

THE PRACTITIONER'S GUIDE TO INVESTING IN MANAGED FUTURES

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Plenty of white papers extoll the diversification benefits of investing in managed futures strategies. Those papers principally highlight long-term statistical benefits: low correlation to traditional asset classes and strong historical performance during down equity markets. Add managed futures to a traditional 60/40 portfolio, they assert, and the efficient frontier rises. While those benefits are real, they miss a key point: allocators, especially those with retail clients, generally are not evaluated on ten- or twenty-year Sharpe ratios (risk-adjusted performance). Consequently, in the real world, allocators need a better framework to justify the inclusion of managed futures today and to set clear expectations with clients as to reasonable near-term and longer-term benefits. This paper approaches these questions from the perspective of a practitioner, not theoretician.

The paper is divided into three sections:

- 1. Statistical and Practical Benefits of Managed Futures
 - Statistical Benefits: Long-term Evidence is Strong
 - Tail Risk Protection/Crisis Alpha During Equity Market Drawdowns
- 2. How to Frame an Allocation to Clients
 - Potential to Perform in Both Rising and Declining Equity Markets
 - Stronger Absolute Returns in Declining Equity Markets
 - Added Note: Behavioral Benefits of Positive Performance in Equity Bear Markets
- 3. Pitfalls and How to Avoid Them
 - Single Manager Risk
 - Performance Chasing
 - The Difficulty with Explaining Single Manager Underperformance

We conclude with some observations about recent performance and discuss a potential solution that can potentially enable allocators to efficiently gain exposure to the asset class while avoiding key pitfalls.

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PART 1 - STATISTICAL AND PRACTICAL BENEFITS OF MANAGED FUTURES

STATISTICAL BENEFITS: LONG-TERM EVIDENCE IS STRONG

A central tenet of modern portfolio theory is that risk-adjusted returns are improved by the inclusion of assets with low or negative correlation to assets already in the portfolio – the diversification "free lunch." The chart to the right represents the standard argument: add managed futures to a traditional stock/bond portfolio, and the efficient frontier rises. In other words, for a given level of risk (volatility), expected returns are higher over the coming ten or twenty years.



This argument is empirically sound. Managed futures exhibit unusually low long-term correlations to traditional asset classes. In fact, the correlation of managed futures to equities is much lower over time than, for example, hedge funds. The chart below shows the correlation of the SocGen CTA index of hedge funds to several asset classes since 2000 with the HFRI Fund Weighted Index for comparison.



Correlations to Traditional Asset Classes (Jan 2000 - May 2019)

From a statistical perspective, any asset with zero or low correlation to traditional assets, and especially equites, is highly valuable. Even if managed futures strategies were to deliver moderate absolute returns, the overall portfolio is likely to follow a smoother "path" going forward. The data strongly supports the argument that most investors would benefit, over the long term, by investing in managed futures.

What does this mean in practical terms? If an investor had included a 20% allocation to managed futures over January 2000 – May 2019 period, better performance would have been achieved compared to a traditional 60/40 portfolio while reducing the volatility by 20%. ¹

¹ DBi calculated using MSCI World/Barclays Global Aggregate for the 60/40 portfolio and SocGen CTA for the 20% allocation.

While those improvements are supported by historical data, few allocators start with a simple 60/40 portfolio or will allocate 20% to a single diversifier like managed futures. This brings us to the second benefit.

TAIL RISK PROTECTION/CRISIS ALPHA DURING EQUITY MARKET DRAWDOWNS

Analysis of long-term correlations overlooks a key benefit: managed futures tend to perform positively during the panicked selling characteristic of equity drawdowns. In other words, managed futures correlations often are <u>negative</u> during equity market drawdowns. Since equities account for 90% or more of the risk of a typical diversified portfolio, the ability to outperform during down equity markets is where managed futures may offer the most "bang for the buck." The chart below shows the outperformance of managed futures during many of the worst quarters for the S&P 500 since 2000:



SocGen CTA Outperformance to S&P 500

Why is this? Managed futures strategies are designed to discern price trends in various asset classes. As equities decline, managed futures funds often pivot to short positions and rise when equities fall further. In addition, when equities decline, other asset classes tend to be repriced simultaneously. This can provide a fertile opportunity set for trend followers.

PART 2: HOW TO FRAME AN ALLOCATION TO CLIENTS

Given the above, allocators – especially those with retail clients – should frame managed futures as a strategy that has the potential to benefit portfolio construction and provide near-term protection in the event of a prolonged drawdown in equities – often called "tail risk" protection or "crisis alpha."

POTENTIAL TO PERFORM IN BOTH RISING AND DECLINING EQUITY MARKETS

Unlike many portfolio hedges, such as puts on equities, managed futures are unusual in that they can also perform well in rising markets. The chart to the right – called the "Managed Futures Smile" – shows the performance of the SocGen CTA index against the quarterly returns of the S&P 500 since 2000. It demonstrates that the strategy tends to perform best when equities are trending either higher or lower.

This chart underscores three important points. First, while long term correlations to equities have been close to zero, managed futures will



go through periods of both positive and negative correlation. Second, despite often being positioned as "absolute return" strategies, there are periods where managed futures will have negative returns. Finally, equities and managed futures can occasionally decline in tandem, typically during sharp reversals after a rising equity market. Consequently, allocators should <u>not</u> set expectations that managed futures will deliver positive returns in all market conditions nor that they will catch short-term corrections in equities.

STRONGER ABSOLUTE RETURNS DURING DECLINING EQUITY MARKETS

A related point is that managed futures tend to perform better on an absolute basis during down equity markets. Clients should understand that managed futures may rise during an upward rising equity market, but likely far less than traditional assets. The chart below shows rolling twelve month returns of managed futures grouped by performance of the S&P 500 over the same period:







ADDED NOTE: BEHAVIORAL BENEFITS OF POSITIVE PERFORMANCE IN EQUITY BEAR MARKETS

Arguably, a key role for allocators is to help clients, especially retail investors, remain invested through drawdowns – a proven strategy to maximize long term returns. In 2008, for instance, funds flow data indicates that many retail investors cut risk at the bottom and missed the rebound in 2009. Even a small allocation to an asset class that may rise during a crisis can help mitigate a client's natural desire to focus only on drawdowns. During 2008, for example, when almost all asset classes (including diversifiers like commodities, REITs and MLPs) declined in tandem, managed futures rose 13%:



For advisors, the ability to "point to" an allocation that rose can be very valuable in managing client relationships. In the case above, a 7% allocation to managed futures relative to equities "saved" clients 300-400 bps. Hence, advisors may be able to highlight how a single proactive allocation decision justified several years of advisory fees.

PART 3: PITFALLS AND HOW TO AVOID THEM

The analysis above makes a compelling argument for the portfolio benefits of managed futures as an <u>asset class</u>. However, it does not address the practical issue of how to fill the asset class "bucket." In practice, most allocators who build model portfolios select one or two hedge funds or mutual funds to gain exposure to the "space." This is problematic: as described below, the two biggest pitfalls of investing in managed futures strategies are "single manager risk" and performance chasing. A related issue is the difficulty of explaining underperformance to clients.

SINGLE MANAGER RISK

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"Single manager risk" arises when a given manager materially underperforms the asset class, or benchmark, over a period of time. In many traditional strategies, managers "hug" the benchmark, and hence deviations in performance are minimal over time. Not so with managed futures, where individual funds are much more volatile than the benchmark, typically an index which reflects diversified exposure to twenty or more managers. A representative sample of the most established CTA managers, all of which are in the SocGen CTA index, shows an average annual dispersion of 33% over the past eight years.



For the asset allocator, particularly one who build model portfolios, single manager risk is highly problematic: you might get the asset class right, yet select a fund that effectively blows up. Arguably, this risk is the equivalent of selecting a single stock to fill the S&P 500 bucket. A statistical analysis of managed futures funds demonstrates that a prudent allocator should invest in six² or more single manager funds in order to achieve a reasonable level of diversification – why most institutional allocators "spread their bets" across numerous hedge funds.

Most retail portfolios, due to specific constraints, will include only one or two mutual funds.

PERFORMANCE CHASING

A related issue is performance chasing, or investing in a fund coming off a "hot-streak." If yesterday's stars were tomorrow's winners, this would work well. Unfortunately, the evidence indicates that last year's stars will perform, on average, in line with the benchmark and many will underperform by a wide margin. In fact, in a recent study we conducted on a pool of hedge funds in the SocGen CTA index, no funds were the top quartile performers during each of the past three years. In technical terms, this is referred to as a "lack of persistence" in returns.

A related issue is that performance chasing can lead to unrealistic client expectations. Invest in a fund coming off a 20% year, and client disappointment may follow when performance reverts to a more realistic level – a behavioral phenomenon called "anchoring."

THE DIFFICULTY WITH EXPLAINING SINGLE MANAGER UNDERPERFORMANCE

Ask a value manager why he or she has underperformed, and the reflexive response is "cheap stocks got cheaper" – an often-convincing argument that a patient investor should remain invested and wait for a rebound.

Explaining underperformance of a single manager managed futures fund is more complicated. Will a manager who is caught wrong-footed in a sharp reversal in one market necessarily recover from a strong trend in another market?

This is a difficult conclusion to draw given the complexity of individual models: some focus on near term trends, others longer term; some specialize in certain asset classes, others are diversified across many.

We believe this explains the dramatic inflows and outflows to many mutual and hedge funds: when investors cannot construct a compelling rationale to remain invested and recover losses, the Single manager managed futures products are unpredictable. Being invested in one or two managed futures funds will not get you a proper CTA allocation.

tendency is to redeem and shift to a fund coming off a period of better performance. However, due to the lack of persistence in returns, the replacement fund is just as likely to go through a period of underperformance going forward.

² DBi calculated through a combinations algorithm to minimize standard deviation of the portfolio.

CONCLUSION: PUTTING IT ALL TOGETHER

Allocators can deliver both near-term and long-term portfolio benefits by investing in managed futures. That said, allocators should set clear client expectations on how and when those benefits should inure to investors. Early 2018 was a clear example: managed futures funds entered the year with historically high allocations to long equities, and hence both rose sharply during the equity melt up in January, but then fell by an equivalent amount in February. Commentators at the time wrongly concluded that this was evidence of a breakdown in the strategy, when in fact this is exactly how the strategy should have performed given strong trending upward equity markets in 2017. Similarly, managed futures funds declined during the first few weeks of the drawdown in equities in October 2018

Investing in managed futures may be valuable but require care in implementation. Look for a product that tracks closely the index with reasonable fees. before pivoting into other asset classes, especially currencies, by November. This repositioning enabled the SocGen CTA Index to rise 1.4% in December 2018 when global equities declined 7.6%.

For allocators, the objective should be to obtain exposure to the space while minimizing single manager risk. This can be

accomplished by investing in several hedge funds or mutual funds. Alternatively, multi-manager products will diversify across multiple managers; however, that diversification typically comes at the cost of excessive (two layers of) fees, which can create a drag on long-term performance. Some institutional investors have elected to invest directly in trend-following products offered by investment banks; those products, unfortunately, have the same risks as single manager funds (in this case, called "model" risk).

The most promising solution, we assert, may be to build investment products that replicate the performance of the hedge fund index, and hence provide synthetic diversification and close tracking with a single layer of fees. The key to these products is the ability to contemporaneously identify how managed futures hedge funds are positioned across core markets, and to invest in those exposures directly through highly liquid futures contracts. Consequently, these products also have the potential to outperform through "fee disintermediation" – that is, to deliver as much as possible of the performance of the hedge funds <u>before</u> high management and performance fees, often 300 bps or more per annum. We predict that daily liquid fund vehicles that can match or outperform the hedge fund benchmark while avoiding the pitfalls above will facilitate broader adoption of these highly valuable diversifiers.

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