) You could rent a tank farm, fill up your tanks with crude oil and wait. This is highly impractical for the majority of investors. 2) You could buy stock in an energy company like Chevron or ExxonMobil. 3) You could purchase an energy mutual fund or ETF. 4) You could buy crude oil futures contracts. 5) You could buy crude oil options.



Since owning crude itself is out of reach for most investors, we will compare the risks and rewards of the other four alternatives. We will also use this comparison to highlight some of the characteristics of futures and options.

Let's look at the crude oil futures traded on the New York Mercantile Exchange (NYMEX), a division of the CME Group. **Table 1** is a reproduction of a daily price listing from *The Wall Street Journal's* website. Daily prices of other major international futures contracts can be found in *Investors Business Daily* and *The Financial Times*. Perhaps the most complete listing of global futures and options prices is weekly on *Barron's* website. Also, nearly every major exchange has prices for futures and options listed on its website.

Table 1**Crude Oil, Light Sweet (NYM)-1,000 bbls.; \$ per bbl.**

| | Open | High | Low | Settle | Chg | LIFETIME | | Open Int |
|--------|-------|-------|-------|--------|-------|----------|-------|----------|
| | | | | | | High | Low | |
| Sep 09 | 72.15 | 72.88 | 71.65 | 72.54 | +0.12 | 142.60 | 44.28 | 19,934 |
| Oct 09 | 73.55 | 74.07 | 72.53 | 72.91 | -0.92 | 125.66 | 45.13 | 268,230 |
| Nov 09 | 74.47 | 74.95 | 73.46 | 73.77 | -1.02 | 125.63 | 45.87 | 122,279 |
| Dec 09 | 75.48 | 75.74 | 74.22 | 74.52 | -1.04 | 146.86 | 22.50 | 167,496 |
| Jan 10 | 76.25 | 76.31 | 75.01 | 75.24 | -1.02 | 139.00 | 47.31 | 38,379 |
| Feb 10 | 76.89 | 76.89 | 75.72 | 75.90 | -1.02 | 117.00 | 47.60 | 29,900 |
| Mar 10 | 77.61 | 77.61 | 76.23 | 76.46 | -1.07 | 141.30 | 48.78 | 21,475 |
| Apr 10 | 77.47 | 77.47 | 76.96 | 76.95 | -1.12 | 116.70 | 51.00 | 12,784 |
| Dec 10 | 80.10 | 80.51 | 79.46 | 79.60 | -1.12 | 145.07 | 27.15 | 98,518 |
| Dec 11 | 81.49 | 81.96 | 81.49 | 81.38 | -1.12 | 143.54 | 36.10 | 41,390 |
| Dec 12 | 83.01 | 83.01 | 83.01 | 82.81 | -1.11 | 143.13 | 59.00 | 50,191 |
| Dec 13 | 84.97 | 84.97 | 84.97 | 84.59 | -1.03 | 142.00 | 64.00 | 18,792 |
| Dec 15 | 89.51 | 89.51 | 89.51 | 89.04 | -0.95 | 142.70 | 66.04 | 16,520 |

Est vol n.a.; vol Wed 790,932; open int, 1,171,277, -1,895.

(Editor's note: You can also access quotes for futures prices on all major exchanges by going to www.rmbgroup.com and clicking on the "quotes and charts" link.)

Note that the contract size is 1,000 barrels and that it trades in dollars and cents per barrel. The settlement price of \$74.52 for the December contract means that on the close of trading that day, one barrel for delivery in December of 2009 was worth \$74.52. To find the dollar value of one December crude oil contract, simply multiply the contract size of 1,000 barrels times \$74.52. At the close of trading on this day, one December of 2009 crude oil contract was worth approximately \$74,520 (\$74.52 times 1,000 barrels equals \$74,520).

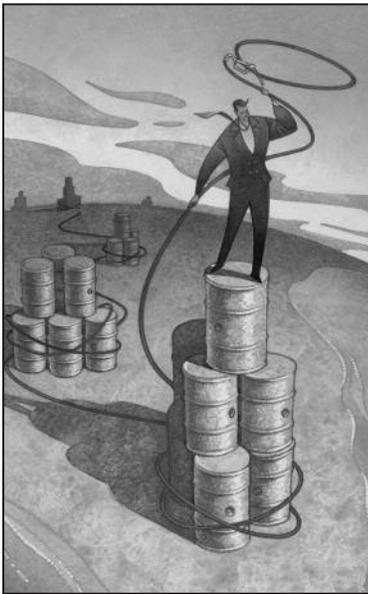
As of this writing, the margin (or performance bond) required to trade a crude oil futures contract is \$7,800. Assume, for example, that you purchased a December crude oil futures contract at the settlement price of \$74.52 and the following day crude oil rose 2% to \$76.01. How much would you make? Simply subtract \$74.52 from \$76.01 and multiply by the contract size of 1,000 barrels and you get \$1.49 times 1,000 or \$1,490. This return of 19% on your margin of \$7,800 would be *physically added* to your futures account on the next trading day. You would be able to withdraw it and still hold the position. Conversely, if instead of rising, the price of crude oil *declined* by 2%, that same \$1,490 would be *physically deducted* from your futures account.

✓ **Important Point:** Unlike stocks or the purchase of options, there is no such thing as a paper gain or loss in futures. Both are realized immediately.

You could be required to add more money to the account in order to meet your minimum margin (performance bond) requirement. This is known as a margin call. If the value of crude oil dropped far enough to exhaust the amount of cash in your trading account, your position would be liquidated and you would be responsible for any additional money required to bring your account back to zero. It becomes obvious quickly that if all you have to trade with is \$7,800, crude oil futures are probably not for you. A good rule of thumb is to have at least *twice the minimum margin* required to trade any futures contract.

Assume you believed that the price of crude oil was going to increase. Instead of spending \$74,520 for an equivalent amount of crude or energy stock, you could set up a futures account, deposit two times the initial margin (or \$15,600) and buy a December crude oil futures contract.

Take the difference between the \$74,520 you would have spent for a crude oil or equivalent stock position and the \$15,600 futures market margin and invest it for two years in super safe T-bills or short-term Treasury notes. You now have a well-margined futures position with the bulk of your money busy earning interest somewhere else.



The commission to do this trade should cost no more than \$50 for the futures contract and \$50 to purchase the T-bill (T-bills can be purchased for no charge directly from a Federal Reserve bank.) The futures commission is quoted “round-turn”, including both the cost to buy *AND* sell.

Compare this with the incredible costs of owning crude outright (tank rental et al.) or the diluted results of owning an energy company or “targeted” energy mutual fund. There is no guarantee that the stocks of energy-related companies will rise in tandem with the price of crude oil. Differences in management, inventory practices and the overall direction of the stock market can cause the price of an energy company or set of companies to fall, despite an increase in crude prices. Owning crude outright via the futures market offers a “pure play” advantage you cannot get anywhere else — outside of owning the physical crude outright. This advantage extends to other markets as well.

THE OPTION ALTERNATIVE

Options are not necessarily “better” than actual futures contracts, but generally require less time, money and stress than futures. While they are not a panacea, they do eliminate the need for stop loss orders, providing the investor with far more staying power. But this isn’t their only advantage.

By keeping the lion’s share of your resources in safe, income-producing instruments and by using leverage wisely, it is possible to dramatically improve the overall performance of your investment portfolio with a degree of risk acceptable to even the most conservative investor. This section of the report concentrates on futures options, but you can use what you learn here to get a good working knowledge of stock options, too.

THREE WISHES

What if your fairy godmother visited you and offered to tailor-make an investment for you. Although she couldn't guarantee profits or provide a sneak peak at tomorrow's paper, she would offer to construct your investment based on three wishes. What would you wish for?

Chances are you would pick the following:

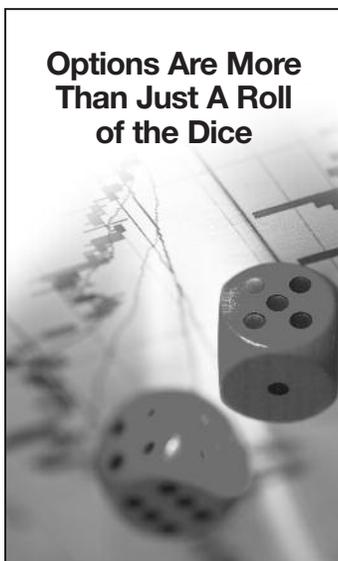
- 1. Potential for above average returns** — this is the wish of every investor. Who doesn't want be the one to find the pot of gold at the end of the rainbow?
- 2. A well-defined, limited level of risk** — no opportunity is worth “mortgaging the farm”. Limiting one’s risk is essential to capital preservation and peace of mind.
- 3. Easy to track, easy to buy and sell** — our investment should be as easy to buy, sell and track as a well-capitalized stock.

You do not need a fairy godmother to create this dream investment. It is called an option. Options have the potential for above average returns. They offer a well-defined, level of risk and are as easy to buy and sell as most stocks. “*Wait a minute,*” you say, “*aren’t options speculative? Don’t most people who trade them lose?*” Options are speculative, but so are many stocks. Most people who trade options do lose. Like the typical futures investor, they use these powerful instruments to “roll the dice”. Emboldened by the limited risk of options, careless traders often abandon good sense in search of instant riches. This is a formula for disaster in any investment.

OPTIONS ARE MORE THAN JUST TRADING VEHICLES

Nearly every “how to” book on options views them as trading vehicles. The fact is most investors do not have the time, the computer programs or the personalities to “trade” options successfully. *That’s why we recommend using options as tools to capitalize on big-move macro events* like “peak oil”, changing global interest rates or critical weather events that would be otherwise untouchable because of the capital requirements and/or high risk nature of more traditional alternatives.

Options are largely misunderstood, as much if not more than futures contracts. The same people who tell you to stay away from futures will tell you to stay away from options. Options are a favorite tool of professional investors precisely because they are one of the most flexible investment tools ever devised. The trading desks of central banks, multinational corporations and governments use options both to lock-in the risks of their large investments and as surrogates for future investments. The phenomenal growth of global option markets is the direct result of the benefits they provide. There are options on many, if not most, of the major international futures contracts.



WHAT OPTIONS ARE NOT

Options are not a get-rich-quick scheme. You can make or lose a lot more money a lot faster by trading futures. As a rule, commodity options are a slower way to play the futures game. However, it is important to understand that, no matter how good you are, you will experience losses trading options. Losses are as much a part of successful option trading as falling is when learning how to ski.

Bumps and bruises are part of the learning process. In fact, if you believe you are incapable of accepting losses from time to time (either financially *or* psychologically), futures and options are probably not for you. If you are among those willing and able to take relatively small, fixed and calculated risks in search of much larger percentage gains, read on!

OPTIONS MADE EASY

Perhaps one of the biggest barriers to understanding options is the inability to understand their basic premise. Investors tend to get caught up in the jargon rather than what they are buying and selling. As a result, they lose their way when introduced to more advanced strategies – especially the concept of selling options.

Stocks and mutual funds are a little easier to get a handle on. When you buy and sell stocks or mutual funds, you actually buy and sell pieces of a company itself. The same goes for bonds, land or precious metal bullion. In all cases you are dealing with physical assets — something tangible.

- ✓ **Important Point:** When you buy and sell options you are not exchanging anything physical. Rather you are exchanging **rights** and **obligations**.

Call Buyer



Call Seller

- Pays premium.
- Has right to exercise resulting in a long position in the underlying futures.
- Time works against buyer.

- Collects premium.
- Has obligation if assigned resulting in a short position in the underlying futures contract.
- Time works in favor of the seller.

Put Buyer



Put Seller

- Pays premium.
- Has right to exercise resulting in a short position in the underlying futures.
- Time works against buyer.

- Collects premium.
- Has obligation if assigned resulting in a long position in the underlying futures contract.
- Time works in favor of the seller.

There are two types of options: calls and puts. A CALL BUYER pays money in exchange for *the right but not the obligation to buy something*. A PUT BUYER pays money in exchange for the *right but not the obligation to sell something*. Conversely, a CALL SELLER receives money in exchange for the *obligation to sell something*. A PUT SELLER receives money in exchange for the *obligation to buy something*.

Think of it this way...when you hire someone and pay them a wage, you have a

right to tell them what to do. When you work for someone and accept a paycheck you have an *obligation* to do the work assigned to you. Options buyers have rights. Option sellers have obligations. For every buyer there must be a seller and vice versa.

Let's use two hypothetical examples:

1) The Land Speculator: An example of the power of call options

Let's say a land speculator wants to buy 100 acres of land in an area he thinks is ripe for development, but doesn't want to lay out a large sum of money to purchase it outright. He approaches the owner of that land and offers \$50.00 per acre to grant him (the speculator) an option to purchase it for the going price of \$1,000 per acre, for one year. Assuming he accepts the speculator's offer, the owner now has an obligation to sell at that price.



If no development occurs by the end of the year the owner gets to keep the \$5,000. The speculator loses \$5,000. However, the speculator **AVOIDS** the mortgage payments, closing costs, lawyer's fees and other expenses associated with a failed land speculation. His working capital intact, he walks away from the deal free and clear, with plenty of capital to try again.

Let's assume, on the other hand, that a development company shows an interest in the land, and in the process, drives its market value up to \$1,300 per acre. Since the original owner is obligated to sell to the land speculator for \$1,000 per acre, the land speculator reaps an immediate windfall of \$300 per acre. He doesn't even need to physically purchase and resell the land to profit! Instead, he can sell his option to someone else, perhaps the developer.

How much will he get? At least the difference between the \$1,000 per acre purchase right and the new \$1,300 per acre market value. \$300 times 100 acres equals \$30,000...a six-time return on his original investment of \$5,000! The original owner has lost the opportunity to sell at \$1,300 per acre, but is still \$5,000 richer than he had he originally sold the land outright! In this scenario, both he and the land speculator make out better than if they consummated the deal without the benefit of an option.

2) Your Homeowner's Policy: an example of the power of put options

Did you know that every time you buy an insurance policy you are essentially buying a put option? It's true. Let's use a homeowner's policy as an example. When



you sign on the dotted line and write your check you are essentially buying *the right* to sell your house back to the insurance company for a certain value, under certain conditions, for a limited period of time. By accepting your money, the insurance company has taken on an obligation to buy your house back from you under the same terms. The longer your policy has to run, the more the insurance company will charge you. A six-month policy obviously costs less than a twelve-month policy. It works the same way with options.

Similarly, in order for you to collect on your policy, certain conditions must be met. Most policies require a catastrophe before they pay off. The more vulnerable your home is to one, the more you will pay. In order for put options to pay off for the buyer, the underlying market must go down. The more negative the market outlook, the more the put buyer will have to pay. We will revisit the insurance analogy again, precisely because options and insurance have so much in common.

- ✓ **Important Point:** The amount a buyer pays or a seller receives for an option is called the “premium” – the same terminology used in insurance.

EXCHANGE-TRADED OPTIONS AND THEIR ADVANTAGES

An option buyer has two big advantages over an insurance policy holder. First, most exchange-traded options are not subject to the rigorous terms and conditions of many insurance policies. A disaster is not necessary for them to “pay off”. In the case of a call, the market has to go up. In the case of a put, the market has to go down. It is that simple.

Secondly, unlike the policyholder in the previous example, buyers and sellers of exchange-traded options are free to offset or add to their positions at any time during market hours. If you change your mind about a position for any reason, you can exit by simply selling it at the going rate. (Try doing that with your homeowner’s policy!)

You do not need to spend time searching around for someone to take the option off your hands. The exchange acts as the middleman. It is the seller to all buyers and the buyer to all sellers. Prices of options are determined by an open outcry of traders in a “pit” or “ring”. For the most part, options are as easy to buy and sell as stocks. This makes them an ideal investment for investors who wish to take advantage of or protect themselves from big market moves. This can be done without the expense and risk of

buying or selling these markets outright. This is why the pros use them.

- ✓ **Important Point:** *Since movements in the underlying market are reflected in the price of options, holders do not have to “exercise” their options in order to take profit or cut losses. Taking profits and cutting losses is as simple as calling your broker and exiting your option.*



A SHORT COURSE IN OPTIONS

CALL BUYER — wants the market to go up. The call buyer **PAYS MONEY** in exchange for the right but not the obligation to **BUY** the underlying instrument (stock or futures contract) at a specified price for a limited period of time.

- The call buyer is like the land speculator in our example.
- He makes money only if the underlying market goes up.

CALL SELLER — does not want the market to go up. The call seller **RECEIVES MONEY** in exchange for granting the right to buy to the call buyer. The call seller has an obligation to SELL the underlying instrument to the call buyer at a certain price for a limited amount of time.

- The call seller is like the landowner in our example.
- He makes money if the underlying market does not go up.
(*Note: the market does not need to go down. It just can't go up a lot.*)

PUT BUYER — wants the market to go down. The put buyer **PAYS MONEY** in exchange for the right but not the obligation to **SELL** the underlying instrument at a specified price for a limited period of time.

- The put buyer is like the homeowner in our example.
- He makes money only if the price of the underlying instrument goes down a lot.

PUT SELLER — does not want the market to go down. The put seller RECEIVES MONEY in exchange for the obligation to buy the underlying investment from the put buyer at a specified price for a limited amount of time.

- The put seller is like the insurance company in our example.
- He makes money if the underlying instrument does not go down. (*Note: the underlying instrument does not need to go up. It just can't go down.*)

THE INFORMATION AND OPINIONS CONTAINED HEREIN COMES FROM SOURCES BELIEVED TO BE RELIABLE, BUT ARE NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE RISK OF LOSS IN TRADING FUTURES AND/OR OPTIONS IS SUBSTANTIAL. EACH INVESTOR MUST CONSIDER WHETHER THIS IS A SUITABLE INVESTMENT. WHEN TRADING FUTURES AND/OR OPTIONS, IT IS POSSIBLE TO LOSE MORE THAN THE FULL VALUE OF YOUR ACCOUNT. ALL FUNDS COMMITTED SHOULD BE RISK CAPITAL. PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

BASIC OPTION TERMS

The Underlying Instrument: What you have the right (or the obligation if you are an option seller) to buy and sell. It could be shares of stock, foreign currencies or a futures contract on crude oil, gold or soybeans.

- ✓ **Important Point:** *No matter what the underlying instrument, options work the same way — they are all affected by the same factors.*

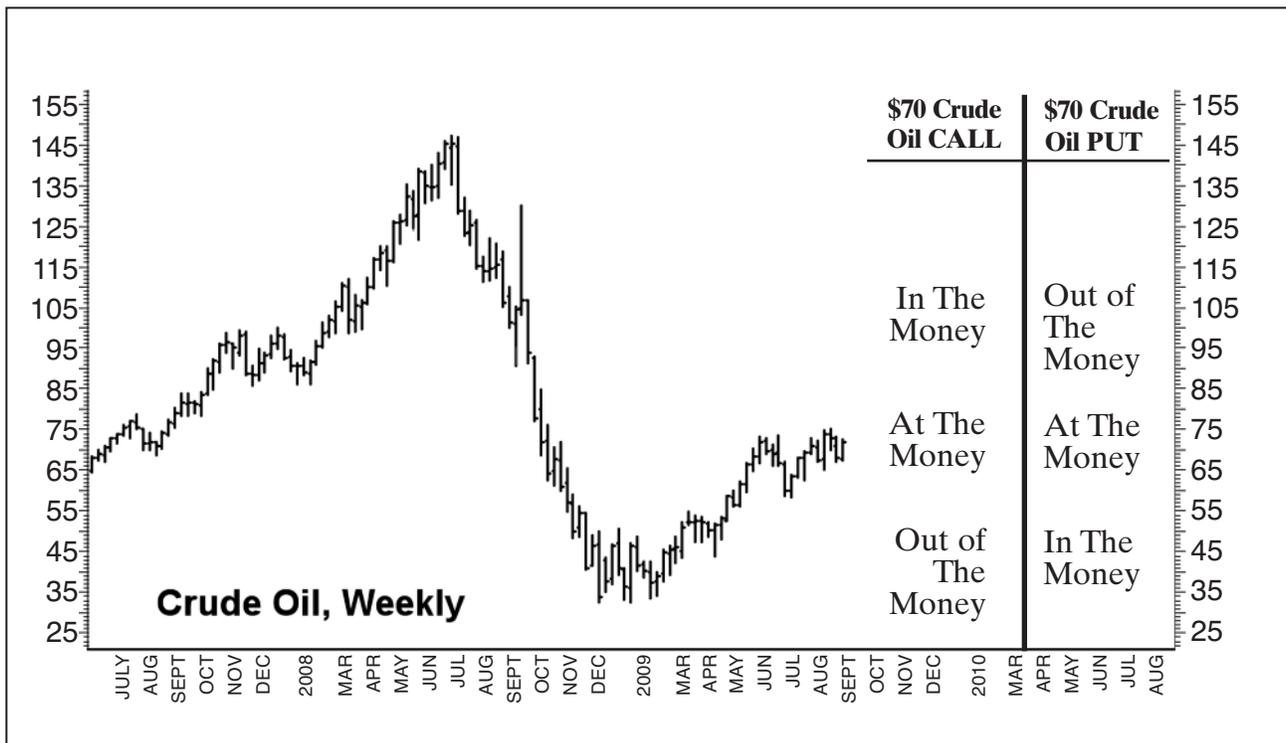
The Premium: the amount you pay when you buy an option and the amount you receive when you sell an option.

The Expiration Date: the date that the option expires — it is important to know the expiration date because time until expiration is a major factor in determining an option's fair price. An option is known as a “wasting asset”. It loses value with the passage of time.

The Strike Price: the price at which you can exercise your option. This price is based on the underlying instrument. Call option buyers have the right to buy and call option sellers have the obligation to sell the underlying instrument at the striking price. Put

option buyers have the right to sell and put option sellers have the obligation to buy at the striking price.

- 1) **In-the-money** — calls are “in-the-money” if the price of the underlying instrument is **HIGHER** than the striking price. Puts are “in-the-money” if the price of the underlying instrument is **LOWER** than the striking price. Using our crude oil example, a \$70 put is “in-the-money” with crude oil at \$45. (See chart entitled “**Crude Oil, Weekly.**”)
- 2) **At-the-money** — the price of the underlying instrument is identical to the striking price. Same for both puts and calls.
- 3) **Out-of-the-money** — calls are “out-of-the-money” if the price of the underlying instrument is **LOWER** than the striking price. Puts are “out-of-the-money” if the price of the underlying instrument is **HIGHER** than the striking price. Again, using our crude oil example, a \$70 call is “out-of-the-money” if crude is at \$45. (See chart entitled “**Crude Oil, Weekly.**”)



OPTIONS AS INSURANCE

Understanding what happens when you buy an insurance policy is the key to understanding options. Most of us spend a good deal of money insuring the things we care about — our homes, cars, health and lives. The typical insurance buyer doesn't expect to get into a car accident or have his house burn down. Most of us don't expect to get sick — at least not often. Yet we spend a large portion of our adjusted gross incomes on insurance to protect ourselves *just in case*.

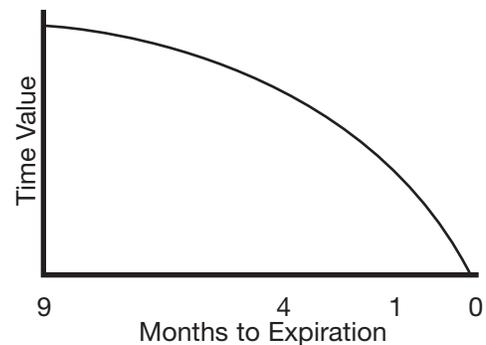
Knowing we are covered frees us to plan for the long-term without the fear of unforeseen events. Sure, we complain when we write checks to the insurance company. But for the most part, we are willing to trade this recurring expense for peace of mind. What does this have to do with option investing? Plenty.

THREE MAJOR FACTORS THAT DETERMINE THE PRICE OF OPTIONS

- 1) Distance Of The Strike Price From The Market Price** — For out-of-the-money options, the closer the market is to the option's strike price, the more valuable the option will be.
- 2) Time Until Expiration** — the longer an option has to work, the more expensive it will be. A one-year homeowner's policy costs more than a six-month policy. Time is money and option prices reflect this. For example, all things being equal, a September option will always cost more than a June option with the same strike price.
- 3) Volatility** — the more volatile the market, the more expensive the option will be. Because the probability that the option seller will have to meet his obligation rises in direct proportion to volatility, he will demand more money.

Dissipation of Time Value

The figure below shows the decay in an option's time value over time.



Note that the decay is not linear. Time erodes much more quickly in the last few weeks of the option's life than it does in the first few weeks.

Hurricane insurance will always cost more in Florida than it will in Chicago. Options work the same way.

INSURING AGAINST THE LOSS OF OPPORTUNITY

An investor can use options to protect against the potential loss of *opportunity*. Like most of us, you've probably experienced the regret that comes from not capitalizing on a solid investment hunch. Perhaps you didn't buy a stock you had your eye on when it was low because you were afraid it might go lower. You read the paper three months later and were devastated to see its price soared. Or you felt interest rates were going to fall dramatically, yet you didn't act and buy bonds in time to capture handsome capital gains. We've all been there. This type of procrastination is common and usually based on a fear of major losses. *Here's how to reduce your fear and increase your chances for profit.*

By using options as a low cost replacement for cash positions you can take a position in nearly any major market for far less money than it would cost you to buy or sell the market outright. If you buy options and are wrong, the only thing you lose is the cost of your option *premium*, plus transaction fees. If you are right, you can make almost as much money as if you actually invested a much greater amount in the underlying market itself. *The similarity to insurance still holds, only now you are protecting yourself against the loss of opportunity* — not the loss of capital. Unlike the holder of a double indemnity life insurance, you WANT to collect on your policy!

Since our *premium* is all we have at risk when we buy options, we get nearly all the benefits of a diversified investment strategy without exposing a large portion of our portfolio to the market. Knowing a small portion of our capital is doing the work of a much larger amount frees us psychologically and financially, letting us focus on the bigger picture. Let's look at a quick example...

OPTION EXAMPLE

USING CALLS TO BUY CRUDE OIL FOR PENNIES ON THE DOLLAR

Remember our crude oil example from the beginning of this report? To illustrate the power of options let's use it again, only this time offering an option alternative. Since the actual cash purchase of crude oil is out of reach for most investors, we will ignore it. For the sake of comparison, we are going to assume that the price of a well-rounded energy portfolio will rise and fall percentage-wise with crude oil. (This is not necessarily a correct assumption as any energy stock investor will tell you. Many energy stocks have not kept pace with crude.) It is, however, useful as benchmark to illustrate the leverage of futures and options.

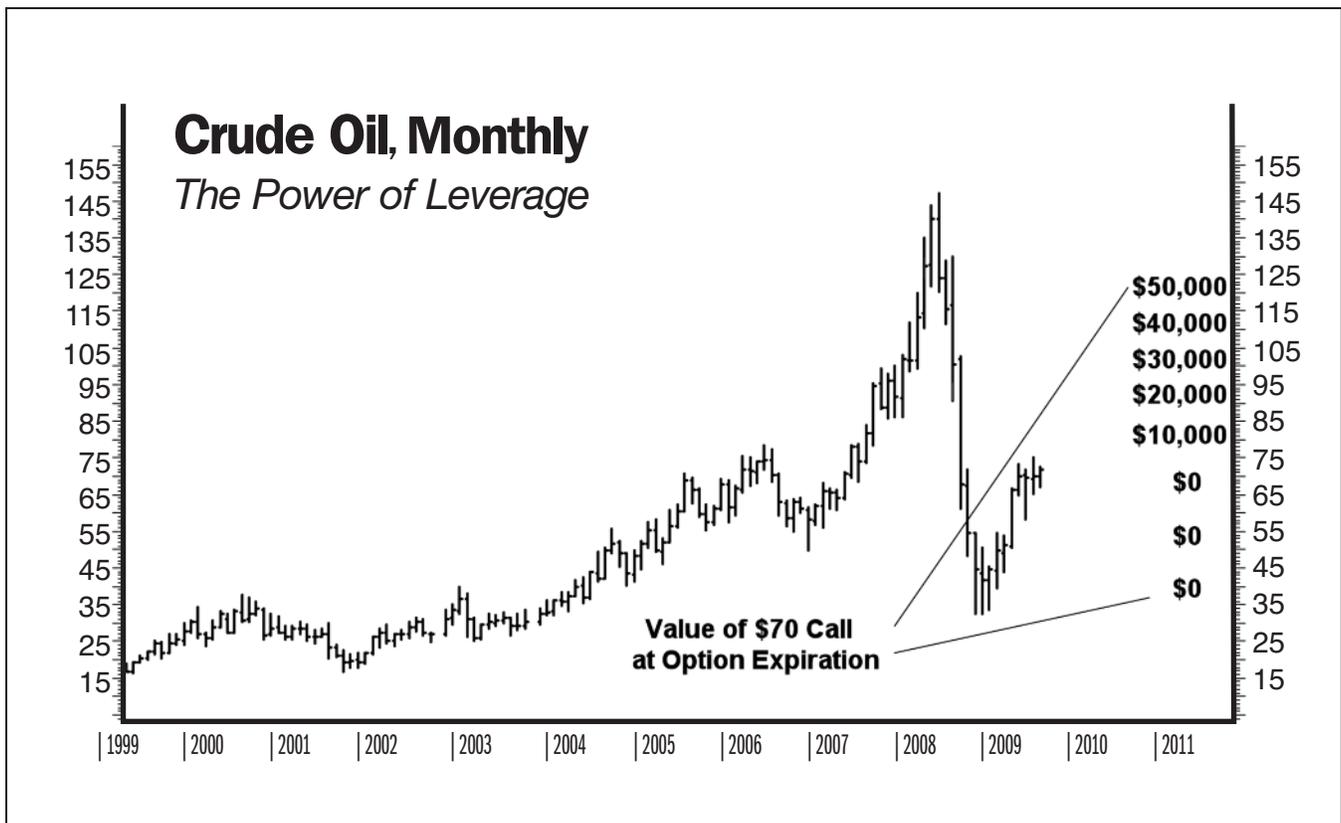
As we mentioned earlier, the price of an energy stock is affected by more than the price of oil. Refinery operations, overhead, management and the general direction of the stock market all have an effect. On the other hand, our option, like the futures contract in the earlier example, is a "pure play" on the price of crude.

This works the same for other commodities as well. For example, Archer Daniels Midland (ADM) is a very large grain processor but during a drought, odds are you would be better off buying the grain itself. Why? Because when you buy ADM, you are buying ADM's management and corporate structure. When you buy grain call options the underlying instrument is the grain itself!

Assume that instead of buying crude oil on the spot market, investing in an energy-based mutual fund or buying a futures contract we decide to buy a December option traded on the New York Mercantile Exchange (NYMEX). Why buy a call option? Because, unlike a futures contract our risk is fixed to the amount we pay for it. It is also a fraction of the amount we would have to spend to buy an equivalent dollar amount of energy stocks or mutual funds. Better still, we can take the money we would have spent on oil stocks or an energy-targeted mutual fund and invest it in super safe T-bills.

THE OPTION ALTERNATIVE

Let's use an actual example as a learning tool. Prices will have changed by the time you read this, but you can use the same math to figure out potential risk and reward in other scenarios. As we write this, front month crude oil futures are going for roughly \$70 per barrel. We can buy \$70 oil calls for approximately \$5.00. To figure how much we pay for this option we multiply the contract size of 1,000 barrels times the option cost of \$5.00 to get \$5,000.



By paying this “premium” for “opportunity insurance” we now own the right, *but not the obligation*, to be long a 1,000 barrel crude oil contract at a price of \$70 per barrel from now until option expiration. The key phrase is “but not the obligation.” Should crude fail to rally above \$70 per barrel prior to the expiration of our option, we would simply not exercise our right to be long. We would forfeit the \$5,000 (plus any commissions and fees) we spent for our call, but no more. Since our risk is defined, we do not have to worry as much about day-to-day fluctuations or margin calls.

The chart, **Crude Oil, Monthly, The Power of Leverage**, shows the earning potential of this call option. Since our option gives us the right to be long crude at a price of \$70, a rally of \$10/bbl to \$80 per barrel in the underlying futures contract would make each of our calls worth \$10,000. Why? Because we could simply exercise our right to be long at \$70 per barrel, then turn right around and sell for the going rate of \$80 per barrel. \$10 per barrel times the 1,000 barrel contract size equals \$10,000. Using the same math, a rally to \$90 per barrel would make each of our \$70 call options worth at least \$20,000 each. Tack on \$1,000 for each dollar per barrel rise above this level.

The fact we can exercise our option means that most of the time we won’t have to. The price movement on the underlying instrument will be reflected in the price of the option itself. If we wanted to exit, we could simply sell the option.

Compare this to the purchase of an energy stock like Chevron (CVX). At its current value roughly of \$74,520, one contract of December crude oil would buy 1,053 shares of CVX given the current price of \$70.75 per share. Gains in oil “majors” like Chevron nearly always lag gains in crude oil, but for the sake of argument let’s say they move one-to-one. A rally from \$70 per barrel to \$80 per barrel in crude oil is a rise of roughly 14.2 %. A corresponding 14.2 % rally in CVX would make its price \$80.80 per share. The gain on 1,053 shares would be the \$10.05 per share gain times 1,053 shares or \$10,582.65. Not bad, right?

At \$80 per barrel our \$70 call option would be worth at least \$10,000. Subtract the \$5,000 we spent for our option for a net gain of \$5,000. In the case of CVX, it took an investment of \$74,520 to make \$10,023.20. In the case of our crude call, it took an investment of only \$5,000 to make \$5,000. We didn’t make as much as the stockholder, but the key is we had only \$5,000 at risk. Better still, we could have taken the difference between the \$5,000 we paid for our call and the \$74,520 we would have paid for crude oil or an equivalent stock position and invested it elsewhere, earning interest, further lowering the net cost of our call option.

What’s the downside? If crude oil doesn’t rally, a stockholder still owns his or her stock. Whether or not this is a good thing depends on its performance. Our call, on the other hand, will expire with no value, leaving us \$5,000 poorer. However, we didn’t tie up \$74,520 either. The \$69,520 difference was busy earning us interest somewhere else.

This same type of strategy can be applied to other commodities like gold, silver, copper and soybeans. You can use it to gain important diversification in T-bonds, foreign currencies and virtually every other optionable investment vehicle. (*Note: See the listing of major US contracts at the end of this report.*)

Imagine the type of diversification you can achieve with a relatively small capital outlay. You can use options to:

- ✓ *Create your own stock, bond or foreign currency mutual fund. Why buy a portfolio when you can “lease” it?*
- ✓ *Take advantage of natural resource plays without a corporate intermediary. Create your own gold and/or silver funds without the capital commitment required for an equivalent dollar value of stocks or bullion.*
- ✓ *Use as “opportunity insurance” and not miss surprise moves in the stock market, bonds or virtually any other investment or use as actual insurance to protect your holdings in the same.*
- ✓ *Generate income in slow markets...and much, much more.*

Why doesn't everyone do this? Many investors only look at the cost of the option itself, rather than the bigger picture. They forget that the whole purpose of conservative option investing is to use options not as trading vehicles, but as substitutes for riskier, more capital intensive alternatives. Consequently, they tend to overtrade.

GETTING OPTION QUOTES

The best places to find quotes for futures and options in printed media during the business week are *Investors Business Daily (IBD)* and *The Wall Street Journal (WSJ)*. *Barron's* probably has the most extensive coverage of futures and options, but it is published just once a week. If you live in or near a large city, your local paper may print a select list of futures and options but, as a rule, local coverage will not be as extensive as the national business dailies. Exchange websites and brokerage firms also supply online quotes. In fact, in today's cyber-economy, the best and most reliable place to find quotes is online. As we mentioned earlier, you can get current quotes online at the Rutsen Meier Belmont Group website, www.rmbgroup.com. There are others as well.

We examined crude oil futures quotes earlier in this report. Now let's take a look at the crude oil options quote grid. Since crude oil options values are based on the crude oil futures contract, their prices are closely correlated. A small move in the underlying futures contract means an even smaller move in the options. A big move up means the calls will gain and the puts will lose. A big move down is the opposite.

On the sample futures options quote grid on the next page, the title tells you that crude options are quoted in dollars per barrel and that each option covers a futures contract of 1,000 barrels. Call options are listed in the left three columns and put options are listed in the right three columns. The various expiration months are listed *horizontally*. The strike prices are listed *vertically*. Nearly all websites list prices in this format.

To find the dollar price of any crude oil option, simply multiply that option times the contract size. For example, the January \$70 call listed in the example is going for \$5.82. To find the dollar value, multiply \$5.82 times the 1,000-barrel contract size to get \$5,820. The March \$73 call closed at \$5.89 or \$5,890.

Notice that the further out in time you go, the higher the price of the option. It's no accident. When you buy options you are literally "buying time". The old saying "time is money" is especially true for options.

Sample WSJ Listing for Crude Oil Options

Crude Oil (NYM) (A)

1,000 bbls.; \$ per bbl (B)

STRIKE (C)

CALLS-SETTLE

PUTS-SETTLE

PRICE

(D)

| | Dec | Jan | Feb | Dec | Jan | Feb |
|------|------------|------------|------------|------------|------------|------------|
| 7000 | 5.00 | 5.82 | 7.29 | 5.62 | 6.61 | 7.36 |
| 7100 | 4.51 | 5.33 | 6.79 | 6.13 | 7.11 | 7.85 |
| 7200 | 4.05 | 4.87 | 6.33 | 6.67 | 7.65 | 8.38 |
| 7300 | 3.62 | 4.44 | 5.89 | 7.24 | 8.21 | 8.94 |
| 7400 | 3.21 | 4.03 | 5.58 | 7.83 | 8.79 | 9.41 |
| 7500 | 2.83 | 3.65 | 5.08 | 8.45 | 9.40 | 10.10 |

Est vol 101,429 **(E)** 59,676 calls 41,753 puts **(F)**

Op int 2,831,671 calls 1,295,591 puts **(G)**

- (A)** Market and abbreviation for the exchange it is traded on
- (B)** Contract size and pricing unit
- (C)** Listing of option strike prices
- (D)** Expiration month
- (E)** Today's estimated volume
- (F)** Yesterday's actual volume
- (G)** Open contracts (those not offset) for both calls and puts

The right to buy crude oil at \$70 per barrel will obviously be worth more than the right to buy crude oil at \$72 per barrel. Similarly, the right to buy crude at \$72 good through March of next year will be worth more than the right to buy crude at \$72 through the previous December. Take a look at the price grid. The puts and calls with strike prices closer-to-the-money (or where the market is) are worth more than the puts and calls with strike prices further away. Puts and calls with more distant expiration dates are also more expensive.

Newspapers are restricted by space limitations when they print option prices. They will not list every single option that is trading. Some will not list options at all. Generally they limit listings to the closest three expiration months and to options with strike prices relatively close to the money. These limitations mean the newspaper is not always the best source for quotes. Your broker is. Should you call your broker every day? Probably not... Many brokers have websites listing all available options. Bookmark that site, and your option quotes are just a mouse click away.

The most efficient way to keep track of your option positions is to keep an eye on the price of the underlying commodity itself. If crude makes only marginal moves, your option will not set the world on fire. There is probably no need to get a quote. If

you notice that crude has jumped or declined a couple of dollars or more, the odds that your option has done something dramatic increase substantially. It's probably time to give your broker a call.

Figuring Profit Potential

Profit potential for both buying and selling options is typically figured "at expiration". But that doesn't mean that you need to hold an option until expiration. At expiration, hard-to-figure pricing variables such as time and volatility drop from the equation, making profit calculations much easier.

If you are new to options don't make the same mistake many beginning option traders do by believing you need to hold your option until expiration in order to profit or that you need to exercise your option in order to profit. On the contrary, if a market moves far enough, fast enough in the case of the buyer — or slow enough in the case of the seller — you can book profits on your position at anytime.

To take profits or cut losses on a long put or call, simply sell it. To take profits or cut losses on a short put or call, simply buy it back. You do not need to exercise your option in order to exit a long position. Similarly, you do not need to carry a short option position until expiration. The activity in the underlying market will be reflected in the price of the option itself. In fact, the vast majority of options are not carried through until expiration at all. Rather, they are offset at some point during their life cycles. You can also cut losses in losing positions by doing the same thing. Unlike many insurance policies and virtually all casinos, exchange-traded options let you change your mind after you have made a buy or sell decision.

Here are some simple formulas for figuring risk and profit potential, based on the market price of the underlying instrument at expiration, for four possible option scenarios.

Buying a call:

NET PROFIT = MARKET PRICE - STRIKE PRICE - AMOUNT PAID FOR OPTION

BREAKEVEN PRICE = STRIKE PRICE + OPTION COST
(The market needs to be ABOVE this price at expiration to be profitable.)

Selling a call:

NET PROFIT = AMOUNT RECEIVED FOR OPTION - AMOUNT MARKET IS OVER STRIKE PRICE

BREAKEVEN PRICE = STRIKE PRICE + OPTION COST
(The market needs to be BELOW this price at expiration to be profitable.)

Buying a put:

NET PROFIT = STRIKE PRICE - MARKET PRICE - AMOUNT PAID FOR OPTION

BREAKEVEN PRICE = STRIKE PRICE - OPTION COST (The market needs to be BELOW this price at expiration to be profitable.)

Selling a put:

NET PROFIT = AMOUNT RECEIVED FOR OPTION - AMOUNT MARKET IS UNDER STRIKE PRICE

BREAKEVEN PRICE = STRIKE PRICE - OPTION COST (The market needs to be ABOVE this price at expiration to be profitable.)

Tax Treatment

There are tax advantages to using futures and futures options in certain time periods. As we mentioned earlier, futures and futures options are regulated by the Commodity Futures Trading Commission (CFTC). Securities products like stocks, mutual funds and ETFs are regulated by the Securities Exchange Commission (SEC). Since they are regulated by a separate entity, futures and futures options have a different tax treatment than stocks, stock options and ETFs.

As we write this, traditional investments like stocks have a two-tiered tax structure. Long term capital gains for investments held more than 1 year are capped at 15%, while short-term capital gains (those held less than a year) are taxed at the investor's personal income tax rate. Futures and futures options, on the other hand, have a single-tiered tax structure. 60% percent of all gains are taxed at the long term rate and 40% at the short term rate *no matter what the holding period*. It could be one hour or one year; the tax treatment is the same.

If you buy a crude oil call option for \$2,000 today and sell it for \$3,000 tomorrow, \$600 of your \$1,000 profit will be taxed at the 15% long-term rate. The other \$400 will be taxed at the short term rate. Compare this to energy stocks, ETFs or options on either — if held for less than one year, your entire profit would be taxed at short term capital gains rate. In this case, you would be better off using CFTC-regulated products like futures and futures options from a tax perspective, all else being equal.

Futures and futures options are also “marked-to-the-market” for tax purposes at the end of each calendar year. Let's say you began the year with \$30,000 in your account, didn't add any new money and at the end of the year your account was worth \$40,000. \$6,000 of your \$10,000 dollar gain would be taxed at the 15% long term rate.

\$4,000 would be taxed at the short-term rate, whether or not you still owned the positions. \$40,000 would then become your new “tax basis” for the following year. Losses would be treated the same way: 60% would be long term; 40% would be short term.

What this means is you do not need to keep meticulous records of all your transactions for tax purposes if you do not want to. Your broker will send you one form at the end of the year showing your gains and losses. Some of these forms will even tell you where to enter them on the IRS forms. Please be aware that the information in this section is subject to changing tax laws. Check with your accountant for the latest.

Putting It All Together

You now have all the essential knowledge you need to step beyond the boundaries of the typical individual investor. You are now in a position to use the leverage of options to significantly improve the performance of your overall portfolio. All it takes is a few well-timed moves.

As we noted in the beginning of this report, we don’t expect you to “get it” right away. Getting all the relevant information such as time, volatility and probability sorted out will not happen overnight. It may take another careful reading and perhaps even an actual, low risk, real money trade for the pieces to fall into place. To help you get a real time read on the power of futures and options, we’ve included *Investors Publishing Services*’ latest “**Special Report**”, highlighting a market opportunity we are looking at right now. Give it a read and call your broker with any questions.

Note: You’ll need a registered commodity broker, not a stockbroker, to initiate most IPS recommendations.

We hope you enjoyed this report!

Getting Started

The procedures for opening and trading a futures and options account are identical to a stock account. But if you are new to these vehicles, it is especially important to find a broker who has the patience and experience to help you make decisions. A discount broker, offering only order processing, probably won’t meet your requirements.

While you are shopping for a broker, begin mapping out your trading plan. Once

you have selected a working list of possible trades, review them with your new broker. He or she should be able to give suggestions to help you accomplish your goal, including varying risk/reward ratios and price charts. Especially at the beginning, stick with longer time frame option trades, covering six to eighteen months, or futures/option combination trades to reduce volatility.

Once you begin trading, be sure to keep accurate records of open positions and any open stop loss orders. Stop loss orders are a wonderful tool for taking profits or cutting losses. These orders initiate or liquidate a position should a certain price level be reached. Learn to use them.

There is no shortage of trading rules and systems, but our experience has shown that the following six are absolutely vital and, if conscientiously followed, eliminate the need to learn and follow dozens more. These are the ones that separate chronic losers from consistent winners:

To help improve your odds of success, consider these guidelines:

- 1) **Determine your real motivation** — is your goal entertainment or profits? Examine your trading to eliminate destructive compulsiveness such as calling your broker for no legitimate reason and/or putting on trades “just to be in the market”.
- 2) **Assume personal responsibility for all trades** — people who blame their broker, the market or insider manipulation for their losses are never successful. Learn from your losses, keep your risks low and move on.
- 3) **Develop a trading plan and keep it simple** — know what you are willing to risk and what you expect to gain BEFORE you enter the market. Talk about your plan with your broker. Avoid the temptation to follow too many indicators or listen to too many opinions. Some of the most successful traders follow only two or three indicators and NEVER base their trading decisions on the opinions of others.
- 4) **Focus on the big picture** — unless you trade for a living and can constantly monitor the prices of the markets on a day-to-day basis, your focus should not be short term. Most short and intermediate term amateurs lose money. The professionals eat them alive. Your position should be structured so that you only need to monitor it on a weekly basis.
- 5) **Always under-trade** — it is easy to forget just how powerful the leverage in futures and options can be, especially when things are going well. Avoid the temptation to take too many positions by consciously under-trading. Remember, it is much better to be out of the market wishing you were in, than to be in the market wishing you were out.

Editor's Note: If you do not have a futures/options broker, please contact Sue Rutsen and her staff at the RMB Group (Rutsen Meier Belmont Group) You can reach them at 800-345-7026 toll-free or 312-373-4970 direct. They specialize in long-term option strategies and work well with beginning traders.

This report was written by Investors Publishing Services, Inc. (IPS) ©2009. The opinions contained herein do not necessarily reflect the views of any individual or other organization. Material was gathered from sources believed to be reliable, however no guarantee to its accuracy is made. Also, the editors of this report, separate and apart from their work with IPS, are registered commodity account executives with the Rutsen Meier Belmont Group.

This material has been prepared by a sales or trading employee or agent of R.J. O'Brien and is, or is in the nature of, a solicitation. This material is not a research report prepared by R.J. O'Brien's Research Department. By accepting this communication, you agree that you are an experienced user of the futures markets, capable of making independent trading decisions, and agree that you are not, and will not, rely solely on this communication in making trading decisions.

DISTRIBUTION IN SOME JURISDICTIONS MAY BE PROHIBITED OR RESTRICTED BY LAW. PERSONS IN POSSESSION OF THIS COMMUNICATION INDIRECTLY SHOULD INFORM THEMSELVES ABOUT AND OBSERVE ANY SUCH PROHIBITION OR RESTRICTIONS. TO THE EXTENT THAT YOU HAVE RECEIVED THIS COMMUNICATION INDIRECTLY AND SOLICITATIONS ARE PROHIBITED IN YOUR JURISDICTION WITHOUT REGISTRATION, THE MARKET COMMENTARY IN THIS COMMUNICATION SHOULD NOT BE CONSIDERED A SOLICITATION.

The risk of loss in trading futures and/or options is substantial and each investor and/or trader must consider whether this is a suitable investment. Past performance, whether actual or indicated by simulated historical tests of strategies, is not indicative of future results. Trading advice is based on information taken from trades and statistical services and other sources that R.J. O'Brien believes are reliable. We do not guarantee that such information is accurate or complete and it should not be relied upon as such. Trading advice reflects our good faith judgment at a specific time and is subject to change without notice. There is no guarantee that the advice we give will result in profitable trades.

SPECIFICATIONS

| | Pit Hours* | Electronic Hours* | Size | Months* | Value | Option |
|---------------|-----------------|-------------------|-----------|------------|-------------------|--------|
| Metals | | | | | | |
| Gold | 7:20am -12:30pm | 5:00pm - 4:15pm | 100 oz | GHMQVZ | 10 cents = \$10 | Yes |
| Mini Gold | Electronic Only | 6:25pm – 5:30pm | 33.2 oz | All months | \$1 = \$33.20 | No |
| Silver | 7:25am -12:25pm | 5:00pm - 4:15pm | 5000 oz | HKNUZ | .5 cents = \$25 | Yes |
| Mini Silver | Electronic Only | 6:25pm – 5:30pm | 1000 oz | All months | = \$10 | No |
| Platinum | 7:20am -12:05pm | 5:00pm - 4:15pm | 50 oz | FJNV | 10cents = \$5 | Yes |
| Palladium | 7:10am -12:00pm | 5:00pm - 4:15pm | 100 oz | HMUZ | .5cents = \$5 | No |
| Copper | 7:10am -12:00pm | 5:00pm - 4:15pm | 25,000lbs | FHJKMNUZ | .05cents = \$12.5 | Yes |

Interest Rates

| | | | | | | |
|--------------|---------------|-----------------|-------------|------|------------------|-----|
| Eurodollars | 7:20a - 2:00p | 5:00pm - 4:00pm | \$1,000,000 | HMUZ | 1/2bp = \$12.50 | Yes |
| 13wk T-Bills | 7:20a - 2:00p | 5:00pm - 4:00pm | \$1,000,000 | HMUZ | 1/2bp = \$12.50 | Yes |
| 2yr-notes | 7:20a - 2:00p | 5:30pm - 4:00pm | \$200,000 | HMUZ | 1/128 = \$15.625 | Yes |
| 5yr-notes | 7:20a - 2:00p | 5:30pm - 4:00pm | \$100,000 | HMUZ | 1/128 = \$7.8125 | Yes |
| 10yr -notes | 7:20a - 2:00p | 5:30pm - 4:00pm | \$100,000 | HMUZ | 1/64 = \$16.625 | Yes |
| 30yr-bonds | 7:20a - 2:00p | 5:30pm - 4:00pm | \$100,000 | HMUZ | 1/32 = \$31.25 | Yes |

Foreign Currencies

| | | | | | | |
|---------------|---------------|-----------------|--------------------|------|------------------|-----|
| British pound | 7:20a - 2:00p | 5:00pm - 4:00pm | 62,500 BP | HMUZ | 1 tick = \$6.25 | Yes |
| E-Micro BP | Elect. only | 5:00pm - 4:00pm | 6,250 BP | HMUZ | 1 tick = \$0.625 | No |
| Japanese yen | 7:20a - 2:00p | 5:00pm - 4:00pm | 12,500,000 JY | HMUZ | 1 tick = \$12.50 | Yes |
| E-micro yen | Elect. only | 5:00pm - 4:00pm | 10,000 US\$ | HMUZ | 1 tick = ¥100 | No |
| Swiss franc | 7:20a - 2:00p | 5:00pm - 4:00pm | 125,000 SF | HMUZ | 1 tick = \$12.50 | Yes |
| E-micro SF | Elect. only | 5:00pm - 4:00pm | 10,000 US\$ | HMUZ | 1 tick = SF1.00 | No |
| Mexican Peso | 7:20a - 2:00p | 5:00pm - 4:00pm | 500,000 MP | HUMZ | 1 tick = \$5.00 | Yes |
| Euro | 7:20a - 2:00p | 5:00pm - 4:00pm | 125,000 € | HMUZ | 1 tick = \$12.50 | Yes |
| E-micro Euro | Elect. only | 5:00pm - 4:00pm | 12,500 € | HMUZ | 1 tick = \$1.25 | No |
| Canadian \$ | 7:20a - 2:00p | 5:00pm - 4:00pm | 100,000 C\$ | HMUZ | 1 tick = \$10 | Yes |
| E-micro C\$ | Elect. only | 5:00pm - 4:00pm | 10,000 US\$ | HMUZ | 1 tick = C\$1.00 | No |
| Australian \$ | 7:20a - 2:00p | 5:00pm - 4:00pm | 100,000 A\$ | HMUZ | 1 tick = \$10 | Yes |
| E-micro A\$ | Elect. only | 5:00pm - 4:00pm | 10,000 A\$ | HMUZ | 1 tick = \$1.00 | No |
| Dollar Index | Elect. only | 6:00pm - 5:30pm | \$1,000 x \$ Index | HMUZ | 1 tick = \$10 | Yes |

Stock Indices

| | | | | | | |
|-------------|-------------|--------------------|---------------|------|-----------------|-----|
| S&P 500 | 8:30a-3:15p | 3:30pm - 8:15am** | \$250 x Index | HMUZ | min tick = \$25 | Yes |
| E-Mini S&P | Elect. only | 5:00pm - 4:30pm** | \$50 x Index | HMUZ | min tick = \$5 | Yes |
| Nasdaq 100 | 8:30a-3:15p | 3:30pm - 8:15am** | \$100 x Index | HMUZ | min tick = \$25 | Yes |
| E-Mini Nsdq | Elect. only | 5:00pm - 4:30pm** | \$20 X Index | HUMZ | min tick = \$5 | Yes |
| E-Mini Dow | Elect. only | 5:00pm - 4:30pm** | \$5 x Dow | HMUZ | min tick = \$5 | Yes |
| Dow Jones | 8:30a-3:15p | 3:30pm - 8:15am** | \$10 X Avg. | HMUZ | min tick = \$10 | Yes |
| Nikkei 225 | 8:00a-3:15p | 2:00am - 6:00pm*** | \$5 X Index | HMUZ | min tick = \$25 | Yes |

Energy

| | | | | | | |
|--------------|--------------|-----------------|--------------|-----|--------------------|-----|
| Crude Oil | 8:00a -1:30p | 5:00pm - 4:15pm | 1,000 bbl | All | 1 cent = \$10 | Yes |
| E-mini Crude | Elect. only | 5:00pm - 4:15pm | 500bbl | All | 2.5 cent = \$12.50 | No |
| Heating Oil | 8:00a -1:30p | 5:00pm - 4:15pm | 42,000 gals. | All | .01 cent = \$4.20 | Yes |
| E-mini HO | Elect. only | 5:00pm - 4:15pm | 21,000 gals | All | 0.1 cent = \$21.00 | No |
| RBOB Gas | 8:00a -1:30p | 5:00pm - 4:15pm | 42,000 gals. | All | .01 cent = \$4.20 | Yes |
| E-mini Gas | Elect. only | 5:00pm - 4:15pm | 21,000 gals | All | 0.1 cent = \$21.00 | No |
| Natural Gas | 8:00a -1:30p | 5:00pm - 4:15pm | 10,000 MMBtu | All | 0.1 cent = \$10 | Yes |
| E-mini Gas | Elect. only | 5:00pm - 4:15pm | 2,500MMBtu | All | 0.5 cent = \$12.50 | No |

Grains & Legumes

| | | | | | | |
|--------------|--------------|------------------|------------|----------|-------------------|-----|
| Soybeans | 9:30a-1:15p | 6:00pm – 7:15am@ | 5,000bu | FHKNUQX | ¼ cent = \$12.50 | Yes |
| Mini-Soybean | 9:30a-1:15p | 6:00pm – 7:15am@ | 1,000bu | FHKNUQX | 1/8 cent = \$1.25 | No |
| Soybean Meal | 9:30a-1:15p | 6:00pm – 7:15am@ | 100 tons | FHKNUQVZ | 10 cents = \$100 | Yes |
| Soybean Oil | 9:30a-1:15p | 6:00pm – 7:15am@ | 60,000 lbs | FHKNUQVZ | .01cent = \$600 | Yes |
| Corn | 9:30a -1:15p | 6:00pm – 7:15am@ | 5000 bu | HKNUZ | ¼ cent = \$12.50 | Yes |
| Mini Corn | 9:30a-1:15p | 6:00pm – 7:15am@ | 1,000bu | HKNUZ | 1/8 cent = \$1.25 | No |
| Wheat | 9:30a -1:15p | 6:00pm – 7:15am@ | 5000 bu | HKNUZ | ¼ cent = \$12.50 | Yes |
| Mini Wheat | 9:30a -1:15p | 6:00pm – 7:15am@ | 5000 bu | HKNUZ | 1/8cent = \$1.25 | No |
| Rice | 9:15a-1:30p | 6:00pm – 7:15am@ | 2000 CWT | FHKNUX | ½ cent = \$10 | Yes |
| Oats | 9:30a-1:15p | 6:00pm – 7:15am@ | 5000bu | FHKNUXZ | ¼ cent = \$12.50 | Yes |

Livestock

| | | | | | | |
|---------------|-------------|--------------------|------------|----------|-------------------|-----|
| Live Cattle | 9:05a-1:00p | 24hr w/ 4p-5p halt | 40,000 lbs | GJMQVZ | .25cents = \$10 | Yes |
| Feeder Cattle | 9:05a-1:15p | 24hr w/ 4p-5p halt | 50,000 lbs | FHJKQUVX | .25cents = \$12.5 | Yes |
| Lean Hogs | 9:05a-1:00p | 24hr w/ 4p-5p halt | 40,000 lbs | GJMNQVZ | .25cents = \$10 | Yes |
| Pork Bellies | 9:05a-1:00 | 24hr w/ 4p-5p halt | 40,000 lbs | GHKNQ | .25cents = \$10 | Yes |

Exotics

| | | | | | | |
|--------------|-------------|-----------------|--------------|--------|-------------------|-----|
| Cocoa | Elect. only | 3:00am-1:00pm | 10 tons | HKNUZ | \$1 = \$10 | Yes |
| Coffee | Elect. only | 2:30am -1:00pm | 37,500 lbs | HKNUZ | 5-cents = \$18.75 | Yes |
| Orange Juice | Elect. only | 7:00am -1:00pm | 15,000 lbs | FHKNUX | .05cents = \$7.50 | Yes |
| Sugar | Elect. only | 2:30am -1:00pm | 112,000 lbs | HKNV | .01cent = \$11.20 | Yes |
| Cotton | Elect. only | 8:00pm – 1:30pm | 50,000 lbs | HKNVZ | .01c = \$5.00 | Yes |
| Lumber | 9:00a-1:05p | 5:00pm – 4:00pm | 110,000 B FT | FHKNUX | 10cents = \$1.10 | Yes |

Other

| | | | | | | |
|--------------|---------------|-----------------|---------------|------|----------------------|-----|
| RJ/CRB Index | Elect. only | 2:30am – 2:45pm | 50 x Index | HMUZ | .10 points t = \$5 | Yes |
| GSCI Index | 7:55a – 1:40p | 5:00pm – 4:00pm | \$250 x index | All | .05 points = \$12.50 | Yes |

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

*All market hours are Central Time and are subject to change.

**Monday – Thursday maintenance shutdown from 4:30p – 5:00p. Sunday trading begins at 5:00pm CT.

***Multiple closes and re-openings during electronic session.

@ Electronic grains also trade during day session alongside open outcry pit trading.

RMB Group

Rutsen Meier Belmont Group

222 S. Riverside Plaza, Suite 900, Chicago, IL 60606

1-800-345-7026 1-312-373-4970

www.rmbgroup.com