ALTERNATIVE RISK PREMIA (ARP)

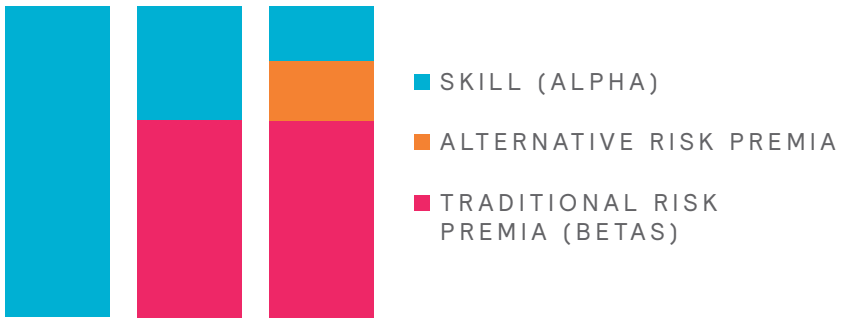
WHAT ARE ALTERNATIVE RISK PREMIA STRATEGIES?

Many moons ago, before passive investing was widespread, the nascent world of investment management could commonly attribute all investment returns to the skill of the investment manager. Finding profitable investments and avoiding loss-making investments, in any form, was considered the mark of a good fund manager, and determining how much of this was down to skill was a difficult task.

Over time, investment theory evolved and investors began to differentiate between the return associated with broad market exposure ("beta") and the return attributable to manager skill ("alpha"). However, this distinction was mostly limited to traditional asset classes, in which passive investment options were emerging as a benchmark and an investible alternative. Meanwhile, the world of hedge funds and alternative investing continued to be a difficult area for investors to access in a low-cost, systematic way.

In the last decade, this has begun to change, as the academic literature has expanded to identify many potential investment approaches that can be used to systematically access return sources historically thought of as alpha or manager skill.[1] ARP funds attempt to capture a range of these return sources in a systematic fashion to create a profile of returns capable of performing a role that is similar to other strategies used within the core of a diversified liquid alternatives portfolio. Typically, such strategies are available at a lower cost to the end investor when compared to traditional hedge funds. While systematic (or "rules-based") approaches are sometimes thought of as quasi-passive (especially when they are packaged in index format), ARP strategies are very clearly active and require a large number of subjective choices in terms of design and implementation.

These investment approaches, in general, aren't new. Most of them have been around for many years and have formed a valuable part of the return-generating arsenal for many hedge fund managers.



EVOLVING INTERPRETATION OF RETURN DRIVERS OVER TIME

[1] A study by Harvey, Liu and Ziu (2016) counted as many as 316 unique factors, identified in articles and working papers mostly published in top journals, despite some considerable selectivity. They do also conclude that this is likely a significant overestimate of the profitable risk factors that actually exist and is due to data-mining, but this demonstrates just how broad the literature on this topic is. (https://academic.oup.com/rfs/article/29/1/5/1843824)

WHAT ARE THESE PREMIUMS?

There is no strong consensus on which premiums are the most appropriate building blocks for an ARP fund, or how best to access any given risk premium. However, the table below covers some of the more established risk premiums.

A number of these factors can be harvested in long-only as well as long-short format (for example, value and momentum are widely exploited by equity managers), but the factor exposure will be much more diluted when accessed in a long-only strategy (simply expressed as a "tilt" within a beta-dominated exposure).

ARP strategies extend the application of widely understood factors, such as those listed, to a wider range of asset classes. They also provide access to less widely used factors, such as trend, volatility and arbitrage, as well as offer a more targeted (often long-short) exposure to the factors than can be captured otherwise, while minimizing their exposure to traditional betas.

The table below outlines the primary return premiums used within ARP strategies as well as a simplified explanation for the existence of each premium.

HOW DOES IT WORK IN PRACTICE?

Given the relatively intuitive theory behind many of these premiums, it is tempting to assume that capturing them is also straightforward. However, the approaches taken to capturing and combining these factors can vary widely, and the choice of approach can often be the difference between a profitable strategy and a loss-making one.

> "In theory, there is no difference between theory and practice. In practice, there is."
>
> – Yogi Berra, Major League Baseball Player

	EQUITY	FIXED INCOME	CURRENCY	COMMODITY
Carry	Investor overpay for expected capital growth versus stable dividend income	Investor over-extrapolate extreme steepening or flattening of curves	The excess return from borrowing in a low interest rate currency and lending in a high interest currency	The convenience yield represents compensation in excess of storage costs required by holders of physical commodities
Momentum	Cross-sectional and based on recent relative performance. Driven by slow information dissemination (Initial under-reaction) and positive feedback trading (subsequent herding/over-reaction)			
Value	Investor overpay for growth stocks	Investor overpay for protection against inflation and default	In equilibrium, currencies ultimately revert to levels consistent with absolute/ relative PPP	Prices have often reverted to long-term averages; value strategies can buy and sell based on veviations from the mean
Quality/Defensive	Investor overpay for low quality/high beta stocks	Investor overpay for for low quality/ high beta bonds	N/A	N/A
Trend	Similar to momentum, but directional and based on recent absolute performance.			
Volatility	Investors overpay for option protection (so that implied volatility tends to be higher than realized volatility)			
Arbitrage	**Merger Arb**: "Deal risk" or the risk that the deal will fall apart, is the risk that be arbitrageur is willing to bear **Convertible Arbitrage**: Seeks to capture any deviation in value between a convertible bond and the value of the underlying bond and equity call option		N/A	Demand is seasonal for some commodities, which can be exploited

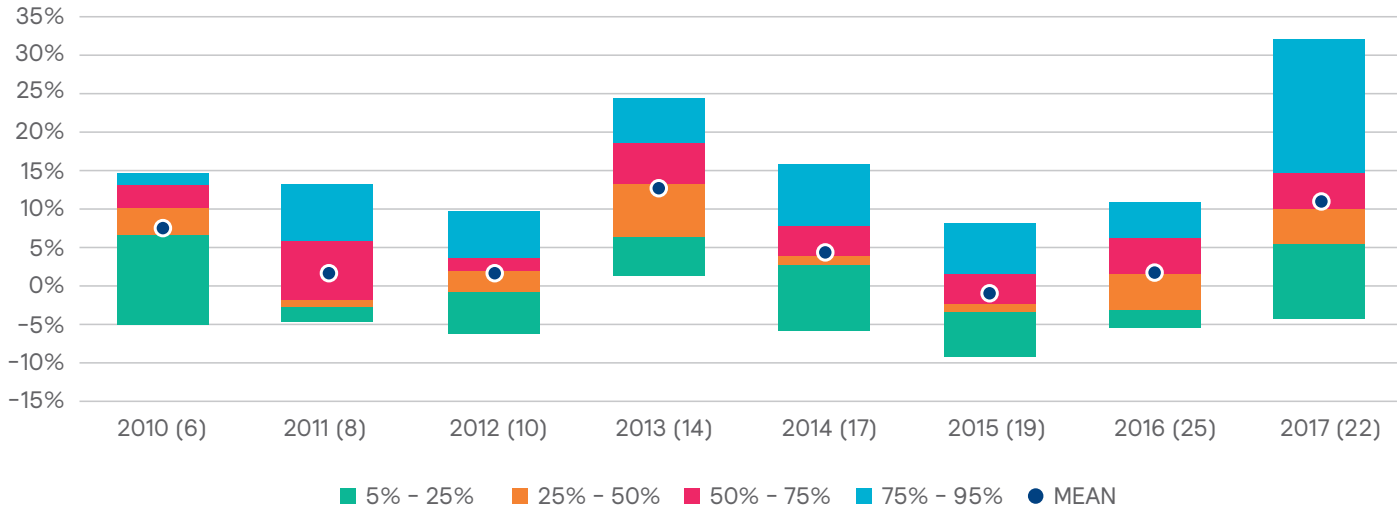
For example, let's consider the value premium and some of the decisions facing a manager. First, a manager has to determine which asset class (or asset classes) offers the best opportunity for exploiting the value premium. Next, the manager has to pick an index or universe of securities, as well as decide which (and there are many) value metrics to use. Should the absolute score or a rank be used? Should calculations be weighted to take greater account of more recent data? How frequently should the strategy be rebalanced, and how should trading costs be controlled? In addition, investors should be aware that many factors exhibit a degree of "factor decay" over time as their existence is increasingly recognized and exploited by practitioners.[2]

Therefore, despite the approach being systematic in nature, design and implementation decisions can have a dramatic impact on the outcome. The chart below illustrates the extremely wide variation in returns achieved by ARP strategies (largely targeting similar return premiums) over the last eight years.

The returns associated with each premium within each asset class can be highly variable, resulting in relatively unattractive risk-adjusted returns on a stand-alone basis. However, correlations across different premiums in the same asset class and across asset classes for the same premium are typically very low (as can be seen in the chart below), which makes the overall risk/return characteristics associated with ARP strategies much more favorable. Consequently, where managers have appropriate asset class and factor expertise, we favor a multi-asset, multifactor approach for ARP strategies, allowing for the broadest possible opportunity set, and the maximum level of diversification.

CALENDAR YEAR RETURNS FOR ALTERNATIVE RISK PREMIA UNIVERSE

31 December 2017 (number of strategies in sample shown in brackets)



Returns shown have been normalized for a constant level of 7% volatility. Actual returns within the universe may differ.

[2] Work by McLean and Pontiff in 2014 ("Does Academic Research Destroy Stock Return Predictability?") found that a given factor's return declined by c.56% following publication of academic research identifying the factor. After allowing for the effect of statistical bias (for example, that the factor returns could be due simply to data mining), they estimated the "publication effect" to be a c.31% reduction in return.

CORRELATION ACROSS FACTORS AND ASSET CLASSES

COMMODITIES	VALUE	MOMENTUM	CARRY	
Value				LOW CORRELATIONS ACROSS FACTORS WITHIN AN ASSET CLASS ...
Momentum	-0.5			
Carry	-0.5	0.6		

VALUE	EQUITY	FIXED INCOME	COMMODITY	FX	
Equity					... AND ACROSS ASSET CLASSES FOR A SINGLE FACTOR
Rates	0.1				
Commodity	0.1	0.1			
FX	0.1	0.0	0.1		

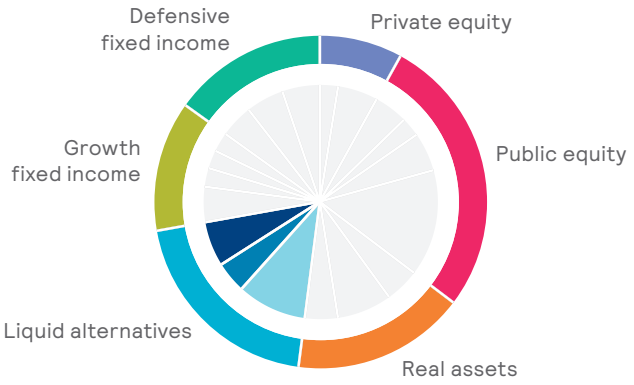
Note. The correlations shown are estimates made by Mercer using s sample of simulated single factor returns from investment managers.

USING ARP WITHIN A BROADER INVESTMENT STRATEGY

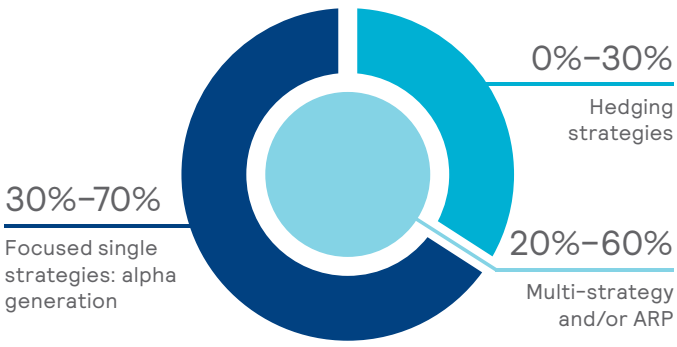
We believe ARP strategies can play a valuable role within an investor's portfolio as a complement to existing liquid alternatives allocations, such as traditional hedge funds and multi-asset exposures. An allocation to ARP can increase the flexibility within a wider liquid alternatives allocation, as it should increase the liquidity and lower the overall cost for a portfolio of hedge fund strategies. We expect ARP strategies typically to be used as a diversifying component within the "core" segment of a hedge fund portfolio.

When selecting and combining ARP strategies for use in a liquid alternative portfolio, we encourage a balance of breadth and expertise, blending two or more managers where possible. Depending on an investor's objectives, constraints and beliefs, we believe that a sensible allocation to ARP strategies would most likely be in the region of 20%–40% of their total liquid alternatives allocation. This recognizes the fact that many hedge fund return drivers (and sources of manager skill) will not be captured within ARP strategies.

APPLICATIONS WITHIN A BROADER STRATEGY



ALLOCATION



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