CAMRADATA

# Systematic Investing Whitepaper

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# Contents

# Welcome to CAMRADATA's Systematic Investing Whitepaper

In the last decade, the popularity of active systematic strategies has waned. One cause has been the strength of market beta. Cheap trackers have been readily on hand to eat into the asset base of fundamental and systematic active managers. The bull market ultimately got the better of smart beta, a systematic fashion that had found a place in investors' portfolios following the convolutions of the Global Financial Crisis.

Another pressure has been institutional investors' growing taste for private assets. Both systematic and fundamental managers of public securities have seen their portion of the pie shrinking as a result.

Throughout these challenges, some systematic managers have proven their worth as alternatives within and across asset classes. Many of these houses have their foundations in the hedge funds of the 1990s – an era when rare and niche strategies first crossed over into institutional investors' portfolios.

The success of those that have endured and evolved has rested on the ability to demonstrate genuine diversification and breadth when unsuccessful rivals proved too brittle or naïve in their models, sources of information or implementation (or bowed to commercial pressure and diluted their models with greater beta exposure).

Every investor has been tested this year; the latest in an extraordinary start to the decade. Some have chosen a form of neutrality: most long-only equity RfPs this year by bfinance, a global consultancy, have avoided style bets. This CAMRADATA whitepaper will discover how systematic managers have fared in recent years and how they are positioned for the years ahead.

# *Systematic Investing* Roundtable

***The CAMRADATA Systematic Investing Roundtable took place in London on 5th October 2022.***

**THE FIRST NINE** months of 2022 left investors few places to hide. Both bond and equity markets have shed value. Real assets have not manifested similar levels of pain but with interest rates set to rise and recessions expected, no one presumes they are immune from suffering.

The CAMRADATA roundtable on Systematic Investing at the start of October 2022, sought to find out whether quant managers had fared better than average. The discussion started by getting a sense of asset owners' risk budgets following months of general losses.

Matthew Towsey, head of research for Alternative Strategies at Aon, a global adviser to asset owners, said they had shown some concern about their asset mix as stock/bond correlations have increased.

He said Aon clients had been looking to allocate more to hedge funds to combat recent market turbulence, and the spike in gilt yields at the end of September - when some UK pension funds were forced to liquidate to cover margin calls – and could see further interest in diversifying strategies

"Sometimes clients only move after the event," said Towsey. "But we have had large allocations to hedge funds in portfolios where we have discretion. The need for diversification has been coming and is now firmly here."

For LCP, a UK investment consultancy, Nikki Matthews, senior investment consultant, said risk budgeting from DB pension funds has been trending down for a long time. "Schemes will want to keep that risk low," she said.

Ian Coulman, CIO of Pool Re, which covers commercial buildings in the UK against terrorist attacks, said: "We don't use LDI and we don't use any kind of leverage. We are much more short-term in nature, with lower duration. We reduced our equity allocation several years ago because it was dominating our risk budget."

Pool Re went instead into Multi-Asset Credit and Alternative Risk Premia (ARP). Coulman revealed that Pool Re is now in the midst of another strategy review: "I believe there are opportunities to add risk," he said.

Following Matthews, Towsey said the general move by DB pension funds towards credit was sometimes a stepping-stone towards full buy-out of the liabilities by an insurer. He added that there was a lesser trend of coming out of beta and vanilla multi-asset strategies into hedge funds for the last 18 months.

Penny Aitken, European head of Diversifying Liquid Alternatives at Mercer, another global investment consultancy, expressed concerns around liquidity, in part driven by greater commitments to Private Markets. "You are getting a pinch movement. Everything is becoming more fragile." She pondered where the risks remained and where the rest of the iceberg was.

The consultants were generally

***"Nobody has been a portfolio manager in this environment; nobody managing today has managed during such extreme inflation"***

pleased with systematic strategies. "It has been a banner year for quant," said Towsey. "CTAs have done incredibly well, up 30-50% already this year. Statistical arbitrage and market neutral in equity markets has mainly had success since November 2020, when the first Covid vaccines were announced and value rallied."

Risk Parity has, unsurprisingly, had a really poor year given the decline in risk assets across the board. But Towsey affirmed that it remained "a sound way to allocate over the long term."

"Within some of these strategies like CTA, there has been dispersion," said Aitken. "The solution has been to have more than one manager." She suggested that dispersion was in part created by lots of technological advances such as the number of datasets available and computational techniques which impact both signals and portfolio optimisation. Another cause of dispersion was the expansion by systematic managers into more markets.

Arup Datta, head of global quantitative strategies at Mackenzie Investments, said his team was focused on equity macro headwinds. "There are a lot of crosscurrents. Can we stick to our knitting and focus on risk?" A few of Datta's strategies are long/short, but the majority are focused on adding alpha in a long-only context. "This year is about being as core and balanced as possible," he said. Looking back, Datta noted that in 2019/20, quant struggled.

John Huss, a partner at AQR and portfolio manager of multi-asset and equities strategies, said he was not privy to how asset allocators were moving money around but was aware of great interest in absolute return and trend-following strategies. "Track records for these strategies have recovered surprisingly fast after a protracted tough period," he said. "The appeal is that absolute return strategies may zig when the market zags."

He suggested that even an allocation of 20-30% to market-neutral strategies could soften the beta risk of long-only equity.

John Ricciardi, head of the Global Dynamic Allocation Fund at Deuterium, then explained how his strategy worked. His first point was that you have to look over a business cycle, that is three to five years. That provides an academic basis for where returns come from. The Deuterium model then predicts returns a quarter in advance.

"What is going on now is a business cycle correction, not a fundamental structural correction," warned Ricciardi.

Aitken was curious. She reckoned we are in a really different regime. "I am interested in how managers get round that. Are models prepared for this or do they take time to adjust?"

Ricciardi replied: "If you are using the business cycle rather than prices or equity returns, it generates the models' capability to capture the consumer surface, the production surface and the investment surface 8-16 weeks ahead."

Aitken asked the managers whether discretionary override was used when the models were were not working.

For Deuterium's Global Dynamic Allocation Fund, Ricciardi said the only exception was central banks: "We are able to model the global cycle but when it comes to something the size of a central bank intervention, projecting markets' response cannot be captured over next days and weeks."

Huss said that every manager at some level is discretionary. The dichotomy was where that takes place in the stack. "Does it set the research agenda, interpret the data, or pick the actual trades discretionarily?" he asked. Huss said that for approximately 25 years AQR's team has exercised discretion at the very top level – deciding what to research and what types of risk to take over the long term. But below that, desired portfolio holdings and individual trades are systematic.

Huss said it was sensible to proceed from the basis that no model is perfect. "The hypotheticals or assumptions will miss something. For example, AQR's multi-strategy approach tends to rely on dozens of sub-strategies: we are going to lean on diversification so that when we have an unexpected environment, no one strategy will dominate."

His third point proceeded from the philosophical doubt of how we know anything. "The answer is always a blend of a prior and data. The more data you have, the weaker your priors can be." He gave the example of Risk Premia, which have been similar for 100 years, and yet are the basis for numerous different models.

Finally, Huss was cautious on growth dynamics across industries. "Macro dynamics should be second, but not first order in our equities process, which is mostly sector neutral. We don't focus on that kind of model."

Datta returned to Aitken's point that we are living in a different regime. "Nobody has been a portfolio manager in this environment; nobody managing today has managed during such extreme inflation," he said. But he noted that in his whole career in asset management, he had learned more during periods of serious macro events - such as the tech bubble of 1998-99 and the Global Financial Crisis of 2007-09 - than in the remaining 30 years combined.

"Now we have to make life easier for our clients," Datta said. "I would like quants to get out of that feast and famine cycle. That means being more consistent in alpha delivery."

He explained that Quant managers in the past have had a Value bias. That was exposed in a mega-cap Growth environment.

Datta said the challenge now was blending factors to ensure a more

*"The CAMRADATA panel then heard the asset owner's perspective on the role of systematic strategies within a total portfolio"*

robust process. "Can you navigate Quality, Value and Growth all well in a new inflationary paradigm?" he asked.

"That will be new."

On discretion's role in systematic strategies, Datta was positive. "Manager discretion will certainly help our clients." He gave the example of late summer 2020 when the Pfizer vaccine was being rolled out. This was preceded by one of those periods when the Value gap got too wide, according to Datta, leading to a significant value opportunity. He reckoned that the positive phase for Value ended this summer. "We tend to add some discretion in these environments. I measure any discretionary tilts we employ and the resultant performance, and we have made money from these periods."

## Pulling the Trigger

The CAMRADATA panel then heard the asset owner's perspective on the role of systematic strategies within a total portfolio. For Pool Re, Coulman said it undertook thorough research, including speaking with consultants and managers in the field, in a process that could take up to two years. "We want to understand how a type of investment approach fits into our Strategic Asset Allocation," he said. "That decides how much money we commit."

Coulman added that if you believe your own fundamental analysis, then you stick to it.

"That has borne fruit in some of our selections," he said. "There is pressure from the board and investment committee when things aren't going well. You deal with it."

From managers, Pool Re expects reliable and plausible explanations of their performance. "If you don't feel comfortable with the explanation, then you pull the trigger," said Coulman - as Pool Re did with one systematic Absolute Return provider.

Towsey claimed that systematic strategies tended to have a shorter period of time to prove themselves before asset owners pulled the trigger, while discretionary strategies were often given a longer grace period.

Coulman responded that one explanation may be that if the systematic strategies are supposed to make money in all markets, then maybe they deserve a shorter timeframe.

## Reclassifying Alpha

Matthews said that many years ago it was easier to be able to generate alpha from markets as they were less efficient due to less available information. Managers that allocate to niche/esoteric markets now may have an advantage as these markets are generally less efficient.

She said that now, however, much of this alpha had lost its mystique. Indeed, instead of alpha, the sources of these returns have generally been reclassified as beta with a small element of 'true' alpha.

"At LCP we are looking at what role esoteric strategies have in clients' portfolios and whether they will continue to work going forward," explained Matthews.

Towsey agreed. "Are all CTAs the same? You should take the lowest fee if you believe that the sources of return have been completely commoditised," he said. "But we like to delve into the specifics. Managers should be able to say and demonstrate what they are doing that others are not."

In areas where Aon is constructing client portfolios, the combination might include up to 10-20 Absolute Return funds, which makes being able to understand the models and interpret the numbers even more important. "Transparency is very important in this game," said Towsey. "Going down the lowest-fee route is not always the best approach."

In contrast to what he claimed was widespread practice, Towsey said that Aon would give managers more time if they believed they had an edge. He noted that in spite of their roaring success this year, for example, CTAs had not really gone anywhere for the previous five years. That would not have triggered automatic termination by Towsey's team, as long as the strategy was fulfilling its role in the portfolio.

He made the further point that while Absolute Return might be confused with All-Weather, the truth is that certain Absolute Return strategies work better in certain markets. These strategies cannot create volatility, dislocations or trends at will. "You can only take what's in the market," said Towsey.

Huss said that while trend-following strategies are on everyone's mind this year, he emphasised consistency. Of course, if this means consistency of process then clients may have to accept uneven returns. But Huss warned against style drift and any attendant loss of discipline. During a tough decade for price trend following, many CTAs drifted into multi-strategy approaches, and have failed to deliver enough convexity in 2022. He played devil's advocate using an example of factor exposure in market-neutral: "When vice is rewarded, do you want to be virtuous? Our answer is "yes" as vice doesn't pay over the long term."

AQR had experienced something of this challenge in maintaining a balance between Growth and Value exposures in equity markets a few years back. Trying to stay "virtuously" value oriented has not been easy when Growth dominated for so many years of the last decade.

Aitken saw two problems. The first was that people don't like to see negative line items in their portfolio reports. The second was that they are less tolerant of areas they don't understand as well. "People can't relate to quant the way they can discretionary," she said. The upshot was quant strategies being treated "like an ATM" rather than a long-term commitment.

Having said that, Aitken told the CAMRADATA roundtable that she felt both problems were in decline. "Since the Global Financial Crisis, people's understanding of CTAs has got much better. They aren't a magical market put. The education by some managers has been useful."

Matthews said that LCP's team had been impressed on tours of some managers' trading rooms.

The CAMRADATA panel then looked at technology and how quants are using it to better their investment management. Ricciardi recalled that he was the first engineer on the asset allocation programme in use today at Deuterium. In those days 10,000 calculations took eight hours. But the operating system has been updated every four years and with advances in computational power, the system now does 64 billion calculations in short order. "We find leading indicators from 900 models," explained Ricciardi. The idea is to glean the economic logic behind those figures. "Because what has the biggest Sharpe Ratio on the planet?" asked Ricciardi. "It's the economic cycle, at 4 - if you know what is going on with GDP 3-4 months ahead." He doubted anyone could get close to perfect foresight but even imperfect capture at a Sharpe of 1 would be highly attractive.

The Deuterium strategy devises its own industrial sector baskets, with 18 equity futures, of which 11 are US sectors; 10 currency futures; and 9 sovereign bond futures (although it trades only G3 bonds).

"We call it algo allocation," said Ricciardi. The signals can be strong. Tech is 27% of the US market, for example, but Deuterium were completely out of it in January at the start of the year. He reminded the CAMRADATA panel of the classic Ibbotson/Brinson analysis on asset allocation which found that asset allocation is the most important explanatory factor of the variability in returns.

Datta said that Mackenzie's quant team balances the technological know-how of younger employees with the experience of senior personnel. For five years Mackenzie's data have been on the cloud, which makes it easier to scale up tech. Datta himself oversees the rebalancing for all portfolios. "We fully include the round-trip transaction costs in any decision-making. We always come in slightly lower than budget," he added.

Even though these strategies invest in publicly traded equities, Datta noted one reason why capacity is limited is to avoid portfolio rebalancing becoming unmanageable. In the case of Emerging Markets small caps, there is also market impact and liquidity to consider.

Huss agreed that cloud-based computing is a game-changer: "It gets you more flexibility, although not every investment firm does it." Huss nevertheless chose to emphasize that whatever tech facilitates, it is people that matter. "We can try to get some data others don't have, but the people are the most important thing," he said.

On the efficacy of execution of systematic strategies, Huss said it was market impact that really mattered, rather than commission costs. He put forward diversification as a crucial means of minimising market impact – a large number of smaller trades across

many stocks will typically cost less than fewer, more concentrated trades.

The CAMRADATA panel were finally asked how quant managers cope with the occasional irrationality of financial markets.

*“The CAMRADATA panel were finally asked how quant managers cope with the occasional irrationality of financial markets.”*

Huss replied that we should be happy markets are somewhat inefficient. “If there was no irrationality, then there would be no jobs for us all.” He said the question is whether market conditions today are ones that your investment process can benefit from. He said that with regards to Value, 2022 has seen a bit of both rewarding and unrewarding environments, though has been very good overall. He added that Value was not dependent merely on the Growth bubble unwinding, but has also been benefiting from fresh divergences between prices and fundamentals renewing themselves throughout the year.

Datta did not believe that markets were ever irrational. However, he expressed his belief in building strategies for all types of conditions and reiterated that quants have struggled in the past when the Growth factor predominated. “If you can stay in the game,” he concluded, “there is lots of alpha to capture.”

# Roundtable Participants

## John Huss

*Principal*

*Personal Profile*

John Huss is a Principal at AQR Capital Management, where he is a portfolio manager for the firm's equity and multi-asset class strategies. In this role, he oversees AQR's Global Stock Selection research team and is involved with macro and multi-strategy research. His research on risk forecasting and asset allocation has been published in The Review of Financial Studies and the Alternative Investment Analyst Review.

Previously, he was a Vice President in RBC's Global Arbitrage and Trading division and a systematic portfolio manager for Tudor Investment Corp. John earned an S.B. in mathematics from the Massachusetts Institute of Technology.

## AQR Capital Management Europe LLP

*Company Profile*

AQR is a global investment management firm dedicated to delivering results for our clients. At the nexus of economics, behavioral finance, data and technology, AQR's evolution over two decades has been a continuous exploration of what drives markets and how it can be applied to client portfolios.

The firm is headquartered in Greenwich, Connecticut, with offices in Bangalore, Munich, Hong Kong, London and Sydney.

# *Roundtable Participants*

## John Ricciardi

*Lead Fund Manager and*
*Head of Global Asset Allocation*

*Personal Profile*

Before joining Deuterium, John was the Head of Global Asset Allocation at Merian Global Investors. John cofounded Kestrel Investment Partners LLP in 2011, whose global asset allocation business was acquired by Merian in 2019.

Prior to Kestrel, John's notable appointments were as Iveagh's Head of Asset Allocation between 2006 and 2011, where he launched the Iveagh Wealth Fund, and as Head of Global Asset Allocation for AllianceBernstein between 1996 and 2003.

John has also cofounded and built two successful asset allocation solutions businesses: Cursitor Management which was sold to Alliance Capital in 1996 and Bullrun Financial which was sold to Quantal International Inc. in 2010.

## Deuterium Capital Management

*Company Profile*

Deuterium Capital Management manages $1.2bn AuM and has offices in Clearwater (Florida), London and Zurich. The Deuterium ICAV UCITS Global Dynamic Allocation fund is a global, multi asset (bonds, global equity and cash), article 8 fund, managed by the Head of Global Asset Allocation, John Ricciardi and has a 10-year performance track record.

The core of the investment process uses in-house technology "SmartMarkets", which is Deuterium's proprietary quantitative analytics system, developed and refined over more than two decades by John and his team, perfecting the process of navigating through varying market conditions. The fund manages volatility whilst allowing a tolerance to generate meaningful returns, aiming to provide a consistent investor journey.

# Roundtable Participants

## Arup Datta

*Senior Vice President, Head of Team, Mackenzie Global Quantitative Equity*

### *Personal Profile*

Arup heads the Mackenzie Global Quantitative Equity Team which provides quantitative investment capabilities in Global and Emerging Markets equities.

Arup has over 25 years of experience in quantitative equity investing. Between 1992 and 2012 he was a Quantitative Analyst, Portfolio Manager, Director of US and Director of Portfolio Management with Man Numeric, where he managed capacity-constrained equity strategies (traditional long only, active extension and hedge funds) in all capitalization strata and regions of the world.

In 2012, Arup founded Agriya Investors, a firm focused on global equities, which eventually became the global/international arm of AJO. As Chief Investment Officer - International, Arup launched capacity-constrained equity strategies in emerging and developed markets.

## Mackenzie Investments

### *Company Profile*

Mackenzie Investments, founded in 1967, is a leading Canadian global asset manager, headquartered in Toronto with international investment teams in Boston, Dublin and Hong Kong. As part of IGM Financial Inc., a subsidiary of Power Corporation with a history dating back to 1925, Mackenzie benefits from the financial stability of a deep corporate structure while maintaining a boutique investment management profile.

Our distinct and experienced investment teams offer both fundamental and quantitative approaches with expertise across traditional and non-traditional asset classes, including equities, alternatives, currency and multi-asset strategies.

We provide investment management services to pension plans, consultants, foundations and other institutions, building trusting relationships that seek to understand client perspectives. We are committed to delivering strong investment performance and offering innovative, relevant solutions to our clients by drawing on the experience gained through over 50 years in the investment management business.

# Roundtable Participants

## Matthew Towsey

*European Head of Hedge Fund Research*

Matthew serves as an Associate Partner and is European Head of Hedge Fund Research at Aon, based in London. His current research is focused on global macro, multi-strategy, managed futures and other quantitative managers. His role includes sourcing, evaluating, conducting due diligence, and monitoring hedge funds on a global basis. Additionally he is involved in educating clients on various hedge fund strategies and implementing hedge funds within a wider portfolio.

Matthew joined in May 2011 from Fitzwilliam Asset Management, where he was a member of the Investment Committee running multi-strategy and commodity fund of hedge funds. Prior to that he was an Audit Supervisor at BDO, a large professional services firm.

Matthew graduated from University College London in 2001 with a first in Economics and Philosophy. He is a CAIA charterholder and an ACA charterholder.

## Nikki Matthews, CFA, CAIA

*Senior Investment Consultant*

Nikki is a senior member of the multi-asset research team where she leads research projects and researches investment funds. Nikki is responsible for setting the research agenda for the team and managing workflow. She also researches esoteric funds and new ideas for LCP's clients.

Nikki is also a senior member of the Fiduciary research team, responsible for setting the research agenda and in addition being involved in FM oversight work and manager selections.

Nikki has a strong interest in Psychology and behavioural finance and frequently produces thought pieces on the subjects. She also helps to edit LCP's investment magazine Vista.

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## Penny Aitken

*European Leader of Diversifying Alternatives Research*

Penny is European Leader of Diversifying Alternatives Research, a unit within Mercer Investments. Based in London, she heads a team covering research across a broad range of hedge fund and other diversifying strategies in Europe. Penny has over 25 years of experience within the investment industry with over 20 of these focussed on hedge fund investing, covering all strategies and geographies. She joined Mercer in 2017.

Prior to joining Mercer, Penny was a Partner and Investment Manager at FQS, an alternative investment specialist using proprietary mathematical techniques for global hedge fund manager selection and portfolio management.

## Ian Coulman

*Chief Investment Officer*

Ian has been Pool Re's Chief Investment Officer since joining in 2011. As CIO he is responsible for the development and implementation of investment strategy, strategic asset allocation and the monitoring of the range of managers through whom Pool Re invests.

Prior to joining Pool Re as CIO, Ian fulfilled a number of senior investment roles with Butterfield Bank in Bermuda and AIG in London, Boston and Tokyo. Ian began his investment career with the private Swiss bank Lombard Odier.

Mercer

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# Moderator

## Brendan Maton

*Freelance Journalist*

A highly experienced financial journalist with an expansive network of contacts in the UK and across Europe. Brendan has written about pension schemes and national welfare systems from Finland to Greece for 18 years and understands the retirement savings industry in each European country.
Brendan has interviewed EU commissioners and national ministers; central bankers; pension scheme heads; insurance chief executives; chief investment officers; actuaries; union officials; professional and lay trustees.He worked at Financial Times Business for eight years, finally as editor-in-chief of all international pensions titles.

Brendan has spent the last ten years as a freelancer for a number of publications, including Financial Times, Responsible Investor, Nordic region pensions news and IPE. He is also Chief webcast host for IPE. Brendan has acted as conference chair for Financial News, the UK National Association of Pension Funds, Dutch Investment Professionals Association (VBA), Corestone, Insight Investment, Marcus Evans, Robeco Asset Management, Sustainable Asset Management (SAM), Towers Watson.

# New Rules of Diversification

## How to Prep Your Portfolio for a Different Kind of Recession Risk

### Liquid alternatives– what to look for (and what to avoid)

Here we take 'liquid alternatives' to mean any allocation with the potential to deliver returns lowly correlated to stock and bond markets, using liquid assets. This broad category mainly comprises active strategies that use financial tools such as shorting and leverage to hedge market exposures and amplify diversifying sources of risk and return. It also includes commodities, which have delivered low long-term correlations to stocks and bonds thanks to their very different macroeconomic exposures. AQR's systematic approach delivers liquid alternative solutions in a repeatable and transparent manner.

**Which strategies?** In the late 2021 paper Time to Diversify, we singled out long/short value and trend-following as looking particularly attractive in the prevailing environment. Both went on to perform strongly in H1 2022, and both still looked attractive at mid-year: value spreads remained wide,[1] and macroeconomic turmoil continued to favor trend and macro strategies. There are also more strategic considerations when selecting strategies: long/short equity and arbitrage strategies may help with expected return challenges; trend and macro are best-suited to tail risk mitigation (while also earning positive returns over the long term, unlike option-based tail hedges[2] ); alternative risk premia can provide broad diversification; and commodities[3] can help to offset inflation exposure in stock-bond portfolios.

*"Those selecting strategies with the highest past returns – without sufficient regard for diversifying capabilities – may be disappointed in tough market environments"*

**Evaluation:** In Exhibit 1 we summarize key questions we believe investors should ask of any candidate liquid alternative investment. Those selecting strategies with the highest past returns – without sufficient regard for diversifying capabilities – may be disappointed in tough market environments. Any tendency to bundle diversifying returns with passive market beta will flatter past performance during the bull market, while reducing prospective benefits.

**Exhibit 1: Questions to Ask of Diversifying Strategies**

| L/S Equity and Arbitrage | Multi-strategy / Alt. Risk Premia | Trend & Macro Strategies | Commodities |
|---|---|---|---|
| **Beta:** Has it delivered the expected amount? | **Market neutrality:** Has it delivered diversifying returns over long term? | **Tail risk mitigation:** Has it delivered returns when most needed? | **Risk balance:** Does it take full advantage of low correlations across sectors, and avoid large positions in single commodities? |
| **Alpha:** Has it delivered long-term? Is active risk complementary to existing exposures? | **Capital efficiency:** Will it deliver 'bang for the buck'? | **Innovation:** Do 'bells and whistles' dilute or enhance tail hedging? | **Active:** Can it adjust commodity mix and avoid passive roll headwinds? |
| **Style trends:** Is the track record skewed by the late 2010s growth bubble? | **Style exposures:** Is it positioned to benefit from opportunities? | **Complementarity:** Evaluate alpha to existing portfolio, not just standalone performance | |

**Funding choices and implementation:** For the greatest benefit to portfolio diversification, investors should consider funding from dominant risk allocations such as public equity. This has been unpalatable for some investors in the past due to equities' perceived higher expected return. In the current environment, the expected return balance may have shifted. A higher risk, higher expected return option is to fund partly or fully from bonds. Another option popular with some institutions is to add unfunded exposure via swap arrangements with managers or banks. Finally, liquid alternatives may be attached to synthetic market exposure in a portable alpha structure, for investors who wish to allocate to new sources of return while maintaining portfolio market exposure.

Regarding implementation, some investors will want to focus on a specific single strategy to complement existing exposures. Others will prefer a flexible building-block approach, while still others may benefit from an integrated, multi-strategy approach to reduce 'line-item risk' and make the allocation easier to hold for the long term. As AQR's Antti Ilmanen stresses in *Investing Amid Low Expected Returns,* diversification requires patience, and this is a formidable challenge for many investors especially when it comes to less conventional strategies.

*Authors:*

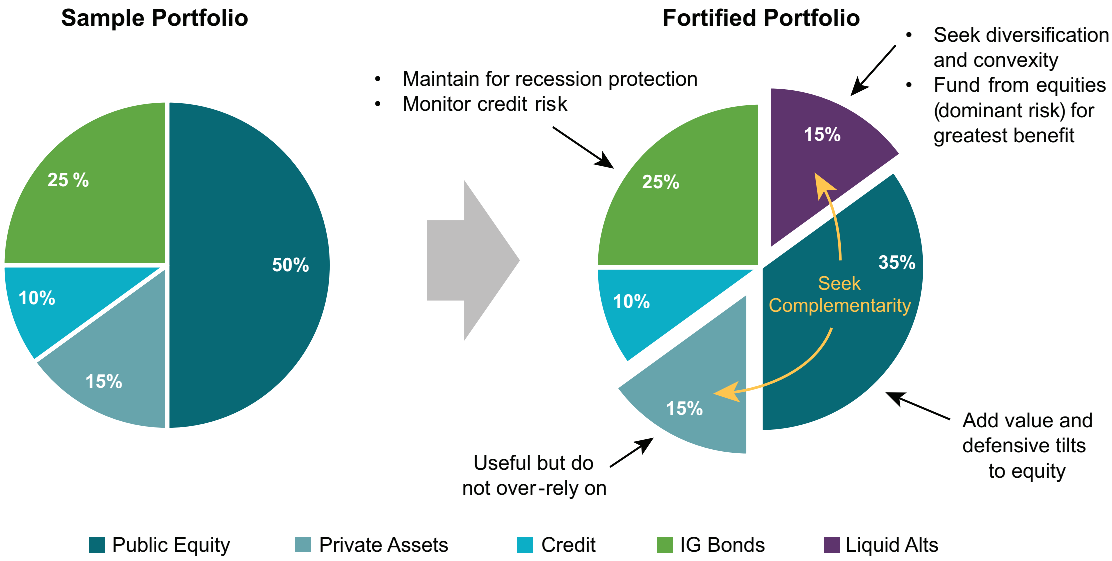
**AQR Portfolio Solutions Group**

## A fortification case study

In our full article we assess the prospects for stock and bond markets after the H1 selloff, and consider the impact of prevailing macroeconomic risks on a range of investments. Our analysis suggests that the strategic and tactical case for diversification remains strong, and it's not too late to diversify. Below we focus on the conclusion of that piece, the use of diversifying liquid alternatives to fortify portfolios.

Here we illustrate simple steps to prepare for the risk of a sustained unfavorable environment for traditional assets. Exhibit 2 shows on the left a sample risk-seeking portfolio with allocations to public equity, investment grade and high-yield bonds, and private assets, and on the right a 'fortified portfolio' with a new allocation to diversifying liquid alternatives funded from public equity. In this example, we have modelled the liquid alts allocation as a blend of three components: alternative risk premia to deliver long-term uncorrelated returns, trend following to mitigate tail risks and complement the private assets, and commodities to offset the disinflationary bias in the rest of the portfolio. All three delivered positive returns in H1 2022. The fortified portfolio also applies factor tilts to the remaining equity allocation – a value tilt to take advantage of wide spreads and boost expected returns, and a defensive tilt to reduce risk.

### Exhibit 2: A Fortification Case Study




Existing allocations, investment objectives, constraints and beliefs all differ widely across investors, and the exact prescription for each will vary accordingly. Some investors may be more aggressive with their portfolio tilts, some less so. The diversifying allocation should be designed to complement existing exposures, including to private assets. But investors should not seek perfection – the most important thing is to take decisive steps towards investments that are exposed to fundamentally different risks from the dominant risks in the portfolio. Call it strategic or call it tactical: just diversify.

Visit https://www.aqr.com/Insights/Research for more insights

*[1] As of June 30, 2022, AQR's measure of the global value spread was at the 97th percentile compared to its history. See Cliff's Perspective blog, Still Crazy After All This YTD, from May 2022.*
*The hypothetical value composite includes four value measures: book-to-price, earnings-to-price, forecast earnings-to-price, and sales-to-enterprise value; spreads are measured based on rations. Spreads are consutructed to be industry-neutral by comparing value measures within each industry, then aggregating to represent an entire portfolio. Universe is 70% developed large cap, 30% emerging large cap.*

*[2] See Ilmanen, Thapar, Tummala and Villalon (2021) for a comparison of put-buying and trend strategies.*

*[3] For discussion of best practices in commodities investing, see Ooi, Maloney and Brixton (2022).*

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# US equities are fairly valued and major non-US markets are very undervalued

US equity markets now show in line with historical averages for standard measures, with shares in most US sectors close to five-year averages for prices compared to earnings, sales, book value, cash flow, and dividends. In terms of their valuation metrics, shares in financial and energy sectors remain substantially below their levels for fair value, while large capitalization sectors such as information technology and consumer discretionary, despite their selloffs, still are above their five-year averages. With US shares no longer keeping world equities overvalued, 31 of the 34 equity markets under review show attractive valuations at present.

*"Investors may do well to hold low allocations to risk assets during the coming quarter"*

In Q4 2022, high inflation rates will maintain expectations for further monetary tightening and more upward pressure on short-term interest rates from central banks worldwide. These conditions will deepen the negative effects on risk asset valuations that will follow from downward revisions to equity fundamentals and corporate profit projections when growth slows sharply during the quarter.

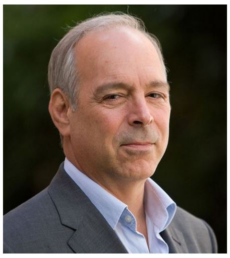
Central bank policy tightening will remain in effect across the major regions, even as consumption, industrial production, and export growth will show significant decelerations. In this context, large US sectors such as technology and consumer discretionary may again underperform, and shares in the financial sector may do poorly as well.

### Deuterium Global Asset Allocation Conclusions for Q4 2022

Projections for corporate earnings will fade significantly in Q4 2022. The effects of fiscal and monetary policies that boosted incomes and output last year will be have faded, and the global cycle will show signs of a significant downturn. Inflation will stay too high to alleviate upward pressure on short term interest rates in the quarter, while lower commodity prices will be more a reflection of global recessionary trends reducing aggregate demand than of newly efficient supply chains.

Unusually strong and rapid appreciation in the US Dollar has worsened the already tighter credit and lower liquidity environment that followed the worldwide shift to higher interest rates. Savings rates and personal income growth have dropped as wages have trailed prices. The overall effect is a deterioration in financial conditions that will coincide with downtrends in world consumption and output, so that the economic environment in Q4 2022 likely will not be supportive of risk asset valuations, despite very attractive levels for nearly all equity markets.

Investors may do well to hold low allocations to risk assets during the coming quarter, as contracting economic growth worldwide will lower corporate revenue and earnings projections. Sharp decelerations in US consumption and retail sales growth, as well as in US production and export growth, will have technology and consumer discretionary shares again underperforming. Short-term interest rates likely will stay high as central banks look to prevent inflation rates moving further above target, while the significant downturn in global output growth may eventually cap long-term bond yields.



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# Mackenzie Global Quantitative Equity: Emerging Markets Equity

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*Senior Vice President, Head of Mackenzie Global Quantitative Equity Team*

## Outlook from our Chief Economist

Expected returns for emerging market equities over the next decade have likely increased since last year. We model expected returns based on three building blocks: (1) risk-free rates, (2) long-term risk premium, and (3) an active component incorporating factors like starting valuation and macro conditions. Risk-free rates have increased sharply in the last year, lifting long-term expected returns. The long-term risk premium for emerging market stocks remains higher than developed market stocks. And our current valuations for emerging market stocks relative to long-term fundamentals are attractive compared to developed equities (especially vs US stocks). Offsetting the bullish picture are current macro conditions, including the strong US dollar, zero-Covid restrictions in China and surging energy costs. Therefore, the tactical allocation decision boils down to the horizon of the investor.

In the near term of a year or so, macro conditions could remain a headwind for emerging markets. But even at this horizon, the macro factors would need to dominate relatively attractive valuations and a higher long-term risk premium. We believe most investors would need a strong bearish view to warrant reducing their allocations to the region. Another hesitation to moving a large fund based on short- term tactical views is that it can be very costly, especially when switching allocations amongst different investment managers.

For longer horizon investors, we believe expected returns over 5 to 10 years remains attractive for EM stocks compared to developed equities, as described above. From a strategic allocation perspective, EM stocks have historically provided a capital efficient way to generate expected return with diversification benefits compared to traditional developed equities. The large share of Chinese equities in the EM index also provides access to a rapidly growing economy that is likely to become a greater share of the global capital market.

Finally, finding alpha in developed equities is increasingly challenging, so the expected alpha in EM equities could be relatively attractive. The main downside risks we currently foresee in EM stocks are geopolitical events and more persistent turbulence in global macro conditions than expected over the next 5-10 years.

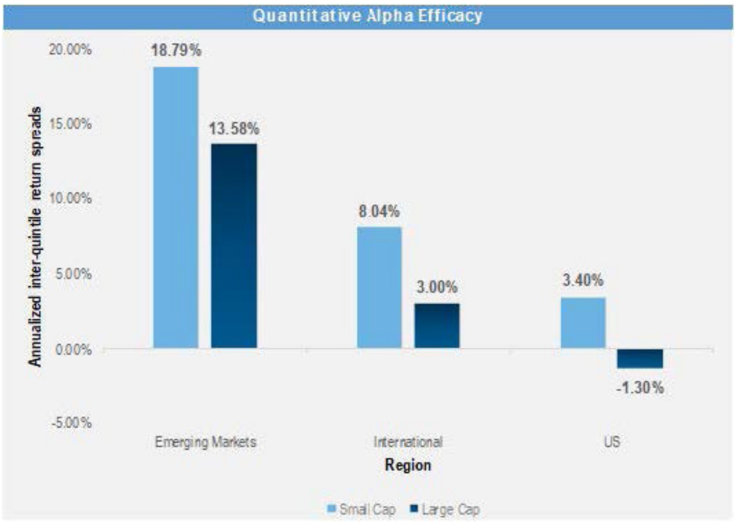
## Key investment motivations

• We see attractive valuations versus US stocks and supportive macro tailwinds. The US dollar is heavily over-valued versus a broad range of currencies and is expected to weaken in the long term, including against many EM currencies.
• EM equities can help diversify concentrated risk in existing equity allocations to Developed Market stocks. We believe the EM equity weight in the global market cap-weighted portfolio should also rise over time.
• With higher long-term bond yields and higher expected returns in the next 5 to 10 years, discount rates might be under less pressure than feared a year ago

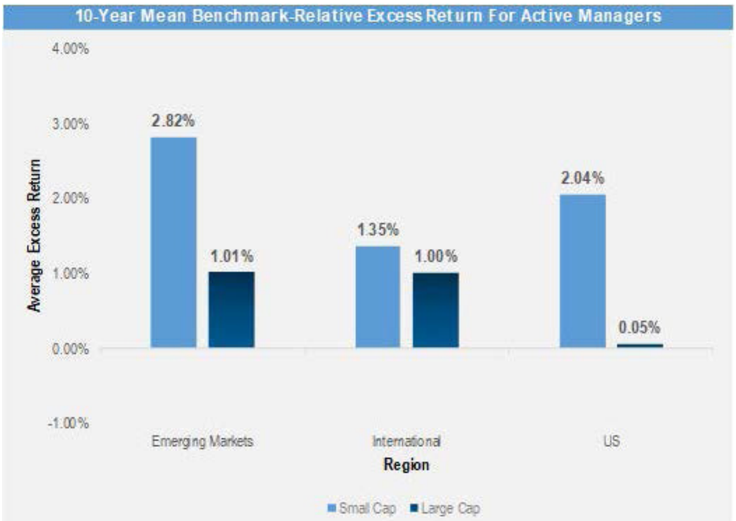
## Fertile ground for Alpha

Emerging markets are ripe for alpha, Mackenzie's Global Quantitative Equity team believes. The chart to the left depicts a simple factor-based analysis of portfolios that blend stocks with both value and momentum characteristics. It shows the potential alpha opportunity in emerging markets and the historical added benefit of a small-cap focus. In the flagship strategy, Mackenzie Emerging Markets All Cap, the team attempts to position the portfolio to extract alpha in mid and small-cap stocks, an area that they believe is particularly rich in potential alpha.

The potential benefits of emerging markets and small cap stocks can also be seen on a realized basis. The chart to the right provides a strong indication that emerging market equities, and a tilt towards small-cap stocks, truly has the potential to generate alpha over the long-term. There are several reasons for potential small-cap alpha in EM, but one major advantage for the team is having the ability cover even more names in a less efficient landscape through their quantitative process and their priority on capacity management.




Source: Mackenzie Global Quantitative Equity boutique proprietary research. Data source: Bloomberg. Provided for illustrative purposes only. Returns shown represent past performance, are not a guarantee of future performance and are not indicative of any specific investment.
Represents inter-quintile return spreads using 50/50 blend of Value and Momentum from September 2002 – December 2021.




Source: Source: eVestment Universes. Returns shown are in USD and represent past performance, are not a guarantee of future performance and are not indicative of any specific investment.
Please note that the benchmark for the strategies within each universe vary, excess performance is based on managers preferred benchmark. Based on gross of fees performance. As of 6/30/22.

## Plentiful opportunities

At Mackenzie, we believe that emerging market equity, as an asset class, is often overlooked for the wrong reasons. From a total asset allocation standpoint, emerging markets continues to represent only a small portion of most plan sponsors' equity allocations. We view the asset class as a critical component of the equity allocation puzzle. While emerging markets have encountered high volatility, we maintain a strong belief in the growth rate potential in the companies and countries there, and the long-term return and diversification benefits of a broad-based allocation. We believe that the opportunities are plentiful within a broad emerging markets investment universe and through a disciplined, risk-controlled investment process, as employed by Mackenzie's Global Quantitative Equity team.

# *Meet the Team!*

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