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The Role of Managed Futures in Portfolio Construction:

A Historical Correlation Study

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Executive Summary

This study examines the correlation behavior of managed futures relative to other assets across five historic volatility regimes between 2020 and 2025. Correlation shifts across these regimes fall into two distinct patterns: structural repricing regimes, which are macro-driven and persist for months, and liquidity-driven deleveraging spikes, which are technical, short-lived, and typically mean-reverting. Across both regime types, the managed futures indices referenced in this study maintained a low-to-negative correlation to traditional stock and bond portfolios, a function of the asset class's ability to take long and short positions across equities, fixed income, currencies, and commodities. Allocators evaluating diversification benefits may find this distinction useful, particularly during the periods when the traditional negative correlation between stocks and bonds breaks down.

2020 COVID-19 Crisis

Overview

A global COVID-19 shutdown prompted governments worldwide to implement unprecedented measures to control the virus and support affected populations; major U.S. indices reached all-time highs on February 19, 2020, before beginning a fastest descent into a bear market in financial history.

Daily life, public infrastructure, and international commerce forced fundamental reorganization during one of the deadliest biological events in recorded history.



Volatility

U.S. markets face one of the most volatile regimes in history, as the VIX closed at a high of 82.69 (from pre-COVID levels of between 15-20)¹, then compressed below 50 by year-end with the Fed's March 23 stimulus and QE initiatives restoring confidence².

Cross-asset Impact

Managed Futures:

Initially, the pandemic hit and market volatility surged. Managed futures saw mixed performance during unprecedented equity sell-offs; strategies captured strong gains once New directional trends became established.

Equities:

Historic, rapid sell-off into late March Until the Fed implemented quantitative easing measures to begin a historic bull run.

Rates:

Following aggressive central bank intervention, bond yields plummeted to historic lows, pushing bond prices upwards. Investors began a cash-scramble.

FX & Commodities:

The dollar weakened on a global liquidity crunch, creating a logistical bottleneck. Once the global shutdown was in effect, the safe-haven dollar strengthened; oil prices collapsed with a breakdown in production negotiations between OPEC and Russia, diminishing demand.

Market Structure Observations

Liquidity conditions tightened, bid-ask spread widened and market depth evaporated, which allowed greater impact on smaller orders.

¹ Cboe Global Markets, CBOE Volatility Index (VIX) historical daily closing data: record close of 82.69 on March 16, 2020, the highest close in the index's history to that point. Compiled in Macroption, "VIX All-Time Highs and Biggest Spikes."

² Board of Governors of the Federal Reserve System, press release, March 23, 2020, announcing open-ended asset purchases and new lending facilities.



The abrupt nature of the pandemic allowed for correlation changes such as the breakdown of traditional diversification benefits between cross assets. For instance, typical negative correlations between stocks and bonds evaporated.

Even typical safe-haven investments like gold experienced sell offs and liquidations in the beginning of the crisis.

2022 Rate Shock

Overview

Stimulus-driven hit inflation to a 40 year high of 9.1%³ prompting extensive rate hikes in early 2022, often in increments of 50 or 75bps starting in March, allowing a structural reset altering asset correlations market regimes.

Investors reevaluated risk and valuation across every major asset class. Future earnings and bond safety we're in doubt, pushing major indices into bear market territory.

Volatility

VIX spikes were the norm during FOMC meetings but were stable in the high-20s to mid-30s for most of the year⁴.

Long-term changes reflect more sustained periods of market uncertainty; A transition from a low-interest rate regime to a period of high sustained rates can reflect elevated volatility levels for an extended amount of time.

Cross-Asset Impact

Managed Futures:

Trend-following strategies benefitted from well-established directional moves (specifically short fixed-income and long-dollar stances) preserving a low-to-negative correlation as stocks and bonds converged in negative territory.

Equities:

³ U.S. Bureau of Labor Statistics, "Consumer Price Index Summary," June 2022 (released July 13, 2022): 12-month percent change of 9.1%, the highest reading since November 1981.

⁴ Cboe Global Markets, CBOE Volatility Index (VIX) daily intraday and closing data, calendar year 2022.



Valuations compressed and investors worried about discounted future earnings in a higher interest rate environment; March 2022, equity markets endured significant volatility and bear market runs; Growth stocks hit hardest due to borrowing cost changes and uncertain future cash flows.

Fixed Income:

Bond prices fell sharply with hiking rates in March and bond yields surged; long-duration treasuries experienced some of the steepest declines in their history and the yield curve inverted indicating short-term treasury yields rose much faster than long-term yields.

FX & Commodities:

US dollar rallied as global investors sought higher yields; the strength caused significant depreciation in other major currencies, making imports more expensive for those nations and creating instability among markets with dollar-denominated debt.

Global demand expectations cooled; With stronger borrowing costs, prices for many commodities began to retreat from their peaks later in the year as recession fears grew.

Market Structure Observations

Liquidity dried up and prices were amplified; bid-ask spreads widened, increasing friction for short-term market participants.

Investors relied on a simple negative correlation pattern between stocks and bonds. High inflation and rising rates hurt both stock and bond prices at the same time, flipping to a positive correlation.

Managed futures kept their low-to-negative correlation to both stocks and bonds in 2022.

2023 Regional Banking Crisis

Overview:

Rising interest rates devalued bond portfolios combined with a surge of uninsured depositor withdrawals triggered a sharp bank-stock selloff.

Systemic danger of unrecognized duration risk within fixed-income portfolios while a specific exposure to uninsured deposits sparked obstacles.



Deposit outflows continued from smaller banks to larger, perceived-safer institutions. Banks tightened their lending standards to preserve liquidity, which made it harder for businesses and individuals to secure loans,

Volatility

The VIX shifted immediately which led to market uncertainty while investors had to reassess risk across the entire sector; The magnitude was significant, with some individual stocks sharply declining by double digits, while broader sector indices reflected heavy short selling.

Over the longer term, implied volatility subsided once stabilization occurred but remained elevated compared to pre-crisis levels. This stems from the lingering concerns about the stability of the sector.

Cross-Asset Impact

Managed Futures:

Strategies were already positioned for lower rates and a weaker dollar, though shorter-term models faced back-and-forth risk once the acute phase passed within a few weeks.

Equities:

Regional banks' stocks plummeted while select tech names benefited from rate-pause speculation. Broader market indices saw heightened volatility.

Fixed Income:

Yields dropped as investors flocked to the safety of government bonds and priced in a Fed pause.

FX & Commodities:

The U.S. dollar weakened on expectations of less aggressive monetary policy, while safe-haven currencies saw temporary support.

Finally, commodities faced downward pressure, reflecting growing concerns about global economic growth and reduced demand.



Market Structure Observations

Bid-ask spreads and market depth in bank stocks and related credit instruments deteriorated sharply, amplifying intraday price swings relative to actual order flow.

2024 Yen Carry Trade Unwind

Overview

The Bank of Japan's unexpected rate hike on July 31, narrowing the US-Japan interest rate differential, combined with a weak U.S. jobs report triggered a massive unwind of yen funded carry trades on August 5, 2024⁵.

This became a technical leverage driven shock rather than inflation or a repricing of growth and Forced liquidation of global assets.

Volatility

The VIX Reached its highest intraday peak Near 65⁶ (Its most extreme single day since COVID) then compressed back to the low to mid 20s after roughly a week; spot VIX traded at a record gap above VIX futures, signaling options-market microstructure stress rather than a broad repricing.

Cross-Asset Impact

Managed Futures: Trend programs had built exposure to the prevailing equity, yen, and carry trends; the reversal tested risk controls over days, though the asset class saw notably lower drawdowns than global equities during the episode.

⁵ Bank of Japan, "Change in the Guideline for Money Market Operations," July 31, 2024: the Policy Board raised the short-term policy rate to around 0.25% from a range of 0%–0.1%, effective August 1, 2024 — its highest level in 15 years.

⁶ Cboe Global Markets, CBOE Volatility Index (VIX) daily data, August 5, 2024: intraday high of 65.73 and close of 38.57, the largest single-day point spike in the index's history. Sources: Cboe, "VIX Index Decomposition," August 1, 2025 update; Macroption historical VIX data.



Equities: The S&P 500 fell roughly 6% over three trading days⁷; Japanese equities bore the brunt, with the TOPIX falling about 12% in a single session⁸, its worst day since 1987.

Fixed Income: Treasuries saw a brief safe-haven bid before resuming their broader 2024 uptrend, driven more by fiscal-deficit concerns than by the carry-trade episode itself.

FX & Commodities: The yen appreciated sharply as carry positions unwound; the primary transmission channel into other assets; commodities saw a muted reaction overall, with gold picking up a modest safety bid.

Market Structure Observations

Market depth evaporated intraday on August 5 before recovering within days, a reminder of how quickly liquidity can return once forced selling clears.

2025 Trump Tariffs

Overview

April 2 marked the start of sweeping tariffs; President Trump significantly escalated his trade policy starting with a flat 10% baseline tariff, applied to nearly all imports entering the United States with higher rates applied to specific countries⁹.

It triggered one of the steepest selloffs in history before an impressive comeback with negotiations and exemptions taking place.

⁷ Measured from the July 31, 2024 close to the August 5, 2024 intraday low (a three-session window); published estimates of the cumulative decline range from roughly 6% to 7.3% depending on the exact start and end points used. The S&P 500 also fell approximately 3% intraday on August 5, 2024 alone. Sources: Cboe Global Markets, “VIX Index Decomposition,” August 1, 2025; contemporaneous financial press reporting. Figures are approximate and vary by source.

⁸ Tokyo Stock Exchange; contemporaneous financial press reporting: TOPIX and Nikkei 225 each declined more than 12% on August 5, 2024, the steepest single-day decline for Japanese equities since October 20, 1987 (“Black Monday”).

⁹ The White House, “Liberation Day” tariff announcement, April 2, 2025: a 10% baseline tariff on nearly all U.S. imports, with higher country-specific reciprocal rates announced for select trading partners.



Volatility

The VIX entered its highest level since COVID outside of the 2024 episode before subsiding within about a week as policy stance softened, closing at a high of 52.33¹⁰.

Cross-Asset Impact

Managed Futures:

The abrupt mid-April reversal tested shorter timeframe models than longer trend programs. Trends were established across equities, rates and the dollar meant early participation in the move.

Equities:

The S&P 500 dropped nearly 10% in 2 days of the announcement (April 3-4, 2025), which is among the largest two-day declines on record before a historic rebound following the April 9 policy pause¹¹.

Fixed Income:

While equities sold off, treasury yields rose which highlights an atypical pairing linked to worries over foreign demand for U.S. debt.

FX & Commodities:

A multi-year low for the dollar index came sharp; this indicates a reassessment of how attractive U.S. assets are to investors; gold extended its rise due to safe-haven focuses while energy and industrial commodities declined due to slowing growth globally.

Market Structure Observations

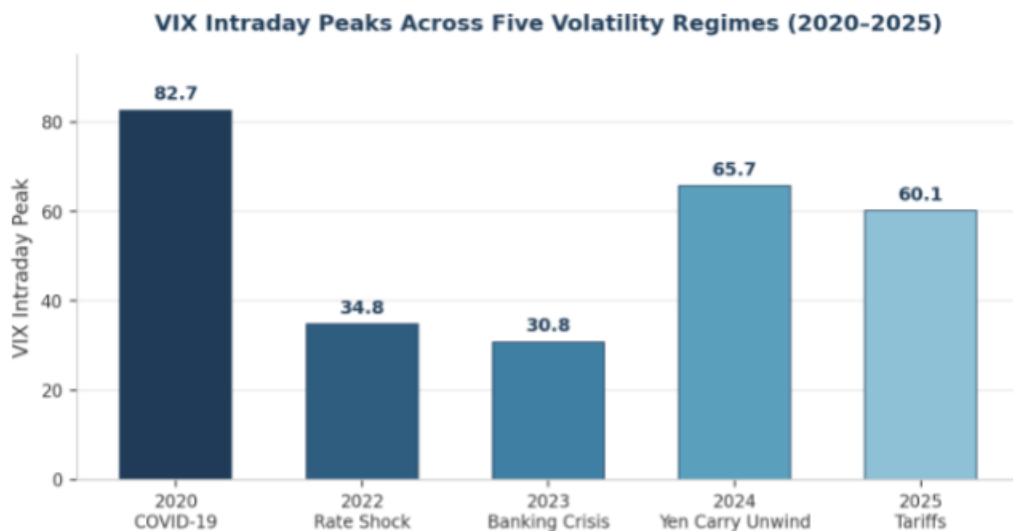
Policy attention was quickly indicated when liquidity conditions for treasuries deteriorated enough; this dynamic was increasingly worrying as the market's most liquid safe haven was reconsidered.

¹⁰ Cboe Global Markets, CBOE Volatility Index (VIX) daily data: intraday high of 60.13 on April 7, 2025, and closing high of 52.33 on April 8, 2025 — the highest close outside of the 2008 and 2020 crises in the index's history. Sources: Cboe Global Markets; OptionMetrics analysis reported in Investing.com, "Tariffs, turmoil, and the VIX," 2025; Macroption historical VIX data.

¹¹ The Cboe S&P 500 Index (SPX) declined nearly 10% over the two trading sessions of April 3–4, 2025 following the April 2 tariff announcement. Source: Cboe Global Markets, "Index Insights: April," May 7, 2025.

Cross-Event Comparison: Volatility & Correlation Regimes (2020-2025)

Managed futures indices have shown differentiated behavior across historic volatility regimes examined in this study. Based on the charts below, the magnitude and extent of each of the events are shown. It is fundamental to not only examine just the data, but also the “why” as well as indications we can infer for future events.



Source: CBOE VIX historical data (publicly available). For illustrative purposes only. Past performance is not indicative of future results.

Figure: VIX intraday peak by event. Source: CBOE historical data (publicly available). For illustrative purposes only — past performance is not indicative of future results.

**VIX values represent intraday peaks, not daily closing levels.*

Understanding the Correlation Data

Correlation, as used throughout this study, measures the degree to which two asset classes move together over a given period indicating how trends affect investment choices. Unless otherwise noted, the correlation observations reference daily index returns over each crisis window, using publicly available data.

A common, but significant feature of correlation is that it constantly changes and should not be seen as a fixed constant. It is regime dependent and can shift at any moment with



changing economic conditions, policy implements and different market structure climates taking place.

The traditional stock-bond portfolio, 60/40, typically is indicated by a negative correlation, where bonds act counterintuitively when stocks rise. As the relationship has been consistent for most of the past two decades, this study suggests several times that under direct pressure, this interdependence is not reliable.

Unless otherwise noted, managed futures exposure throughout this study is represented by the SG Trend Index (Société Générale); U.S. equities are represented by the S&P 500 Total Return Index; and U.S. fixed income is represented by the Bloomberg U.S. Aggregate Bond Index. Correlation figures reflect daily index returns computed over each of the following crisis windows:

- 2020 COVID-19 Crisis: February 19, 2020 – March 23, 2020
- 2022 Rate Shock: January 1, 2022 – December 31, 2022
- 2023 Regional Banking Crisis: March 8, 2023 – March 31, 2023
- 2024 Yen Carry Trade Unwind: July 31, 2024 – August 12, 2024
- 2025 Trump Tariffs: April 2, 2025 – April 9, 2025

Two Distinct Correlation Regimes Observed

During the course of the study, correlation shifts typically took a couple different forms:

1. Structural Repricing Regimes:

Months-long shifts driven by macro transitions. In 2022, we can see the most transparent example: nagging inflation and aggressive rate-hiking. This caused equities and rates to flip their negative correlation and decline together for most of the year.

2025 exhibited similar behavior but in a distinct pattern: equities, the dollar, and Treasuries moved together for a period (a pairing explained by a simple rate story alone).

2. Liquidity-Driven Deleveraging Spikes:

Quick, abrupt intervals, usually lasting days rather than months, where correlations among unrelated assets spike towards 1.0 as forced selling and margin calls hit all assets simultaneously, irrespective of underlying fundamentals. The early days of the 2020 shock and the August 2024 carry-trade unravel both fit this pattern; in each case, correlations normalized comparatively swiftly once liquidity returned and forced selling was digested.

Differentiating between two different environment types can influence allocators' decisions: a fundamental revaluation climate tends to endure and may demand a sustained reassessment of portfolio construction assumptions, while a liquidity-driven surge is often mean-reverting and may retract without any underlying regime transitions.

Event	VIX Intraday Peak	Primary Shock Type	Equity-Bond Correlation Regime	Managed Futures Positioning (Illustrative)
2020 COVID-19	82.7	Exogenous / liquidity	Breakdown (both sold off initially)	Mixed early, trend capture later
2022 Rate Shock	34.8	Monetary policy / inflation	Positive (both fell together)	Low/negative correlation preserved
2023 Banking Crisis	30.8	Credit / liquidity	Partial reversion to negative	Mixed; duration-sensitive
2024 Yen Carry Unwind	65.7	Positioning / leverage	Temporary equity-FX correlation spike	Tested by trend reversal
2025 Tariffs	60.1	Policy / trade shock	Breakdown (stocks, bonds, USD fell together)	Tested by rapid reversal

Figure 2: Summary of correlation regime and illustrative managed futures positioning by event. Source: CBOE historical data and publicly available market data. For illustrative purposes only.

**VIX values represent intraday peaks, not daily closing levels.*



Where Managed Futures Fit

Historically, managed futures indices have shown decoupled performance behavior relative to both market environments described above, largely a function of the asset class's capabilities to take both long and short positions across equities, fixed income, currencies, and commodities opposed to being inherently directional¹². In the 2022 macro-driven repricing cycle, managed futures indices maintained a low-to-negative correlation to both stocks and bonds even as those two asset classes moved in tandem (primarily driven by algorithmic frameworks ability to position short duration as rates increased. During liquidity shocks of 2020 and August 2024, the scene was more scrambled in the immediate horizon, as quick trend reversals tested risk models, though academic research on the asset class points to milder average historical losses compared to global equities across macro disruptions.

Limitations of This Analysis

Correlation is, retrospectively, a quantitative metric computed over a specific window and lacks predictive power of how the same assets will perform in a subsequent market shock. Index-level correlation figures such as those referenced in this study may not capture the true empirical relationship of any given manager, fund, or strategy. For illustrative purposes only: historical correlation movements across any of the five discussed macro regimes offers no guarantee of how correlations will react in future market environments.

Systematic Strategy Considerations

In similar environments, some systematic strategies may respond to sustained directional moves.

Elevated volatility can impact both directional and non-directional approaches.

Correlations between strategies may increase during periods of stress.

Risk management frameworks must be dynamic enough to adjust leverage during sudden spikes. Furthermore, these strategies must account for the liquidity profiles of the specific

¹² Hurst, B., Y.H. Ooi, and L.H. Pedersen, "A Century of Evidence on Trend-Following Investing," *Journal of Portfolio Management* (2017); Hurst, B., Y.H. Ooi, and L.H. Pedersen, "Demystifying Managed Futures," *Journal of Investment Management*, Vol. 11, No. 3 (2013), pp. 42–58.



assets they trade, as market impact can significantly alter the edge of a systematic strategy.

Conclusion

Global meltdowns demonstrate the speed of changing regimes under intense macro stress. These environments highlight the importance of understanding volatility dynamics, liquidity conditions, and evolving correlations across asset classes.

Taken together, the five regimes examined direct to a uniform distinction: structural revaluation frameworks tend to sustain and redefine correlation premises for months at a time, while liquidity-driven spikes are typically quick and normalize once forced selling clears.

Based on publicly available index data, managed futures' differentiated behavior across both market types originates from the capacity to allocate long or short rather than being tied to an isolated asset category.

Allocators may wish to assess how a macroeconomic backdrop (structural vs. liquidity-driven) is likely to inform capital allocation strategy expectations going forward, acknowledging the past correlation behavior is not indicative of future results.

Managed Futures Benchmarks Referenced

Directional characterizations of managed futures / CTA performance in this note are informed by publicly reported performance patterns of industry-standard benchmarks, including:

- Société Générale (SG) Trend Index — a trend-following CTA benchmark maintained by Société Générale.
- Société Générale (SG) CTA Index — a broader benchmark of major commodity trading advisors maintained by Société Générale.
- BarclayHedge BTOP50 Index — designed to replicate the overall composition of the managed futures industry by trading style and market exposure, maintained by BarclayHedge / ION Analytics.
- Barclay CTA Index — a broad industry benchmark of commodity trading advisor performance, maintained by BarclayHedge / ION Analytics.

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Data Sources

1. **CBOE VIX Historical Data:** Chicago Board Options Exchange (CBOE) publicly available historical data for spot VIX intraday peaks, daily closing levels, and VIX futures pricing (2020–2025).
2. **Société Générale (SG) Trend Index:** Société Générale; primary benchmark tracking the net daily performance of large trend-following CTAs.
3. **Société Générale (SG) CTA Index:** Société Générale; broad industry index calculating daily net performance across major commodity trading advisors regardless of sub-strategy.
4. **S&P 500 Total Return Index:** S&P Dow Jones Indices; proxy for U.S. large-cap equity market performance, inclusive of dividend reinvestment.
5. **Bloomberg U.S. Aggregate Bond Index:** Bloomberg Index Services Limited; proxy for U.S. investment-grade, taxable fixed-income market performance.
6. **BarclayHedge BTOP50 Index:** BarclayHedge / ION Analytics; replicates the overall composition of the managed futures industry by trading style and market exposure.
7. **Barclay CTA Index:** BarclayHedge / ION Analytics; equal-weighted benchmark measuring performance of active commodity trading advisors.
8. **U.S. Dollar Index (DXY):** Intercontinental Exchange (ICE); historical pricing tracking the performance of the U.S. dollar against a basket of foreign currencies.
9. **Federal Reserve Economic Data (FRED):** Federal Reserve Bank of St. Louis; historical U.S. Treasury yields, yield curve dynamics, and interest rate target ranges.
10. **U.S. Bureau of Labor Statistics (BLS):** Historical Consumer Price Index (CPI) inflation rates and monthly nonfarm payroll employment releases.
11. **U.S. Energy Information Administration (EIA) / NYMEX:** Historical benchmark pricing and daily settlement data for WTI Crude Oil and energy futures markets.
12. **Bank of Japan (BoJ) Monetary Policy Releases:** Official policy announcements, target rate decisions, and foreign exchange intervention records.



Important Disclosures

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All data and analysis are based on publicly available indices and academic literature.

Hypothetical portfolio comparisons are for illustrative purposes only and do not represent actual investment results.

Past performance of any index is not indicative of future results.

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