

# RISK PREMIA INVESTING — FROM THE TRADITIONAL TO ALTERNATIVES

DECEMBER 2014





## INTRODUCTION AND SUMMARY

Alternative risk premia have become a popular area of focus in the investment world. Academic literature has been supplemented with product launches from the asset management community and new solutions from investment banks (some of these are marketed as “smart beta” strategies). Recent surveys of large institutional investors illustrate an attraction to this type of framework, with indications that large endowments and pension plan investors are increasingly focusing on factor analysis and specifically risk premia when constructing their broader investment portfolios.

Alternative risk premia are not new, though. Many investors already have exposure to them via their actively managed equity and hedge fund portfolios. Their greater recognition has, however, brought to light the explicit roles that they can play in investor portfolios:

- As specific return drivers to exploit or target in an equity portfolio.<sup>1</sup>
- As premia to understand and track in other asset classes (such as active currency management or in portfolios of hedge funds).
- As possible standalone components of a liquid growth portfolio.

In this paper we provide an overview of the risk premia concept and focus on a set of liquid “alternative” (or non-traditional) risk premia in particular. We cover the following topics:

- Identifying traditional risk premia (how risk premia can be defined and the common exposures for investors).
- The emergence of alternative risk premia (such as value, carry, and momentum) as recognised and exploitable sources of returns.
- Identifying alternative risk premia (the types of alternative risk premia that are regularly and consistently identified as sources of returns for institutional investors).
- The possible roles of alternative risk premia (why investors might want to gain exposure).
- Thoughts on using new alternative risk premia products as standalone components of a growth portfolio.

Overall, we believe that investors can benefit from a bias to alternative risk premia in their equity portfolios — capturing additional drivers of return above and beyond simple equity market beta. In essence, their role in this context is as a tilt to the underlying equity market exposure.

Alternative risk premia are not new, but their greater recognition has highlighted the explicit roles that they can play in investor portfolios.

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1. See “Building Equity Portfolios With Style”, Mercer, July 2014.

While the theory is relatively compelling, alternative risk premia products need to compete with other growth assets, such as exotic credit and hedge funds.

To warrant exposure on a standalone basis, alternative risk premia products will need to compete with other liquid growth assets, such as exotic credit and hedge funds. While the theory behind alternative risk premia is relatively compelling, at this stage the practical evidence of managers being able to capture these risk premia on a standalone basis, systematically, and in their simple form (net of fees, transaction costs, leverage constraints, etc.) is weaker. Given this, we believe that manager (and/or strategy) selection should be as rigorous as for any other alternative asset class; in particular, we note that there is a degree of overlap between this space and global macro hedge funds, reinforcing the importance of manager due diligence.

## IDENTIFYING TRADITIONAL RISK PREMIA

Before we start documenting possible alternative risk premia, it is worth highlighting what we regard as traditional risk premia. Risk premia in general can be defined as *“sources of return that represent identifiable, replicable, and exploitable compensation for taking investment risk”*.

The risk premium that dominates most investor portfolios is the equity risk premium. Widely understood today, the notion of equity market beta (the return from owning the market portfolio in equities) only really emerged in the 1970s with the first index funds in the US.<sup>2</sup> Other recognised betas (or market risk premia) traditionally accessed by institutional investors now include credit (the compensation for lending money to corporates) and term premia (or duration).

We can regard all of these as traditional risk premia, widely exploited (and explicitly so) by institutional investors.

## THE EMERGENCE OF ALTERNATIVE RISK PREMIA

Increasingly in the mid-2000s, academics started to consolidate the idea of there being other new and differentiated risk premia. The thinking was that, in the same way that in the 1970s earning returns from a market capitalisation equity portfolio was identified as not being “skill”, a number of other commonly exploited investment opportunities were identifiable and replicable. The initial headlines focused on certain hedge fund strategies (merger arbitrage being a prime example), but over the past few years a broader array of structural,

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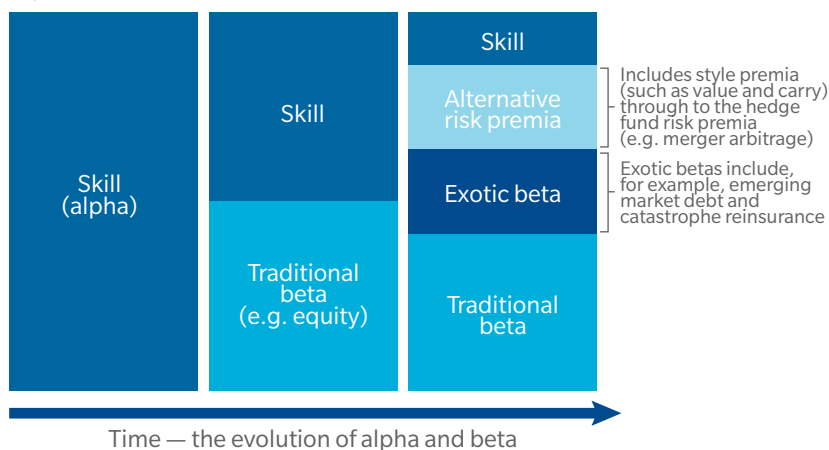
2. When Vanguard’s first market cap weighted equity fund was launched in 1976 it was assumed to be a “pure alpha” way of investing in equities.

behavioural, and exotic market opportunities have been identified, highlighted, and increasingly accessed explicitly by institutional investors.<sup>3</sup> We have grouped them into two main categories<sup>4</sup>:

- **Alternative risk premia** — Provide systematic explanations for returns historically thought of as alpha, typically extracted through long/short positions in traditional asset classes. This is the primary focus of the remainder of this paper.
- **Exotic betas** — Provide more granularity to the historic notions of broad traditional risk premia and/or reflect niche equity and credit exposures in nonmainstream markets. We include in our definition long-only investments in debt and equity in nonmainstream markets (such as emerging market debt or frontier equity), hybrid instruments (such as convertible bonds) and relatively new instruments (such as catastrophe bonds). For some investors these exposures will already be established investments — as time goes by we might expect some of today’s exotic betas to become “traditional”.

This increasing recognition (emergence) of exotic and alternative risk premia as a source of returns is illustrated in Figure 1.

Figure 1: The Evolution of Alpha and Beta



The term alternative risk premia includes style premia, such as value and carry, through to hedge fund premia.

In the remainder of this paper, we focus on alternative risk premia.

3. Investor interest in “risk factors” is a related approach, albeit often used more “qualitatively” than “quantitatively”. See Hawker, “Diversification: A Look at Risk Factors”, Mercer, May 2010.

4. One could also distinguish other sources of return commonly exploited in alternative asset classes — such as the illiquidity premium in some hedge fund and private market strategies, esoteric risk factors such as legal process risk as a source of value, and political/regulatory risks in infrastructure investing. Arguably these aren’t replicable systematically, so we ignore them for the purpose of this paper.

Alternative risk premia have been exploited by investors for decades — albeit, in many cases, implicitly rather than explicitly.

## IDENTIFYING ALTERNATIVE RISK PREMIA

Conceptually, alternative risk premia are not new. They are highlighted in academic work dating back to, for example, Cassel in 1918, Graham and Dodd in 1934, and Banz in 1980.<sup>5</sup> In practice, they have been exploited by investors for decades (and likely centuries) — albeit, in many cases, implicitly rather than explicitly. Based on academic and investment literature, we can identify six categories of alternative risk premia that it might be possible to capture systematically:

- **Carry strategies** — Borrowing at a rate that is lower than the lending rate; for example, borrowing in currencies with lower interest rates while investing in currencies with higher interest rates. Frankel (2007) and Galati, Heath, and McGuire (2007) provide overviews of the significant academic analysis with respect to currency carry.
- **Momentum/trend strategies** — The return premium associated with capturing the market inefficiencies generated by behavioural effects. Trends themselves can be explained by investor behaviour; for example, markets responding slowly to new information because of anchoring and cognitive dissonance biases then “overshooting” fundamental value because of fair weather investing and fear and greed.<sup>6</sup> A significant body of academic literature argues for the existence of the return premium to momentum/trend strategies — including, recently, Baltas and Kosowski (2012).
- **Value strategies** — Securities that are cheap relative to their peers will outperform on a relative basis (conversely, those that are expensive relative to their peers will underperform on a relative basis). This is a common bias in long/short equity strategies, but the approach is also applicable in a macro setting (long cheap stock markets, short expensive, etc.). Academic evidence comes from, for example, Fama and French (1998), looking at value stocks versus the broad market.

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5. Cassel identified the notion of “purchasing power parity” (a value premia) as a driver of currency markets; Graham and Dodd, in their seminal text “Security Analysis”, set out the case for value investing in equities; and Banz studied the size bias in stock markets (where small cap equities have higher risk adjusted returns than large cap stocks).

6. Anchoring refers to the use of current prices (or other reference points) to anchor their view of the fair value of an asset, while cognitive dissonance reflects the tendency to ignore new information that conflicts with their previously held beliefs; both delay the translation of new information into new pricing of assets. Fair weather investing is the tendency to buy things that have had recent good performance, while fear and greed can result in, when things are going well, investors becoming irrationally greedy, and when they are going badly, becoming overly fearful. Both can help explain prices overshooting fair value and the extension of trends.

- **Size/liquidity strategies** — Identified by Banz in 1981 as a source of higher risk-adjusted returns in the equity markets, the small cap size bias is deemed to be compensation for investing in less liquid, less marketable, and informationally less efficient securities. The pure premium can be captured by, for example, being long small cap stocks and short large caps.<sup>7</sup> See academic analysis by Fama and French (1993).
- **Quality/defensive strategies** — Reflecting the observed outperformance of high quality, low beta stocks versus the broad market. Theoretical justification comes from investors' leverage aversion (to achieve higher returns investors will seek out high beta stocks, rather than leverage low beta higher quality stocks) and "lottery" effects. Again, a long/short approach is required to capture the pure premia. See, for example, Baker, Bradley, and Wurgler (2011) for commentary on low beta/low volatility and Sloan (1996) on quality.
- **Event and other idiosyncratic strategies** — Primarily providing exposure to liquidity (arbitrage) and event risk premia. Merger arbitrage (the provision of liquidity when an acquisition is announced and the bearing of deal risk through the process) is a prime example; see Mitchell and Pulvino (2001). Convertible bond arbitrage is another example. Event and other idiosyncratic strategies are distinguished by being applicable to a single asset class or asset class combination (the other risk premia have broader cross asset applicability).

It is worth stressing that, as illustrated in Figure 1, *the identification of particular risk premia does not eradicate alpha*. Investment strategies that cannot be widely/easily replicated but can generate an excess return (for example, through idiosyncratic stock selection, niche trading, or complexity) may retain the right to claim "alpha". We also note that, however easy these strategies are to define in academia, many of the alternative risk premia require effective implementation to be successful and one could argue that implementation in this context can itself be a form of value add, or alpha.

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7. Investing in a long-only portfolio of small cap stocks will provide exposure to the premium, albeit coupled with a material amount of equity beta. A long/short approach can enable investors to gain a more material exposure to the premium, such that it can act as a "diversifier" to equity assets and not simply a portfolio tilt.

Taking the six premia we just discussed, we can identify some common ways of exploiting them by asset class. The map of the risk premia is shown in Figure 2.

Figure 2: Map of Alternative Risk Premia Across Asset Classes

| Risk premia         | Equity  | Bonds   | Rates  | Currency   | Commodities  |
|---------------------|---|---|--|--|--|
| Carry               | Long high-dividend yield markets; short low-dividend yield                  | Long the long end of steepest curves; short the long end of flattest curves | Long highest-rate markets, short lowest-rate markets                 | Borrow in low-yielding currencies; lend in high-yielding currencies  | Long backwardating <sup>8</sup> commodities; short contango          |
| Momentum/Trend      | Directional/relative trades favouring markets with positive momentum        | Directional/relative trades favouring markets with positive momentum        | Directional/relative trades favouring markets with positive momentum | Directional/relative trades favouring markets with positive momentum | Directional/relative trades favouring markets with positive momentum |
| Value               | Favour low price to book markets  | Favour higher real interest rate adjusted for default                       | N/A  | Long cheapest currencies based on purchasing power parity            | Mean reversion used to capture under/overvalued commodities          |
| Size/Liquidity      | Favour small cap equities versus large                                      | Off-the-run treasuries versus on-the-run <sup>9</sup>                       | N/A  | N/A (a lateral example might be emerging market currencies)          | N/A  |
| Quality/Defensive   | Long low beta stocks, short high beta. Long high quality, short low quality | Favour low volatility — quality/defensive                                   | N/A  | N/A  | N/A  |
| Event/Idiosyncratic | Merger arbitrage; convertible arbitrage                                     | N/A   | N/A  | N/A  | Seasonality. Index roll arbitrage                                    |

This table includes common approaches for exploiting some of the most recognised risk premia — it is not, however, an exhaustive list of premia/methods of exploitation.

The methods of accessing the risk premia that are set out in Figure 2 are common examples but not unique or exhaustive definitions. In much the same way that the S&P GSCI and Bloomberg commodity indices both seek to provide “commodity beta” (but with vastly different results — see Appendix A), the various alternative risk premia can be (and are) accessed in different ways by different providers.

8. Backwardation refers to a situation in which the price for future delivery of a commodity in a futures contract is less than the current spot price for the commodity. Contango is the opposite situation.

9. On-the-run treasuries are the most recently issued US treasury bonds of a given maturity; off-the-run treasuries are prior issues that remain outstanding in the market.



At the very least, the impact of this will be to cause noise (random return differences) between different approaches for capturing the same premium. In other cases, it might be a reflection of a positive/negative alpha in the strategy design and implementation (as referenced previously). It may be hard to distinguish the two, which emphasises the need to be humble in your expectations, thoughtful in manager selection, and focus on a diversified and robust portfolio construction.

Alternative risk premia can help to diversify the equity risk in a growth portfolio.

## THE POSSIBLE ROLE OF ALTERNATIVE RISK PREMIA

Alternative risk premia do not provide a silver bullet for asset allocators, but they do provide additional and differentiated sources of returns that could be additive to a traditional growth portfolio.

A typical growth portfolio is dominated by equity risk (and maybe credit risk); alternative risk premia can provide a set of liquid investment strategies whose long-term returns are not reliant on the growth of the equity market. This is important because, for example, in 20% of 10-year periods since 1925, the US equity market has delivered a realised equity risk premium less than zero (and 40% of times less than 3% per annum, a typical long-term objective for many investors). As such, it is desirable to identify and to harvest other robust sources of growth (other return drivers).

## ROBUSTNESS AND RELIABILITY

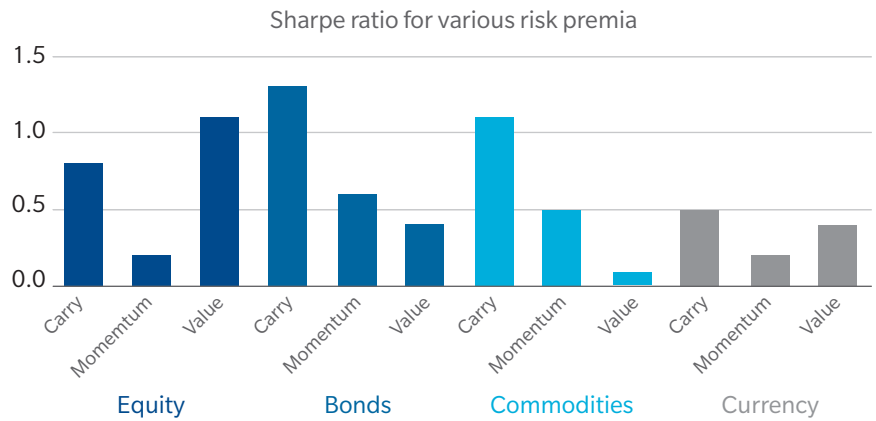
Analysis of individual risk premia is challenging given the multiple ways of defining each strategy. There is a clear danger of data-mining rather than verifying the theses. To an extent, the academic literature provides some independent verification, with value, carry, and momentum factors particularly well documented. There is also a reasonable coverage of merger and convertible arbitrage in the literature.

Analysis from product providers is a useful supplement, even when there is a danger that they are subject to a natural confirmation bias in their work. Taking the data with an element of caution, in Figure 3 we note estimates of performance for some key alternative risk premia.

Based on data from 1995 to 2012 from Deutsche Bank AG, except for the following premia (which are either more closely aligned to our representative definitions in Figure 2 and/or incorporate more recent data): equity carry, momentum, value, and bond momentum (each Deutsche Asset and Wealth Management, 2003–2013); commodity carry (the Deutsche Bank DBCMHEU Index, 1997–2014); currency carry, momentum, and value (Deutsche Bank Currency Indices; 1995–2014).

Performance is shown gross of fees and transaction costs.

Figure 3: Back-Tested Performance Estimates for Alternative Risk Premia



Noting that equity markets have historically delivered a Sharpe ratio of about 0.2–0.3, the data in Figure 3 suggest that a reasonably efficient attempt to capture naïve alternative risk premia might be worthy of consideration as a source of returns within a growth portfolio. The apparent robustness of the back-tested return streams is further supported by the theoretical (economic and behavioural) justifications that can be made for their existence; a track record that is intuitive (suggesting that future ebbs and flows of performance should be understandable and can be ridden through in the same way investors accept the noise of equity market volatility); and related studies that suggest long-term returns would have been available from these premia through history.<sup>10</sup>

10. Not available for all risk premia, but, for example, for momentum see Baltas and Kosowski (“Momentum Strategies in Futures Markets and Trend-Following Funds”, 2012) looking at trend following since the mid-1970s and Hurst, Ooi, and Pedersen (“A Century of Evidence on Trend Following Investing”, AQR Capital Management, 2012), which suggests a net-of-fees Sharpe ratio of 1.0 for multi-asset trend following since 1902.

## ENHANCING RETURNS THROUGH DIVERSIFICATION

While Figure 3 looks at the return potential of individual risk premia, we note that the potential richness of returns can be enhanced by diversifying across the various risk premia. Figure 4 provides the correlations across three style premia between January 1990 and August 2013.

Figure 4: Average Pair-Wise Correlations Across Style Premia

|          | Value | Momentum | Carry |
|----------|-------|----------|-------|
| Value    | 1.0   | -0.6     | -0.1  |
| Momentum |       | 1.0      | 0.2   |
| Carry    |       |          | 1.0   |

The low correlations between different style premia highlight the potential diversification benefit from blending a number of them together in a portfolio.

## THE DIVERSIFICATION BENEFITS OF ALTERNATIVE RISK PREMIA

In addition to assessing alternative risk premia on their own merits, we note that their potential diversification benefit in a plan context is also important. We have stressed in earlier commentary that their source of performance (the drivers of their returns) is theoretically independent of the long-term performance of the equity risk premium. To test this over shorter time periods, Figure 5 provides the correlations with equity of the various alternative risk premia, in different market environments.

Figure 5: Correlations of a Selection of Alternative Risk Premia With Equity in Different Market Environments

| Asset class    | Risk premia | Correlation with equity in "normal" markets | Correlation with equity in "turbulent" markets |
|----------------|-------------|---|--|
| Equity         | Carry       | 0.1   | 0.3  |
|                | Momentum    | -0.3  | -0.4   |
|                | Value       | 0.2   | 0.3  |
| Bonds          | Carry       | -0.1  | -0.3   |
|                | Momentum    | 0.0   | -0.2   |
|                | Value       | 0.2   | 0.2  |
| Commodities    | Carry       | -0.1  | -0.1   |
|                | Momentum    | 0.1   | 0.0  |
|                | Value       | 0.1   | -0.1   |
| Currency (G10) | Carry       | 0.4   | 0.6  |
|                | Momentum    | 0.1   | -0.4   |
|                | Value       | 0.0   | 0.0  |

Source: AQR, based on back-tested performance data (1990–2013). Average correlations across multiple markets.

Source: Deutsche Bank AG, based on premia in "Thematic Report: A New Asset Allocation Paradigm".

Based on performance gross of fees and transaction costs.

"Turbulent" times include the Asian Financial Crisis, the Russian Debt Default, LTCM fallout, the Dot-Com bubble burst, 9/11, and the recent financial crisis). Other periods in the past two decades are "normal".

The analysis reiterates the potential diversification benefits of momentum strategies in periods of extreme equity weakness,<sup>11</sup> but it also highlights more generally the low correlations of alternative risk premia with the broader equity markets. This provides support to the claim that the drivers of returns for alternative risk premia are distinct from equity risk and should therefore be able to help as a differentiated source of growth within an investment portfolio.

However, investors should note that some alternative risk premia (notably currency carry) suffer from a negative skew, with periods of steady positive returns followed by sudden and large drawdowns (encouraging the description “picking up pennies in front of steam rollers”). While this characteristic does not undermine the investment case for these strategies, it does argue for a more thoughtful and diversified implementation.

## PRACTICAL IMPLEMENTATION

So we have argued that alternative risk premia are not new, and yet the concept has been driving new products and product innovation over the past year or so. What has changed and where do new alternative risk premia strategies sit within the strategy line-up we are used to? First, to put it into context, it is worth thinking about the extent to which existing and familiar strategies use alternative risk premia to add value.

### LONGSTANDING STRATEGIES AND THEIR USE OF ALTERNATIVE RISK PREMIA

In this section, we look at traditional equity managers, systematic global macro strategies, and multi-strategy hedge funds as representative products that make use of alternative risk premia to varying degrees.<sup>12</sup>

#### 1. Traditional equity managers

Although the equity risk premium is the largest driver of returns for traditional equity managers, alternative risk premia contribute (implicitly or explicitly) to the returns generated by many active managers. We believe that there is value in an investor thinking carefully about these underlying drivers of returns when designing their equity portfolios.<sup>13</sup> Tilts towards value, size, momentum, low volatility, and profitability may help improve the risk/return profile of the total equity portfolio.<sup>14</sup> The degree of diversification at the overall portfolio level is, however, limited — as the equity risk premia continues to dominate the other premia in these mandates.

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11. See “Managed Futures in Different Market Environments”, Mercer 2012.

12. In addition, we note that some multi-asset strategies (including diversified growth funds) will allocate to alternative risk premia strategies.

13. See “Building Equity Portfolios With Style”, Mercer, July 2014.

14. We note that a similar justification can be made for active currency overlays predicated on alternative risk premia.

## 2. Systematic global macro (and managed futures) managers<sup>15</sup>

The exposures of two systematic global managers are shown in Figure 6.<sup>16</sup> Typically a systematic macro manager believes in taking many small bets across multiple markets and asset classes, often specialised predominantly on one of the core style premia (value, carry, or, in the case of managed futures managers, trend). Individual discretionary macro managers tend to be more idiosyncratic, although in aggregate you might expect them to converge on broader risk premia type approaches.

Figure 6: Systematic Global Macro Strategies — Exposure to Alternative Risk Premia

| Manager A               | Equity | Bonds | Rates | FX   | Com  | Manager B               | Equity | Bonds | Rates | FX   | Com  |
|-------------------------|--------|-------|-------|------|------|-------------------------|--------|-------|-------|------|------|
| Carry                   |        |       |       |      | Blue | Carry                   |        | Blue  |       | Blue |      |
| Momentum/<br>Trend      | Blue   | Blue  | Blue  | Blue | Blue | Momentum/<br>Trend      |        |       |       |      |      |
| Value                   | Blue   | Blue  | Grey  | Blue |      | Value                   | Blue   | Blue  | Grey  | Blue | Blue |
| Size/<br>Liquidity      |        |       | Grey  |      | Grey | Size/<br>Liquidity      |        |       | Grey  |      | Grey |
| Quality/<br>Defensive   |        |       | Grey  | Grey | Grey | Quality/<br>Defensive   |        |       | Grey  | Grey | Grey |
| Event/<br>Idiosyncratic | Blue   | Grey  | Grey  | Grey |      | Event/<br>Idiosyncratic |        | Grey  | Grey  | Grey |      |

Blue squares represent risk premia captured in the strategy; grey squares represent parts of the matrix that are not commonly recognised as exploitable risk premia. Categorisation and interpretation by Mercer.

## 3. Multi-strategy hedge funds

Multi-strategy hedge funds can also be seen as incorporating elements of traditional beta, alternative risk premia, traditional alpha (that is, alpha also available to traditional long-only managers) and alternative alpha (that is, alpha opportunities that cannot be exploited within traditional long-only mandates). The exact underlying strategy mix of a multi-strategy hedge fund will vary (some will be biased more to equity and event-driven, others more to relative value, etc.), but in a diluted form, those that have underlying exposure to a tactical trading portfolio will have some of the exposures shown in Figure 6. Additionally, event-driven strategies will likely have some merger or convertible arbitrage at times; and equity or credit long/short investments may be driven by a value premium, for example.

15. In some regions, also known as “GTAA” strategies.

16. This analysis is a simplification of the various managers’ approaches.

The more interesting strategies invest across multiple risk premia in a balanced way.

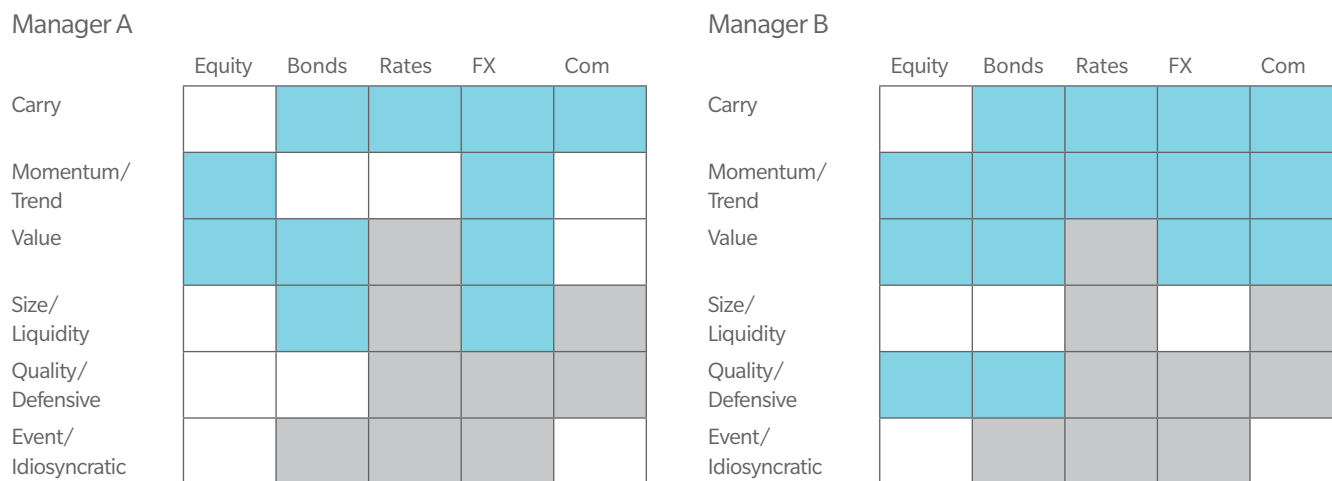
1. However, these managers will often be relatively idiosyncratic, tactically varying their focus on different premia (implicitly or explicitly) as markets move, as well as generating value from idiosyncratic security selection. A final differentiator is likely to be the acceptance of some illiquidity in a multi-strategy hedge fund (and the returns available along with the illiquidity premium) as well as exploiting complexity and other esoteric risk factors such as legal process risk as a source of value (see “Hedge Fund — House View”, Mercer 2012).

### NEWER ALTERNATIVE RISK PREMIA PRODUCTS

Over the past few years several new products have been launched under the banner of alternative risk premia (some of these are marketed as “smart beta” strategies). These strategies are designed to be diversifiers in an investor’s growth portfolio, supplementing or replacing other possible growth assets.

Some are narrowly focused strategies seeking to provide simple and cost-effective exposure to one or two premia. Potentially more interesting, however, are those that instead target the benefits of diversification — investing across multiple risk premia in a balanced way.<sup>17</sup> Many of these strategies also seek equity market neutrality (and nondirectionality to other traditional betas), making them useful from a portfolio construction perspective. The maps in Figure 7 illustrate the mix of premia captured by two example managers.

Figure 7: New ‘Alternative Risk Premia’ Strategies



Blue squares represent risk premia captured in the strategy; grey squares represent parts of the matrix that are not commonly recognised as exploitable risk premia. Categorisation and interpretation by Mercer.

17. Trend following may be the exception here. Arguably the trend premium is less efficient than others listed in this paper (that is, less likely to produce a rich source of returns), but it comes with interesting diversification properties, especially in extreme market downturns, which might justify its use on a standalone basis.

## The challenge remains in the translation of theory into practice.

The challenge remains, however, in the translation of theory into practice. While the theory behind alternative risk premia is relatively compelling, at this stage the practical evidence of managers being able capture these risk premia in their simple form (net of fees, transaction costs, leverage constraints, etc.) is weaker. Many funds are new and much of the analysis relies on back-tested performance — and for all the products with a degree of track record, it is not clear how many others have already been wound up because performance has not matched expectations. As highlighted in the section “Identifying Alternative Risk Premia” (page 6), we also believe that strategy design and implementation can be value-adding elements of risk premia investing. The commonalities that these types of strategy share with systematic global macro strategies also highlight the importance of manager selection.

From a portfolio construction perspective, that we can compare these new strategies to systematic global macro managers suggests that they should be considered as simply additional options in a hedge fund allocation. For those investors with liquidity constraints, being able to make broader use of them does have appeal.<sup>18</sup> To the extent that the practical evidence of capturing alternative risk premia proves as compelling as the academic literature would suggest, maybe these strategies will ultimately demand a greater share of an investor’s allocation on a standalone basis.

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18. A number of multi-asset managers (diversified growth funds), for example, make significant use of alternative risk premia because they are expected to provide liquid and low cost diversification.

We believe that the concept of building a growth portfolio with a balanced and diversified mix of return drivers is a sensible approach to adopt.

## CONCLUSION

We believe that the key takeaways from looking at alternative risk premia are as follows:

- These concepts can provide a valuable way of understanding, assessing, and monitoring investment managers in the liquid alternatives space as well as in traditional style-biased equity universes.
- There is a strong theoretical rationale for their contribution to investment returns historically; the logic extends to their ability to drive positive returns into the future. We believe that this justifies at least tilting equity portfolios towards them to help enhance expected returns, for example.
- Because these premia represent distinct sources of return versus traditional market betas, they have the potential to help diversify the return drivers in an investor's growth portfolio and share the burden for generating long-term growth. For this they would need to have their own capital allocation within the growth portfolio — and not simply be a tilt to, for example, the investor's traditional equity allocation.
- The new products launched in this space share many similarities with systematic global macro strategies, albeit often providing exposure to a broader range of risk premia and limiting market directionality. As such, it would seem reasonable to consider these strategies (each on their own merits) as an alternative to a more traditional global macro manager.
- To the extent that the practical evidence of capturing alternative risk premia proves as compelling as the academic literature would suggest, it may be that strategies explicitly focused on the capture of these premia will ultimately demand a greater share of an investor's portfolio. The liquid and transparent nature of these strategies will have clear attractions for some investors; however, they will need to be able to compete for capital with more established alternative investments, in particular other hedge fund strategies.

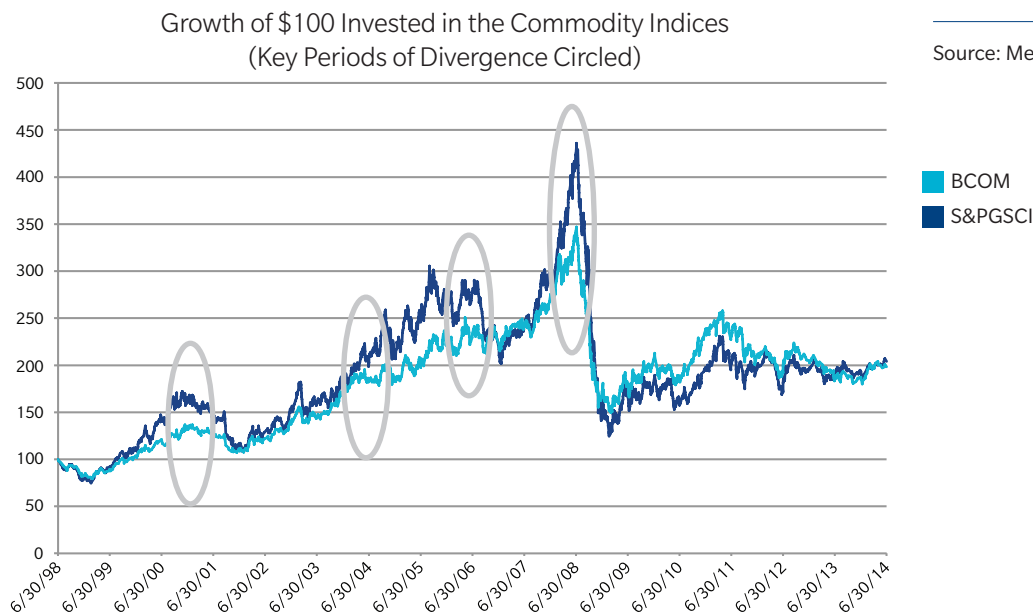
Overall, we believe that the concept of building a growth portfolio with a balanced and diversified mix of return drivers is a sensible approach to adopt. Many alternative risk premia already help enhance returns in active equity mandates, and some investors will have exposure within their hedge fund allocations. The theory suggests that they could be used more widely as diversifying sources of return, although the new products, offering pure and systematic exposures to these premia, are relatively untested. For the moment, it remains early days for this evolving product set.



## APPENDIX A — COMPARISON OF TWO COMMODITY INDICES

The two most popular commodity indices are the S&P GSCI Commodity Index and the Bloomberg Commodity Index.<sup>19</sup> Both seek to provide commodity beta, through a systematic trading strategy (thus being part-way between an exotic beta and an alternative risk premium). Their construction frameworks are summarised below, with a chart of performance following. As can be seen, the correlation between them has been high (>0.9). However, there have also been some large divergences in performance. Ultimately, both are valid ways of gaining exposure to commodity beta, with the performance differences over recent years illustrating the potential noise that could also be expected from individual alternative beta strategies.

- S&P GSCI: “The S&P GSCI™ is world-production weighted ... composite index of commodity sector returns representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities” and “for commodities, there is no direct counterpart to market capitali[s]ation ... A simple way to achieve a close analog ... is to note that the net long position of the economy is proportional to the quantity produced; hence, [the] production weighting [used by the S&P GSCI Index]”.
- Bloomberg Commodity Index: “The Bloomberg Commodity Index (BCOM) is a highly liquid, diversified, and transparent benchmark for the global commodities market. Commodity weightings are based on production and liquidity, subject to weighting restrictions applied annually such that no related group of commodities constitutes more than 33% of the index and no single commodity constitutes more than 15%.”



19. Formerly the “Dow Jones-UBS Commodity Index”.

## REFERENCES

- Baker, Bradley, and Wurgler. "Benchmarks as Limits to Arbitrage: Understanding the Low-Volatility Anomaly", *Financial Analysts Journal*, 2011.
- Baltas and Kosowski. "Momentum Strategies in Futures Markets and Trend-Following Funds", 2012.
- Banz. "The Relationship Between Return and Market Value of Common Stocks", *Journal of Financial Economics*, 1980.
- Chung, Rosenberg, and Tomeo. "Hedge Fund of Fund Allocations Using a Convergent and Divergent Strategy Approach." *The Journal of Alternative Investments*, Summer 2004.
- Duke, Harding, and Land. "Historical Performance of Trend Following", Winton working paper, 2013.
- Fama and French. "The Cross-Section of Expected Stock Returns", *Journal of Finance*, 1992.
- Fama and French. "Common Risk Factors in the Returns on Stocks and Bonds", *Journal of Financial Economics*, 1993.
- Fama and French. "Value Versus Growth: The International Evidence", *Journal of Finance*, 1998.
- Frankel. "Getting Carried Away: How the Carry Trade and its Potential Unwinding Can Explain Movements in International Financial Markets", *Milken Institute Review*, 2007.
- Fung and Hsieh. "The Risk in Hedge Fund Strategies: Theory and Evidence From Trend Followers", *Review of Financial Studies*, 2001.
- Galati, Heath, and McGuire. "Evidence of Carry Trade Activity", *BIS Quarterly Review*, 2007.
- Hong and Stein. "A Unified Theory of Underreaction, Momentum Trading, and Overreaction in Asset Markets", *Journal of Finance*, 1999.
- Hurst, Ooi, and Pedersen, "A Century of Evidence on Trend Following Investing", AQR Capital Management, 2012.
- Ilmanen. "Expected Returns", 2012, Wiley Finance.
- Ilmanen, Israel, and Moskowitz. "Investing With Style: The Case for Style Investing", AQR Capital, 2012.
- Joyce and Mayer. "Profits for the Long-Run: Affirming the Case for Quality", GMO, 2012.
- Kaminski. "Diversifying Risk With Crisis Alpha", *Futures Magazine*, 2011.
- Lo. "The Adaptive Markets Hypothesis: Market Efficiency From an Evolutionary Perspective", 2004.
- Mercer. "Building Equity Portfolios With Style", July 2014.
- Meisner, Kwait, and Delano. "Understanding the Managed Futures Strategy and Its Role in an Institutional Portfolio", Commonfund, 2012.
- Mesomeris, Wang, Salvini, and Avettand-Fenoel. "A New Asset Allocation Paradigm", Deutsche Bank, 2012.
- Miffre and Ralli. "Momentum Strategies in Commodity Futures Markets", EDHEC, 2007.
- Mitchell and Pulvino. "Characteristics of Risk and Return in Risk Arbitrage", *Journal of Finance*, 2001.
- Moskowitz, Ooi, and Pedersen. "Time Series Momentum", *Journal of Financial Economics*, 2012.
- Pojarliev and Levich. "Active Currency Management Part II: Is There Skill or Alpha in Currency Investing?", Preliminary draft for the *Handbook of Exchange Rates* (ed James, Marsh, and Sarno), 2011.
- Prince and Karniol-Tambour. "Considering Smart Betas", *Bridgewater Daily Observations*, April 25, 2014.
- Sloan. "Do Stock Prices Fully Reflect Information in Accruals and Cash Flows About Future Earnings?", *The Accounting Review*, 1996.
- Taylor and Taylor. "The Purchasing Power Parity Debate", *Journal of Economic Perspectives*, 2004.
- Towmey, Foran, and Brosnan. "Assessing Managed Futures as an Inflation Hedge Within a Multi-Asset Framework", *Journal of Wealth Management*, 2011.

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