

The background of the entire page is a photograph of a sailboat's deck, looking out over the ocean. The mast and rigging are visible on the left, and the wooden deck leads towards the horizon. The sky is a pale, overcast blue. The logo for Avalon Capital Advisors is positioned in the upper right quadrant. It features a large, stylized letter 'A' in a light blue color, with a dark blue shadow or outline. To the right of the 'A', the word 'Avalon' is written in a dark blue, elegant serif font. Below 'Avalon', the words 'CAPITAL ADVISORS' are written in a smaller, dark blue, all-caps serif font.

*Avalon*  
CAPITAL ADVISORS

PORTFOLIO THEORY  
AND MANAGED FUTURES

## Modern Portfolio Theory and the Value of Diversification

Modern Portfolio Theory (MPT) is also called “portfolio theory” or “portfolio management theory.” MPT is an investment approach first developed by Professor Harry Markowitz of the University of Chicago in 1952. Thirty-eight years later, in 1990, he shared a Nobel Prize with Merton Miller and William Sharpe for what has become the frame upon which institutions and savvy investors construct their investment portfolios. Modern Portfolio Theory allows investors to estimate both the expected risks and returns, as measured statistically, for their investment portfolios. By combining different assets into efficiently diversified portfolios, Dr. Markowitz demonstrated that investors failed to account for the high correlation among security returns. It was his position that a portfolio’s risk could be reduced and the expected value of return increased when assets with dissimilar price movements were combined.

Diversification, he concluded “reduces risk only when assets are combined whose prices move inversely, or at different times, in relation to each other.” Dr. Markowitz was among the first to quantify risk and demonstrate quantitatively how and why portfolio diversification works to reduce risk and increase returns for investors. It’s also why he won the Nobel Prize. Diversification reduces risk more efficiently than most people understand: The risk of a diversified portfolio is less than the average of the volatilities of its component parts. While the technical underpinnings of MPT are complex and drawn from economics and probability and statistical theory, its conclusion is simple and easy to understand:

A diversified portfolio of uncorrelated asset classes can provide higher returns with lower risk. Many investors think their portfolios are diversified if they are in individual stocks, mutual funds, bonds and international stocks. While these are all different investments, they are all in roughly the same asset class and tend to move in concert with each other. This relationship was clearly and, in some instances, painfully clear to investors when the bubble burst in the stock market. Proper diversification requires a selection of different asset classes that move independently from one another.





Data extracted from the 2006 edition of "Portfolio Diversification Opportunities," published by the Chicago Board of Trade, shows that a portfolio without managed futures underperforms and is more risky than a portfolio that includes managed futures. The portfolio that exhibited the highest returns and least volatility was portfolio No. 1

Professionally managed futures have low to no correlation with traditional investment vehicles—stocks and bonds. The value of professionally managed futures was thoroughly researched by Dr. John Lintner, of Harvard University. In a landmark study, "The Potential Role of Managed Futures Accounts in Portfolios of Stocks and Bonds," Lintner wrote that "the combined portfolios of stocks (or stocks and bonds) after including judicious investments. . . in leveraged managed futures accounts show substantially less risk at every possible level of expected return than portfolios of stocks (or stocks and bonds) alone." Lintner specifically showed how managed futures can decrease portfolio risk, while simultaneously enhancing overall portfolio performance. Many times, the best and easiest way to convey an important idea is visually. The charts on the following pages illustrate the key tenet espoused in Modern Portfolio Theory—including noncorrelated investments such as managed futures in a diversification plan can reduce risk and increase returns.

## Are Managed Futures Riskier Than Stocks?

Technically speaking, yes, futures are riskier than stocks because you have greater leverage in futures and therefore the potential for unlimited risk. Over-leveraging a trading account without proper reserves and a sound strategy can result in substantial losses. It can also result in substantial profits. That approach to trading is high stakes gambling not investing. In more than 20 years observing traders and watching millions being made and lost, I believe it's the unprofessional abuse of leverage and the lack of prudent money management that have tarnished the futures industry and generated its unfavorable reputation compared to stocks. But in the hands of an accomplished CTA, the risk in futures becomes no greater than with stocks. Viewing declines in some of the biggest and supposedly "safest" stocks in America is testimony to our opinion. Widely popular blue-chip stocks like Microsoft, G.E., Pfizer, IBM and other "solid" stocks have experienced greater drawdowns than most of our CTA's.

## Academic Studies on Managed Futures

The Time Variation in the Benefits of Managed Futures appeared in the Spring edition of The Journal of Alternative Investments. The report strongly supports much of the findings in previous studies on managed futures. Some of these points were brought out in the August 2003 edition of Managed Account Reports:

- Even a small allocation of managed futures limits portfolio risk by a statistically significant margin.
- Managed futures increases return and reduces portfolio risk. A 10 percent managed futures allocation was allocated for the study.
- More conservative investors may gain from allocating a portion of their portfolios than more aggressive investors.
- Conservative portfolios experienced an increase in return in more than 50 percent of the years. The study went back 40 years.
- The benefits of managed futures were quite pronounced. When managed futures were included in a portfolio, 98 percent experienced an increase in its Sharpe ratio. The Sharpe ratio is a measure of risk management. The higher the ratio, the lower the risk.
- Managed futures highest performance periods were in periods of rising interest rates.

The Benefits Of Managed Futures, by Thomas Schneeweis, Professor of Finance, University of Massachusetts. This study destroys the myth of managed futures as investments that are riskier than stocks. According to Schneeweis "Managed futures are not any more risky than traditional equity investments. Investment in a single commodity trading advisor is shown to have risks and returns, which are similar to investment in a single equity. Moreover, a portfolio of commodity

trading advisors is also shown to have risks, and returns, which are similar to traditional investments.” The results of this study provide important information to the investment community about the benefits of managed futures. First, managed futures trade in markets which offer investors the same market integrity and safety as stock and bond markets. Managed futures investment, as for stocks and bonds, provide investors with the assurance that their investment managers work with a high degree of government oversight and self regulation and trade primarily in closely regulated markets. Second, managed futures are not more risky than traditional equity investment. Investment in a single commodity trading advisor is shown to have risks and returns that are similar to investment in a single equity investment. Third, most traditional money managers (and many hedge fund managers) are restricted by regulation or convention to holding primarily long investment positions and from using actively traded futures and option contracts (which offer lower transaction costs and lower market impact costs than direct stock or bond investment).

Thus, in contrast to most stock and bond investment vehicles, managed futures traders offer unique return opportunities which exist through trading a wide variety of global stock and bond futures and options market and through holding either long or short investment positions in different economic environments (e.g., arbitrage opportunities, rising and falling stock and bond markets, changing market volatility). As a result of these differing investment styles and investment opportunities, managed futures traders have the potential for a positive return even though futures and options markets in total provide a zero net gain among all market participants. Thus managed futures are shown on average to have a low return correlation with traditional stock and bond markets as well as many hedge fund strategies and to offer investors the potential for reduced portfolio risk and enhanced investment return. As important, for properly constructed portfolios, managed futures are also shown to offer unique downside risk control along with upside return potential. Simply put, the logical extension of using investment managers with specialized knowledge of traditional markets to obtain maximum return/risk tradeoffs is to add specialized managers who can obtain the unique returns in market conditions and types of securities not generally available to traditional asset managers; that is, managed futures.

**Facts And Fantasies About Managed Futures**, by Gary Horton, The Wharton School, University of Pennsylvania, and K. Geert Rouwenhorst, Yale School of Management.

This study was published in 2004, a year which experienced the biggest jump in new money entering managed futures from the previous year since 1980, according to the Barclay Group.

This study provides evidence on the long-term properties of an investment in collateralized commodity futures contracts. By constructing an equally-weighted index of commodity futures covering the period between July 1959 and March 2004, the authors show empirically that there is a large difference between the historical performance of commodity futures and the return an investor of spot commodities would have earned. An investor in our index of collateralized commodity futures would have earned an excess return over T-bills of about 5 percent per annum. During our sample period, this commodity futures risk premium has been equal in size to the historical risk premium of stocks (the equity premium), and has exceeded the risk premium of bonds. This evidence of a positive

Commodity futures returns have been especially effective in providing diversification of both stock and bond portfolios. The correlation with stocks and bonds is negative over most horizons and the negative correlation is stronger over longer holding periods. The authors posit two explanations for the negative correlation of commodities with traditional asset classes. First, commodities perform better in periods of unexpected inflation, when stock and bond returns generally disappoint. Second, commodity futures diversify the cyclical variation in stock and bond returns. The historical performance of collateralized investments in commodities suggests that commodities are an attractive asset class to diversify traditional portfolios of stocks and bonds.

## Why Employ a Professional Commodity Trading Advisor (CTA)?

In the highly complex and challenging field of commodity futures trading, the majority of amateur traders lose. In fact, it is estimated that as many as 9 out of every 10 “do it yourself” futures traders end up losing. In contrast, studies have shown that professional Commodity Trading Advisors (CTAs) experience an appreciably higher rate of success than the individual amateur trader<sup>1</sup>. CTAs are federally licensed and registered professional managers who manage investor assets using commodities markets just as a mutual fund manager invests his client’s assets in a variety of different stocks. CTA managed accounts can participate in at least 50 different markets worldwide, including stock indexes, financial instruments, agricultural and tropical products, precious and nonferrous metals, currencies, and energy products. CTAs offer ample opportunity for profit potential and risk reductions among a broad array of non-correlated markets.

### The Professional Versus the Amateur Trader

	Commodity Trading Advisor	Amateur Trader
<b>Strategy</b>	Follows a long-term plan based on extensively tested research; limits losses on losing positions while letting profits run on profitable positions. Patient, disciplined approach helps to maximize profits and minimize risks.	Usually in the markets seeking instant gratification. Lacking a definitive game plan, amateurs often change their approach midstream, resulting in impatience and creating chaos. Quick to take a profit and let losses run.
<b>Equity Management</b>	Often diversifies into trading positions covering as many as 25 markets while typically committing only 10-40 percent of an account’s equity to the markets.	Often commits 100 percent of an account’s equity to the markets. Commonly trades only one commodity resulting in a lack of diversification and increased risk.
<b>Trading Decisions</b>	Commits full-time attention to following a definitive system which may look at market prices and trends, therefore acting immediately upon signals and market knowledge.	Usually able to pay only part-time attention to the markets. Misses news and often makes decisions based on rumors, hunches, gossip, or the opinions of others.
<b>Discipline</b>	Realizes the markets owe him nothing. Expects his share of both winning and losing trades. Neither result will influence trader to deviate away from prudent money management and professional trading plan. Cuts losses short while allowing profits to run. Realizes capital preservation is a prerequisite to capital appreciation.	Amateurs often believe it is their job to predict the direction of the markets rather than to manage risk. When losing, feels they are due for a win. This win-it-back-at-all-costs mindset inevitably leads to large losses. Hangs onto losing positions hoping they will come back. Conversely, takes profits prematurely to validate his prediction.

<sup>1</sup>Modern Portfolio Theory: Dynamic Diversification For Today’s Investor, 2006. Page 15. 2006-CINV-00737

*Studies have shown that professional CTAs experience returns greater than the individual investor. Nevertheless, the risk of loss that exists in futures trading and past results are not necessarily indicative of future results, regardless of who is trading your account. The risk of loss in futures trading can be substantial. An investor can lose more than the initial investment.*

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## Selecting and Investing: The Process

**Doubly Diversified CTA Portfolios:** Avalon has its own unique trading system, and places trades on the client's behalf independent from one another. Avalon uses its own proprietary trading systems to trade the markets of their choice. Not only is a CTA's performance not correlated with stock related investments, but also each other CTA's performance. In effect CTA portfolios offer double diversification.

**Investing:** Every client's needs are different. We attempt to match you, the investor, with the best possible portfolio that will hopefully suit: Your investment goals; Your time-frame; Your comfort zone for volatility (investment temperament); Your type of account (i.e.: IRA, pension, individual, joint, corporate, etc.); and your comfort level in terms of affordability. Adopting a wait-and-see investment stance and watching how one CTA performs before investing with another CTA is the equivalent of buying IBM and then waiting to see how IBM performs before buying other stocks. You wouldn't do that. Similarly, with managed funds, it's important to understand that CTAs perform independently of each other. Whether you invest in the funds of several CTAs or a single CTA, it's very important that whatever amount you decide to invest, it should be in proper proportion to your overall investment portfolio in order to make a meaningful impact. Building a portfolio is a dynamic and collaborative process. We look forward to working with you in building an appropriate portfolio that's best suited to meet your individual needs.

**Note:** Investors must receive, read and sign the government filed Disclosure Document from each CTA before investing.

## Questions and Answers

### **Q. What's Been Responsible For Growth In Managed Futures Trading?**

Several factors have impacted growth: First, as traditional markets have become increasingly volatile and vulnerable to unexpected events—institutional money management and other sophisticated investors have sought to more effectively manage overall portfolio risk through diversification. Indeed, risk and diversification are major concerns in today's market environment. Secondly, many investors are seeking higher rates of return. A number of studies indicate that a portfolio that includes managed futures can yield appreciably higher and more stable returns over time than a portfolio that includes only stocks and bonds. The same evidence indicates this can be achieved without added portfolio risk. Still another factor in the growth of managed futures has been the tremendous broadening of futures on a global basis to encompass stock indexes, debt instruments, international currencies, and options as well as conventional commodities including metals and energy. These new investment vehicles have created new categories for profit potential as well as a mechanism to lower overall portfolio risk.

### **Q. How Are Profitability, Volatility And Risk Affected When Managed Futures Are Included In An Investment Portfolio?**

Harvard Business School Professor John E. Lintner found that including managed futures in a portfolio have the potential to “reduce volatility while enhancing return.” And those portfolios “have substantially less risk at every possible level of return than portfolios of stocks, or stocks and bonds.” For the period of January 1, 1980 to December 31, 1998, data show that managed futures investments (as measured by the Barclay CTA Index) had a compound annual return of about 15.8 percent. That compares very favorably with the 17.7 percent return that common stocks had during the same period, one of the strongest stock markets in U.S. history. Further, it exceeded the 11.8 percent return on bonds. Moreover, during a similar period (January 1, 1980 to December 31, 1997), analysis showed that a portfolio that comprised some managed futures had similar profitability with far less risk.

### **Q. What Is A CTA Managed Futures Account?**

A CTA managed futures account is one where a registered Commodity Trading Advisor (CTA) is given responsibility to make all trading decisions. This authority is delegated by the account holder to the CTA through a limited power of attorney which may be withdrawn at any time.

### **Q: How Does My CTA Get Paid?**

Most CTA's receive an on-going management fee on the account balance in the range of 2 percent to 4 percent per year, whether the account is profitable or not, and an incentive fee that varies widely depending on the CTA. These fees are usually paid either monthly or quarterly and are detailed in each CTA's disclosure document.

### **Q: How Accessible Are My Funds?**

A managed account offers a high degree of liquidity. Although we strongly advise you to view your managed account as a long-term investment, part or all of your funds are usually available on one day's notice.

**Q: How Can I Track The Performance In My Managed Account?**

Three ways. One, a complete accounting of the activity in your account, including your account balance can be seen on our web site 24 hours a day. Ask your broker for more details. Two, you may call your broker who receives a daily equity run detailing all your open positions, netting out profit and losses, showing the exact daily balance in your account. Three, whether you call or not, a purchase and sale statement (P/S Statement) will be sent to you on every single trade, showing the date and price entered; when you exit a trade, the date, price, and net profit or loss on the trade as well as your account balance. Besides receiving confirmation on each individual transaction, a summary of all transactions showing their results are sent each month for the entire month's transactions. Instead of having your statements post office mailed, you can select having your P/S statements emailed directly to you! Therefore, even without calling, you will have a written, detailed breakdown of the CTA's transactions and performance in your account. However, we strongly advise that you not evaluate the performance in your account on a trade-by-trade or day-to-day basis. We believe a managed account is a long-term investment and should be evaluated as such.

**Q: If I Am An Experienced Futures Trader, Why Should I Have A Managed Account?**

There are numerous top-performing CTAs who have managed accounts with other CTAs. When you are trading your own account, you are limited to your trading system and style. By diversifying with CTAs who have good performance records, you are, in effect, constructing a diversified trader's portfolio of your own, the merits of which are discussed in this brochure.

**Q: Are There Any Tax Benefits To Investing In Managed Futures?**

Yes. According to the Tax Act of 1981, short-term profits in commodities are treated as 60 percent long term and 40 percent short term. On the other hand, short term trading profits in stocks are treated as 100 percent short term. A short-term investment is one that is held for less than one year. This favorable tax treatment in commodities can translate to investors in upper tax brackets, saving as much as 30 percent on taxes in short term gains on commodities versus stocks.

**Q: Where Is My Money Kept?**

Your money is held in a Customer Segregated Account by the FCM at an established financial institution.

**Q. Can I Use Retirement Funds In A Managed Account?**

Absolutely. You can use IRA, trust, pension, and other retirement monies. You can use managed futures in a variety of qualified retirement plans including IRA's, trusts, and pensions.

**Q: How Do I Open A Managed Account?**

Before opening a managed account, you must be supplied with a copy of the CTA's disclosure document. Read it carefully before you invest. Go over questions you may have with your broker. After any questions you may have are answered, your broker will help you fill out the management agreement and the customer agreement forms, both of which should be returned to your broker for processing.

## **CFTC Risk Disclosure Statement**

**The risk of loss in trading commodities can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. The high degree of leverage that is often obtainable in commodity trading can work against you as well as for you. The use of leverage can lead to large losses as well as gains. In some cases, managed commodity accounts are subject to substantial charges for management and advisory fees. It may be necessary for those accounts to make substantial trading profits to avoid depletion or exhaustion of assets. The Disclosure Document contains a complete description of the principal risk factors and each fee to be charged to your account by the commodity trading advisor (CTA). The regulations of the commodity futures trading commission (CFTC) require that prospective customers of a CTA receive a disclosure document when they are solicited to enter into an agreement whereby the CTA will direct or guide the client's commodity interest trading and that certain risk factors be highlighted. This brief statement cannot disclose all of the risks and other significant aspects of the commodity markets. Therefore, you should proceed directly to the disclosure document and study it carefully to determine whether such trading is appropriate for you in light of your financial condition. You may also request delivery of a hard copy of the disclosure document, which will also be provided to you at no additional cost. The CFTC has not passed upon the merits of participating in any of these trading programs nor on the adequacy or accuracy of any of these disclosure documents. Other disclosure statements are required to be provided you before a commodity account may be opened for you. Additional disclosure required for administrative fees: A complete discussion of fees and charges are reported in the CTA's disclosure document. Specifically, one should recognize that an introducing broker may charge a front-end start up fee of up to 6 percent of the initial contribution. Please note that this charge is not reflected in the performance of the commodity trading advisor and could have a significant impact on the customers ability to achieve similar returns.**