bfinance

Implementation Insight

How to Build a Hedge Fund Allocation

August 2021

Contents

bfinance is an award-winning specialist consultant that provides investment implementation advice to pension funds and other institutional investors around the globe. Founded in 1999, the London-headquartered firm has conducted engagements for more than 390 clients in 40 countries and has 10 offices globally. Services include manager search and selection, fee analysis, performance monitoring, risk analytics and other portfolio solutions. With customised processes tailored to each individual client, the firm seeks to empower investors with the resources and information to take key decisions. The team is drawn from portfolio management, research, consultancy and academia, combining deep sector-specific expertise with global perspective.

This commentary is for institutional investors classified as Professional Clients as per FCA handbook rules COBS 3.5R. It does not constitute investment research, a financial promotion or a recommendation of any instrument, strategy or provider.

Contact details

Dr Toby Goodworth, Managing Director—Head of Liquid Markets, tgoodworth@bfinance.com
Chris Stevens, Director—Diversifying Strategies, cstevens@bfinance.com
Kathryn Saklatvala, Senior Director—Head of Investment Content, ksaklatvala@bfinance.com

Why read on?

Hedge fund portfolio construction has changed.

In a period of heightened uncertainty, in which the pandemic and its macroeconomic implications still loom large, institutional investors are looking towards 'liquid alternative' or hedge fund allocations to answer the ongoing challenges presented by low bond yields and highly-priced equity markets.

Indeed, we now observe a number of investors seeking to build hedge fund allocations **for the first time**; this pattern of activity appears suggestive of a broader trend. Meanwhile, many clients with existing allocations are seeking to **refine and improve** portfolios. Institutional investor sentiment towards hedge funds appears noticeably more positive in 2021, supported by double-digit gains for the average fund in 2019 and 2020—a level of performance not previously seen since 2010.[1]

The time seems right for a re-examination of the fundamentals: how should hedge fund allocations be designed and constructed? Much has changed over the last decade. Key shifts include:

Fewer mandates. Over-diversification, with portfolios featuring 50 or more hedge fund managers, was commonplace before the Global Financial Crisis. We now tend to see well-diversified portfolios featuring no more than 10 to 20 managers—or even fewer where the investor wishes to take a more concentrated approach. This trend has also supported demand for multi-strategy, multi-style investment approaches versus narrowly focused styles.

More tools in the toolbox. Alongside hedge funds, investors now have access to a range of Alternative Risk Premia (ARP) as well as Absolute Return Multi Asset strategies using non-traditional techniques. Within hedge funds we now see a rich universe of UCITS managers and improved availability of segregated accounts in a space that has typically required pooled fund investing. It is important (but sometimes challenging) to consider this broader range of moving parts.

A rounder approach to diversification. Investors are striking a balance between different goals, with many focusing a little less on Sharpe ratio improvements and more on tail-risk-adjusted performance, convexity amid market crises and the ability to perform during abnormal market conditions. Hedge fund portfolios should not be built in ivory towers of strategic-asset-allocation-type optimisation.

Controversy around the role of Managed Futures (aka CTAs or Systematic Macro). Some investors and advisors have now essentially abandoned CTAs due to weak performance through an extended equity bull run. However, our own analysis is still supportive of including these strategies in portfolios due to their convex characteristics (i.e. their tendency to deliver positive returns when equity markets fall) and their ability to perform in 'divergent' market conditions (when markets are being driven by factors other than fundamentals).

More demand for high transparency and explicability of returns. Investors increasingly seek return profiles that they can anticipate and understand.

Increased preference for lower-cost solutions. We note ongoing strong competition in the *pricing of Fund of Hedge Funds*, as well as the rise of innovative structures to improve investor/manager alignment.

This paper presents a practical primer for creating Hedge Fund or Liquid Alternative portfolios, building on the latest developments. The approach presented here is based on recent case studies detailing how investors established new hedge fund allocations. We hope that it proves helpful to our readers, whether they are considering entering the space or re-evaluating existing portfolios.

[1] The HFRI Fund Weighted Composite has seen performance of more than 10% for H1 2021, as well as double-digit gains in 2019 and 2020. Prior to this, the composite had not registered double-digit gains since 2010.

Raising the bar for diversification

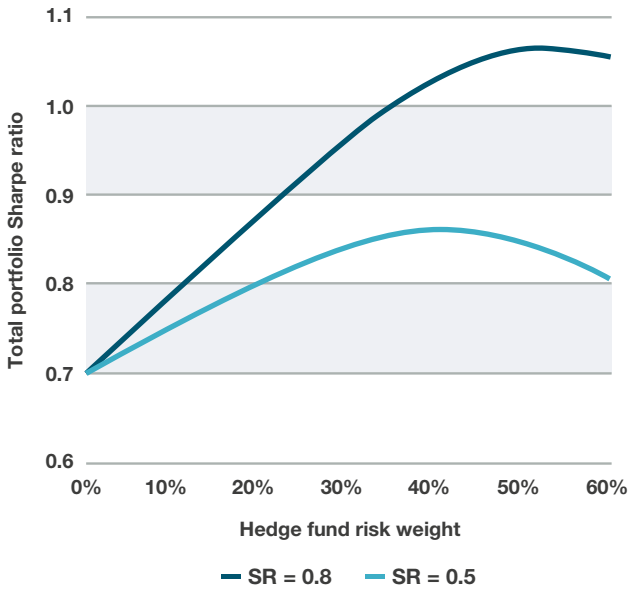
While portfolios benefit from the addition of uncorrelated return streams, low statistical correlation is not enough to fulfil the objectives that investors generally require from an effective 'liquid alts' portfolio.

Introducing an uncorrelated strategy to an investor's portfolio can improve risk-adjusted returns. Importantly, this is true even if that new strategy itself has an inferior risk-adjusted return—a principle illustrated in Figure 1. For example, if a strategy with a Sharpe ratio of 0.5 is added to a portfolio with a Sharpe ratio of 0.7, the combined Sharpe ratio may be as high as 0.85.

This premise underpins the case for including liquid alternatives strategies in asset owners' portfolios. After all, the Sharpe ratio for many hedge fund strategies typically sits between 0.6 and >1.0, and many hedge fund investment styles have a relatively low beta to listed equities (Figure 2, for example, shows Equity Market Neutral Strategies with a beta typically varying between zero and 0.2).

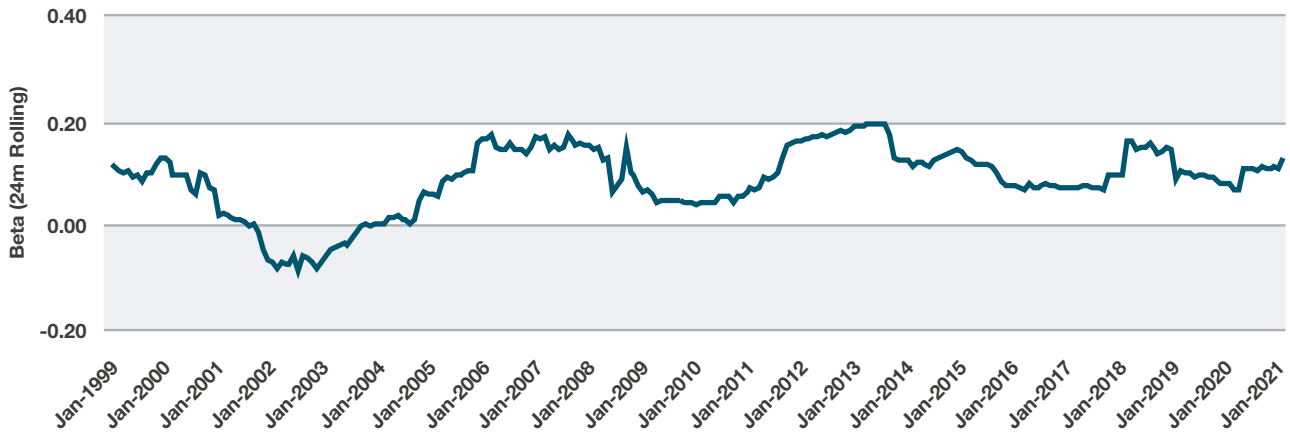
Yet the premise, in isolation, is flawed. Long-term statistical improvement to a portfolio's overall risk-adjusted return does not, in and of itself, justify a strategy's inclusion in a portfolio. Investors, building on the experiences of the last decade, need more. Statistical diversification can be a poor consolation if the strategy doesn't perform when market turmoil is causing the investor to experience funding declines and liquidity problems. Low equity beta during normal market conditions is not helpful if that beta increases in stressed markets. Improvements to Sharpe ratios can be **hard to sell to stakeholders** when the visible cost has been a decade-long sacrifice in overall returns due to the strong performance of traditional equities.

FIGURE 1: ADDING UNCORRELATED INVESTMENT STRATEGIES IMPROVES OVERALL SHARPE RATIO



Source: bfinance. Model presumes correlation of zero between the two portfolios—note that this is a purely hypothetical scenario

FIGURE 2: CORRELATION BETWEEN EQUITY MARKET NEUTRAL STRATEGIES AND LISTED EQUITIES



Source: bfinance, HFRI, Bloomberg. Chart shows the beta of the HFRI Equity Market Neutral Index (which can be used as a proxy for market-neutral hedge funds strategies) to the MSCI World Index.

Raising the bar for diversification continued

As well as **improving the overall portfolio's risk-adjusted return**, an effective 'Liquid Alternatives' allocation should also:

- Have a **usefully positive return expectation**;
- Have the potential to generate positive (or materially less negative) returns **when markets fall**;
- Have the potential to **mitigate volatile and abnormal markets**;
- Be **sufficiently liquid** to facilitate portfolio rebalancing, so that the investor can redeploy these assets when markets are dislocated (rainy day portfolio).

In practice, **we see investors placing less focus on volatility-adjusted returns and concentrating more on drawdowns** in an effort to improve returns on a tail-risk-adjusted basis.

It can, therefore, be helpful for investors to think about different **diversification lenses** and determine the institution's priorities internally before—or while—constructing a hedge fund portfolio. Figure 3 illustrates four distinct ways in which investors can think about the diversification power of their portfolios in the real world: **market-independent** or low-beta (classic statistical diversification); **non-directional; convex directional** and **divergent**.

These priorities are extremely influential when it comes to strategic choices. For example, a strategy may be statistically market-independent (beta ≈ 0) or low-beta (≤ 0.3) over the long-term but may also be directional (correlated) in the event of an equity crash. Or a strategy could be truly non-directional—such that it genuinely can perform equally well in rising or falling markets—but also convergent, such that performance may come unstuck in periods when markets are being driven by factors other than fundamentals.

FIGURE 3: THE FOUR LENSES OF DIVERSIFICATION

DIVERSIFICATION FROM…	TERM	DESCRIPTION
Long-term equity market movements	**Market-independent**	Long-term statistical diversification from equity risk (beta to equities ≈ 0). However, may be correlated with short-term equity market movements as some market independent strategies can be instantaneously directional with their variability over the longer term providing the statistical diversification. [As opposed to "**market-dependent**" strategies, in which the alpha component tends to be inseparable from market betas. Note: strategies with a beta above zero but below or around 0.3 are referred to here as "**low-beta**" strategies.]
Short-term equity market movements	**Non-directional**	Structurally (rather than statistically) uncorrelated. Upward or downward market movement in both the short term and long term should not significantly affect performance expectations.
Material equity down markets	**Convex / tactical directional**	Aim to generate bulk of performance during periods of shock or heightened volatility (often associated with periods of equity drawdown). Often referred to as 'long volatility' strategies, either explicitly long volatility (structural payout, such as put-like return profiles) or implicitly long-volatility (return generation is statistically likely but not guaranteed e.g. trend-following).
Abnormal market regimes	**Divergent**	Intended to perform well in environments where markets are not driven by fundamentals (unlike "**convergent**" strategies, which are intended to perform in normal market conditions). Should do well during market shocks and other periods of irrational market behaviour: note that such periods often—but not always—coincide with equity market downturns.

Source: bfinance

Liquid alternative strategy types

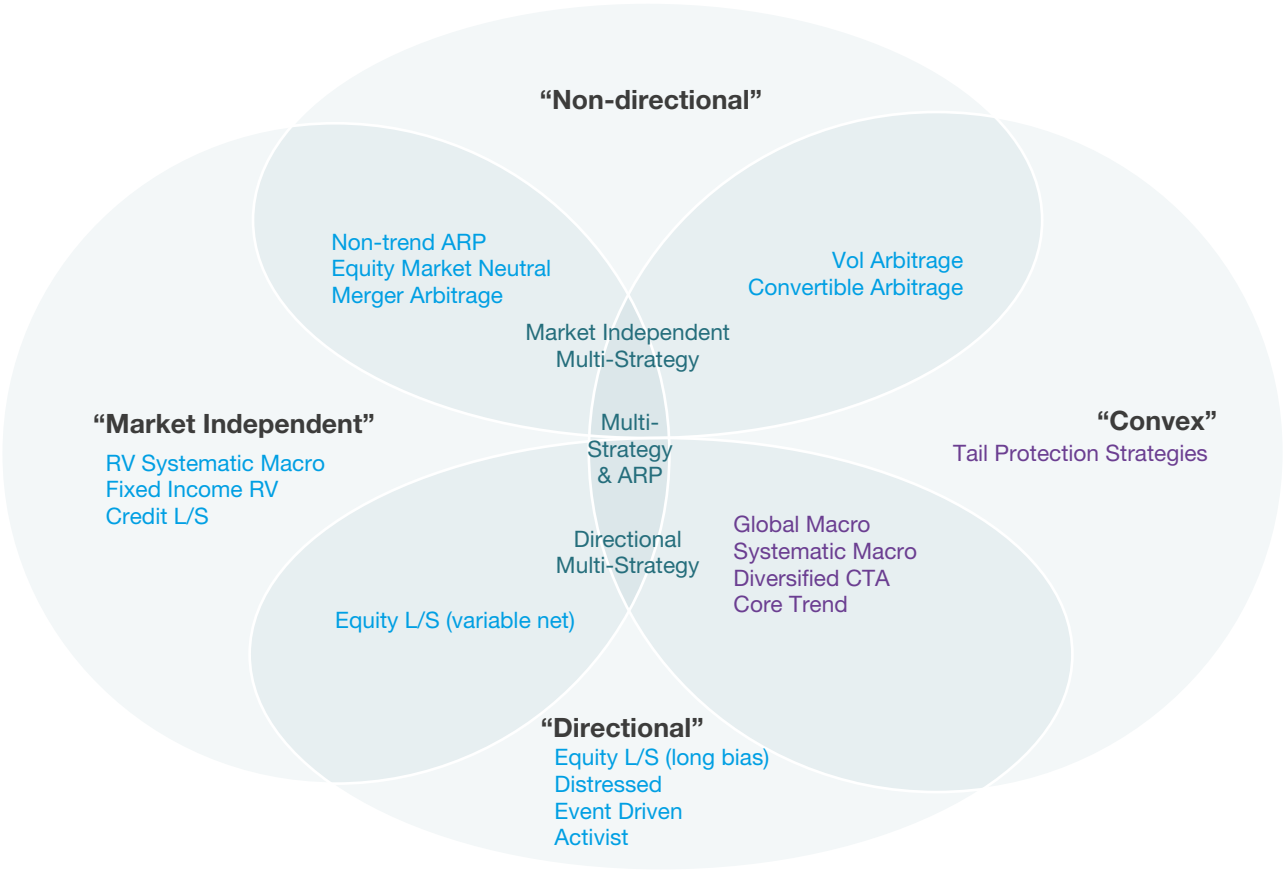
Liquid alternatives tend to share a number of defining features: an absolute return target, an unconstrained investment approach and a risk profile that is not defined by a benchmark.

We can classify liquid alternatives in a number of ways: by their **strategy label** (e.g. Merger Arbitrage), by their **investment style** (e.g. market-independent) or by their suitability for different **market regimes** (e.g. convergent, divergent or both). The group can also be classified based on various qualitative features—**size, track record, domicile, approach to Environmental, Social and Governance (ESG) factors** and so forth.

The map below shows conventional strategy labels through the lenses outlined in Figure 3: ***market-independence, convexity, non-directionality***, and—through the use of colour coding—***divergence/convergence***. Following this, Figure 5 provides a more detailed description of each strategy with further advantages and disadvantages.

Interestingly, "Divergent" strategies predominantly sit in the "Convex Directional" space, and there are relatively few of them. Although markets behave normally most of the time, we find that it is beneficial to have both convergent and divergent strategies in portfolios (see the portfolio construction discussion which continues on page 9).

FIGURE 4: UNDERSTANDING LIQUID ALT STRATEGIES: MARKET-INDEPENDENT VS. CONVEX, DIRECTIONAL VS. NON-DIRECTIONAL, DIVERGENT VS. CONVERGENT



Blue: Convergent strategies

Purple: Divergent strategies

Green: Blended (combination of both characteristics)

Source: bfinance. Placement is an indication of approximate typical characteristics and does not necessarily describe all strategies.

Liquid alternative strategy types continued

FIGURE 5: ADVANTAGES AND DISADVANTAGES OF KEY LIQUID ALTERNATIVE STRATEGIES

STRATEGY	DESCRIPTION	ADVANTAGES	DISADVANTAGES
Alternative Risk Premia	> Long/short positions across asset classes seeking returns from 'styles' e.g. value, carry, momentum.	> Lower cost, explicable. > Generally low-net or market neutral format.	> Lower Sharpe ratio than hedge funds, on average. > Potential overlaps in exposures.
Equity L/S (Long Bias or Variable)	> Invest long and short in equity securities. > Many types: systematic / discretionary, diversified / concentrated, etc.	> Wide choice of approaches. > Multiple alpha sources (stock selection, market exposure).	> Those with long-bias give less diversification and entail HF fees on equity beta exposure.
Equity Market Neutral	> Equity L/S strategies with low net exposure. > Often quantitative and factor-based but can be fundamental and/or alpha oriented.	> Explicitly beta-neutral—more diversifying. > Wide choice of approaches.	> Can be expensive vs. vol level. > Potential overlap with equity strategies (ARP, Multi-Strategy.
Event Driven	> Long and short positioning around corporate events (mergers, spin offs, restructurings etc). > Equity-focused, may use full capital structure.	> Idiosyncratic return sources.	> Deal failures during market turbulence, equity tail correlation. > Can be expensive (though more passive approaches are available).
Merger Arbitrage	> Subset of Event Driven. > Generally structured to be market-independent.	> Typically high Sharpe, low volatility.	> Merger spreads can have a tail correlation to equity.
Global Macro	> Trading (long and short, multiple asset classes) based on macroeconomic or thematic views. > Discretionary investment approaches with a wide variety of styles.	> Potentially convex return profile. Diversifying.	> Can be directionally exposed, but RV focused approaches available. > Relatively high volatility –need to be sized appropriately.
Diversified CTA / Core Trend	> Systematically exploit market patterns across asset classes. > Largely trend-following, though more diversified and/or less directional strategies are available.	> Potentially convex return profile. > Variety of return sources – some close to 'multi-strat'.	> Often relatively high volatility – need to be sized appropriately. > Directional but expected to be beta-neutral long term.
Systematic Macro	> Trading (long and short, multiple asset classes) based on macroeconomic or thematic views. > Often a hybrid of Global Macro and Diversified CTA with purely systematic implementation.	> Potentially convex return profile. Diversifying. > Often a good complement to Core Trend CTAs.	> Can be directionally exposed, but RV focused approaches available.
Credit Long/ Short	> Strategies that trade credit instruments (physical bonds, CDS, index derivatives) both long and short.	> Idiosyncratic returns. > Typically high Sharpe, low volatility.	> Often long bias to credit spreads. > Can be expensive, capacity constrained. > Arbitrage strategies can have high leverage (less suitable in UCITS)
Fixed Income Relative Value	> Invest long and short across a wide variety of fixed income instruments to generate returns from pricing differences of similar markets, typically in a non-directional manner.	> Typically high Sharpe, low volatility. > Wide choice of approaches.	> Higher leverage levels. > Convergent return profile less suited to abnormal environments.
Convertible Arbitrage	> Actively hedged long convertible bond positions to isolate mispricings and volatility sensitivity. May also include interest rate and credit hedges.	> Market-independent return profile with potential for convex returns.	> Operates at higher leverage levels. > Some approaches are more directionally credit-sensitive.
Commodities	> Trading commodity futures, commodity related stocks etc. based on macro analysis, supply/demand or risk premia concepts.	> Can be highly diversifying. Typically uncorrelated to equites / bonds.	> Typically directional and volatile. > Potential overlap with CTA / ARP / Multi-strategy approaches.
Currency	> Trading currency forwards and other derivatives, typically with a macro fundamental or risk-premia-based approach.	> Can be diversifying. Typically uncorrelated to equites / bonds.	> Potential overlap with return streams in ARP/Multi-strategy approaches.
Multi-Asset	> Any strategy that trades multiple asset classes. Typically aim to drive returns from asset allocation.	> Diversity of approaches. > Typically lower-cost than hedge funds.	> Most strategies are directional. > Main drivers can be captured in Macro, ARP, Multi-Strategy etc.
Multi-Strategy	> Two or more strategy styles, or unconstrained in investment approach. > Usually multi-asset but some focus on equity or other RV / arbitrage strategies. > Single portfolio or a fund-of-funds.	> Diversified sources of return. > Some value-add from varying strategy exposures. >Either strictly market-independent or blended with convex / tactical strategies.	> Overlap with single strategy exposures and/or ARP. > Multi-manager variants can be expensive. > Less direct control of strategy exposues.
Volatility Trading	> Volatility, (especially equities) as an asset class. Directional long / short or relative value approach. > Often systematic; discretionary strategies are available.	> Short-vol premium is a strong market anomaly. High Sharpe, high tail risk with equities. > Long-vol does well in crashes.	> Short vol correlated with equity tail events. Long vol has a cost to carry. Often overlap with multi-strat approaches.

Portfolio modelling

Having established priorities and considered the potential strategy building blocks, we can now look at practical steps for portfolio design.

In practice, the outcomes will vary substantially depending on the investor's existing exposures and needs: diversification is very individualistic. For example, an investor with a strong bias towards equities will get more use out of convex diversifiers (see Figure 4: Macro, CTAs, Core Trend).

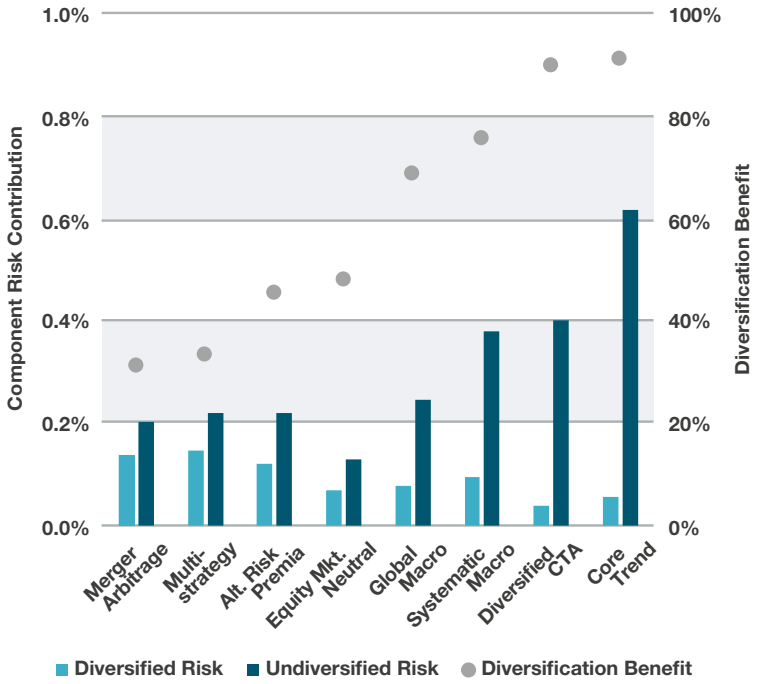
In the example modelled here, we look at a hypothetical investor with two thirds of its portfolio in equities and one third in bonds and credit, seeking to create an allocation to liquid alternatives—approximately 8% of the portfolio—funded either from fixed income or from a combination of equities and fixed income. We presume relatively typical objectives: some modest growth, diversification from equity and credit risk (especially equity risk) and some positive convexity in periods of equity drawdown.

Which strategies are most beneficial? A single-strategy viewpoint

First, we can examine some specific sub-strategies and the benefits that they might offer to the investor's portfolio in terms of diversification and returns (acknowledging that a strategy can be an excellent diversifier but, if it has lower return expectations, it may not be as useful in a portfolio construction context).

As shown in Figure 6, portfolio diversification benefits initially appear to be particularly strong for CTAs and Global Macro (LHS). After adjusting for returns, however, the picture changes significantly (RHS, second column). It's worth noting that Core Trend and Systematic Macro have a potentially higher utility for this model portfolio than Diversified CTAs or Global Macro, while Market-Independent Multi-strategy approaches appear stronger than Equity Market Neutral or Alternative Risk Premia strategies in isolation.

FIGURE 6: (LHS) DIVERSIFIED AND UNDIVERSIFIED RISKS OF LIQUID ALT STRATEGIES IN INVESTOR'S PORTFOLIO, (RHS) DIVERSIFICATION BENEFIT ALONGSIDE DIVERSIFICATION-ADJUSTED RETURN UTILITY.



Diversification benefit	Diversification-adjusted return utility
Core Trend **91.2%**	Systematic Macro **6.55**
Diversified CTA **90.1%**	Core Trend **6.51**
Systematic Macro **75.6%**	Multi-strategy **6.06**
Global Macro **68.9%**	Global Macro **5.74**
Eq. Mkt Neutral **48%**	Merger Arbitrage **5.71**
Alt. Risk Premia **45.6%**	Diversified CTA **5.53**
Multi-strategy **33.5%**	Eq. Mkt Neutral **3.77**
Merger Arbitrage **31.3%**	Alt. Risk Premia **3.66**

Source: bfinance. Data from HFR, Soc Gen, Credit Suisse and bfinance. Analysis period: July 2002 to December 2020 inclusive, except ARP (January 2012 to December 2020). Model presumes allocations are funded 50% from equities, 50% from fixed income; the results are almost identical when we model for a portfolio funded 100% out of fixed income. Diversification-adjusted return utility is a function of the diversification benefit and long-run expected return.

Portfolio modelling continued

Sub-allocations to 'Convex' and 'Market-independent' strategies

Single-strategy findings can be useful. However, when considering how to develop an appropriate combination of liquid alternatives, it is helpful to reflect on the diversification lenses and mapping shown in Figures 3 and 4. We advocate exposure both to **Convex Directional** strategies (which, as shown in Figure 4, tend to be Divergent) and **Market-independent** strategies. This advice is especially true for investors that have high exposure to equities and are focused on the portfolio's ability to perform during periods of market drawdown.

It can be helpful to try to determine how much of the portfolio should be invested in these two areas, creating (informal) sub-allocation targets. Below, we show how the target proportions could be determined.

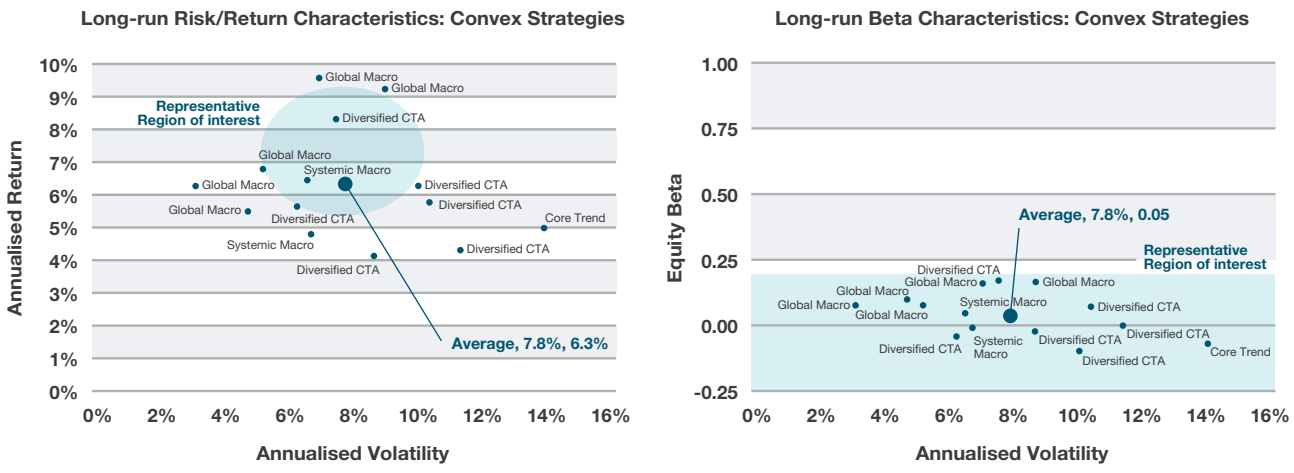
First, we can select a group of strategies for each family: this list should be customised to a specific investor's constraints and preferences, but Figure 7 shows a potential example. Next, we can use long-run empirical data (10 to 20-plus years) to understand the historic characteristics of these two groups and provide a set of baseline assumptions for portfolio modelling. Figure 8 shows datapoints for a variety of composites in the 'Convex' grouping (two for Systematic Macro, five for Global Macro, six for Diversified CTA and one for Core Trend) and illustrates how they are used to derive average long-run risk/return and beta characteristics for this family of strategies as a whole. An overview of characteristics for both families—derived through this process—is shown in Figure 9.

FIGURE 7: SUB-STRATEGIES USED FOR MODELLING CONVEX/TACTICAL AND MARKET-INDEPENDENT STRATEGIES

CONVEX / TACTICAL DIRECTIONAL STRATEGIES USED HERE	MARKET-INDEPENDENT STRATEGIES USED HERE
► Diversified CTA ► Systematic Macro ► Discretionary Macro ► Core Trend	► Equity Market Neutral / Low Net ► Market Independent Multi-Strategy ► Merger Arbitrage ► ARP ► Multi-Strategy (note: some of these include exposure to convex strategies) (note: investors with low exposure to credit may also find Credit L/S or Credit Arb strategies particularly suitable. These are not modelled here.)

Source: bfinance

FIGURE 8: ESTABLISHING ASSUMPTIONS FOR CONVEX STRATEGIES



Source: HFM, Credit Suisse, SocGen, and bfinance. All data net fees in USD. Composites shown have various inception dates (latest starts Jan 08).

Portfolio modelling continued

FIGURE 9: HISTORICAL CHARACTERISTICS OF TWO STRATEGY GROUPS

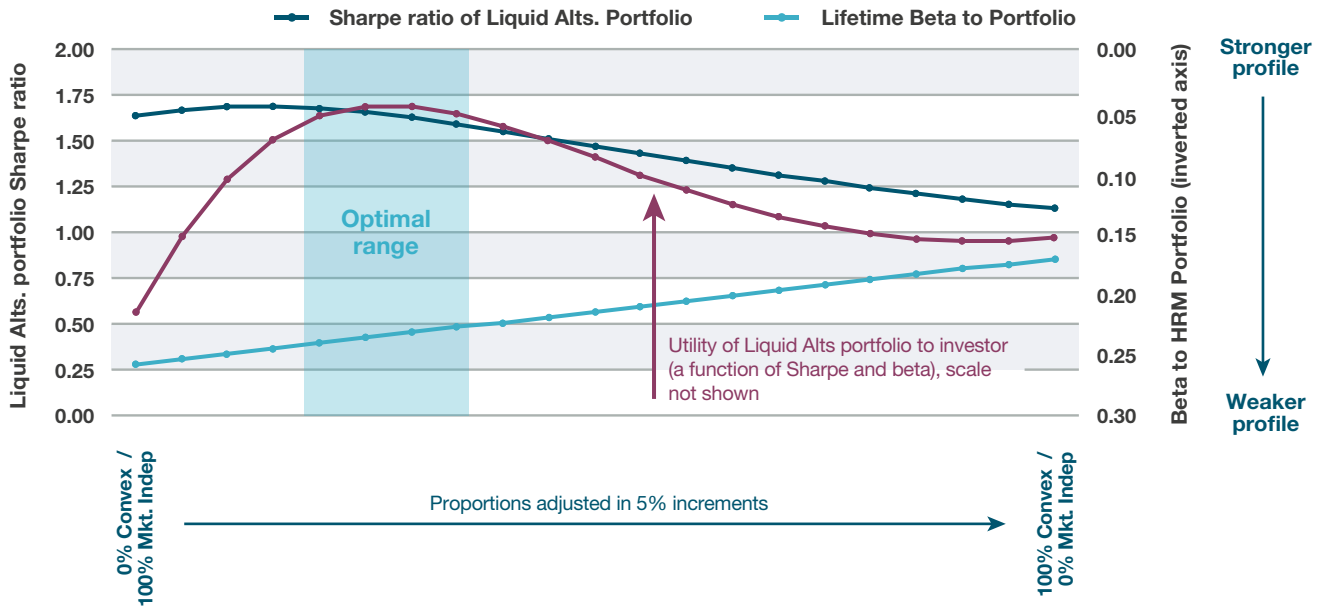
STRATEGY CHARACTERISTIC	CONVEX / TACTICAL STRATEGIES	MARKET INDEPENDENT STRATEGIES
Return range	Cash + 4%-8% p.a. (net)	Cash + 3%-6% p.a. (net)
Risk profile	Volatility 5%-10% p.a. Moderate drawdown expectations	Volatility 4%-7% p.a. Low drawdown expectations
Risk/Return (Sharpe)	Typically 0.6-0.8	Typically 0.8-1.0
Equity Beta	Less than 0.2 over a full cycle. For some strategies beta < 0, whilst others will have time-varying beta.	In the range 0-0.3
Typical Liquidity	Monthly dealing or better, some quarterly	Monthly or quarterly

Source: bfinance

On a standalone basis, the Sharpe ratio of a Liquid Alternatives portfolio is maximised with a 15% allocation to Convex/Tactical strategies and an 85% allocation to Market-Independent strategies (Figure 10, uppermost line). However, when we look at a Liquid Alternatives portfolio within the context of the model investor portfolio, we see that a higher allocation to Convex/Tactical strategies gives a better (lower) beta to the overall portfolio, resulting in improved diversification (Figure 10, bottom line).

When these two opposing functions are combined (the curved line), it appears that the optimal approach would place 25% to 30% in Convex/Tactical strategies and 70% to 75% in Market-independent strategies. Incidentally, it's worth noting that a 30:70 split would also represent an equal risk allocation for these two families, which could be considered a conceptually robust solution even in the absence of this modelling.

FIGURE 10: COMBINING CONVEX AND MARKET INDEPENDENT STRATEGIES IN A LIQUID ALTS PORTFOLIO



Source: bfinance. Assumptions based on empirical data from HFM, Credit Suisse, SocGen, and bfinance.

Further implementation considerations

Manager universe

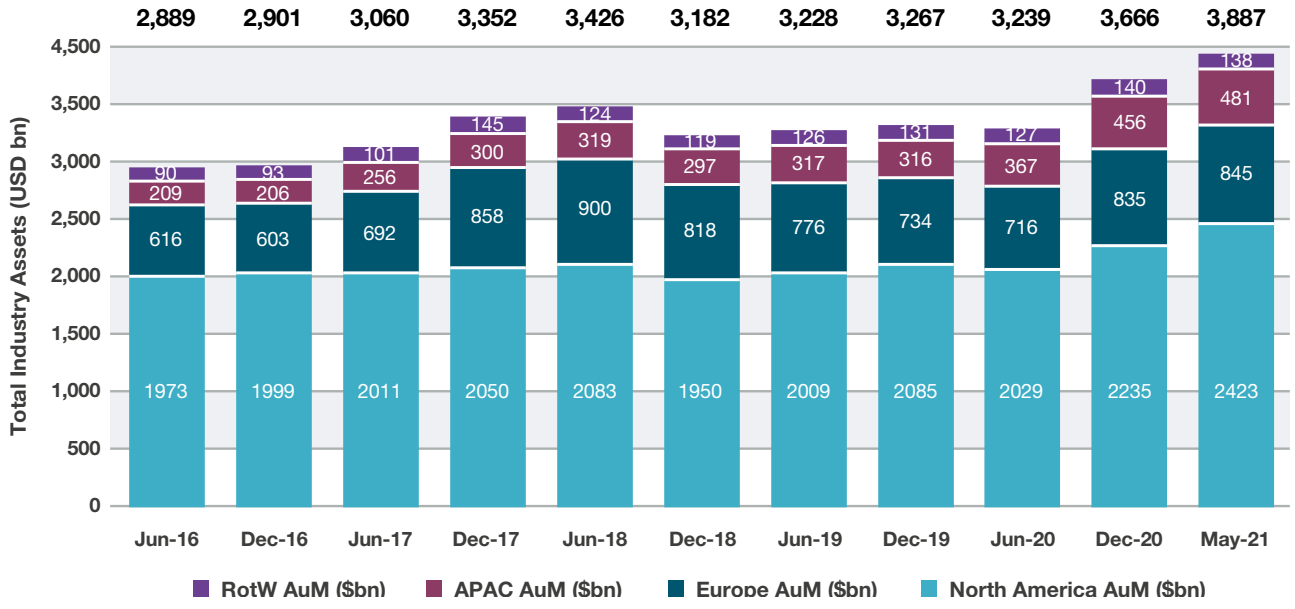
There are now more than 10,000 funds across the Liquid Alternatives universe, although we consider fewer than 1,000 to be of institutional quality. The total volume of assets under management in hedge funds reached its highest recorded total of almost US$3.9 trillion in mid-2021, according to market research firm HFM.

There is value in considering newer managers with fewer assets under management as part of a comprehensive selection exercise: a longstanding body of evidence indicates that managers with a smaller volume of assets do, on average, tend to outperform their larger peers; return data from 2020 continues to support this assessment. However, smaller and younger firms have also been shown to have higher failure rates and may be less suitable for institutional allocations in other ways, such as lack of reporting capability or insufficient client servicing. Investors should seek to strike a balance, with a sufficiently broad manager selection process to ensure that they are not focused purely on the larger names.

ESG

The hedge fund manager universe has been distinctly slower to offer ESG integration than traditional asset classes, due to a combination of lower investor demand and what has been perceived as structural incompatibility between some Liquid Alternative investment strategies and ESG considerations. However we are now seeing considerable progress towards ESG awareness and integration across the hedge funds sector (*From Laggards to Leaders? Hedge Funds and ESG, bfinance 2021*).

FIGURE 11: THE HEDGE FUND UNIVERSE – TOTAL INDUSTRY ASSETS



Source: HFM and bfinance

Further implementation considerations continued

Direct investment versus outsourcing

Investors should consider whether they wish to allocate directly to a portfolio of managers or outsource portfolio management to a specialist with (full or partial) delegated responsibility. This decision is influenced by various considerations including the size of the allocation, the level of internal resourcing and sensitivity to fee load—key advantages and disadvantages are shown in Figure 12.

It's worth noting that some of the benefits of outsourced multi-manager solutions—such as manager monitoring and support with portfolio design—can be obtained via other external sources. In addition, managers themselves are trying to be more helpful as strategic partners (especially to larger clients) and now frequently offer support with portfolio risk management as well as greater transparency on their underlying holdings.

FIGURE 12: PROS AND CONS OF DIRECT VERSUS DELEGATED APPROACHES

	BENEFITS	DRAWBACKS
Direct investment: Allocate directly to multiple underlying managers via commingled funds, fund-of-one or other managed accounts.	>No additional (second-layer) management fees. >Ability to forge strategic relationships directly with invested managers. >More direct control of investments (versus delegated control of a multi-manager with full investment discretion). >Greater underlying portfolio transparency.	>Ongoing management will require greater resourcing commitment. >Operational (administration and reporting) complexity of multiple allocations—though analysis shows that 5 to 7 managers are sufficient to provide diversification*. >Increased concentration risk arising from holding fewer underlying manager investments. >Portfolio management may be less responsive than via a specialist outsourced partner.
Delegated management: Specialist advisor with responsibility for managing the Liquid Alts portfolio, with full or partial discretion. Could be FoHF, MAP (commercial Managed Account Platform) or other.	>Possible access to preferential fee terms or managers with limited capacity. >Access to specialist investment, operational due diligence and risk management expertise. >Convenience in terms of investor resource requirements, having a single line item in a broader portfolio. >Ongoing reporting and other support services. >Potentially a more actively managed portfolio as well as greater portfolio diversification, especially for smaller allocations.	>Additional (second-layer) management fees. >Indirect manager access; harder to form strategic relationships with underlying managers. >Less direct portfolio control (depending on level of delegated responsibility). >Less direct underlying manager transparency. >Multi-managers tempted to 'justify' their fees by churning managers or adding to the number of managers unnecessarily.

**Analysis suggests that typical pair-wise correlations for a curated selection of managers across suitable Liquid Alt strategies are around 0.25-0.5. This means that, beyond about 5-7 managers, the diversification benefits of adding further managers diminish significantly.*

Further implementation considerations continued

Benchmarking

When establishing portfolios of hedge funds or liquid alternatives, investors frequently seek advice on which benchmarks or yardsticks to use in order to assess performance. Unfortunately, there is no silver bullet. None of the potential benchmarks in this space meet the CFA 'SAMURAI' criteria (see Benchmarking ARP, bfinance 2020); none, for example, are investable themselves.

We therefore prefer to use a combination of different benchmarking approaches side by side. These include outcome-oriented metrics such as return targets (e.g. cash+X%) and risk targets, as well as data indicating how managers are performing. The latter should not be overlooked: after all, meeting abstract targets may not be cause for satisfaction if peers have done substantially better. Such comparisons may involve broad composite indices (such as those provided by HFR) or smaller, more customised manager peer groups.

It is crucial to monitor both the underlying managers and the overall portfolio on an ongoing basis to ensure that all remain fit for purpose.

FIGURE 13: BENCHMARKS FOR LIQUID ALTERNATIVES

CRITERIA	ABS. RETURN / CASH + X%	HFR (OR OTHER) COMPOSITE INDEX	CUSTOM MANAGER PEER GROUP	COMMENTS
Specified in advance	✓	✓	✓	> All of these can be specified ahead of any investment.
Appropriate	✗	?	?	> Low correlation or lack of match in investment approach across all candidates.
Measurable	✓	✓	✓	> Data is available for all to make calculation relatively straightforward.
Unambiguous	?	✗	✓	> HFR constituents change and are less transparent. Absolute Ret doesn't have clear 'components'.
Reflective	✗	✗	✗	> None of these reflect the investment options of the specific manager to be benchmarked.
Accountable	✓	✗	✗	> Managers will likely only see their own Abs. Ret. Objective as a fair comparator.
Investible	✗	✗	?	> Custom group technically investible but likely undesirable. Others not investible.

Source: bfinance, acronym from CFA Institute

Key takeaways

Classic statistical diversification is not necessarily enough to justify an allocation to Hedge Funds or Liquid Alternatives. Investors are increasingly concerned with downside awareness and the portfolio's ability to navigate falling or volatile markets.

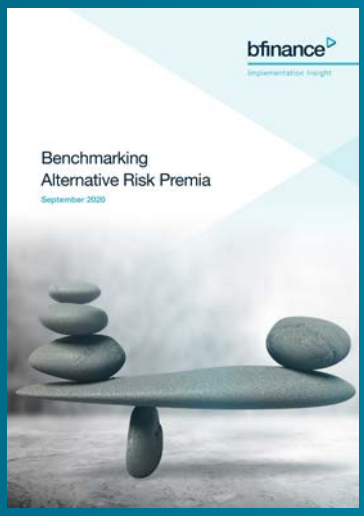
Investors can think about the diversification power of portfolios in four distinct ways: 'market-independence', 'non-directionality', 'convex directionality' and 'divergent performance'. This article re-classifies a range of hedge fund and liquid alternative strategies with these lenses in mind.

Investors can consider separate (informal) sub-allocations to market-independent and convex (or tactical) directional strategies. While portfolio design should depend on the existing exposures and the objectives of the investor—diversification is a very personal property—these two complementary groups can work together to provide a more robust, downside-sensitive profile. This can be demonstrated using evidence-based modelling.

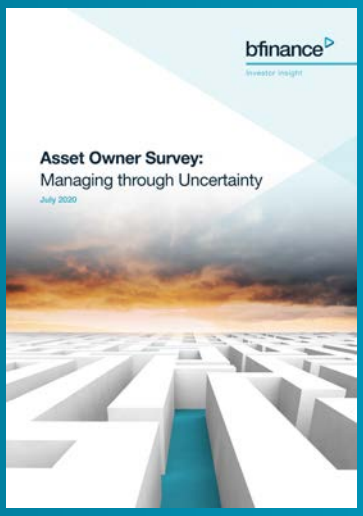
The hedge fund (and broader liquid alternative) universe continues to grow in size and complexity. Investors should seek to gain a comprehensive understanding of available strategies when constructing a diversifying allocation.

Recent publications available at **www.bfinance.com**

Beyond Labels: Navigating the Multi Asset Universe
(May 2021)



Benchmarking Alternative Risk Premia
(September 2020)



Asset Owner Survey: Managing through Uncertainty
(July 2020)

Office locations

Amsterdam
Symphony building-26th Floor
Gustav Mahlerplein 109-115
1082 MS Amsterdam
The Netherlands

T +31(0)20 794 61 00
www.bfinance.com

Chicago
220 N. Green Street
Chicago IL 60607
USA

T +1 (312) 829-4353
www.bfinance.com

Hong Kong
Level 20, Infinitus Plaza, 199
Des Voeux Road Central,
Sheung Wan. Hong Kong

T +852 3953 7874
www.bfinance.com

London
36 Queen Street
London
EC4R 1BN
England

T +44 20 7747 8600
www.bfinance.co.uk

Montréal
1250 René Lévesque Blvd. W
Suite 2200, Montréal QC
Canada H3B 4W8

T +1 514 393 4899
www.bfinance.ca

Munich
Promenadeplatz, 8
D-80333 München
Deutschland

T +49 89 55 29 59 00
www.bfinance.de

Paris
49, avenue d'léna
75116 Paris
France

T +33 1 45 02 64 00
www.bfinance.fr

Rome
Piazzale delle Belle Arti 2
00196 Roma
Italy

T +39 06 6940 2500
www.bfinance.com

Sydney
Level 8, 99 Elizabeth Street
Sydney, NSW 2000
Australia

T +61 (0)2 8052 3930
www.bfinance.com

Toronto
88 Queens Quay West
Suite 2500, Toronto
Ontario M5J 0B8 Canada

T +1 (416) 560-7275
www.bfinance.ca