

FOURTH QUARTER 2023

Liquid Alternatives Industry Monitor

Summary of Trends and Statistics

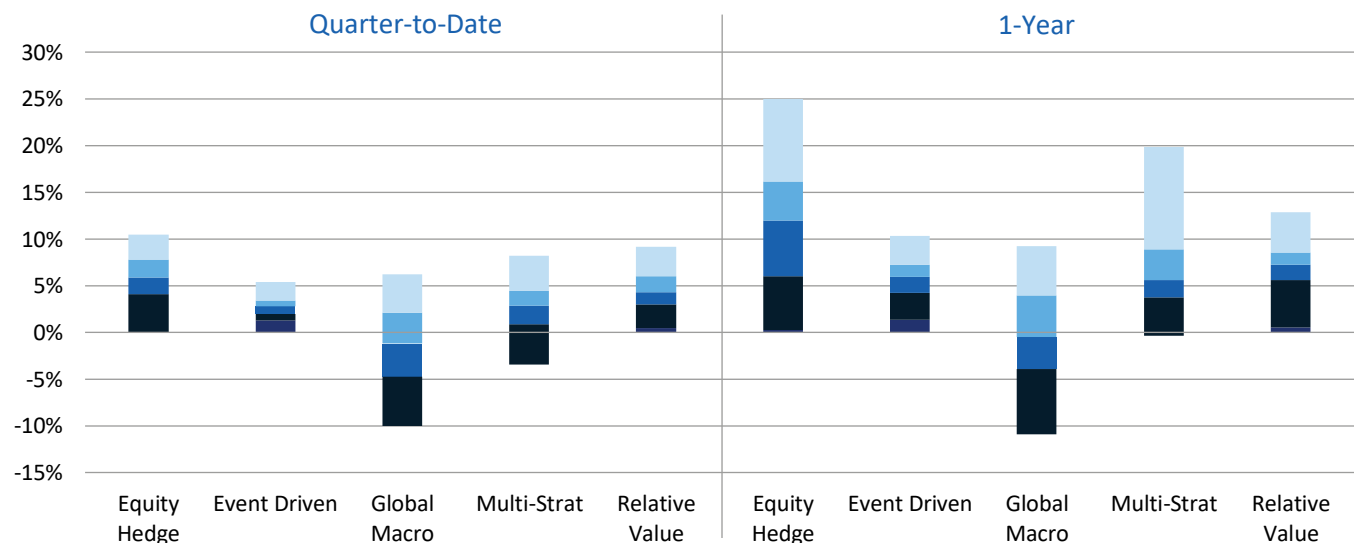
Industry Dashboard

Key performance statistics (%)	QTD	YTD	1Y	3Y	5Y	10Y
Wilshire Liquid Alternative Index SM	1.9%	4.4%	4.4%	1.1%	2.6%	1.4%
HFRI Fund Weighted Composite Index	3.6%	7.6%	7.6%	4.3%	7.0%	4.5%
HFRX Global Hedge Fund Index	1.7%	3.1%	3.1%	0.7%	3.5%	1.4%
S&P 500 Index	11.7%	26.3%	26.3%	10.0%	15.7%	12.0%
Bloomberg U.S. Aggregate Bond Index	6.8%	5.5%	5.5%	-3.3%	1.1%	1.8%
Wilshire Liquid Alternative Equity Hedge Index SM	2.8%	8.6%	8.6%	4.7%	5.2%	2.5%
Wilshire Liquid Alternative Event Driven Index SM	0.0%	2.2%	2.2%	0.4%	2.4%	1.3%
Wilshire Liquid Alternative Global Macro Index SM	-4.6%	-3.2%	-3.2%	2.4%	3.2%	1.6%
Wilshire Liquid Alternative Multi-Strategy Index SM	0.9%	4.5%	4.5%	1.0%	2.2%	1.1%
Wilshire Liquid Alternative Relative Value Index SM	3.7%	4.1%	4.1%	-1.3%	1.1%	1.0%

Sources: Bloomberg, HFR. Data as of 12/31/23. Returns greater than one year are annualized unless otherwise noted. Index returns shown do not represent the results of the actual trading of investable assets. Historical returns are not indicative of future results. It is not possible to invest directly in an index.

Dispersion

Performance Dispersion by Sub-Strategy as of December 31, 2023



Represents trailing performance quartiles of index constituents. For illustrative purposes only.

Sub-Sector Performance

Wilshire Liquid Alternative Equity Hedge IndexSM

Equity hedge strategies experienced a strong fourth quarter. Equity markets performed well as interest rate cuts were anticipated for the coming year. Developed markets outperformed emerging markets and the technology sector continued to lead gains. However, concerns over China's real estate sector and weaker crude oil prices posed challenges, leading to a cautious optimism.

December marked a strong end to the year, reflecting a favorable environment for equity-focused strategies. Managers saw strong performance across technology and health care, with fundamental value and quantitative directional funds showing the most robust performance.

Wilshire Liquid Alternative Event Driven IndexSM

Event-driven strategies navigated a mixed market environment with resilience in the fourth quarter. Despite facing challenges from lower-than-peak corporate activity levels, managers benefited from a rebound in risk assets.

In December, event-driven strategies capitalized on a market with higher macro and market volatility, creating opportunities for active trading. Merger arbitrage and special situations strategies benefited from an improving regulatory framework but continued to suffer from low deal volumes.

Wilshire Liquid Alternative Global Macro IndexSM

Macro hedge fund managers had a specifically challenging fourth quarter. The U.S. dollar's volatility and unexpected shifts in currency pairs led to significant losses for many managers. These difficulties were compounded by the downturn in the commodity and energy sectors, resulting in a quarter marked by underperformance and heightened caution among managers.

In December, the downward trajectory in commodity prices and rates resulted in underperformance for many managers, with systematic trend-following managers notably struggling.

Wilshire Liquid Alternative Relative Value IndexSM

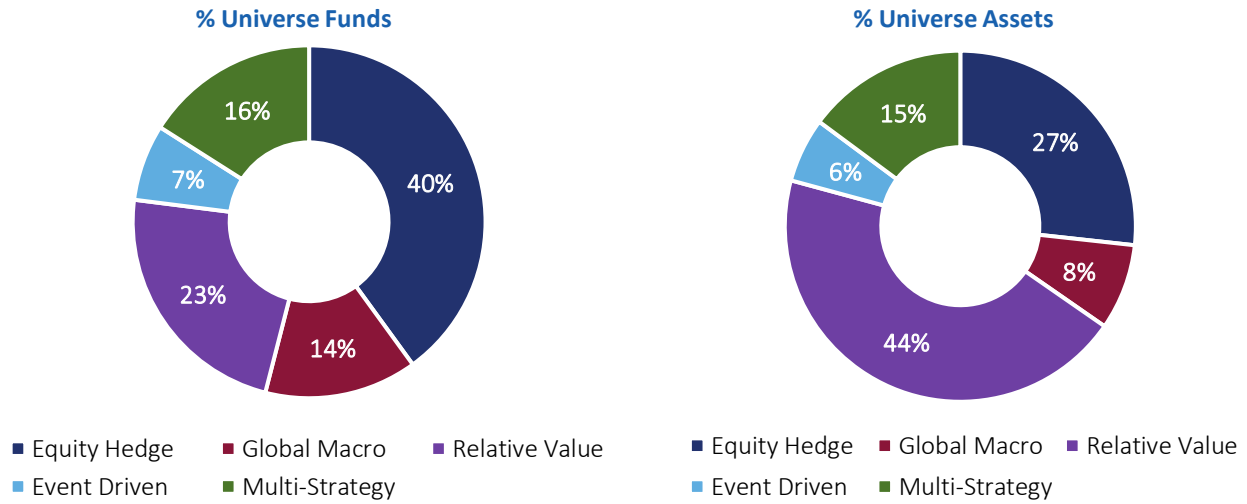
Relative value managers saw positive performance in the fourth quarter, with the market providing opportunities for active trading and gains in fixed income relative value strategies. The quarter also saw an improvement in the convertible bond opportunity set.

In December, the relative value opportunity set continued to appreciate, with managers capitalizing on asset price dispersion and volatility. The market saw gains driven by falling rates and a favorable economic outlook for 2024, which benefited strategies trading sovereign fixed income securities.

Liquid Alternatives Universe Overview

Composition

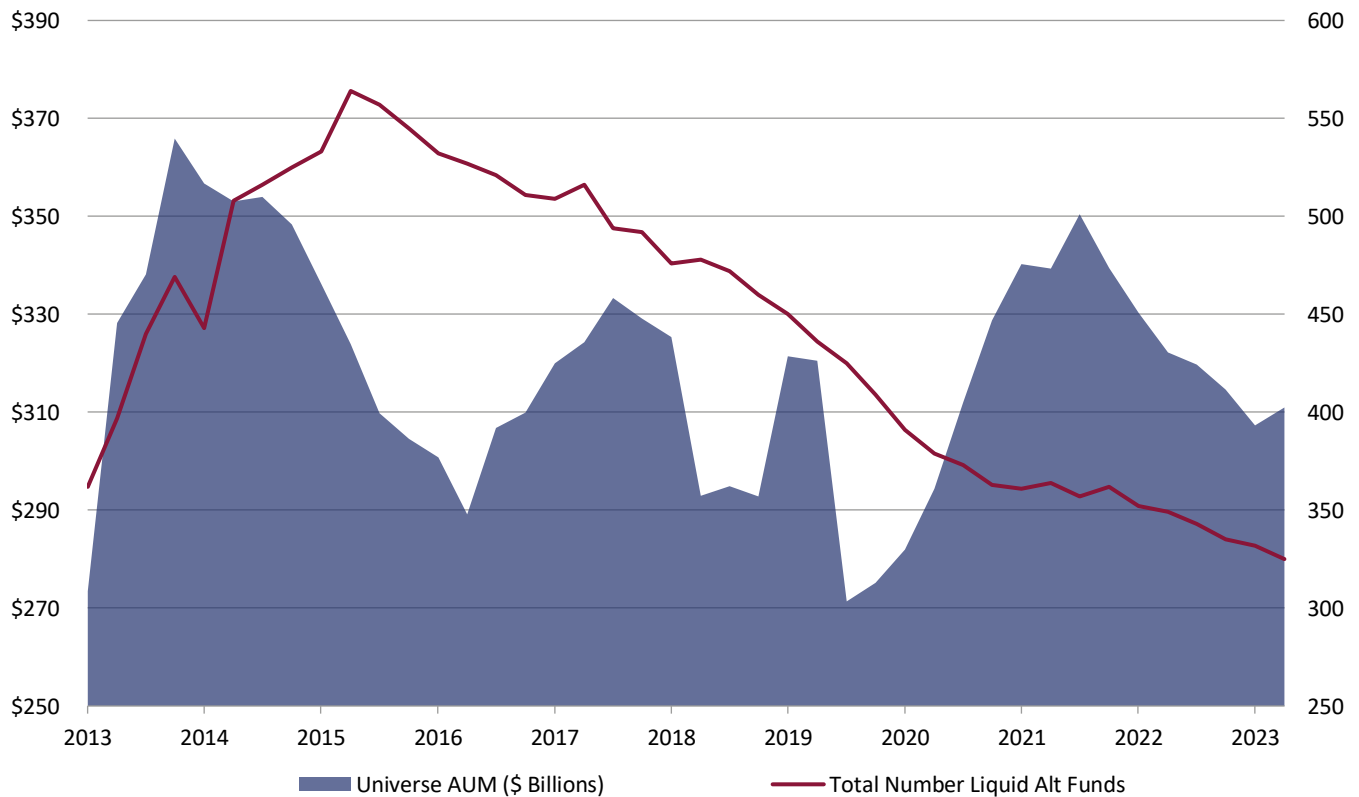
Fund Count and Assets Under Management by Sub-Sector



For illustrative purposes only.

For illustrative purposes only.

Trends on Fund Count and Assets Under Management



For illustrative purposes only.

Universe Statistics

	Liquid Alternatives Universe	Equity Hedge	Global Macro	Relative Value	Event Driven	Multi-Strategy
# Funds	335	131	44	74	23	53
Universe (#)	100%	40%	14%	23%	7%	16%
Total assets (\$mil)	\$311,016	\$82,440	\$26,155	\$138,929	\$17,203	\$46,289
% Universe (assets)	100%	27%	8%	45%	6%	15%
# Funds with 3 years	300	120	38	68	22	52
Total 3-year assets (\$mil)	\$299,302	\$74,663	\$26,047	\$137,216	\$17,201	\$44,176
# Funds > \$100 million	203	65	25	59	15	39
# Funds launched in last 12 months	5	1	1	2	1	0

Largest Funds by AUM\$

Equity Hedge	Global Macro	Relative Value	Event Driven	Multi-Strategy
JPMorgan Hedged Equity: \$17.0bn	American Beacon AHL: \$3.1bn	BlackRock Strategic Income Opps: \$36.1bn	BlackRock Event Driven Equity: \$5.5bn	BlackRock Systematic Multi-Strat: \$6.7bn
FPA Crescent: \$9.7bn	PIMCO Trends Managed Futures: \$2.9bn	Calamos Market Neutral Income: \$14.0bn	Merger Investor: \$2.8bn	Catalyst/Millburn Hedge Strategy: \$6.3bn
Neuberger Berman Long Short: \$6.5bn	Abbey Capital Futures Strategy: \$2.5bn	JPMorgan Strategic Income Opps: \$9.4bn	AQR Diversified Arb: \$1.8bn	Goldman Sachs Absolute Ret Trckr: \$4.2bn
Gateway: \$6.5bn	AlphaSimplex Managed Futures: \$2.2bn	Navigator Tactical FI: \$6.9bn	First Trust Merger Arb: \$1.8bn	Blackstone Alternative Multi-Strat: \$4.0bn
JPMorgan Equity Premium: \$5.8bn	Eaton Vance Global Macro Absolute Return Advantage: \$1.9bn	Performance Trust Total Return: \$6.3bn	BlackRock Global Long/Short Credit: \$1.0bn	JPMorgan Global Allocation: \$3.1bn

As of 12/31/23.

Activity

Flows¹

Liquid alternatives universe assets increased by \$3.6bn in Q4 2023. New entrants (comprised of new fund launches and reclassifications into the universe) brought in \$152.4mn, while removals (comprised of liquidations and reclassifications out of the universe) created outflows of \$251.4mn. Net capital outflows from the universe totaled \$8.5bn. Performance gain increased AUM by \$12.3bn.

- \$1.1bn net **outflows** from relative value funds
- \$1.5bn net **outflows** from event driven funds
- \$1.6bn net **outflows** from equity hedge funds
- \$2.0bn net **outflows** from multi-strategy funds
- \$2.3bn net **outflows** from global macro funds

Fund Universe Changes

- 1 fund was reclassified into the universe
- 0 new liquid alternative funds were launched during the quarter
- 7 funds were liquidated
- 2 funds were aquired
- 0 funds were reclassified out of the universe

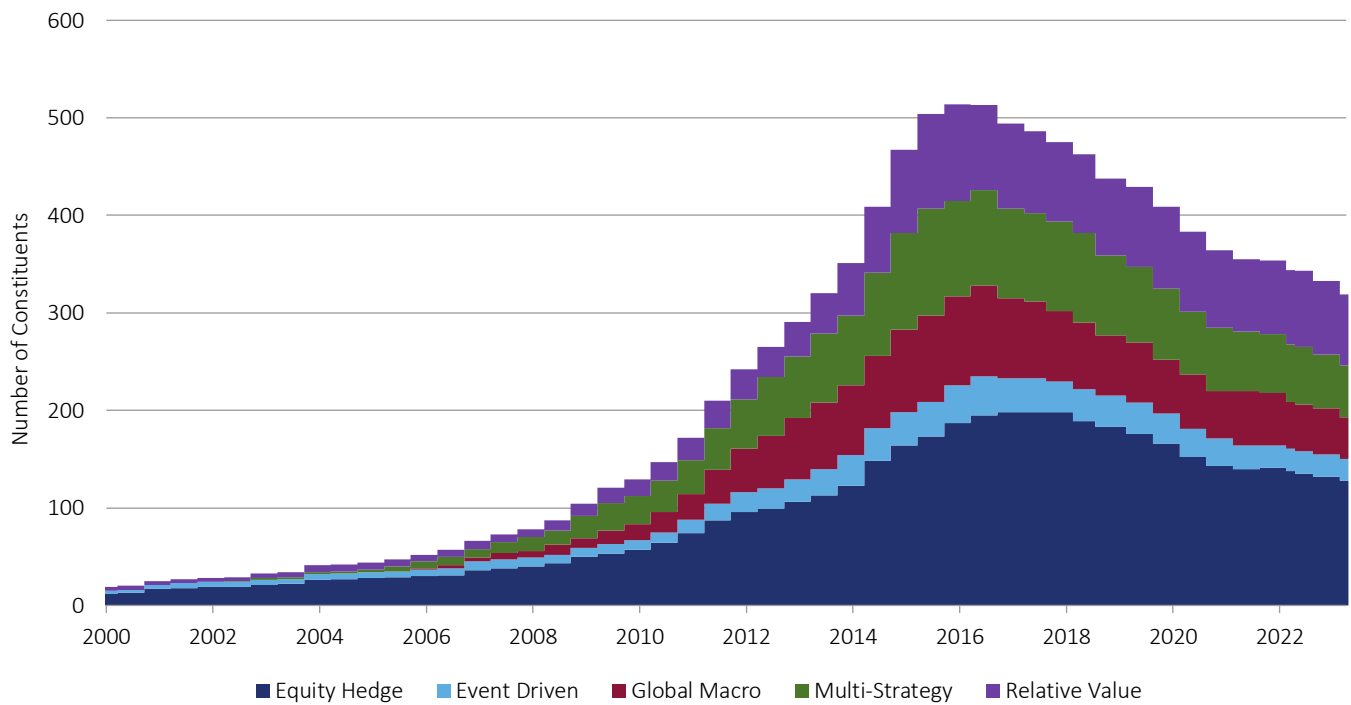
Top 5 Funds by Inflows	Net Inflows	Strategy
T. Rowe Price Dynamic Credit I	\$0.9bn	Relative Value
JPMorgan Strategic Income Opports R5	\$0.5bn	Relative Value
JPMorgan Hedged Equity 3 R6	\$0.4bn	Equity Hedge
PGIM Absolute Return Bond Z	\$0.3bn	Relative Value
FS Multi-Strategy Alternatives I	\$0.3bn	Multi-Strategy

Top 5 Funds by Outflows	Net Outflows	Strategy
BlackRock Systematic Multi-Strat Instl	-\$0.8bn	Multi-Strategy
BlackRock Event Driven Equity Instl	-\$0.6bn	Event Driven
Transamerica Unconstrained Bond I	-\$0.6bn	Relative Value
PIMCO TRENDS Managed Futures Strat Instl	-\$0.6bn	Global Macro
BNY Mellon Global Real Return - I	-\$0.6bn	Multi-Strategy

¹ All numbers shown are rounded to nearest hundred million. Totals are calculated using unrounded figures.

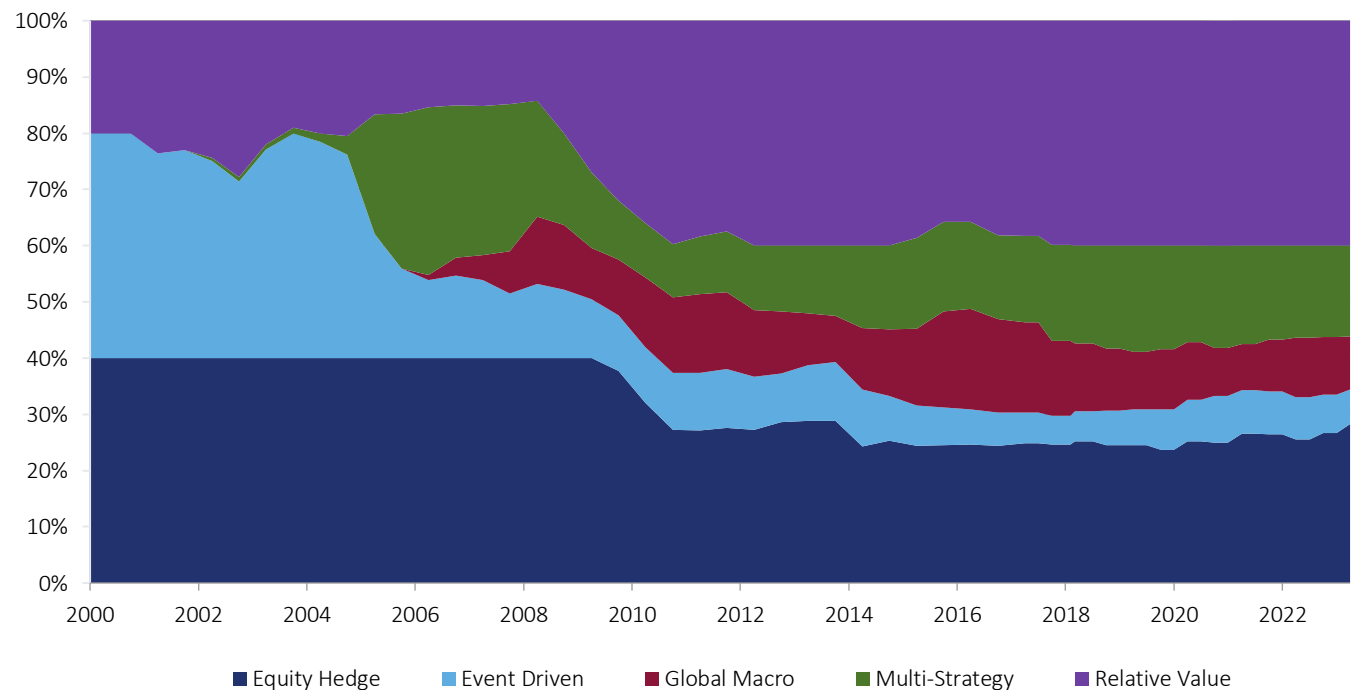
Wilshire Liquid Alternative IndexSM

Constituent Count



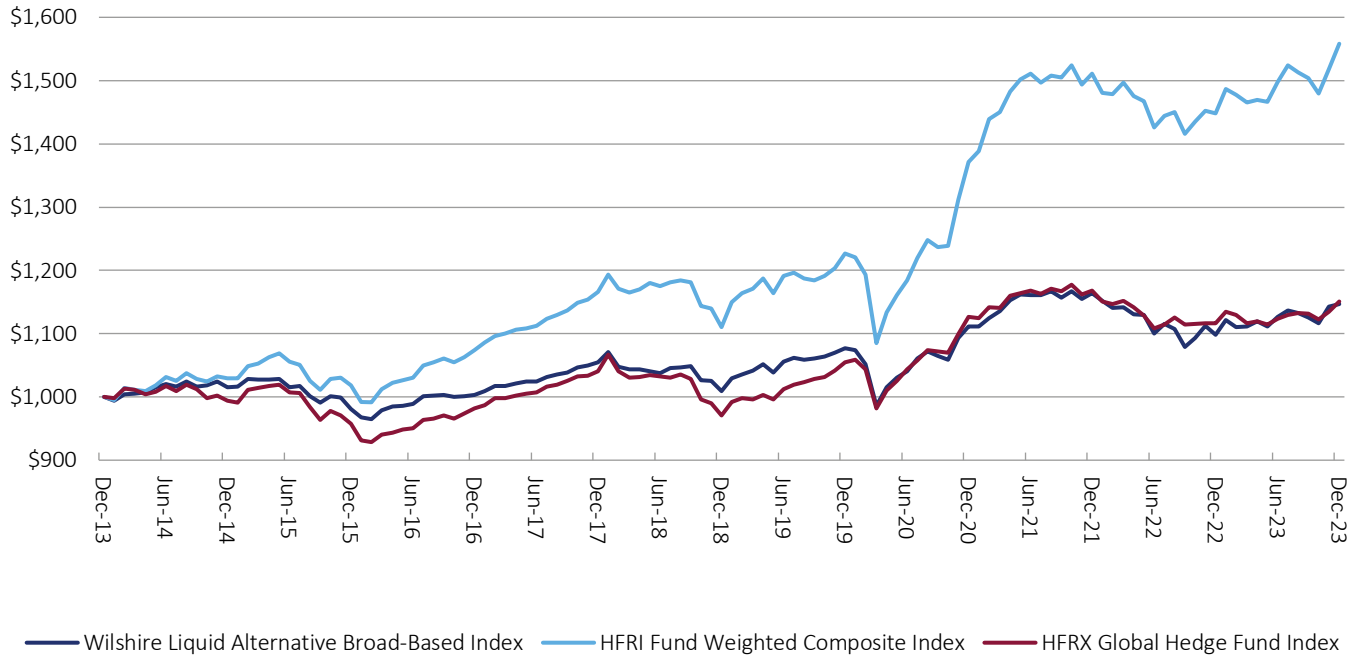
Source: Wilshire. Data as of 12/31/23. Index constituent count is based on Wilshire’s bi-annual reconstitution. For illustrative purposes only.

Sub-Strategy Weights Over Time



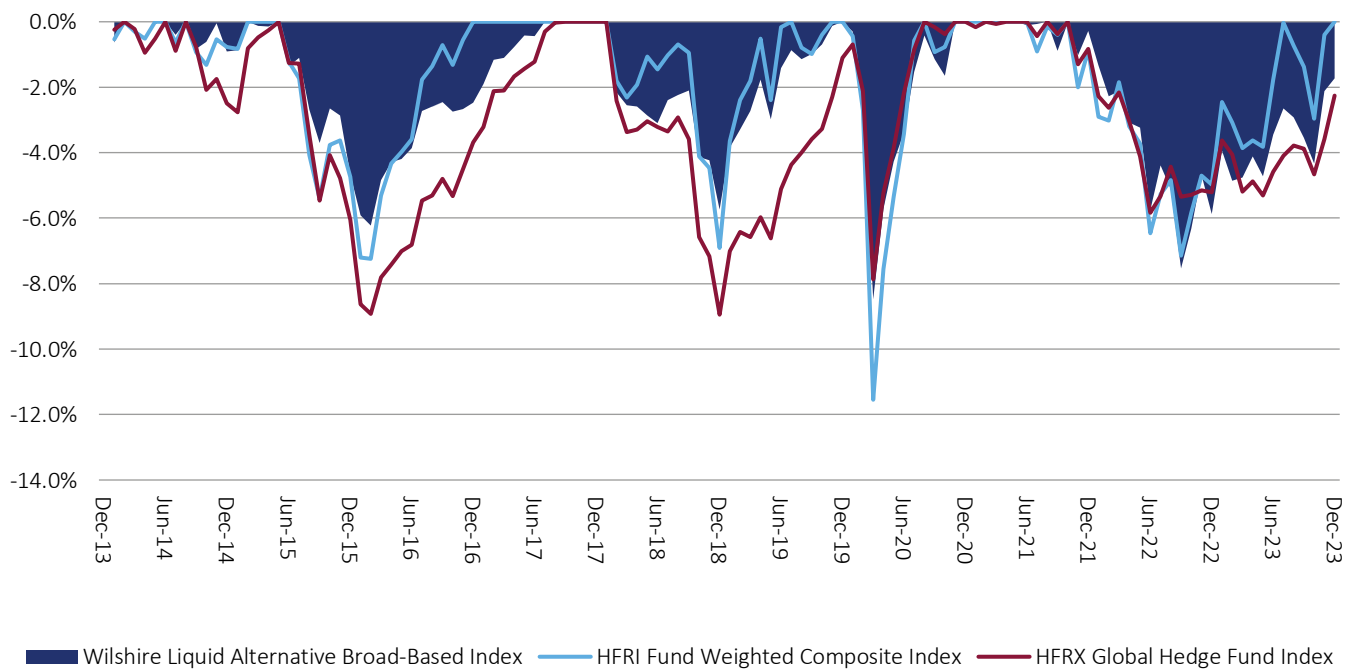
Source: Wilshire. Data as of 12/31/23. Weightings are based on Wilshire’s bi-annual reconstitution. For illustrative purposes only.

10-Year Returns



Source: Wilshire. Growth of \$1,000 for the 10-year period ending 12/31/23. For illustrative purposes only.

10-Year Drawdowns



Sources: Wilshire, HFRI. Drawdowns are for the 10-year period ending 12/31/23. For illustrative purposes only.

Index Definitions

Bloomberg U.S. Aggregate Bond Index – The Bloomberg Aggregate Bond Index or "the Agg" is a broad-based fixed-income index used by bond traders and the managers of mutual funds and exchange-traded funds (ETFs) as a benchmark to measure their relative performance.

HFRX Global Hedge Fund Index – The HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage, and relative value arbitrage. The strategies are asset weighted based on the distribution of assets in the hedge fund industry. Hedge Fund Research, Inc. (HFR) utilizes a UCITSIII compliant methodology to construct the HFRX Hedge Fund Indices. The methodology is based on defined and predetermined rules and objective criteria to select and rebalance components to maximize representation of the Hedge Fund Universe. HFRX Indices utilize state-of-the-art quantitative techniques and analysis; multi-level screening, cluster analysis, Monte-Carlo simulations and optimization techniques ensure that each Index is a pure representation of its corresponding investment focus.

HFRI Fund Weighted Composite Index – The HFRI Fund Weighted Composite Index is a global, equal-weighted index of single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in US Dollar and have a minimum of \$50 Million under management or \$10 Million under management and a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

S&P 500 Index® – The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities. The index includes 500 leading companies and covers approximately 80% of available market capitalization.

Wilshire Liquid Alternative IndexSM – The Wilshire Liquid Alternative IndexSM measures the collective performance of the five Wilshire Liquid Alternative strategies that make up the Wilshire Liquid Alternative Universe. Created in 2014, with a set of time series of data beginning on December 31, 1999, the Wilshire Liquid Alternative Index (WLIQA) is designed to provide a broad measure of the liquid alternative market by combining the performance of the Wilshire Liquid Alternative Equity Hedge Index (WLIQAEH), Wilshire Liquid Alternative Global Macro Index (WLIQAGM), Wilshire Liquid Alternative Relative Value Index (WLIQARV), Wilshire Liquid Alternative Multi-Strategy Index (WLIQAMS), and Wilshire Liquid Alternative Event Driven Index (WLIQAED). Its objective is to provide a representative baseline for how the liquid alternative investment category performs as a whole.

Wilshire Liquid Alternative Equity Hedge IndexSM – The Wilshire Liquid Alternative Equity Hedge IndexSM measures the performance of the equity hedge strategy component of the Wilshire Liquid Alternative Index. Equity hedge investment strategies predominantly invest in long and short equities. Its objective is to provide a broad measure of the equity hedge sub-strategy of the liquid alternative market.

Wilshire Liquid Alternative Event Driven IndexSM – The Wilshire Liquid Alternative Event Driven IndexSM measures the performance of the event driven strategy component of the Wilshire Liquid Alternative Index. Event driven strategies predominantly invest in companies involved in corporate transactions such as mergers, restructuring, distressed, buy backs, or other capital structure changes. Its objective is to provide a broad measure of the event driven sub-strategy of the liquid alternative market.

Wilshire Liquid Alternative Global Macro IndexSM – The Wilshire Liquid Alternative Global Macro IndexSM measures the performance of the global macro strategy component of the Wilshire Liquid Alternative Index. Global macro strategies predominantly invest in situations driven by the macro-economic environment across the capital structure as well as currencies and commodities. Its objective is to provide a broad measure of the global macro sub-strategy of the liquid alternative market.

Wilshire Liquid Alternative Multi-Strategy IndexSM – The Wilshire Liquid Alternative Multi-Strategy IndexSM measures the performance of the multi-strategy strategy component of the Wilshire Liquid Alternative Index. Multi-strategy strategies invest in multiple alternative managers/fund of funds and replication strategies. Its objective is to provide a broad measure of the multi-strategy sub-strategy of the liquid alternative market.

Wilshire Liquid Alternative Relative Value IndexSM – The Wilshire Liquid Alternative Relative Value IndexSM measures the performance of the relative value strategy component of the Wilshire Liquid Alternative Index. Relative value strategies are focused on the valuation discrepancy in the relationships between markets or securities. Its objective is to provide a broad measure of the relative value sub-strategy of the liquid alternative market.

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