

MSIM Managed Futures: A Primer

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What are Managed Futures and Commodity Trading Advisors?

Managed futures investment strategies may provide qualified investors access to the world's exchange-cleared and regulated futures, options on futures, and currency forward markets. These investment strategies are employed by Commodity Trading Advisors (CTAs). Historically, the CTA universe is comprised of a wide array of investment approaches that manage client assets. CTAs are professional asset managers with membership in the National Futures Association (NFA) and are registered with the Commodity Futures Trading Commission (CFTC).

There are several characteristics of managed futures which differentiates it as an investment strategy. Below are a few of the primary fundamental underpinnings and features of managed futures as an alternative investment strategy.

Absolute Return Strategy:

There is often the misconception that managed futures only make profits when stocks are down and vice versa when stocks rally. In reality, managed futures is an absolute return strategy whose long-term returns are independent not only of stock market performance but also any other asset class. One of the key reasons this is often the case is because a CTA can go long or short in any

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market they trade in with relatively equal ease. Thus, a managed futures strategy can capitalize when markets are exhibiting bullish tendencies, but also record gains from downside price moves. It is the ability to be long or short in the global futures marketplace which, over time, gives managed futures its low correlation not only to traditional stock and bond investments, but other alternative strategies as well. And, because managed futures have been complementary to these other investment strategies, an inclusion of managed futures to a qualified investor's portfolio can potentially improve the portfolio's overall risk/return characteristics. (However, it is important to remember past performance is not indicative of future results.)

Inherent Diversification:

Another key aspect of managed futures is the style differentiation and integration of two separate and unique investment styles, quantitative systematic and fundamental discretionary trading.

SYSTEMATIC STRATEGIES:

- These strategies typically utilize proprietary trading models to identify pricing trends ranging from short-term to long-term, with short-term strategies holding trades for only a few days, and longer-term strategies seeking to capitalize on price trends over weeks or months. Systematic CTAs are unemotional in their investment-making processes. Each systematic CTA has its own proprietary trading models that have the advantage of optimally adjusting exposures as opportunities ebb and flow, without the “in the moment” emotion that can be involved with discretionary decision-making.
- Trading models across CTAs differ greatly with regards to markets traded, time horizon, type of analysis employed, and input data analyzed. These models attempt to determine the future trajectory of prices or relative relationships based on historical data inputs and using scientific methods. Accordingly, research departments at CTAs are staffed primarily by experts

with quantitative backgrounds such as mathematicians, physicists, engineers and scientists from other quantitative-related disciplines.

- More powerful computing technology, data availability and collection, and overall growing market diversity has been the primary drivers behind the evolution of systematic trading strategies over the last few decades.
- This automated style of trading has many advantages. Most importantly, a systematic CTA can monitor and trade in multiple markets at one time. Most CTAs trade between 75 and 200 markets at once, many of which have little to no correlation to one another. This broad exposure to multiple market opportunities lies at the foundation of managed futures trading. Using strict risk controls, liquid markets and daily mark-to-market practices, CTAs have positions in numerous trades, adjusting position sizes accordingly as opportunities develop or challenging trading environments arise.

FUNDAMENTAL DISCRETIONARY STRATEGIES:

- These strategies tend to be less technical and more fundamental, seeking to anticipate market moves rather than capitalize on existing price trends. They tend to trade with larger position sizes, in a smaller number of markets. Discretionary strategies may also focus their expertise on a single market or market sector.
- Discretionary CTAs acquire deep expertise in their areas of specialty. They analyze fundamental supply demand data, gather quantitative and qualitative information from niche, not easily obtainable, data sources, including other experts in a particular field related, directly or indirectly, to the markets traded by the CTA. Quantitative and qualitative analyses are performed to identify individual market price imbalances that offer attractive risk reward opportunities. This expertise

tends to result in fewer, larger positions than a systematic manager would normally have. Discretionary managers, whether they trade futures or securities, can share this trait.

- Discretionary CTAs are required to possess expert knowledge. They are typically focused on a particular sector, such as energy, for example, or can be even further specialized to a market within a sector, natural gas being one. In addition, position sizing and timing of trade entry and exit is of extreme importance. Fundamental CTAs rely on their risk management expertise, developed over their professional careers, suited to their personalities and their clients' risk tolerances.

Unique Diversification Through Broad Global Market Access:

Futures markets allow direct access to markets that are important to the world's economic flows and may offer opportunities that are difficult for investors to access via other investment options. Currently, there are dozens of futures exchanges globally and hundreds of individual futures markets trading on those exchanges, with new market contracts added frequently. This allows for broad global market diversification (*Display 1*) across a wide range of market sectors, including: Currency, Fixed Income, Equity Indices, Commodity (energies, grains, softs, metals, livestock)

Futures contracts traded on individual markets are based on standardized terms and set dates. As such, CTAs typically do not trade in individual physical markets or securities, but rather, futures contracts based on representative asset prices for a future date. We believe the breadth of the futures markets is one of the main reasons that managed futures funds have historically performed differently from stocks, bonds and other alternative investment strategies.

In general, futures markets provide commodity producers an opportunity to hedge against fluctuating market prices.

DISPLAY 1**Representative Markets Traded****Global Market Exposure*

EQUITY INDICES	FIXED INCOME	CURRENCIES	AGRICULTURALS	METALS	ENERGY
AEX	Australian Bank Bill	Argentine peso	Barley	Aluminum	Brent crude oil
All Share	Australian Treasury Bonds	Australian dollar	Cocoa	Copper	Crude oil
CAC 40	British Long Gilt	Brazilian real	Coffee	Gold	Gas oil
DAX	British Short Sterling	British pound	Corn	Lead	Gasoline
Dow 30	Canadian Bankers Acceptances	Canadian dollar	Cotton	Nickel	Heating oil
EAFE	Canadian Government Bond	Chilean peso	Feeder cattle	Palladium	Kerosene
FTSE 100	Euribor	Chinese yuan	Lean hogs	Platinum	Henry Hub (U.S.) Natural gas (U.S./UK)
Euro Stoxx 50	Eurodollar	Colombian peso	Live cattle	Silver	European natural gas
Euro Stoxx 600	European Bonds	Czech koruna	Lumber	Tin	Global coal
H-Shares	Euroyen	Euro	Milk	Zinc	European electricity/power
Hang Seng	Japanese Government Bond	Hong Kong dollar	Oats	Iron ore	European carbon emissions
IBEX 35	New Zealand Bill Swapnotes	Hungarian forint	Orange juice	Steel	California carbon emissions
MIB 30	Swiss Government Bond	Indian rupee	Pork bellies		
MSCI EAFE	U.S. Treasury Bonds	Indonesian rupiah	Rapeseed		
MSCI Emerging Markets	U.S. Treasury Notes	Israeli shekel	Red wheat		
NASDAQ 100		Japanese yen	Rough rice		
Nikkei 225		Korean won	Rubber		
NYSE Composite		Malaysian ringgit	Soybean meal		
OMX 30		Mexican peso	Soybean oil		
Russell 1000		New Zealand dollar	Soybeans		
Russell 2000		Norwegian krone	Sugar		
S&P Canada 60		Philippine peso	Wheat		
S&P Midcap		Polish zloty			
S&P Nifty		Russian ruble			
S&P 500		Singapore dollar			
Singapore Free		South African rand			
SPI 200		Swedish krona			
Taiwan		Swiss franc			
Topix		Taiwan dollar			
		Turkish lira			
		U.S. dollar			

* The list above is for illustrative purposes only and may not necessarily be inclusive of all the markets that may be traded on behalf of the Funds operated by the Managed Futures team.

An investment in these dynamic markets can offer investors an opportunity today to potentially protect their investment portfolios from adverse market environments as well as add important portfolio diversification that can potentially improve overall portfolio risk-adjusted returns.

Below are some of the other key aspects which differentiate managed futures funds from traditional investments as well as other alternative investment strategies:

- MANAGED COUNTERPARTY RISK:** Futures contracts are exchange-cleared instruments, which means the risk between counterparties is managed effectively by the respective exchanges and limited to an exchange's members. Each exchange has a clearing corporation that consists of multiple institutional members. The clearing corporation takes the offsetting positions of each participant and clears them so that all parties are made whole, and all transactions are completed.

Clearing members have a financial obligation to support this function. A clearing corporation's multiple members help to minimize the risk of single counterparty default—a risk that exists for securities that are not cleared via a clearing corporation.

- LIQUIDITY:** Futures contracts are liquid financial instruments that trade and settle daily on regulated exchanges, which allows for transparent market pricing.

DISPLAY 2

Barclay CTA Index vs. Asset Classes

January 2005 - August 2022

	US STOCKS	US BONDS	INTERNATIONAL STOCKS	MANAGED FUTURES	HEDGE FUNDS	COMMODITIES
US STOCKS	1.00	0.12	0.97	0.05	0.83	0.46
US BONDS		1.00	0.14	0.05	0.06	(0.14)
INTERNATIONAL STOCKS			1.00	0.08	0.88	0.53
MANAGED FUTURES				1.00	0.23	0.13
HEDGE FUNDS					1.00	0.64
COMMODITIES						1.00

Data: January 2005-August 2022. U.S. stocks are represented by the S&P 500 TR, U.S. Bonds by Bloomberg US Agg Bond TR, International Stocks by MSCI World Index, Managed Futures by Barclay CTA Index, Hedge Funds by HFRI Fund Weighted Composite Index, and Commodities by S&P GSCI TR Index. Data for Indices were provided by EurekaHedge. Past performance is not indicative of future results.

- **REGULATION:** Subject to oversight by CFTC and National Futures Association (NFA).
- **TAX EFFICIENCY:** The majority of the trading-related gains and losses from managed futures funds are taxed annually at 60% long-term /40% short-term tax rates and reported via Schedule K-1.
- **TRANSPARENCY:** Unlike many other alternative investments, managed

futures are able to mark-to-market daily, providing a higher level of transparency and frequency of valuation.

Low Correlation to Other Asset Classes:

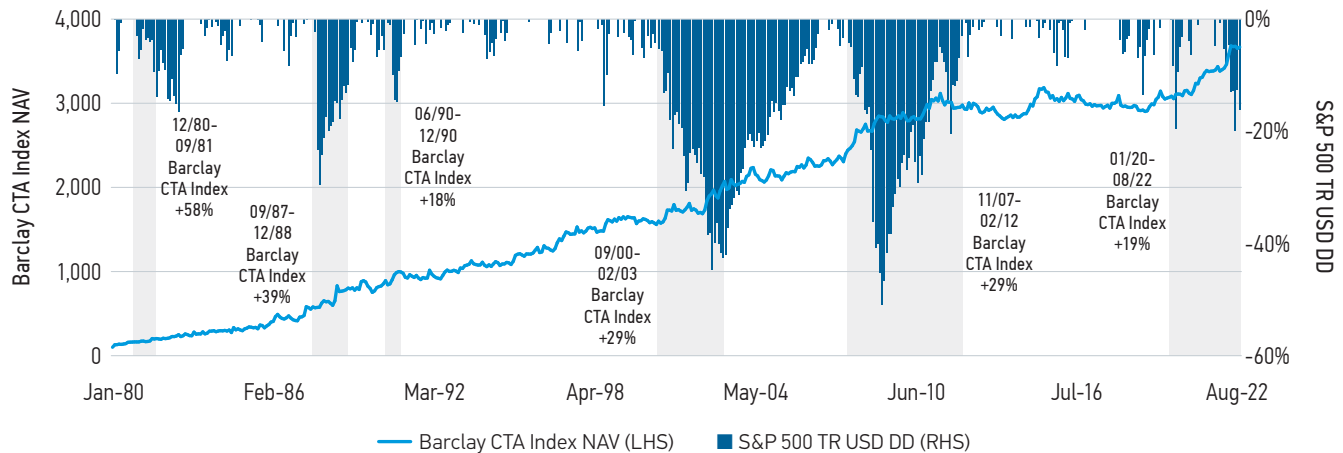
- Historically, managed futures have had low correlation to traditional asset classes and other alternative investments, which can make them a powerful portfolio diversifier. Unlike long-only and long-biased equity and bond portfolios, which

tend to rise and fall with their respective markets, managed futures investments generally profit when sustainable trends, either up or down, exist. This is represented by the above correlation chart which shows the long-term correlation between managed futures, as represented by the Barclay CTA Index, versus other traditional and alternative asset classes.

- Over time, managed futures have proven to be a source of downside protection, delivering positive

DISPLAY 3

Barclay CTA Index vs. S&P 500 TR Drawdown



Data: January 1980- August 2022 Barclay CTA Index and S&P 500 TR Index. Data for Indices were provided by EurekaHedge. Past performance is not indicative of future results.

returns during periods of equity market weakness. In fact, managed futures investments have historically experienced their strongest performance when traditional markets are experiencing extended and severe weakness and heightened, directional volatility. The previous chart indicates the performance of the Barclay CTA

Index during periods of extended equity drawdowns represented here by the S&P 500 Total Return Index. As the chart shows, historically, managed futures have tended to perform well in periods of extended equity weakness.

- Managed futures, with the scope and breadth of both systematic and

discretionary strategies, trade both long and short across a universe of potentially hundreds of markets on exchanges around the globe, and can be a source of diversification in traditional stock and bond portfolios, as well as to other alternative strategies like private equity and hedge funds.

MSIM's Managed Futures Investment Team:



PATRICK EGAN
*Executive Director
Head of Managed
Futures Group*

- 30+ years of relevant industry experience
- B.B.A., University of Notre Dame
- Chairman and President of Ceres Managed Futures LLC
- Former Director on the Managed Funds Association's Board of Directors
- Series 3, 7, 24, and 63
- Experience: Morgan Stanley



SRĐJAN TESLIC, PH.D.
*Executive Director
Chief Investment Officer*

- 25+ years of relevant industry experience
- PhD, Materials Science and Engineering, University of Pennsylvania
- B.S., Physics from University of Novi Sad, Serbia
- Experience: SEI, BNP Paribas, Parker Global, Ferro, JPMorgan



SCOTT DUNLAP
*Vice President
Portfolio Manager*

- 20+ years of relevant industry experience
- B.A., Lehigh University
- Finra Series 7
- Experience: Morgan Stanley, Ark Asset Management

MSIM's Managed Futures team, which has roots dating back 40-plus years, specializes in providing high net worth and institutional investors access to multimanager investment solutions. In our view, an allocation to managed futures is an essential component of a well-diversified portfolio. Over the long term, we believe these strategies provide important diversification benefits versus other traditional and alternative asset classes.

For more information, please contact the MSIM Alternative Investments Hotline at (212) 296-7676.

INDEX DESCRIPTIONS

The respective indices used in this presentation are the S&P 500 Total Return Index, Barclays Aggregate Bond Index, Barclay BTOP50 Index, and HFRI Fund of Funds Composite Index.

The **S&P 500 Total Return Index** is based on a portfolio of 500 stocks. The S&P 500 Total Return Index is a market value weighted index with each stock's weight proportionate to its market value. The S&P 500 Total Return Index accounts for approximately 80% coverage of U.S. equities as of June 30, 2016. Total return provides investors with a price-plus-gross cash dividend return. Gross cash dividends are applied on the ex-date of the dividend.

The **Bloomberg Aggregate Bond Index** covers the U.S. dollar-denominated, investment-grade, fixed-rate, taxable bond market of SEC-registered securities. The index includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS sectors.

The **MSCI World Index** is a free float adjusted market capitalization weighted index that is designed to measure the global equity market performance of developed markets. The term "free float" represents the portion of shares outstanding that are deemed to be available for purchase in the public equity markets by investors. The performance of the Index is listed in U.S. dollars and assumes reinvestment of net dividends.

The **Barclay CTA Index** is a leading industry benchmark of representative performance of commodity trading advisors. 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 artificially high short-term performance records, ensure the accuracy and reliability of the Barclay CTA Index.

HFRI Fund Weighted Composite Index is an index comprised of funds of hedge funds classified by Hedge Fund Research, Inc. as "diversified." Funds of hedge funds classified by HFR as "diversified" do not necessarily meet applicable diversification tests under the Investment Company Act of 1940 or the Internal Revenue Code. Rather, funds of hedge funds classified by HFR as "diversified" seek to minimize losses during down markets while still achieving superior returns in up markets, and they seek to do so by investing in underlying hedge funds collectively pursuing a variety of investment strategies and managed by multiple investment managers. The Index is an index of funds of hedge funds comprising approximately 340 funds of hedge funds which report monthly returns to HFR's database and have either a minimum of \$50 million in net assets or a track record of at least 12 months.

S&P GSCI TR Index is the first major investable commodity index. It is one of the most widely recognized benchmarks that is broad-based and production weighted to represent the global commodity market beta. The index is designed to be investable by including the most liquid commodity futures, and provides diversification with low correlations to other asset classes.

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