CME Group

COMMODITY INVESTMENT

Top 5 List – Why Managed Futures?

JUNE 21, 2012

John W. Labuszewski
Managing Director
Research & Product Development
312-466-7469
jlab@cmegroup.com

RISK DISCLOSURE STATEMENT

TRADING FUTURES AND OPTIONS INVOLVES SUBSTANTIAL RISK OF LOSS AND IS NOT SUITABLE FOR ALL INVESTORS. THERE ARE NO GUARANTEES OF PROFIT NO MATTER WHO IS MANAGING YOUR MONEY. PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

THE RISK OF LOSS IN TRADING COMMODITY INTERESTS CAN BE SUBSTANTIAL. YOU SHOULD THEREFORE CAREFULLY CONSIDER WHETHER SUCH TRADING IS SUITABLE FOR YOU IN LIGHT OF YOUR FINANCIAL CONDITION. IN CONSIDERING WHETHER TO TRADE OR TO AUTHORIZE SOMEONE ELSE TO TRADE FOR YOU, YOU SHOULD BE AWARE OF THE FOLLOWING:

IF YOU PURCHASE A COMMODITY OPTION YOU MAY SUSTAIN A TOTAL LOSS OF THE PREMIUM AND OF ALL TRANSACTION COSTS.

IF YOU PURCHASE OR SELL A COMMODITY FUTURES CONTRACT OR SELL A COMMODITY OPTION YOU MAY SUSTAIN A TOTAL LOSS OF THE INITIAL MARGIN FUNDS OR SECURITY DEPOSIT AND ANY ADDITIONAL FUNDS THAT YOU DEPOSIT WITH YOUR BROKER TO ESTABLISH OR MAINTAIN YOUR POSITION. IF THE MARKET MOVES AGAINST YOUR POSITION, YOU MAY BE CALLED UPON BY YOUR BROKER TO DEPOSIT A SUBSTANTIAL AMOUNT OF ADDITIONAL MARGIN FUNDS, ON SHORT NOTICE, IN ORDER TO MAINTAIN YOUR POSITION. IF YOU DO NOT PROVIDE THE REQUESTED FUNDS WITHIN THE PRESCRIBED TIME, YOUR POSITION MAY BE LIQUIDATED AT A LOSS, AND YOU WILL BE LIABLE FOR ANY RESULTING DEFICIT IN YOUR ACCOUNT.

UNDER CERTAIN MARKET CONDITIONS, YOU MAY FIND IT DIFFICULT OR IMPOSSIBLE TO LIQUIDATE A POSITION. THIS CAN OCCUR, FOR EXAMPLE, WHEN THE MARKET MAKES A ‘‘LIMIT MOVE.’’

THE PLACEMENT OF CONTINGENT ORDERS BY YOU OR YOUR TRADING ADVISOR, SUCH AS A ‘‘STOP-LOSS’’ OR ‘‘STOP-LIMIT’’ ORDER, WILL NOT NECESSARILY LIMIT YOUR LOSSES TO THE INTENDED AMOUNTS, SINCE MARKET CONDITIONS MAY MAKE IT IMPOSSIBLE TO EXECUTE SUCH ORDERS.

A ‘‘SPREAD’’ POSITION MAY NOT BE LESS RISKY THAN A SIMPLE ‘‘LONG’’ OR ‘‘SHORT’’ POSITION.

THE HIGH DEGREE OF LEVERAGE THAT IS OFTEN OBTAINABLE IN COMMODITY INTEREST 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 THAT ARE SUBJECT TO THESE CHARGES TO MAKE SUBSTANTIAL TRADING PROFITS TO AVOID DEPLETION OR EXHAUSTION OF THEIR ASSETS. THE CTA 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”).

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 3% 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.

MANAGED FUTURES MAY NOT NECESSARILY BE PROFITABLE UNDER ALL MARKET CONDITIONS AND ALSO MAY NOT NECESSARILY REDUCE VOLATILITY. THIS MATTER IS INTENDED AS A SOLICITATION.

THIS MATERIAL MAY MENTION SERVICES WHICH RANK THE PERFORMANCE OF COMMODITY TRADING ADVISORS. PLEASE NOTE THAT THE RANKINGS APPLY ONLY TO THOSE CTAs WHO SUBMIT THEIR TRADING RESULTS. THE RANKINGS IN NO WAY PURPORT TO BE REPRESENTATIVE OF THE ENTIRE UNIVERSE OF COMMODITY TRADING ADVISORS. THE MATERIAL IN NO WAY IMPLIES THAT THESE RESULTS ARE OFFICIALLY SANCTIONED RESULTS OF THE COMMODITY INDUSTRY. BE ADVISED THAT AN INDIVIDUAL CANNOT INVEST IN THE INDEX ITSELF AND THE ACTUAL RATES OF RETURN FOR AN INDIVIDUAL PROGRAM MAY SIGNIFICANTLY DIFFER AND BE MORE VOLATILE THAN THE INDEX.

Futures may be used to manage the risk of volatile investments and to capitalize on speculative opportunities associated with that volatility. But the fast-paced and increasingly sophisticated nature of futures markets sometimes renders it difficult for all but the most adept institutional and retail investors to take full advantage of these markets.

Thus, many prospective investors have turned to managed futures as a means by which to harness the best professional trading talent in the pursuit of profitable futures trading opportunities. The managed futures industry has flourished from the 1980s through to the present day as a logical outlet for such investment demand. This article describes that growth and discusses our "top 5 list" of reasons why investors should be interested in managed futures investments.

Top 5 List - Why Managed Futures?

1. **Potentially attractive returns**
2. **Superior reward/risk ratio through diversification beyond traditional stocks and bonds, reducing portfolio volatility**
3. **Possibility of returns in both bull *and* bear markets**
4. **Exposure to all major asset classes around the globe including interest rates, equities, currencies, energy, agricultural commodities**
5. **Invest with confidence that industry is regulated and trades largely on regulated futures exchanges**

Origins

Investors have accessed managed futures for over 60 years. The first managed futures account is attributed to the noted technician Dick Donchian dating back to perhaps 1948. Much of the early interest came from retail investors who would open up separately managed accounts with particular professional commodity traders, commonly referred to as Commodity Trading Advisors (CTAs); or, by investing in commodity pools administered by Commodity Pool Operators (CPOs).

In more recent years, institutional investors such as corporate and public pension funds, endowments, trusts and banks have driven the expansion of the managed futures industry, recognizing the managed futures represent an important component of a well-diversified portfolio.

The trading activity of CTAs is often guided by technical trading systems. These systems are based on historical price patterns, and may include moving average, price channel, and momentum systems. Generally speaking, these systems may be thought of a trend following in nature – the ability to detect reversals in market momentum, *i.e.,* successfully to apply contrarian systems, being rather rare and extraordinary.

Investment Structures

While one may retain the services of particular CTAs by opening separately managed accounts, it has become more commonplace to participate in a fund or limited partnership designed to administer futures investments and managed by a single or multiple CTAs under the direction of a CPO.

Managed futures funds, commodity funds or commodity pools (these various terms may be considered synonymous) aggregate the monies of multiple investors for the purpose of speculating in futures and options markets. These funds or pools are organized and managed by CPOs. CTAs may be employed by the CPO to direct the day-to-day trading of the fund or a portion thereof. This leaves the CPO free to concentrate on other significant activities including fund raising, accounting, evaluation and on-going monitoring of CTA performance, relying upon the professionalism and experience of CTAs devoted to trading activities.

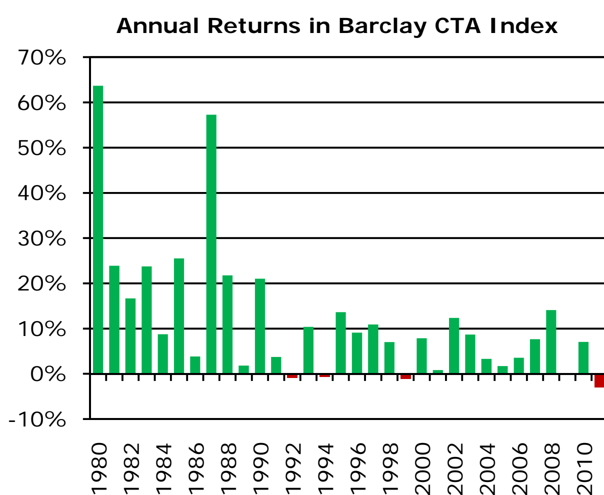
A CTA may be thought of as performing the same function as a stock manager or mutual fund manager. The investor effectively employs, or assigns power of attorney over his funds to, the CTA to manage his investment on a discretionary basis. CTAs typically utilize the global futures markets as their primary investment or trading vehicles in the pursuit of profitable opportunities.

Managed futures investments may also be referred to as commodity funds, futures funds or commodity pools. The terms "CTA," "CPO" and "commodity pool" originate with the United States Commodity Futures Trading Commission (CFTC) – and may

generally be applied to describe these specialized endeavors. However, other regulatory jurisdictions may apply somewhat different nomenclature to describe these activities.

Industry Growth

Concomitant with the growth of the futures industry in general, investment in managed futures skyrocketed since the early 1980s. Barclay Hedge, formerly The Barclay Group, is a research organization specializing in monitoring the performance of CTAs and hedge funds. Barclay Hedge follows the performance of the managed futures industry as a whole, by various categories and on a granular basis by following the progress of specific CTA programs. [1]



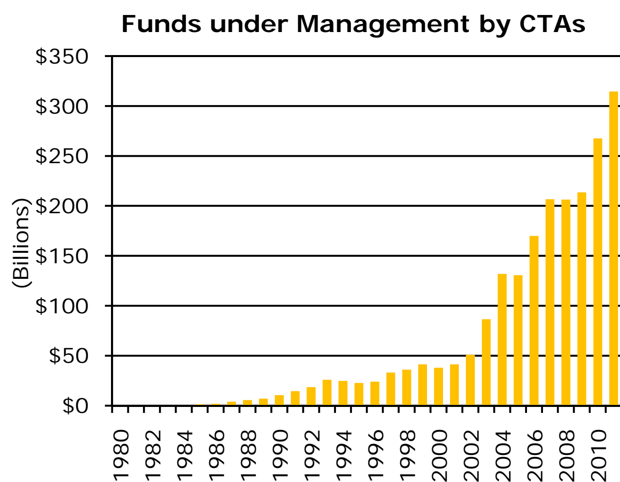
Source: Barclays Hedge Database

Barclay Hedge produces, amongst many other indexes, its flagship Barclay CTA Index, which may be referenced as a benchmark of CTA performance. As evidenced by our graphic depicting annual returns in the Barclay CTA Index, the industry has generally produced attractive returns on an annual basis.

Because of the generally attractive performance posted by the industry, Assets under Management (AUM) held by the CTA community has grown nicely over the years. As of the conclusion of calendar year 2011, the industry held some $314.6 billion in AUM, up significantly from $267.6 billion at the conclusion of 2010.

Attractive Returns

Professor Franklin Edwards of Columbia investigated the performance of managed futures in order to assess their utility as an asset class. His conclusion was that managed futures "make both attractive stand-alone investments and portfolio assets."



Source: Barclays Hedge Database

In order to test that proposition, we examined the returns associated with investments in stocks, bonds and commodities during the 30+ year period from December 31, 1979 through December 31, 2011. Specifically, we used the following indexes as measures of returns in the U.S. equity, fixed income and managed futures markets, respectively…

- *Standard & Poor's 500* - Is widely recognized as the leading benchmark for measurement of domestic equity investments. We reference the total return version of the S&P 500 that is inclusive of both price fluctuations and accrued dividends as a proxy for equity returns.

- *Barcap U.S. Aggregate Bond Index* – Or simply the "Barcap Agg Index" represents a composite index aggregating the total returns associated with U.S. Treasuries, agency obligations, corporate bonds and notes, mortgage instruments and other investment grade U.S. dollar denominated fixed income securities. This Index represents the leading benchmark by which one might measure returns associated with domestic fixed income investments. Note that

[1] See website at www.barclayhedge.com.

the Barcap Agg Index was formerly known as the Lehman Bros. Agg Index.

- *Barclays CTA Index* - Is a leading managed futures industry benchmark of representative performance of commodity trading advisors. There are currently 533 programs included in the calculation of the Barclay CTA Index, which is unweighted and rebalanced at the beginning of each year. To qualify for inclusion in the CTA Index, an advisor must have four years of prior performance history. Additional programs introduced by qualified advisors are not added to the Index until after their second year.

  These restrictions, which offset the high turnover rates of trading advisors as well as their sometimes artificially high short-term performance records, ensure the accuracy and reliability of the Barclay CTA Index. The Index includes traders who are diversified using all major futures contracts worldwide as well as traders who specialize in agricultural, currency and financial/metal products. The Index further represents discretionary traders as well as systematic traders. Table 1 below provides a summary of the components of the Index. [2]

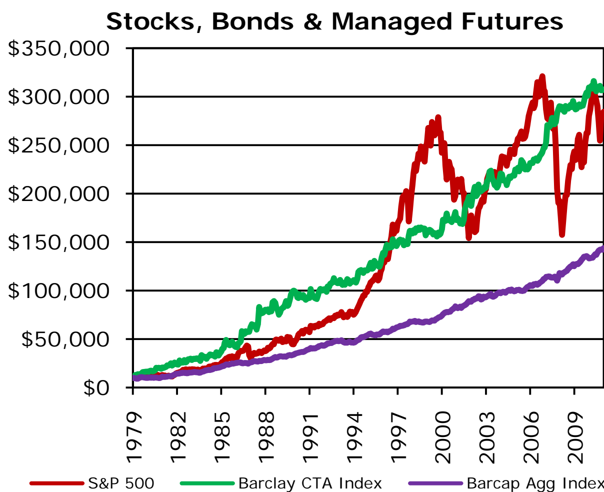
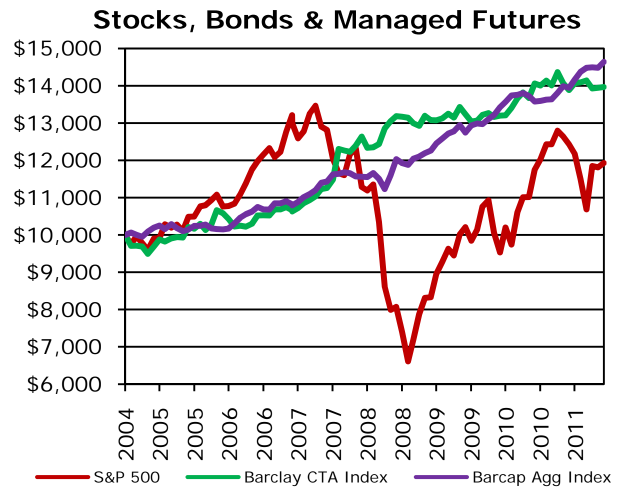


Table 2 provides a summary of monthly returns experienced in stock, bond and managed futures investments as represented by the three indexes over the period from December 31, 1979 through December 31, 2011.

The average monthly return associated with the Barclay CTA Index was 0.98% and equal to the 0.98% return associated with stocks; and, superior to the 0.71% return associated with bonds. If one had invested $10,000 in stocks, bonds or managed futures on December 31, 1979, one's investment might have grown to $284,329; $143,769; or, $307,282, respectively, by December 31, 2011.



Returns are, of course, always very much "period dependent." *E.g.,* if one had invested $10,000 in stocks, bonds or managed futures as of December 31, 2004, one's investment might have grown to $11,928; $13,965; or, $14,642 by December 31, 2011. Note that fixed income investments outperformed stock investments over this seven-year period as detailed in Table 3 below.

Reduced Portfolio Volatility

The argument in favor of managed futures as an investment vehicle was perhaps best and most succinctly stated by Professor John E. Lintner of Harvard who found that inclusion of futures in an investment portfolio "reduces volatility while enhancing return." Further, such portfolios "have substantially less risk at every possible level of return than portfolios of stocks, or stocks and bonds."

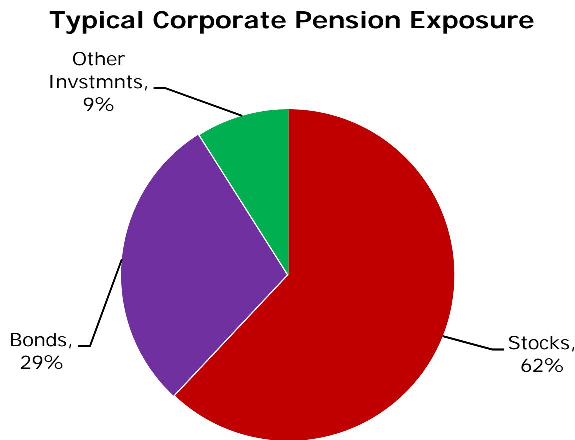
As might be expected, the volatility of managed futures investments … as represented by the standard deviation of monthly returns … likewise exceeds the volatility associated with a bond

[2] Note that Barclay Hedge, as the publisher of the Barclay CTA Index, is not affiliated with The Barclays Capital, the publisher of the Barcap Agg Index.

investment but is somewhat less than the standard deviation of stock returns. Further, the maximum monthly drawdown of a managed futures investment has generally been less than that associated with stock investments albeit a bit more than that associated with bond investments. Tables 2 and 3 below provide performance information from 1980 through 2010; and, from 2005 through 2010, respectively.

When a managed futures investment is combined with investments in "traditional" asset classes such as stocks and bonds, the portfolio diversification generally results in reduced portfolio volatility. This phenomenon is attributable to the fact that managed futures tend to carry a very low or slightly negative correlation with traditional stock and bond investments.

Note that monthly returns in managed futures, as represented by performance of the Barclays CTA Index were not correlated with returns associated with the S&P 500; or, with the Barcap Agg Index during the periods 1980 through 2011; or, from 2005 through 2010. Tables 4 and 5 below provide detailed correlation information.



Source: Credit Suisse Asset Management

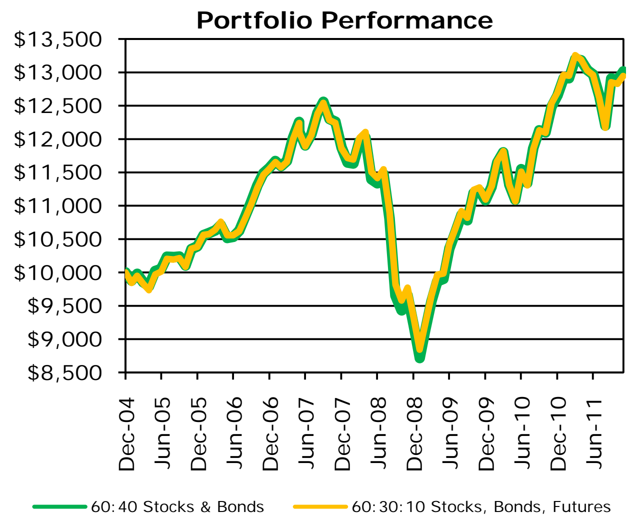
The central premise of Modern Portfolio Theory, as articulated by the Nobel Prize winning economist Dr. Harry M. Markowitz, is that efficient investment portfolios may be created through the process of diversification amongst asset classes with low or negative correlations.

Diversification has, in fact, become a well established investment strategy practiced by institutional pension plans. For example, the defined benefit pension funds of the corporations which comprise the S&P 500 is typically comprised of approximately 60% stocks; 30% bonds; and, 10% "other investments," including commodities and real estate.

Testing the Proposition

In order to test the diversification powers of managed futures investment, we tested two pro-forma portfolios. The first portfolio consisted of a 60% allocation to equities and a 40% allocation to bonds. The second portfolio was comprised of a 60% allocation to equities; 30% allocation to bonds; and, a 10% allocation to managed futures. We tracked the hypothetical performance of these two investment strategies from 2005 through 2011.

Table 6 below summarizes the performance of these two portfolios. An investment of $10,000 in the 60:40 stock:bond might have grown to $13,699 from Dec-04 through Dec-11. A similar investment of $10,000 in the 60:40:10 stock:bond:futures portfolio might have grown to $13,630.

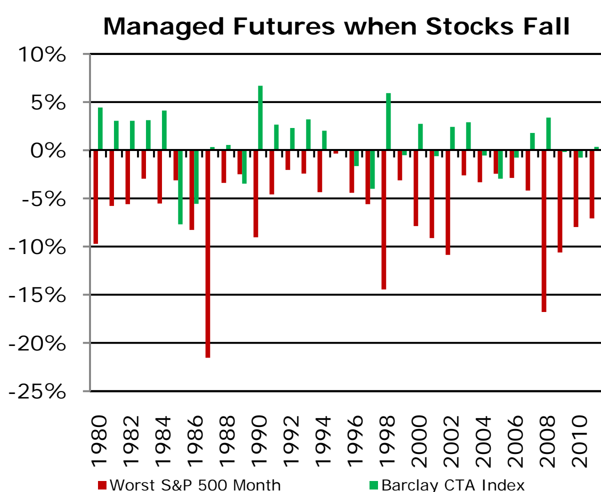


While the average monthly returns of these two portfolios at +0.35% and +0.34% are essentially equivalent, it is noteworthy that the variability associated with the portfolio inclusive of a relatively small 10% allocation to managed futures was less than the portfolio that did not include managed futures. Further, the maximum monthly drawdown of the portfolio that did not include managed futures was significantly greater than the maximum

drawdown of the portfolio that was inclusive of managed futures.

It is further intriguing that managed futures investments often perform well when "mainstream" equity investments perform poorly.

E.g., managed futures reported a return of +14.09% return in 2008 when stock returns were -36.99%. Following this premise, we discovered that managed futures investments frequently post an attractive return during the single month of the year when stocks experienced their worst drawdown of the year. The correlation between the performance of the S&P 500 and the Barclays CTA Index during the worst stock month of the year since 1980 was calculated at -0.2536.



Lintner reinforces these notions … "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."

Bull or Bear Markets

CTAs have the capacity to go long or short any particular commodity traded in the form of a futures contract. As such, CTAs may profit in either a bullish or bearish economic environment.

During periods of high inflation, for example, hard or tangible or physical commodities including items such as gold, silver, crude oil may rally significantly. During periods of deflation or recession, one may very well take short positions in the same markets to profit from anticipated price declines.

Finally, it is very possible to utilize options on these and other commodities to seek profit opportunities in flat or non-trending markets.

Global Diversification

Globalization is a term that applies readily to today's futures markets. International futures exchanges invite diversification on the part of CTAs amongst a wide variety of products and currencies. A typical managed futures portfolio may hold positions in upwards to fifty different markets worldwide, covering stock indexes, interest rates, currencies, agricultural products, energy products, precious and base metals and others.

Thus, CTAs have much opportunity to partake of the risk reducing benefits and profit potential associated with diversification as a stand-alone investment.

Note that CME Group offers the widest array of futures contracts of any exchange worldwide. Our offers span the gamut from short- and long-term interest rates, stock indexes, currencies, energy products, grains, livestock, metals and alternative investments. These products are distributed on a global basis through our state-of-the-art CME Globex® electronic trading platform.

Regulated Industry

It is further noteworthy that the managed futures industry is strictly supervised in the United States by the Commodity Futures Trading Commission (CFTC) and the National Futures Association (NFA). In fact, the entirety of the futures industry is similarly regulated in the United States. Other jurisdictions in which futures may be traded usually are similarly regulated.

Future of Managed Futures

We expect that the demand for aggressive and leveraged investment strategies, as might be pursued by CTAs, will be strong in coming years. This is underscored by the persistent gap between pension fund assets and the present value of their obligations.

Despite the fact that the S&P 500 posted a slightly positive return of +2.09% in 2011, the funding gap between the present value of future obligations and assets held by the pension funds of the corporations that comprise the S&P 500 remains critical. The gap stood at $355 billion at the conclusion of 2011, which represents the largest shortfall observed to date.

As such, we believe it is safe to conclude that these pension funds and other institutional and retail investors will continue to turn to levered trading and investment strategies as might be offered by the managed futures community.

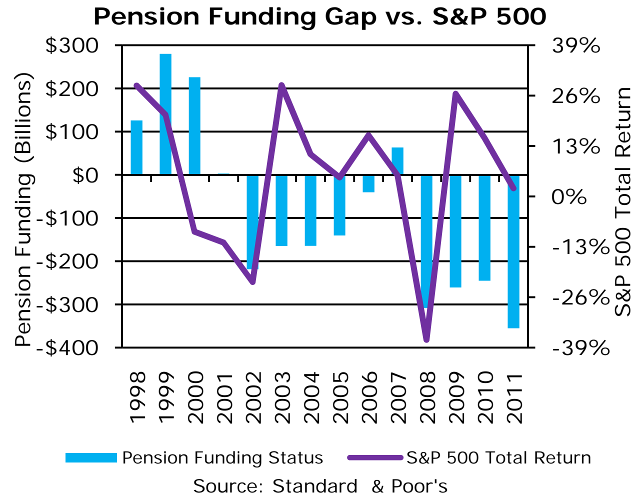


Table 1: Categorizing CTAs

	Assets Under Management (Dec-11)	2011 Performance	No. of Programs
TOTAL	$314.6 billion	-3.05%	565
Markets Traded			
Agricultural Traders	$1.09	1.83%	29
Currency Traders	$27.28	2.34%	117
Diversified Traders	$181.91	-5.56%	360
Financial/Metal Traders	$81.64	0.40%	98
Trading Style			
Discretionary Traders	$26.98	3.07%	150
Systematic Traders	$259.88	-3.75%	457

Source: Barclays Hedge Database

Table 2: Monthly Returns
(1980-2011)

	S&P 500	Barclays CTA Index	Barcap US Agg Bond Index
Average	0.98%	0.98%	0.71%
Standard Deviation	4.51%	4.33%	1.64%
Maximum Return	13.47%	29.26%	11.34%
Minimum Return	-21.54%	-9.81%	-5.92%

Table 3: Monthly Returns
(2005-2011)

	S&P 500	Barclays CTA Index	Barcap US Agg Bond Index
Average	0.32%	0.41%	0.46%
Standard Deviation	4.72%	1.53%	0.99%
Maximum Return	10.88%	7.17%	3.73%
Minimum Return	-16.79%	-2.95%	-2.36%

Table 4: Correlation of Monthly Returns
(1980-2011)

	S&P 500	Barclays CTA Index	Barcap US Agg Bond Index
S&P 500	-		
Barclays CTA Index	0.0064	-	
Barcap US Agg Bond Index	0.2023	0.0155	-

Table 5: Correlation of Monthly Returns
(2005-2011)

	S&P 500	Barclays CTA Index	Barcap US Agg Bond Index
S&P 500	-		
Barclays CTA Index	-0.0583	-	
Barcap US Agg Bond Index	0.0831	0.0240	-

Table 6: Monthly Portfolio Returns
(2005-2011)

	60% Stocks & 40% Bonds	60% Stocks, 30% Bonds & 10% Managed Futures
Average	0.35%	0.34%
Standard Deviation	2.67%	2.62%
Maximum Return	5.77%	5.60%
Minimum Return	-10.65%	-9.92%

Copyright 2012 CME Group All Rights Reserved. Futures trading is not suitable for all investors, and involves the risk of loss. Futures are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a futures position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade. All examples in this brochure are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience."

Swaps trading is not suitable for all investors, involves the risk of loss and should only be undertaken by investors who are ECPs within the meaning of section 1(a)12 of the Commodity Exchange Act. Swaps are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade.

CME Group is a trademark of CME Group Inc. The Globe logo, E-mini, Globex, CME and Chicago Mercantile Exchange are trademarks of Chicago Mercantile Exchange Inc. Chicago Board of Trade is a trademark of the Board of Trade of the City of Chicago, Inc. NYMEX is a trademark of the New York Mercantile Exchange, Inc.

The information within this document has been compiled by CME Group for general purposes only and has not taken into account the specific situations of any recipients of the information. CME Group assumes no responsibility for any errors or omissions. Additionally, all examples contained herein are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience. All matters pertaining to rules and specifications herein are made subject to and are superseded by official CME, NYMEX and CBOT rules. Current CME/CBOT/NYMEX rules should be consulted in all cases before taking any action.