Harnessing the Potential Benefits of Managed Futures

Potential benefits of adding managed futures strategies to traditional stock/bond portfolios include:

- **Risk-Adjusted Returns**
  Over the long term, managed futures have historically earned risk-adjusted returns comparable to most other asset classes, both traditional and alternative.

- **Diversification**
  The returns on managed futures have historically displayed low correlations to stocks and bonds, as well as other alternative asset classes, thereby providing potential portfolio diversification benefits.

- **“Crisis Alpha”**
  Managed futures have the potential to earn “crisis alpha” during periods of market turmoil, as was seen during the tech crisis of 2001-02 and the financial crisis of 2007-08, for example.

In this Insight, we discuss the rationale behind these potential benefits, and then suggest how, in our opinion, they can be harnessed.

**HISTORICAL RETURN PROFILE**
Over the long term, managed futures have historically earned risk-adjusted returns comparable to most other asset classes, both traditional and alternative, generally with shallower peak-to-trough drawdowns. But even investors aware of this, often tend to be unclear about the “sources” of those returns.
The term “managed futures” is at least partly self-explanatory: the primary instruments used here are (exchange-traded) futures contracts, although some CTAs (Commodity Trading Advisor) also use forward contracts and options. But exactly which futures contracts? The answer: almost all of them.

To understand this, let us take a look at a day in the life of a CTA. Typically, for most of these traders, the trading day begins a few hours after US markets close at about 4 PM ET, when markets in the Far East open: New Zealand, Australia, Japan, Korea, Singapore, Hong Kong, Shanghai, to name a few. As the sun moves westward, markets in India, Russia and the Middle East open, followed a few hours later by European markets. Markets in North and South America are among the last ones to open, by which time Eastern markets have already been closed for a few hours, and Europe is almost at the end of its trading day. Most CTA programs trade futures contracts in many or all of these global markets.

There are two important points to note here. First, managed futures as a trading strategy is geographically diversified, and second, it is diversified across sectors and markets. Generally, we classify the range of futures contracts traded into two main sectors: financials and physicals.

**Financial Futures Sector Includes**
- **Equity index futures**: some CTA programs also trade single-stock futures
- **Fixed-income futures**: which include STIRs (short-term interest rates) as well as longer-dated bonds
- **Currency futures**: which may include emerging-market currencies in addition to developed market currencies

**Physical Commodity Futures Sector Includes**
- **Energy futures**: which include crude, natural gas, heating oil, etc.
- **Metal futures**: including both precious and industrial metals
- **Agricultural commodity futures**: which are typically comprised of grains such as wheat, corn, soybeans, etc.; soft commodities like sugar, coffee, cotton, etc.; and livestock, which includes cattle, hogs, etc.
The details on page two simply emphasize that the sources of managed futures returns are legion: they can come from many different futures markets that are traded on many different exchanges in many different countries and continents. Through a single asset class, therefore, investors may potentially participate in the returns of global equities, global bonds, global currencies, and global physical commodities. That is because most CTA programs tend to proactively diversify equally across these four “super-sectors,” and all these sectors and the markets within them tend not move in tandem with each other at all times.

Managed futures showcased this ability in spades during 2014, for example. As global equity markets reached new highs, managed futures participated in the positive returns from this sector. As global interest rates continued to fall, fixed-income futures also made positive contributions to managed futures returns. As energy prices plunged and as the Euro plummeted against the US Dollar, positive returns were earned. When strong trends of this type are present in multiple markets and sectors, the managed futures asset class historically has often basked in the limelight.

Finally, it is worth noting that in addition to their historical attractive returns, managed futures have also tended to display shallower peak-to-trough drawdowns than other asset classes with similar risk, such as equities and commodities.

LOW CORRELATIONS

Managed futures returns have historically displayed low correlations to most other asset classes, both traditional and alternative. What is the rationale for this?

As we discussed in the previous section, managed futures returns come from four different “super-sectors,” it seems reasonable, based on what we know from Modern Portfolio Theory, that these returns would have relatively low correlations to the returns of any of the individual sectors like stocks or bonds. But there is a more important reason, and it is the reason that potentially makes managed futures such a useful portfolio diversifier.

Most traditional investment strategies, such as buying stocks or bonds, or even buying commodities or real estate, seek to profit from upward trends in the prices of the investments. But prices do not always trend up. A severe market downturn can impair the value of investments, as we discovered during 2007-08, when stocks fell 50% and commodities plunged even more. CTAs, by way of contrast, have the ability to take short positions, seeking to profit when asset prices are trending down. If a trading program is long equities when markets are trending up, the correlation of its returns with equity returns is likely to be high and positive. If the program is short equities when markets are trending down, the correlation of its returns with equity returns is likely to be high but negative. Thus, on average, over a market cycle, the average of these positive and negative correlation coefficients is likely to be a low number, closer to zero.

MODERN PORTFOLIO THEORY
FURTHER EXPLAINED

Reducing risk while keeping the expected return the same provides the opportunity to improve the portfolio’s “risk-adjusted return.”

This idea is one of the keystones of Modern Portfolio Theory—ideas developed by Harry Markowitz and William Sharpe, co-recipients of the 1990 Nobel Prize in Economics. Investors must recognize that if they want to earn higher returns, they typically need to take on more risk. What is important is not return in isolation, but return “scaled” by risk.

Definitions of Terms and Indices can be found on pages 5-6.
Note that this ability to go short is an important feature of exchange-traded futures (ETF) markets. It is much easier to seek to profit from market downturns by selling futures than by shorting stocks, bonds or commodities. Stocks and bonds need to be borrowed before they can be shorted, and it is often necessary to pay for the borrowing. Short positions via put options or inverse ETFs tend to be relatively costly and inefficient. With futures contracts, on the other hand, it is just as easy to go short (or sell) as it is to go long (or buy). It is also worth emphasizing that managed futures strategies should not be confused with “commodity investments” that involve simply buying (and holding) commodities. This type of strategy can be very vulnerable during a plunge in commodity prices, when managed futures could potentially be quite lucrative as a result of short positions in commodity markets.

PERFORMANCE DURING CRISES

In addition to their long-term historical risk-adjusted returns and their ability to serve as a potential diversifier in investment portfolios, there is one additional property of managed futures that is often discussed, particularly in the context of the recent global financial crisis. While equities, commodities, and most other alternative strategies were suffering significant losses, 2008 turned out to be one of the best years ever for several CTA programs. What was the reason for this “unusual” performance? There are a number of possible and plausible explanations, all of which have to do with certain characteristics of the managed futures asset class. The first is the ability to go short that was discussed above. CTA programs were able to profit, for example, from both the sharp (almost +70%) increase in the price of crude oil during the first half of 2008 as well as the precipitous (almost −80%) plunge during the second half of the year. This general pattern also held true for other commodities, as well as for equity markets.

The second property of managed futures that helped during the crisis was liquidity. Unlike some of the illiquid instruments like collateralized debt obligation (CDO), mortgage-backed securities, etc., that were held by many hedge funds, the futures instruments traded by CTAs are almost immeasurably more liquid. Hedge funds that were holding illiquid assets were particularly hard hit, as they became victims of a vicious cycle: as these hedge funds were forced to sell illiquid assets in order to meet margin calls, the value of their remaining holdings had to be marked down, triggering further margin calls, and on and on. Most financial futures markets, and even several commodity futures markets, tend to be more liquid than even some small-cap stocks.

The third reason managed futures shone during the crisis had to do with a feature that characterizes all systematic CTA trading programs: virtually all aspects of these programs, from trade initiation to position sizing, from stop-loss orders to trade exits, are “systematic” or automated. In other words, once the programs are put in place, there is very little, if any, manual intervention or overriding. In this way, human emotions such as fear and greed are removed from the equation. Behavioral

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The purchase of a managed futures investment involves a high degree of risk. Specifically, you should be aware that, in addition to normal investment risks, managed futures investments entail certain risks, including, in all or some cases:

- Managed futures often engage in leveraging and other speculative investment practices that may increase the risk of investment loss.
- Managed futures can be highly illiquid.
- Managed futures are not required to provide periodic pricing or valuation information to investors.
- Managed futures may involve complex tax structures and delays in distributing important tax information.
- Managed futures are not subject to the same regulatory requirements as mutual funds.
- Managed futures often charge high fees.

Economists have shown that these emotions, manifesting in the form of herding, over-reacting, anchoring, are often responsible for potentially deleterious investment decisions such as hanging on to losers in the hope of “breaking even”, selling low and buying high, and so on. This behavior is often exacerbated during asset price bubbles and their subsequent bursting, as we saw in 2007-08. A trading program that automates buys and sells as well as position sizing, stop-loss orders and overall risk management, steers clear of emotion-driven investment decisions that have the potential to adversely affect investment results.

**CONCLUSIONS**

Managed futures strategies can take both long and short positions in globally diversified liquid futures markets using systematic trading programs. In the hands of experienced and skilled CTAs, these types of programs have the potential to generate return streams with low correlations to most other asset classes, both traditional and alternative. Historically, these programs have provided attractive risk-adjusted returns in the long term, and notably during global financial crises.

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**APPENDIX**

**DEFINITIONS**

Collateralized Debt Obligation (CDO) is a structured financial product that pools together cash flow-generating assets and repackages this asset pool into discrete tranches that can be sold to investors. A collateralized debt obligation (CDO) is so-called because the pooled assets – such as mortgages, bonds and loans – are essentially debt obligations that serve as collateral for the CDO. The tranches in a CDO vary substantially in their risk profile. The senior tranches are relatively safer because they have first priority on the collateral in the event of default. As a result, the senior tranches of a CDO generally have a higher credit rating and offer lower coupon rates than the junior tranches, which offer higher coupon rates to compensate for their higher default risk.

Crisis alpha is used to describe a potential investment opportunity that can be utilized by exploiting persistent trends taking place across markets during times of crisis. While an investment in during times of crisis can help enhance returns, it can also do just the opposite and result in losses within a portfolio.

Correlation coefficient is a statistical measure of how two investments move in relation to each other. A correlation of +1.0 implies that as one investment moves, either up or down, the other investment will move lockstep, in the same direction. A correlation of -1.0 means that if one investment moves in either direction the other investment will move in the opposite direction. A correlation of 0 indicates that the movements of the investments have no correlation; they are completely random.

A drawdown is the peak-to-trough decline during a specific record period of an investment, fund or commodity. An Exchange-Traded Fund (ETF) is an investment fund that tracks an index, specific asset or basket of assets to which it is pegged. ETFs are bought and sold throughout the day like securities on the stock exchange.

A Long position is the purchase of a security such as stock, commodity or currency, with the expectation that the asset will rise in value.

A margin call is a broker’s demand on an investor using margin to deposit additional money or securities so that the margin account is brought up to the minimum maintenance margin. Markdown is the difference between the highest current bid price among broker-dealers in the market and the lower price that a dealer charges a customer.

Modern Portfolio Theory (MPT) is a theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

Definitions continued on back.
APPENDIX CONTINUED

DEFINITIONS

Risk-adjusted return is a concept that refines an investment's return by measuring how much risk is involved in producing that return, which is generally expressed as a number or rating. Risk-adjusted returns are applied to individual securities and investment funds and portfolios.

Put options are option contracts that give the owner the right, but not the obligation, to sell a specified amount of an underlying security at a specified price within a certain period of time.

A Short position is the sale of a borrowed security, commodity or currency with the expectation that the asset will fall in value.

Stop-loss orders are placed with a broker to sell a security when it reaches a certain price and designed to limit an investor's loss on a position in a security.

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