



GLOBAL VIEW CAPITAL
MANAGEMENT

The Unified Quant Frontier

By Dina Fliss, Jack Peters, Barry Arnold, David Morton & Jeff Woolley

Global View Capital Management & aiAlpha Technologies

I. Executive Summary

This whitepaper is meant to provide a systematic framework for improving investor performance by combining multiple strategies with multiple methodologies in a single portfolio.

The findings are ground-breaking.

Since the birth of Modern Portfolio Theory (MPT) the financial landscape has shifted dramatically. A host of new financial instruments have been created broadening the universe of investment strategies in novel new ways.

Modern Portfolio Theory (MPT), introduced by Harry Markowitz in 1952, revolutionized finance by defining the Efficient Frontier, the optimal balance between risk and return through diversification. Yet, in the decades since its Nobel Prize recognition in 1990, the investment landscape has evolved far beyond its original boundaries.

Traditional diversification between equities and bonds no longer provides the protection it once promised. Correlations have crept upward, market cycles have shortened, and investors face systemic drawdowns that diversification was designed to prevent.

FinTech has enabled efficient trading systems, and the price of trading has declined, allowing investors to access strategies that were once only obtainable to large institutions a few years ago.

At **Global View Capital Management (GVCM)**, our research and technology, implemented through **aiAlpha Unifi™**, reveal a quantum leap in portfolio construction: the **Unified Quant Frontier (UQF)**.

The UQF expands the Efficient Frontier by combining multiple Quant-Driven (QD) strategies within a Unified Managed Account (UMA). Each strategy adapts dynamically to changing market conditions, reducing correlation and drawdown while improving alpha generation.

Empirical results (2003 – 2025) show:

- Average annual returns 2× higher than passive benchmarks.
- Max drawdowns 50–70% lower than “buy-and-hold” portfolios.
- Sharpe ratios consistently above 1.0 across market cycles.
- Faster recoveries after crises

This paper formalizes the theoretical and technological evolution from the Efficient Frontier to the Unified Quant Frontier, a multidimensional frontier of adaptive, algorithmic diversification.

II. Methodology

This paper examines the impact of combining quant-driven strategies that employ multiple methodologies in a single portfolio, as a traditional portfolio is constructed, using MPT.

Each constructed Quant-Driven (QD) Universe represents *only actual investable strategies* offered, maintained, and managed on the GVCM platform.

Over time, when an individual strategy is added to the universe, it is included and aggregated within the category. Then, each QD Universe of strategies are equal-weighted and re-balanced annually.

The paper focuses on the period September 2003 through September 2025 to better represent the modern experience of professional asset allocators in North America, with actual investable strategies available that could have been employed during the report period.

Importantly, the paper leverages both point-in-time and 5-year rolling periods in its non-correlation research to eliminate concerns of cherry-picking specific strategies during specific time periods, and to provide a fuller view of the frequency and magnitude of the impact that quant-driven strategies have across full market cycles and different market regimes.

Aside from cumulative and annualized returns, the paper delves into key risk metrics, such as maximum drawdown, Sharpe ratios, and alpha generation.

Research data was sourced by AdvisorGuide (the research arm of GVCM), Nasdaq eVestment, MetaStock, FastTrack, and α iAlpha Technologies

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Evolution, Revolution, or Quantum Leap?

From MPT to Adaptive Diversification

Modern Portfolio Theory (MPT), introduced by Harry Markowitz in 1952, revolutionized finance by defining the Efficient Frontier, the optimal balance between risk and return through diversification. Yet, in the decades since its Nobel-Prize recognition in 1990, the investment landscape has transformed beyond recognition. Traditional diversification between equities and bonds no longer provides the protection it once promised. Correlation across asset classes has crept upward, market cycles have compressed, and investors are left exposed to systemic drawdowns that diversification was meant to mitigate.

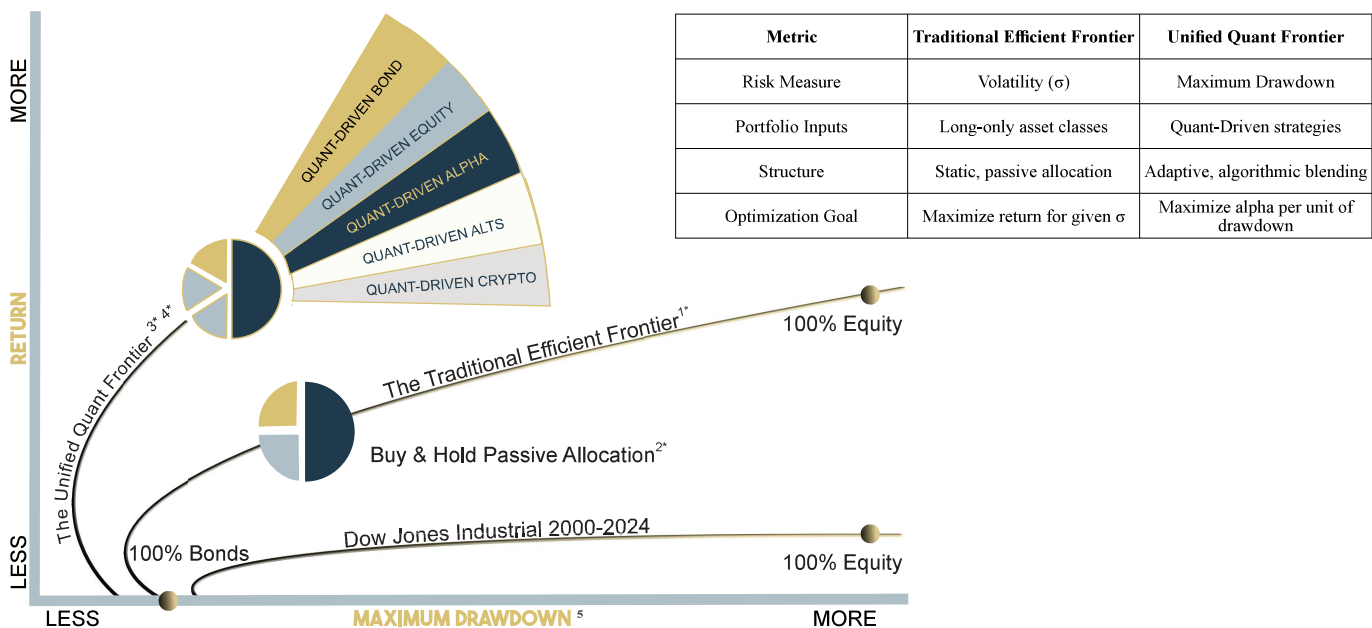
With time, this rigidity produced **the Great Commoditization** of portfolio design, where cost became a primary differentiator, a classic example of late-stage innovation.

Markowitz’s Efficient Frontier maximized expected return for a given level of volatility. The theory’s foundation remains elegant, yet practice has stagnated. Today’s portfolios still rely on static “buy-and-hold” allocations of equities and bonds, re-balanced periodically without regard to real-time market conditions.

The **Unified Quant Frontier** challenges this by redefining *risk*.

Volatility (σ) is replaced with **maximum drawdown (MDD)**, the metric investors truly feel.

By reframing the risk axis, the Unified Quant Frontier reconnects theory with behavioral reality.



¹ Portfolio representations are for illustrative purposes only. An efficient frontier is a set of portfolios that offers the highest possible return for an acceptable level of risk.

² Traditional diversification is a blend of stocks, bonds and cash.

³ The Unified Quant Frontier expands the traditional asset classes to include Quant-Driven (QD) strategies.

⁴ Key Characteristics of Quantitative Methods in Finance:

- Rule-based: Every trade or allocation follows an explicit mathematical or algorithmic rule.
- Empirical: Strategies are tested and validated through backtesting on historical data.
- Adaptive: Models can dynamically adjust exposure based on market signals, volatility, or correlations.
- Objective: Decisions are derived from data and statistics rather than intuition or opinion.
- Scalable: Quantitative systems can evaluate and execute thousands of data points or securities in real time.

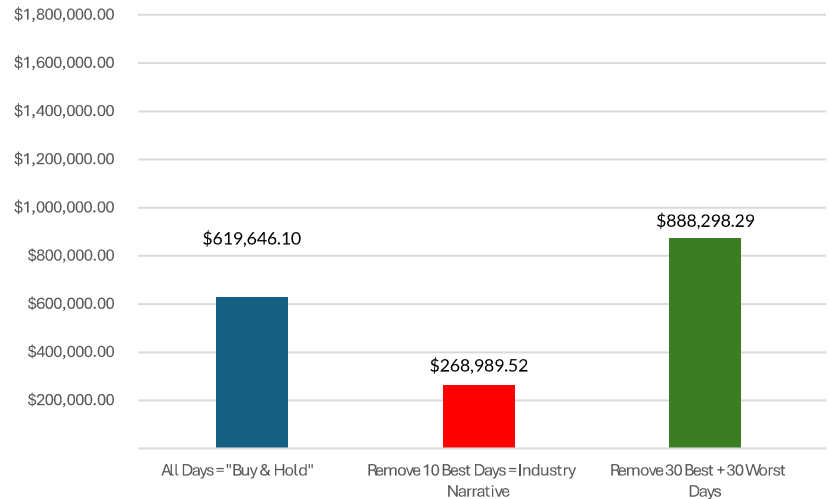
⁵ Volatility (σ) is replaced with Maximum Drawdown (MDD)

Missing the Best and Worst Days in the Market

Conventional wisdom warns against missing the “best days.” This message is repeated endlessly in marketing decks, advisor brochures, and media commentary. The argument is emotionally persuasive, but mathematically incomplete.

GVCM research uncovered a hidden symmetry that tells the whole story: **the best and worst days cluster together**, often inside bear markets, which means being fully invested for the “best days” implicitly requires one to stay fully exposed during periods of **maximum wealth destruction**.

The best days occur inside the highest-risk environments. The worst days dominate compounding, destroying far more wealth than the best days can restore. By removing both extremes the return path smooths, boosting wealth.



Full Buy-and-Hold (All Days):

Final value = **\$619,646.10**

Excluding the 10 Best Days:

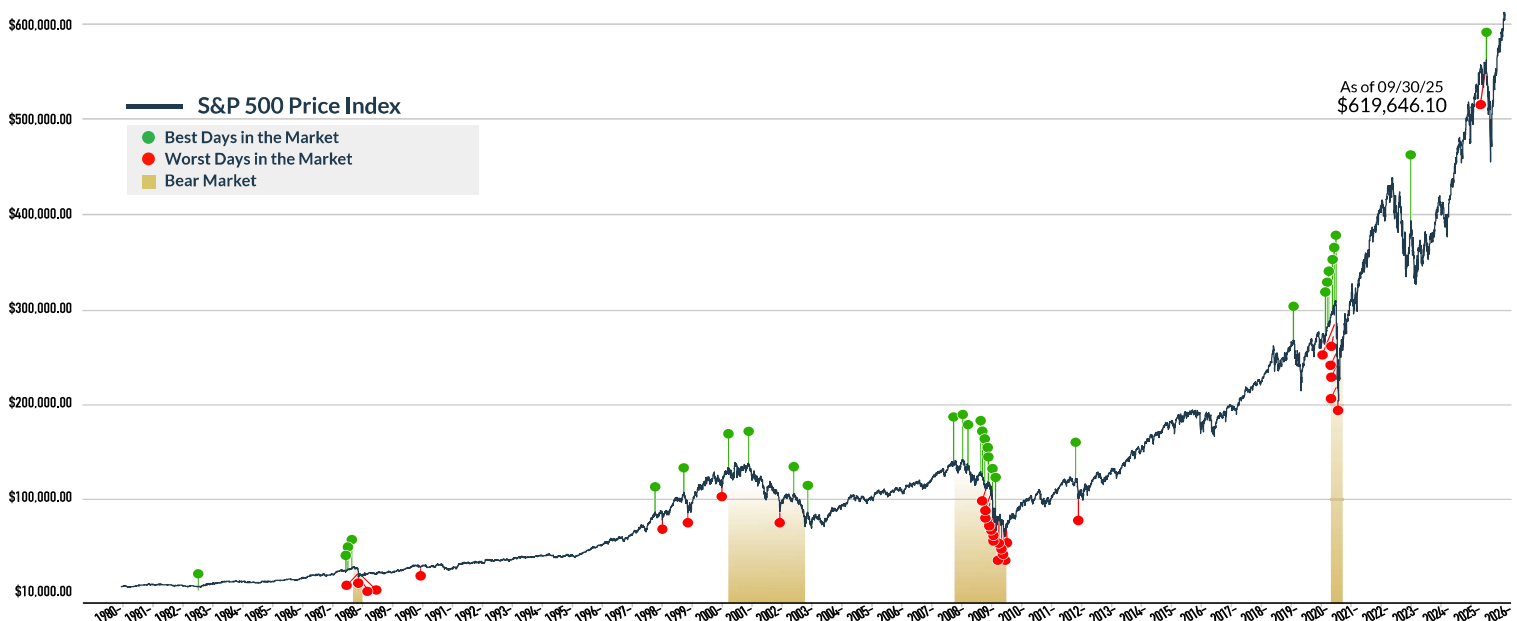
Final value = **\$268,989.52**

→ Used by industry to urge staying invested.

Excluding Both the 30 Best & 30 Worst Days:

Final value = **\$888,298.29**

→ **43% higher** than buy-and-hold.



Avoiding drawdowns, not capturing every rally, is the cornerstone of compounding efficiency.

Source: Graphs calculated by Global View Capital Management using data from 01/01/1980 to 09/30/2025 of the S&P 500 Index from MetaStock. Data Excluding Best and Worst Days calculated by GVCM. The chart is for illustrative purposes only and does not reflect any actual investment product. The index is unmanaged and not available for direct investment.

Expanding the Universe with Quant-Driven Strategies

Each **Quant-Driven (QD) Universe** employs a unique methodology; momentum, volatility targeting, long/short rotation, and adaptive hedging, to achieve independence from market beta, and is compared to its traditional, “long-only” benchmark.

Multi-Strat Universe	Annual Return	Max Drawdown	Sharpe Ratio	Long- Only Benchmark
QD Bond	6.3 %	−6.2 %	1.17	Bloomberg US Aggregate
QD Equity	10.6 %	−10.2 %	1.10	Dow Jones Aggressive
QD Alpha	23.9 %	−16.4 %	1.36	S&P 500
QD Alts	9.8 %	−16.4 %	0.75	Barclay Hedge Fund Index
QD Crypto	116.1 %	−46.6 %	1.23	Bitcoin Spot

Performance of QD Universes vs. Select Assets and Asset Classes

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
QD EQUITY 15.00%	QD EQUITY 9.9%	QD ALPHA 17.5%	QD ALPHA 24.4%	QD ALPHA 36.5%	NDX 100 53.5%	GLD 27.2%	GLD 11.2%	QD ALPHA 29.8%	QD ALPHA 55.1%	NDX 100 17.9%	NDX 100 8.4%	QD ALPHA 14.0%	QD CRYPTO 5850.0%	QD ALPHA 18.1%	BITCOIN 92.7%	BITCOIN 303.9%	QD CRYPTO 163.1%	GLD -0.5%	BITCOIN 152.0%	BITCOIN 123.6%	GLD 31.0%
HYG 11.3%	QD BOND 4.9%	S&P 15.8%	NDX 18.7%	QD BOND 14.1%	QD ALPHA 44.8%	QD ALPHA 26.9%	QD BOND 9.6%	NDX 16.8%	NDX 35.0%	QD ALPHA 16.4%	QD BOND 6.1%	HYG 13.9%	BITCOIN 1400.9%	QD CRYPTO 1.3%	QD CRYPTO 64.0%	QD CRYPTO 175.9%	BITCOIN 59.9%	QD ALTS 1.9%	NDX 53.8%	QD CRYPTO 65.0%	BITCOIN 22.5%
NDX 11.05%	S&P 500 4.9%	QD EQUITY 13.3%	QD EQUITY 12.1%	QD EQUITY 8.7%	HYG 40.7%	NDX 100 19.2%	QD 500 9.0%	S&P 500 16.0%	S&P 500 32.4%	QD ALPHA 13.7%	QD BOND 4.0%	QD BOND 12.2%	NDX 500 31.5%	AGG 0.0%	NDX 38.0%	QD ALPHA 47.7%	S&P BOND 28.7%	QD CRYPTO -5.0%	QD CRYPTO 50.8%	GLD 26.1%	NDX 100 17.5%
S&P 500 10.88%	HYG 2.7%	BH HFI 12.4%	BH HFI 10.2%	AGG 5.2%	QD EQUITY 30.7%	QD ALTS 17.6%	AGG 7.8%	HYG 13.8%	QD EQUITY 20.8%	QD ALTS 10.6%	S&P 500 1.4%	QD ALTS 12.1%	QD ALPHA 30.4%	QD ALTS -0.2%	QD ALPHA 33.1%	NDX 100 47.6%	QD ALPHA 27.6%	BH HFI -8.2%	QD ALPHA 45.6%	S&P 500 25.0%	QD CRYPTO 16.8%
QD BOND 4.98%	AGG 2.4%	HYG 11.9%	AGG 7.0%	GLD 3.0%	QD BOND 28.5%	QD EQUITY 17.1%	QD ALPHA 7.6%	QD EQUITY 13.0%	BH HFI 11.1%	QD EQUITY 7.2%	QD ALTS 0.8%	S&P 500 12.0%	QD ALTS 25.4%	QD BOND -1.0%	S&P 500 31.5%	QD ALTS 27.7%	NDX 100 26.6%	QD EQUITY -10.2%	S&P 500 26.3%	NDX 100 24.9%	QD ALTS 15.5%
AGG 4.34%	NDX 100 1.5%	NDX 100 6.8%	S&P 500 5.5%	QD ALTS -7.1%	GLD 27.1%	S&P 500 15.1%	HYG 5.9%	QD ALTS 11.3%	QD ALTS 9.4%	QD BOND 7.0%	AGG 0.6%	QD EQUITY 9.0%	S&P 500 21.8%	NDX 100 -1.0%	GLD 18.4%	GLD 23.7%	QD EQUITY 11.3%	HYG -11.4%	QD EQUITY 15.2%	QD ALPHA 17.2%	S&P 500 14.8%
		QD BOND 6.2%	QD BOND 4.9%	BH HFI -21.6%	S&P 500 26.5%	HYG 12.1%	QD EQUITY 2.9%	QD BOND 10.3%	HYG 5.9%	AGG 6.0%	BH HFI 0.0%	GLD 8.7%	QD EQUITY 15.8%	HYG -1.9%	QD EQUITY 14.9%	S&P 500 18.4%	BH HFI 10.2%	QD ALPHA 12.3%	GLD 13.4%	QD ALTS 17.1%	QD ALPHA 13.7%
		AGG 4.3%	HYG 1.9%	HYG -23.9%	BH HFI 23.7%	BH HFI 10.9%	NDX 100 2.7%	BH HFI 8.3%	QD BOND 2.4%	BH HFI 2.9%	QD EQUITY -4.6%	HYG 6.1%	GLD 11.4%	S&P 500 -4.4%	HYG 14.2%	QD EQUITY 17.2%	HYG 4.1%	AGG -13.0%	HYG 12.4%	BH HFI 9.7%	BH HFI 8.1%
				S&P 500 -37.0%	QD ALTS 22.1%	QD BOND 10.8%	S&P 500 2.1%	AGG 4.2%	AGG 5.9%	HYG 2.0%	HYG -5.5%	NDX 100 5.9%	BH HFI 10.4%	BH HFI -5.2%	BH HFI 10.6%	BH HFI 11.1%	QD ALTS 0.7%	S&P 500 -18.1%	BH HFI 9.3%	QD EQUITY 9.3%	HYG 6.4%
				NDX 100 -41.9%	AGG 5.9%	AGG 6.5%	BH HFI -5.5%	GLD -9.8%	GLD -16.9%	GLD -0.6%	GLD -11.8%	AGG 2.7%	HYG 6.1%	GLD -14.5%	AGG 8.7%	AGG 7.5%	QD BOND 0.6%	QD CRYPTO -18.6%	QD ALTS 7.8%	HYG 7.7%	AGG 6.1%
													QD BOND 3.9%	QD CRYPTO -43.7%	QD BOND 6.3%	QD BOND 5.2%	AGG -1.5%	NDX 100 -33.0%	AGG 5.5%	QD BOND 3.5%	QD EQUITY 5.7%
													AGG 3.5%	BITCOIN -74.0%	QD ALTS -0.7%	HYG 7.5%	GLD -8.1%	BITCOIN -64.2%	QD BOND 4.1%	AGG 1.3%	QD BOND 1.6%

Benchmark Abbreviations & Data Sources

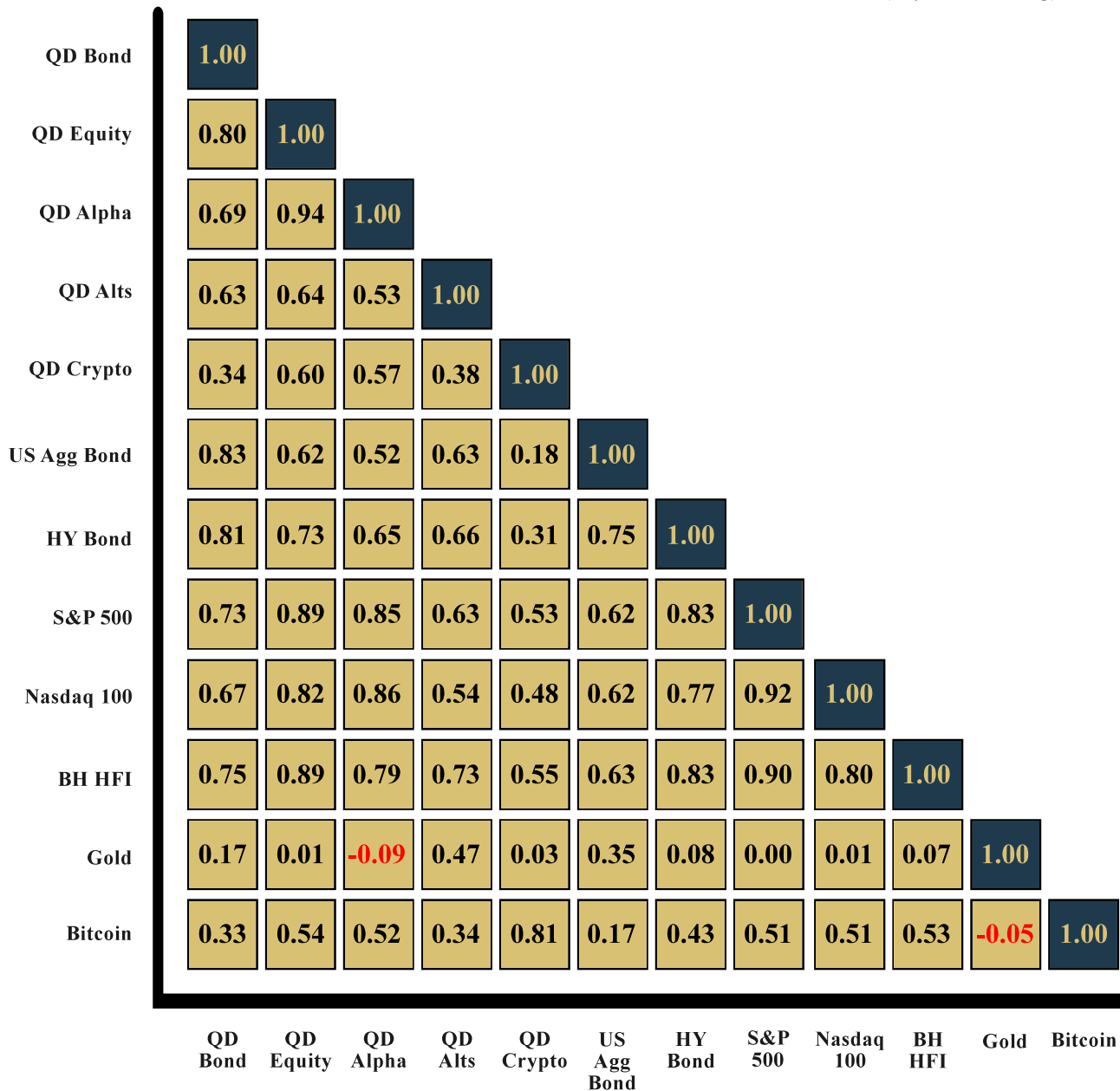
Benchmark	Full Name / Description	Source
US Bond (AGG)	Bloomberg U.S. Aggregate Bond Index	NASDAQ eVestment
HY Bond (HYG) 2004–2006	Bloomberg U.S. Corporate High Yield Bond Index	NASDAQ eVestment
HY Bond (HYG) 2007–2025	iShares iBoxx \$ High Yield Corporate Bond ETF	Investors FastTrack
S&P 500	Standard & Poor's 500 Total Return Index	NASDAQ eVestment
NDX 100	NASDAQ 100 Price Index	NASDAQ eVestment
Hedge Funds (BH HFI)	BarclayHedge Hedge Fund Index	NASDAQ eVestment
Gold (GLD)	SPDR Gold Shares ETF	Investors FastTrack
Bitcoin	Bitcoin Spot Price	Investors FastTrack

QD Universe Definitions

Universe	Description	Source
QD Bond	Quant-driven Bond Strategies offered, maintained, & managed by GVC	NASDAQ eVestment
QD Equity	Quant-driven Equity Strategies offered, maintained, & managed by GVC	NASDAQ eVestment
QD Alpha	Quant-driven Alpha Strategies offered, maintained, & managed by GVC	NASDAQ eVestment
QD Alts	Quant-driven Alternative Strategies offered, maintained, & managed by GVC	NASDAQ eVestment
QD Crypto	Quant-driven Crypto Strategies offered, maintained, & managed by GVC	NASDAQ eVestment

Source: Global View Capital Management with data from Nasdaq eVestment as of 9/30/2025. For further detail descriptions of the QD Universes, see Definitions at the end of this document. All calculations are total return, including dividends for the stated period. Performance does not include fees and expenses charged by any fund or strategy. A report of any quant-driven universe represented by GVCN is available upon written request.

Correlation Matrix of QD Universes vs. Select Assets and Asset Classes (5-year Rolling)



Benchmark Abbreviations & Data Sources

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US Bond (AGG)	Bloomberg U.S. Aggregate Bond Index	NASDAQ eVestment
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S&P 500	Standard & Poor's 500 Total Return Index	NASDAQ eVestment
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Performance of QD Universes (VS) Select Assets and Asset Classes

	CUMULATIVE					ANNUALIZED			
	YTD	1YR	3YR	5YR	10YR	3YR	5YR	10YR	20YR
QD Bond	2.16	1.37	11.22	8.00	36.38	3.61	1.55	3.15	6.39
QD Equity	8.71	8.76	36.52	52.04	136.56	10.94	8.74	8.99	10.43
QD Alpha	20.24	21.85	95.17	177.30	733.26	24.97	22.63	23.62	24.30
QD Alts	25.26	26.00	63.33	78.92	170.11	17.77	12.34	10.45	--
QD Crypto	14.06	41.60	160.69	1,095.81	--	37.63	64.26	--	--
US Agg Bond	6.13	2.88	15.53	-2.22	19.98	4.93	-0.45	1.84	3.23
HY Bond	7.10	7.18	34.98	36.34	66.01	10.52	4.79	5.20	--
S&P 500	14.83	17.60	95.01	114.30	315.30	24.94	16.47	15.30	10.97
NASDAQ 100	17.46	23.03	124.95	116.15	490.28	31.03	16.67	19.43	14.65
BH HFI	10.52	10.74	37.11	46.48	85.70	11.09	7.93	6.39	5.51
Gold	46.10	44.89	126.14	91.21	175.68	31.26	13.84	10.67	9.53
Bitcoin	22.47	80.35	491.26	968.06	48,096.98	80.83	60.59	85.48	--

Benchmark Abbreviations & Data Sources

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Discovery of the Unified Quant Frontier

Classic optimization raises the Efficient Frontier by mixing low-correlated assets.

The Unified Quant Frontier multiplies that effect through uncorrelated *methodologies*..

2008 Crisis Comparison:

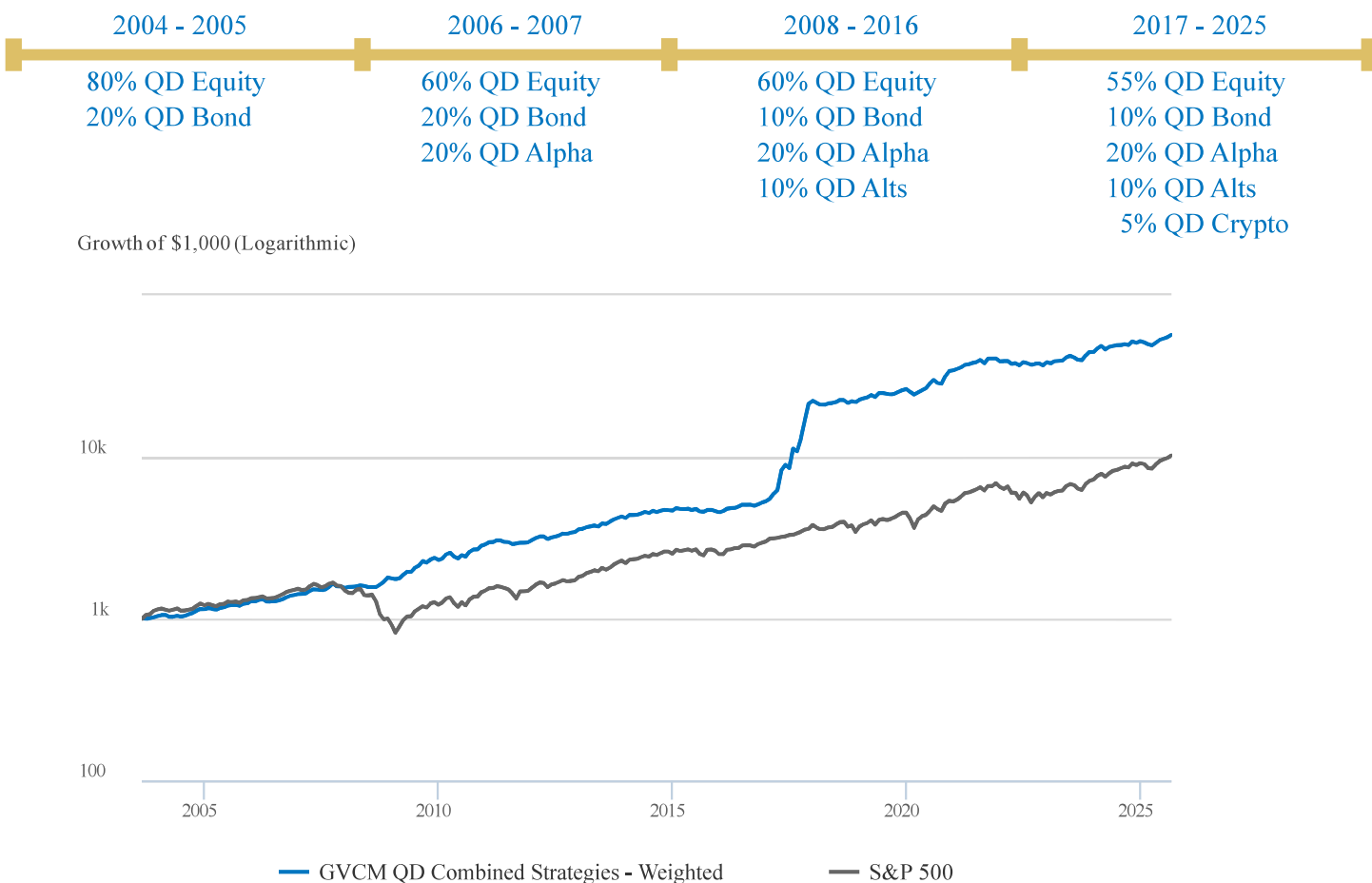
- S&P 500 drawdown -50.95 %
- UQF portfolio drawdown -9.70 %, full recovery within 12 months

Each incremental unit of risk on the UQF delivers a disproportionately higher expected return; proof of *quantum diversification efficiency*.

Risk Analysis

Statistic	GVCM: GVCM QD Combined Strategies - Weighted	S&P 500
Returns	20.18%	11.16%
Standard Deviation	16.05%	14.62%
Sharpe Ratio (FTSE 3 Mo. T-Bill)	1.15	0.65
Gain/Loss Ratio	1.76	0.85
MRM	3.54%	3.65%
YTD	12.28%	14.83%
2024 Return	13.86%	25.02%
2023 Return	21.19%	26.29%
3 Year Return	15.31%	24.94%
5 Year Return	14.71%	16.47%
10 Year Return	28.68%	15.30%
Max Drawdown	-9.70%	-50.95%

When blended in a Unified Quant Matrix, correlations fall sharply and portfolio-level efficiency rises non-linearly.
Evidence of emergent diversification.



Guided Portfolio System™ and αiAlpha Unifi™: Artificial Intelligence Meets Portfolio Construction

The **Guided Portfolio System™ (GPS)** and **αiAlpha Unifi™** are the operational engines behind the UQF.

Example Command:

“Hey ALPH, design a \$100,000 Growth portfolio with drawdown < 15%, crypto < 3%, and max 8 strategies.”

Within seconds, αiAlpha constructs, optimizes, and visualizes the model; integrating live data, risk limits, fees, and compliance guardrails.

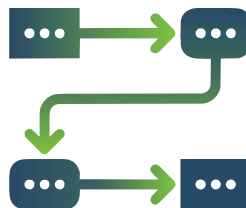
ONE ECOSYSTEM: A UNIFIED ASSET MANAGEMENT PLATFORM

FRONT END



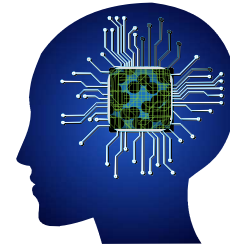
- Advisor Dashboard & Workstation
- 100+ Fully-Vetted QD Strategies & Funds
- Client Risk Assessment
- Portfolio Builder
- UMA Technology with On Demand Analytics
- Automated, Digital Account Opening
- Robust Portfolio Reporting & Analytics

MIDDLEWARE



- Custodian Agnostic
- Automated Trade Order Management
- Step-Out Block Trading
- Real tax-lot accounting at the sleeve level
- Dedicated Services Center & Automated Workflow Request
- Dedicated Portfolio Manager Portal

BACK END



- Experienced Trading Desk
- Multi-Custodial Trade Executions
- Re-balancing/Drift Management
- Advanced Sleeve Reporting
- Variable Annuity Sleeve Technology
- Protected Positions
- On Demand Account Model Changes

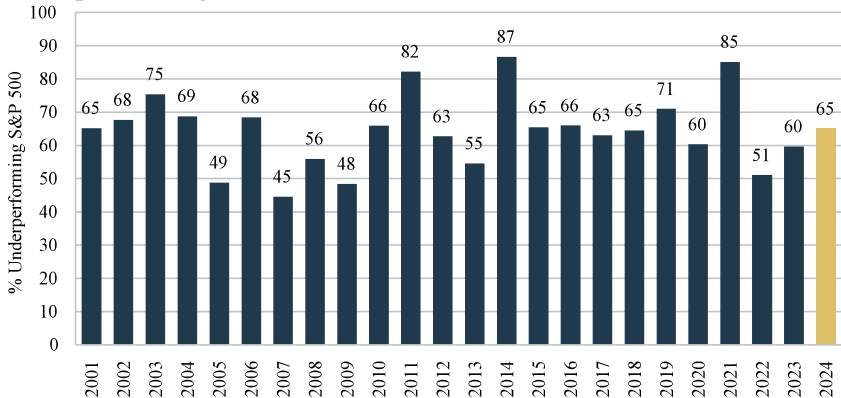


The Reluctance to Evolve

Despite clear data, industry adoption lags.
SPIVA U.S. 2024: 65 % of active large-cap funds underperformed the S&P 500 in one year, and >90 % over 15 years.

The barrier is architectural, not intellectual.
Legacy systems can’t manage multiple methodologies in one account; UQF technology solves that limitation.

Percentage of Large-Cap Domestic Equity Funds Underperforming the S&P 500 Each Year



Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Percentage of U.S. Equity Funds Underperforming Their Benchmarks (Based on Risk-Adjusted Return)

Fund Category	Comparison Index	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)	20-Year (%)
All Domestic Funds	S&P Composite 1500	88.96	90.04	93.36	97.99	97.26
All Large-Cap Funds	S&P 500	84.96	86.21	91.54	98.13	95.48
All Mid-Cap Funds	S&P MidCap 400	71.01	75.00	76.50	84.75	90.68
All Small-Cap Funds	S&P SmallCap 600	54.40	57.78	79.32	87.89	89.08
All Multi-Cap Funds	S&P Composite 1500	88.25	88.15	92.40	96.42	96.63
Large-Cap Growth Funds	S&P 500 Growth	64.26	83.33	92.78	99.18	100.00
Large-Cap Core Funds	S&P 500	76.11	79.45	94.77	98.40	96.33
Large-Cap Value Funds	S&P 500 Value	88.45	77.32	88.20	90.77	83.26
Mid-Cap Growth Funds	S&P MidCap 400 Growth	85.12	75.00	72.67	85.71	89.89
Mid-Cap Core Funds	S&P MidCap 400	58.82	74.07	87.20	86.27	94.31
Mid-Cap Value Funds	S&P MidCap 400 Value	62.86	60.71	76.81	79.41	83.72
Small-Cap Growth Funds	S&P SmallCap 600 Growth	68.14	63.68	81.28	90.72	93.97
Small-Cap Core Funds	S&P SmallCap 600	41.25	56.87	81.92	87.82	88.50
Small-Cap Value Funds	S&P SmallCap 600 Value	29.85	41.56	72.95	80.88	85.57
Multi-Cap Growth Funds	S&P Composite 1500 Growth	78.09	86.91	93.00	97.24	96.88
Multi-Cap Core Funds	S&P Composite 1500	85.78	89.04	97.59	99.21	96.76
Multi-Cap Value Funds	S&P Composite 1500 Value	89.05	89.03	92.11	93.75	87.50
Real Estate Funds	S&P United States REIT	-	76.83	72.53	81.00	86.42

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Source: SPIVA (S&P Indices Versus Active) U.S. Scorecard Year-End 2024



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Conclusion: The Quantum Leap in Portfolio Construction

Since the Nobel Prize recognition of Modern Portfolio Theory (MPT) in 1990, portfolio construction has undergone several major evolutionary changes; driven by technology, data science, and a rethinking of risk itself. The following summarizes the key evolutionary milestones drawn from The Unified Quant Frontier whitepaper and accompanying performance studies:

I. From Volatility to Drawdown as the True Measure of Risk

Then (MPT): Portfolios were optimized using standard deviation as a proxy for risk.

Now: Sophisticated investors and quantitative platforms (like α Alpha Unifi) now use maximum drawdown, the depth of a portfolio's peak-to-trough loss, because it better represents real-world investor pain during severe market declines.

This redefinition of “risk” allows for a more realistic efficient frontier; one based on limiting loss rather than simply minimizing variance.

II. Expansion Beyond Traditional Asset Classes

Then: The classic 60/40 equity–bond mix dominated for decades under the assumption that bonds would offset equity volatility.

Now: Correlation research shows this relationship has weakened; a phenomenon known as correlation creep, especially during crises.

Portfolios now include Quant-Driven (QD) strategies such as:

- Tactical, momentum, and trend-following systems
- Alternatives like managed futures, crypto, and non-traditional assets
- Quantitative long/short and absolute-return models

This expanded universe produces a new “Unified Quant Frontier”, showing higher returns with lower drawdowns compared to traditional long-only portfolios.

III. Rise of Quantitative and AI-Driven Portfolio Construction

FinTech and AI have transformed how strategies are combined and optimized:

- Real-time multi-strategy modeling and intra-day rebalancing now allow advisors to test thousands of portfolio permutations in seconds within the client's risk profile.
- Platforms such as *aiAlpha Unifi™* integrate multiple custodians, execute block trades, and manage sleeved strategies at the tax-lot level, enabling unified managed accounts (UMAs) that blend multiple methodologies simultaneously.

This is a quantum leap from static “buy and hold” allocation models that rebalanced only quarterly or annually.

IV. From Passive Commoditization to Active Personalization

With the rise of ETFs and robo-advisors, MPT-based portfolios became commoditized and cost-driven.

The modern shift emphasizes customization, adaptability, and personalization:

- Portfolios now adapt dynamically to market signals.
- AI assistants (like *ALPH™* in *aiAlpha's* system) can construct portfolios via natural language commands based on specific drawdown limits, strategy caps, and asset preferences.

This represents the merging of active management science with personalized, scalable technology.

V. Empirical Validation and Quant-Driven Outperformance

Recent data across GVCM Quant-Driven strategies confirm the advantage of this evolution:

Universe	Return	Max Drawdown	Benchmark	Sharpe Ratio
QD Alpha	23.9%	-16.4%	S&P 500: 10.7% / -50.9%	1.34 vs. 0.60
QD Bond	6.3%	-6.2%	AGG: 3.2% / -17.2%	1.17 vs. 0.36
QD Alts	9.8%	-16.4%	Barclay Hedge: 4.7% / -24.1%	0.75 vs. 0.48

This evidence demonstrates that the next generation of portfolio construction is not only theoretical, it's measurable.

VI. In Summary: Evolutionary Phases Since 1990

Era	Defining Features	Primary Innovation
1990 - 2000	MPT dominance, 60/40 allocation	Diversification by asset class
2001 - 2010	Rise of tactical/active management post-dot-com and 2008 crisis	Trend-following, risk parity
2011 - 2020	Passive explosion and factor investing	Smart beta, ETFs, low-cost indexing
2021- Present	AI-driven, non-correlated quant frontier	Unified multi-strategy portfolios, max drawdown optimization

The evolution since 1990 marks a progression from static diversification to dynamic quantification, from “buy, hold, and hope” to adaptive, AI-augmented portfolio engineering that integrates non-correlated strategies and measures success through real risk management rather than volatility suppression.

The Unified Quant Frontier unites theory, data, and AI.

Core Breakthroughs

1. **Theoretical Evolution** - Risk measured by drawdown, not volatility
2. **Technological Integration** - AI-enabled, multi-custodian UMA architecture
3. **Empirical Validation** - Superior returns and resilience across 20 years

*“We didn’t just expand the frontier. We unified it; where technology, theory, and performance converge. The next frontier in investing will not be defined by passive efficiency but by **adaptive intelligence** and **quantitative non-correlation**.”*

-Dina Fliss

DEFINITIONS

Quant-Driven (QD) Universe is an aggregate of *only actual investable strategies* that are both proprietary and non-proprietary offered, maintained, and managed on the GVCM platform. Over time, as a new strategy was added to the platform, it becomes a part of its universe the moment it was launched and remains in the dataset thereafter.

There is no retroactive inclusion of strategies that appear later in history. Individual strategies are equal-weighted and occurs annually, preserving the behavioral characteristics of each strategy. Equal weighting avoids capital concentration and ensures no single methodology dominates results.

Multi - Strat Universe	Start Date	Definition
QD Bond	09/30/2003	The universe is comprised of a total of 15 strategies currently offered, maintained, and managed by GVCM. Over time, when an individual strategy was added to the universe, it is included in the report.
QD Equity	12/31/2003	The universe is comprised of a total of 44 strategies currently offered, maintained, and managed by GVCM. Over time, when an individual strategy was added to the universe, it is included in the report.
QD Alpha	07/31/2005	The universe is comprised of a total of 15 strategies currently offered, maintained, and managed by GVCM. Over time, when an individual strategy was added to the universe, it is included in the report.
QD Alts	05/31/2004	The universe is comprised of a total of 8 strategies currently offered, maintained, and managed by GVCM. Over time, when an individual strategy was added to the universe, it is included in the report.
QD Crypto	05/31/2016	The universe is comprised of a total of 5 strategies currently offered, maintained, and managed by GVCM. Over time, when an individual strategy was added to the universe, it is included in the report.

**As of 09/30/2025*

Quantitative refers to an approach based on measurable data, mathematical models, and statistical analysis to inform decision-making. In finance and portfolio construction, a **quantitative strategy** relies on algorithms and predefined rules to identify, test, and execute investment decisions. In the context of The Unified Quant Frontier and Global View Capital Management’s research, **Quant-Driven (QD) strategies** are investment methodologies that use systematic, data-driven models to adapt to changing market conditions, manage downside risk, and seek superior risk-adjusted-returns independent of human bias.

Correlation research is the quantitative analysis of relationships among asset classes and strategies to identify *non-correlated or inversely correlated* combinations that can reduce downside risk and enhance alpha generation across market cycles.

Global View Capital Management’s internal research extended this foundation by testing the correlations not just between *asset classes* (like stocks and bonds) but between *quantitative strategies* themselves. It analyzes each asset class and strategy over a 5-year period to capture a full market cycle displayed in the Correlation Matrix. This “non-correlation research” discovered that by combining **Quant-Driven (QD) strategies**; each following independent, rules-based methodologies; a new, more resilient efficient frontier emerges with *lower maximum drawdowns* and *higher returns* compared to traditional long-only portfolios.

DISCLOSURES

This white paper is provided for informational and educational purposes only. It does not constitute investment advice, an offer to buy or sell, a solicitation of an offer to buy or sell, or a recommendation for any security or investment strategy.

The information contained herein has been prepared from sources believed to be reliable, but its accuracy is not guaranteed, and it may be incomplete or condensed. Past performance has no guarantee of future results. All investments involve risk, including the potential loss of principal. Historical data presented herein cover different time periods from 2003-2025, and there is no guarantee that the patterns, correlations, or relationships discussed will continue in the future.

The analysis and opinions presented represent the views of the authors as of the date of this publication and are subject to change without notice.

Different types of investments and/or investment strategies involve varying levels of risk, and there can be no assurance that any specific investment or investment strategy will be suitable or profitable for an investor's portfolio. The Sharpe ratio and other risk metrics presented are for illustrative purposes only and may not reflect actual investor experience.

References for the Unified Quantum Frontier allocation percentages or performance attribution should not be construed as a claim that such allocations or performance will be achieved in the future. This paper refers specifically to historical risk-adjusted returns as measured by the Sharpe ratio and applies only to the time periods analyzed. All references to "outperformance," or similar terms refer solely to historical data and should not be interpreted as predictions of future results.

The methodologies used in this analysis have inherent limitations and are based on specific time periods that may not be representative of future market conditions. Economic-regime classifications and crisis-scenario definitions are based on the authors' judgments and may differ from classifications used by other analysts.

GVCM, GVCA and α Alpha do not offer tax or legal advice, and nothing contained herein should be construed as such. A report of any quant-driven universe represented by GVCM is available upon written request.

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Final Note to the Readers

Every great discovery begins with a deeply personal story; a moment that changes not only how we think but who we become. For me, that moment came when my dearest grandmother, someone I loved and respected, entrusted me with her life savings. When the markets collapsed in 2000, and I watched half of her money vanish, it wasn't just a financial loss. It was a human one. I felt every penny disappear, every ounce of her trust and hope weigh on my heart. That pain became my purpose.

That experience ignited a lifelong pursuit; to find a better way for investors to grow and protect their wealth, to participate in opportunity without being destroyed by risk. Over the years, this pursuit evolved from a question into a mission, from a mission into research, and from research into a discovery: The Unified Quant Frontier.

This paper is more than a framework; it is a promise that innovation in finance can serve people first. It reflects decades of research, collaboration, and conviction that diversification, adaptability, and intelligence can help safeguard dreams, the very dreams our clients and families work so hard to build.

To every reader, advisor, and investor, this is my “why.” I share this work not just as a financial professional, but as a granddaughter who never forgot that trust is sacred. May this discovery empower you to pursue progress with courage, to build portfolios that not only perform but protect, and to honor the faith others place in you with wisdom and care.

With gratitude and conviction,

Dina Fliss

Founder & Chief Investment Strategist,

Global View Capital Management

αiAlpha Technologies Co-Founder



