

DUNN

CAPITAL MANAGEMENT, LLC

WMA PROGRAM EDITION AUGUST 2025

HIGH-VOL TREND FOLLOWING

THE MOST VALUABLE
ALTERNATIVE INVESTMENT?



High-Vol Trend Following is the Most Valuable Alternative Investment

Will your hedge fund actually hedge your equity exposure in times of market crisis? If not, why are you paying performance fees and higher expenses for a correlated asset and similar returns?

Alternative Investments (according to Investopedia and JP Morgan, among others) are financial assets that do not belong to the traditional categories of stocks, bonds, and cash. This seems to be a generally accepted definition. Ostensibly, the purpose of Alternative Investments is to provide diversification to a standard stock & bond portfolio – something like the basic 60/40 allocation. Diversification implies “different”, and most assets that investors consider alternative are in some ways obviously different, but not always *meaningfully* different.

Many strategies that investors lump into the “alternative sleeve” of their portfolio are seemingly unconventional approaches (or structures or fee arrangements, etc.) that are still ultimately designed to profit from growth in the US or Global economy. Thus, they generate a lot of equity beta, even if they are using derivatives or short trades, or they are only accessible through a private placement fund or offshore vehicle.

These so-called alternative strategies may be very sophisticated in their design and execution, but if they don’t produce a return stream with positive skew and low or negative correlation to traditional assets, they aren’t likely to provide a quality offset in an equity market dislocation. That is, unless you consider your alternative asset being down “only” 24% (Barclay Hedge Fund Index) during the 2008 Debt Crisis instead of down 51% (S&P 500 Index) to be a satisfactory hedge. To be clear, the 27-point differential is obviously a big improvement, but it’s still a substantial loss. You can choose a better, less correlated alternative that would help significantly more. After all, High-Vol Trend (i.e., DUNN WMA) was up 78% during this event period – that’s a true hedge.

Of course, equities by themselves have an impressively long history of very healthy compounded returns over time. And equity indices have demonstrated the ability time and again to recover from very significant drawdowns. But because investors, both individuals and institutions, do not have indefinite horizons and often have to take withdrawals, the timing of which they can’t control, there is the need to complement equities with assets that will smooth the returns of their overall portfolios and improve risk adjusted performance.

This smoothing is the job of alternatives. And the job really comes down to the timing of returns that the alternative strategy generates. Some strategies generate excellent returns, but if the timing of those returns is not different enough from long equities, then they are not that valuable

as an alternative investment. These strategies could be great diversifiers *within* a portfolio's "equity sleeve" instead.

So, what *does* make a good alternative investment? As mentioned, timing of returns is key, and there are some very insightful statistics that can show us the way here. First is correlation to equities and to the basic 60/40 portfolio. Assets with very low or (even better) negative correlation are generally good complements as there are different drivers of their returns than those of equities.

Digging further, positive skew (that is, more positive than negative outliers) and convexity (that is, average positive returns when there are extreme equity movements) are indicators of return profiles that have demonstrated a history of profitability during equity losing streaks. If a portfolio manager starts filtering for assets with low/ negative correlation and then homes in on strategies with the most positive skew and convexity profile, he or she will be left with a pool of alternatives that could have a significant smoothing effect on overall portfolio returns. From here, a manager can then research the non-performance features of these truly diversifying strategies to determine best fit. We think allocators will discover that trend following (especially the high-volatility version) is the most valuable in this category of real alternatives.

Let's look at some numbers. We've assembled the below statistical comparison of common alternative strategies using popular indices for each strategy for the past 25+ years.

Table 1: Strategy Performance Analysis

Analysis Period: Jan 2000 - Jun 2025 *

Strategies/ Asset Classes	Total				MaxDD/	
	Return	CAGR	AnnVol	Sharpe	MaxDD	AnnVol
S&P 500 Total Return Index	562%	7.7%	15.3%	0.56	-50.9%	(3.3)
FTSE World Gov Bond Index	123%	3.2%	7.0%	0.49	-27.1%	(3.9)
SocGen Trend Index	245%	5.0%	13.4%	0.43	-20.7%	(1.5)
DUNN WMA, LLC (Fund)	564%	7.7%	29.2%	0.40	-58.4%	(2.0)
S&P Listed Private Equity Index (*Dec03)	432%	8.1%	24.3%	0.45	-81.0%	(3.3)
HFRI Credit Index (*Jan08)	137%	5.1%	5.4%	0.94	-21.5%	(4.0)
FTSE Nareit US Real Estate Index	896%	9.4%	19.7%	0.56	-67.9%	(3.4)
Barclay Hedge Fund Index	387%	6.4%	6.6%	0.98	-24.1%	(3.7)
Barclay Convertible Arbitrage Index	373%	6.3%	5.8%	1.08	-31.5%	(5.4)
Barclay Distressed Securities Index	363%	6.2%	6.9%	0.91	-35.3%	(5.1)
Barclay Emerging Markets Index	429%	6.7%	11.2%	0.64	-42.5%	(3.8)
Barclay Equity Market Neutral Index	166%	3.9%	2.6%	1.50	-6.3%	(2.4)
Barclay Equity Long/ Short Index	329%	5.9%	5.6%	1.05	-14.2%	(2.5)
Barclay Event Driven Index	442%	6.9%	6.8%	1.01	-19.6%	(2.9)
Barclay Fixed Income Arbitrage Index	244%	5.0%	4.3%	1.15	-29.1%	(6.8)
Barclay Global Macro Index	321%	5.8%	5.1%	1.14	-8.1%	(1.6)
Barclay Merger Arbitrage Index	330%	5.9%	3.7%	1.56	-8.4%	(2.3)
Barclay Technology Index	467%	7.0%	11.6%	0.65	-38.0%	(3.3)

You will note that, at first glance, the two trend following representatives, the SocGen Trend Index and DUNN WMA, LLC (representing high volatility trend following) don't pop out as being among the most attractive assets on a stand-alone basis. In fact, trend following has generated the lowest Sharpe Ratios of any of these popular "Alternative Investments". But we know that Sharpe is better used in assessing the risk adjusted returns of overall portfolios, not individual assets within.

Now let's look at some indicators related to the timing of returns.

Table 2: Strategy Return Timing vs Equities

Analysis Period: Jan 2000 - Jun 2025 *

Strategies/ Asset Classes	Correlation to Equities		Correlation to 60/40		Convexity (to Equities)		Skew	
	Qtr	Ann	Qtr	Ann	Qtr	Ann	Qtr	Ann
S&P 500 Total Return Index	100%	100%	95%	95%	N/A	N/A	(0.7)	(0.9)
FTSE World Gov Bond Index	3%	1%	34%	30%	0.3	1.2	0.1	(0.5)
SocGen Trend Index	-23%	-38%	-16%	-38%	1.2	1.6	1.2	0.6
DUNN WMA, LLC (Fund)	-25%	-42%	-19%	-45%	2.9	3.4	1.2	0.8
S&P Listed Private Equity Index (*Dec03)	89%	92%	84%	85%	0.1	(0.6)	(0.5)	(0.9)
HFRI Credit Index (*Jan08)	80%	79%	72%	73%	(0.4)	(0.4)	(1.2)	(0.3)
FTSE Nareit US Real Estate Index	69%	61%	71%	59%	(0.9)	(0.5)	(0.8)	(0.7)
Barclay Hedge Fund Index	84%	76%	81%	74%	(0.5)	(0.1)	(0.8)	(1.3)
Barclay Convertible Arbitrage Index	51%	45%	47%	43%	(0.5)	0.2	(0.3)	1.2
Barclay Distressed Securities Index	67%	61%	58%	57%	(0.6)	(0.3)	(1.1)	(0.8)
Barclay Emerging Markets Index	75%	64%	72%	67%	(1.1)	(0.0)	(0.4)	(0.6)
Barclay Equity Market Neutral Index	15%	11%	13%	5%	(0.1)	(0.1)	(0.8)	0.6
Barclay Equity Long/ Short Index	78%	68%	71%	63%	(0.2)	(0.1)	(0.3)	(0.7)
Barclay Event Driven Index	80%	72%	76%	71%	(0.4)	(0.0)	(0.7)	(0.3)
Barclay Fixed Income Arbitrage Index	53%	60%	46%	57%	(0.8)	(0.5)	(3.6)	(2.3)
Barclay Global Macro Index	47%	32%	51%	34%	(0.1)	0.5	(0.2)	(0.1)
Barclay Merger Arbitrage Index	57%	35%	54%	34%	(0.4)	(0.2)	(0.3)	0.8
Barclay Technology Index	80%	83%	77%	85%	0.2	0.5	(0.3)	(0.3)

Maybe trend following is more attractive than it initially appears. After all, the strategy is the only one to generate negative correlation and positive skew and convexity.

Let's drill down further into the performance during each equity crisis period (S&P 500 loss of 20% or more) over the last 25 years.

Table 3: Strategy Performance During Equity Crises

Analysis Period: Jan 2000 - Jun 2025 *

Strategies/ Asset Classes	Equity Crisis Periods			
	<u>Tech Bubble</u>	<u>Debt Crisis</u>	<u>Covid-19</u>	<u>Inflation</u>
	Sep 2000 - Sep 2002	Nov 2007 - Feb 2009	Feb 2020 - Mar 2020	Jan 2022 - Sep 2022
S&P 500 Total Return Index	-44.7%	-50.9%	-19.7%	-24.6%
FTSE World Gov Bond Index	17.6%	5.3%	0.4%	-21.3%
SocGen Trend Index	62.1%	21.6%	1.4%	35.5%
DUNN WMA, LLC (Fund)	171.7%	78.3%	1.1%	66.6%
S&P Listed Private Equity Index (*Dec03)	N/A	-80.1%	-36.1%	-36.4%
HFRI Credit Index (*Jan08)	N/A	-19.9%	-10.7%	-3.9%
FTSE Nareit US Real Estate Index	28.7%	-63.2%	-26.5%	-28.3%
Barclay Hedge Fund Index	3.0%	-24.1%	-11.7%	-11.3%
Barclay Convertible Arbitrage Index	23.1%	-23.8%	-5.8%	-3.1%
Barclay Distressed Securities Index	13.7%	-35.0%	-8.4%	-3.5%
Barclay Emerging Markets Index	2.9%	-42.5%	-15.7%	-17.8%
Barclay Equity Market Neutral Index	13.1%	-0.1%	-2.2%	1.7%
Barclay Equity Long/ Short Index	0.5%	-14.2%	-8.1%	-3.2%
Barclay Event Driven Index	2.0%	-19.2%	-15.3%	-9.4%
Barclay Fixed Income Arbitrage Index	11.5%	-26.7%	-0.6%	-4.3%
Barclay Global Macro Index	17.1%	-2.3%	-4.5%	5.8%
Barclay Merger Arbitrage Index	6.7%	-4.0%	-8.4%	-1.2%
Barclay Technology Index	-38.0%	-14.1%	-8.5%	-24.6%

Trend following has far outperformed all other alternative strategies from both a consistency and magnitude standpoint during equity market dislocations.

Next, let's study the impact that each "alternative" or "hedge fund" strategy has on a 60/40 stock/bond starter portfolio. We can do this by adjusting the basic portfolio to 50/30/20 stocks/bonds/alts. Let's compare the results by inserting the various strategies analyzed in Figures 1-3 into this new 20% alts sleeve and review the performance below.

Table 4: Portfolio Performance Analysis

Analysis Period: Jan 2000 - Jun 2025 *

Portfolios (Annual Rebalance)	Total				MaxDD/	
	Return	CAGR	AnnVol	Sharpe	MaxDD	AnnVol
100% Equities	562%	7.7%	15.3%	0.56	-50.9%	(3.3)
60% Equities, 40% Bonds	384%	6.4%	10.0%	0.67	-30.6%	(3.1)
50% Equities, 30% Bonds, 20% SG Trend	391%	6.4%	8.3%	0.80	-22.4%	(2.7)
50% Equities, 30% Bonds, 20% DUNN WMA LLC	514%	7.4%	9.4%	0.80	-21.6%	(2.3)
50% Equities, 30% Bonds, 20% Pvt Equity (*Dec03)	464%	8.3%	12.4%	0.71	-43.8%	(3.5)
50% Equities, 30% Bonds, 20% Credit (*Jan08)	238%	7.2%	9.4%	0.79	-29.7%	(3.2)
50% Equities, 30% Bonds, 20% Real Estate	496%	7.3%	11.2%	0.68	-39.0%	(3.5)
50% Equities, 30% Bonds, 20% Hedge Funds	400%	6.5%	9.2%	0.73	-30.3%	(3.3)
50% Equities, 30% Bonds, 20% Convertible Arb	406%	6.6%	8.7%	0.78	-30.0%	(3.4)
50% Equities, 30% Bonds, 20% Distressed Sec	401%	6.5%	8.9%	0.76	-32.3%	(3.6)
50% Equities, 30% Bonds, 20% Emerging Mkts	417%	6.7%	9.9%	0.70	-33.7%	(3.4)
50% Equities, 30% Bonds, 20% Mkt Neutral	351%	6.1%	8.2%	0.76	-26.1%	(3.2)
50% Equities, 30% Bonds, 20% Long/ Short Equity	390%	6.4%	9.0%	0.74	-28.6%	(3.2)
50% Equities, 30% Bonds, 20% Event Driven	411%	6.6%	9.2%	0.74	-29.4%	(3.2)
50% Equities, 30% Bonds, 20% Fixed Income Arb	369%	6.3%	8.5%	0.76	-30.8%	(3.6)
50% Equities, 30% Bonds, 20% Global Macro	392%	6.4%	8.7%	0.76	-26.5%	(3.0)
50% Equities, 30% Bonds, 20% Merger Arb	393%	6.5%	8.5%	0.78	-26.8%	(3.1)
50% Equities, 30% Bonds, 20% Tech	408%	6.6%	9.9%	0.70	-28.5%	(2.9)

Interestingly (but not surprisingly, considering the correlation, skew, and convexity properties), trend following, the strategy with the lowest stand-alone Sharpe ratio, has driven the highest Sharpe ratio for the diversified 50/30/20 portfolio and the lowest maximum and relative drawdowns.

Finally, let's examine the impact of the alternative investment strategies on the 50/30/20 portfolio for the four equity crisis periods that have occurred since 2000.

Table 5: Portfolio Performance During Equity Crises

Analysis Period: Jan 2000 - Jun 2025 *

Portfolios (Annual Rebalance)	Equity Crisis Periods			
	<u>Tech Bubble</u>	<u>Debt Crisis</u>	<u>Covid-19</u>	<u>Inflation</u>
	Sep 2000 - Sep 2002	Nov 2007 - Feb 2009	Feb 2020 - Mar 2020	Jan 2022 - Sep 2022
100% Equities	-44.7%	-50.9%	-19.7%	-24.6%
60% Equities, 40% Bonds	-23.0%	-30.6%	-11.6%	-23.5%
50% Equities, 30% Bonds, 20% SG Trend	-10.7%	-22.4%	-9.4%	-11.6%
50% Equities, 30% Bonds, 20% DUNN WMA LLC	0.6%	-14.5%	-9.5%	-5.4%
50% Equities, 30% Bonds, 20% Pvt Equity (*Dec03)	N/A	-43.8%	-17.0%	-26.0%
50% Equities, 30% Bonds, 20% Credit (*Jan08)	N/A	-28.3%	-11.8%	-19.5%
50% Equities, 30% Bonds, 20% Real Estate	-15.0%	-39.0%	-15.0%	-24.4%
50% Equities, 30% Bonds, 20% Hedge Funds	-19.3%	-30.3%	-12.0%	-21.0%
50% Equities, 30% Bonds, 20% Convertible Arb	-16.0%	-30.0%	-10.8%	-19.3%
50% Equities, 30% Bonds, 20% Distressed Sec	-17.5%	-32.3%	-11.4%	-19.4%
50% Equities, 30% Bonds, 20% Emerging Mkts	-19.2%	-33.7%	-12.8%	-22.3%
50% Equities, 30% Bonds, 20% Mkt Neutral	-17.6%	-26.1%	-10.1%	-18.3%
50% Equities, 30% Bonds, 20% Long/ Short Equity	-19.7%	-28.6%	-11.3%	-19.3%
50% Equities, 30% Bonds, 20% Event Driven	-19.5%	-29.4%	-12.7%	-20.6%
50% Equities, 30% Bonds, 20% Fixed Income Arb	-17.9%	-30.8%	-9.8%	-19.6%
50% Equities, 30% Bonds, 20% Global Macro	-17.1%	-26.5%	-10.6%	-17.5%
50% Equities, 30% Bonds, 20% Merger Arb	-18.6%	-26.8%	-11.4%	-18.9%
50% Equities, 30% Bonds, 20% Tech	-27.6%	-28.5%	-11.4%	-23.6%

Again, trend following stands out as being the most impactful (and valuable) alternative investment, driving the most significant reduction in diversified portfolio losses during equity crisis events. Clearly the higher volatility version of trend following, DUNN WMA, LLC, has a particularly great effect here. Because the timing of the returns are different than equity return streams, the added volatility when trend is going up and stocks are going down is extremely helpful. Many money managers would love to have been able to tell their clients or boards that they were down only 5% YTD in September 2022 when stocks were down 25%, especially if these clients or boards had bills to pay that couldn't be put off. That's when true diversification, and the resulting smoothing of returns, is critically needed.

EQUITIES

Crisis vs. Correction

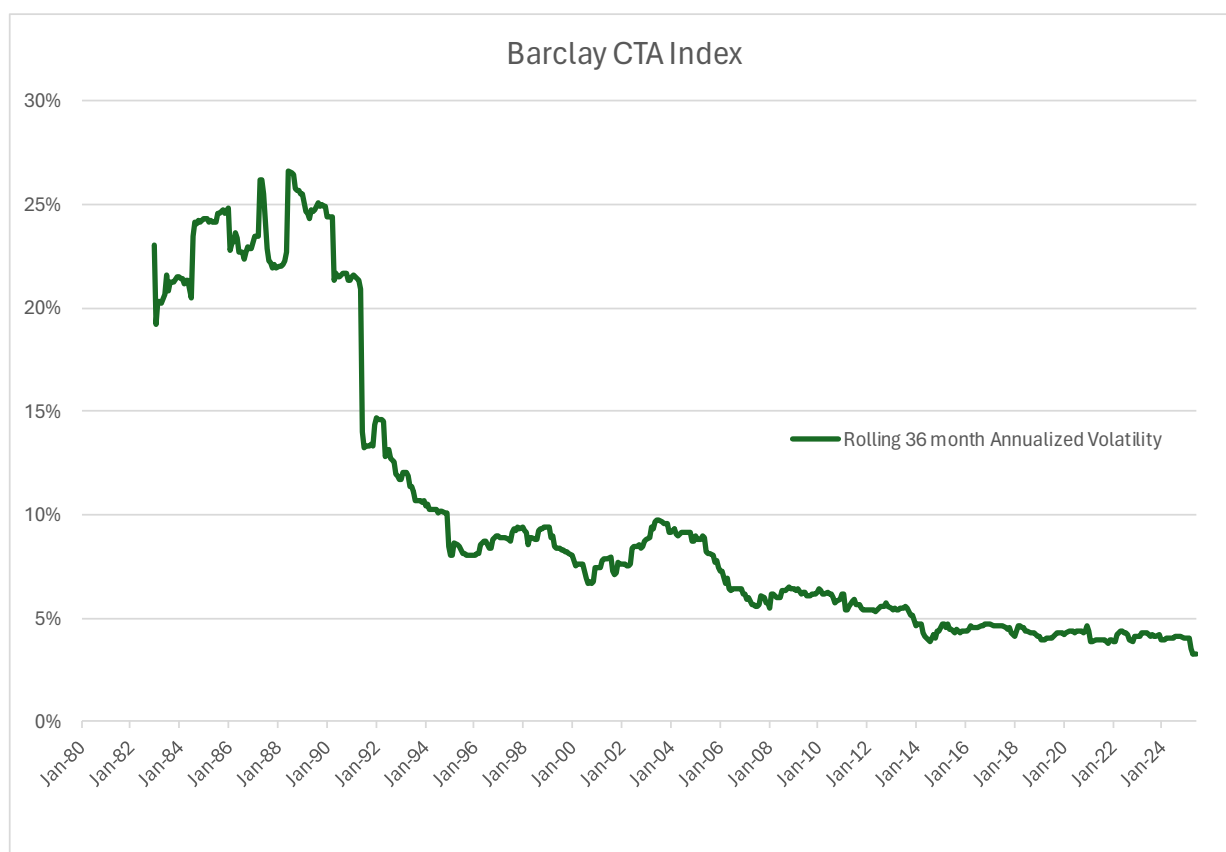
Since we're on the topic of equity market dislocations, it's important to understand that there is a big difference between sharp corrections and extended drawdowns... and how trend following handles these two distinct occurrences. Sharp corrections generally occur over a few weeks, which doesn't give systematic trend strategies enough time to react and take advantage of the market moves. Oftentimes, these sudden shocks can be just as difficult for trend following strategies as they are for long-only equities. Real equity market dislocations, however, usually take months to play out (Tech Bubble: 25 months, Debt Crisis: 16 months) and have repeatedly created conditions that are ripe for trend followers, (which typically operate with long-term lookbacks on signaling algorithms), to exploit. So, while trend following is negatively correlated with equities, it is not oppositely correlated. A long-volatility strategy might provide instant relief for sharp corrections in equity markets, while trend following would be more likely to provide an offset for longer-term drawdowns. But it's also important to remember that long-volatility programs tend to have negative returns over time, while trend following tends to generate equity-like returns over time (just with different timing)

TREND FOLLOWING

High-Vol Commentary

One might wonder why more trend followers are not geared to a higher volatility, given the intensely positive performance the strategy has delivered in the periods of severe equity stress. In the early years of the strategy's history (1980s through early 1990s), most managers did target a higher volatility. Beginning in the early 1990s, more institutional investors gravitated to the trend space and some demanded lower volatility programs that wouldn't garner so much attention from overseers during the more difficult trend following periods. These large investors were actually willing to forgo a portion of the upside performance (even during the equity dislocations, when they needed it most) to avoid the scrutiny of their boards when the trend following programs were in a 1.5+ standard deviation drawdown (even if this occurred during solid performance for the equity investments, when they weren't desperate for help from their alternatives). See the steady decline in the rolling 36-month volatility of the Barclay CTA Index in Graph 1 below.

Graph 1: CTA Program Annualized Volatility



Some CTAs, (trend following practitioners), seemingly adapted by elevating the importance of the management fee to their strategies, likely because their ability to generate incentive fees would be reduced by lowering volatility targets to accommodate institutional investors. As the volatility of trend following funds went down, the combination of management fees plus performance fees started shifting to more management fee-dominant terms. Today there are numerous management fee-only trend products with very low volatility targets. These low-vol versions generally maintain the attractive correlation properties associated with trend following strategies, but they are designed to gather assets, not produce out-sized returns needed to hedge equity drawdowns. They don't provide an efficient use of capital, so it would take a massive investment in some of these funds to off-set damage on the traditional side of the portfolio during an equity crisis.

Fortunately, for investors that are holistically evaluating the needs of their portfolios, there are some managers that still target a high volatility, enabling access to trend following return dynamics (including crisis alpha) with less absolute investment. All other things being equal, higher volatility programs are a more efficient use of capital, even if they sometimes look like an ugly outlier when traditional (i.e., negatively skewed) assets are producing steady small gains.

Please contact DUNN Capital to learn more about our World Monetary and Agriculture ("WMA") program, a pure trend following strategy that has targeted a high volatility since inception in 1984.

A Note on Indices Used in This Paper:

The S&P 500 Total Return Index and the FTSE World Government Bond Index are proxies for equities and government bonds, respectively. They are presented “gross”. The performance data of these two indices does not take into account fees that an investor may incur to access their returns.

All Indices used to represent popular hedge fund strategies are comprised of the net returns of the underlying funds. They are presented “net”. The performance data of these hedge fund indices does take into account the fees that an investor may incur to access their returns.

A Note on DUNN Capital Management, LLC (“DUNN”):

DUNN is registered with the National Futures Association as a Commodity Trading Advisor and a Commodity Pool Operator.

DUNN is registered with the Securities Exchange Commission as a Registered Investment Advisor.



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FOR ANY QUESTIONS, PLEASE CONTACT
info@dunncapital.com

or visit our website
dunncapital.com