BLACKROCK®

The Art and Science of Smart Beta Investing

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The rise of data and technology

The art of investing is becoming the science of investing

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Transforms our lives at work and at home

Shifting balance of power

- Computing power and breadth of data democratizes information

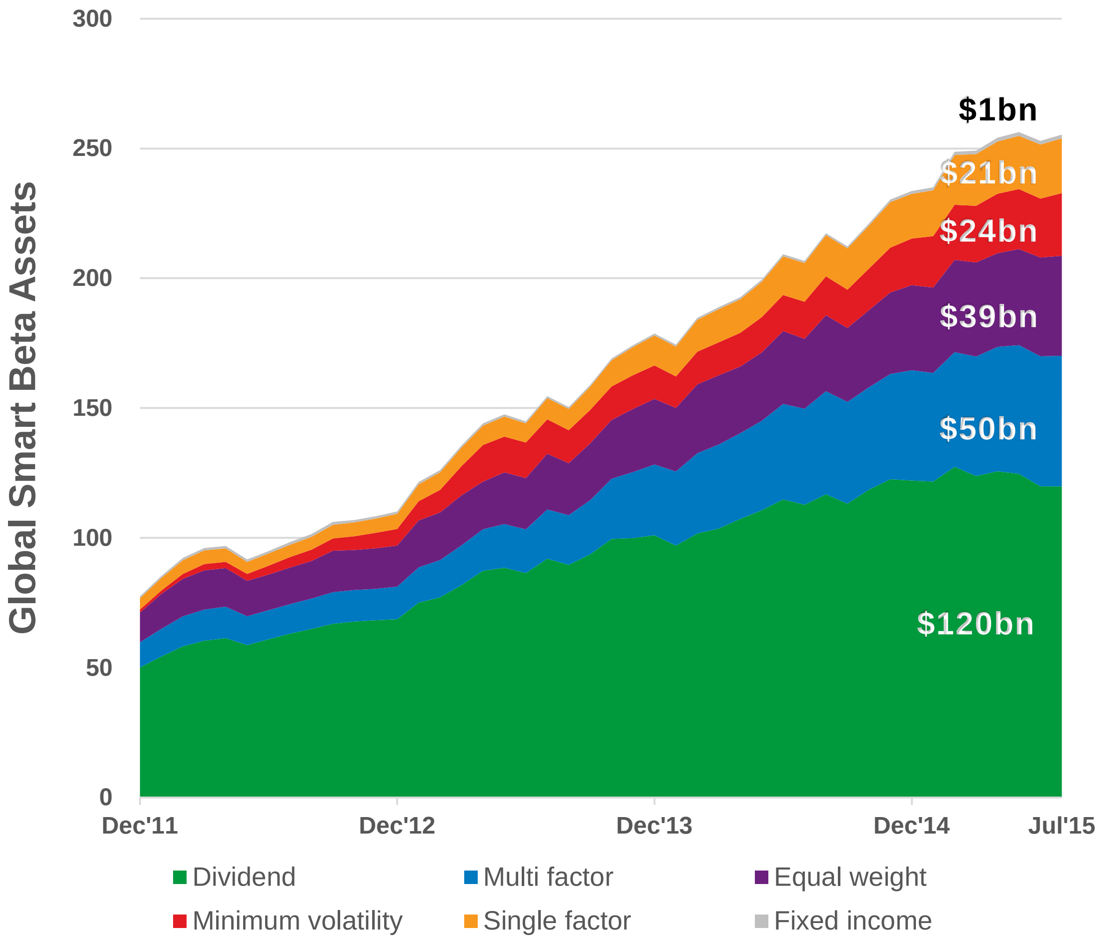
Redefining passive investing

- Expands the range of outcomes

Smart Beta

- Captures proven drivers of return

Smart Beta landscape today



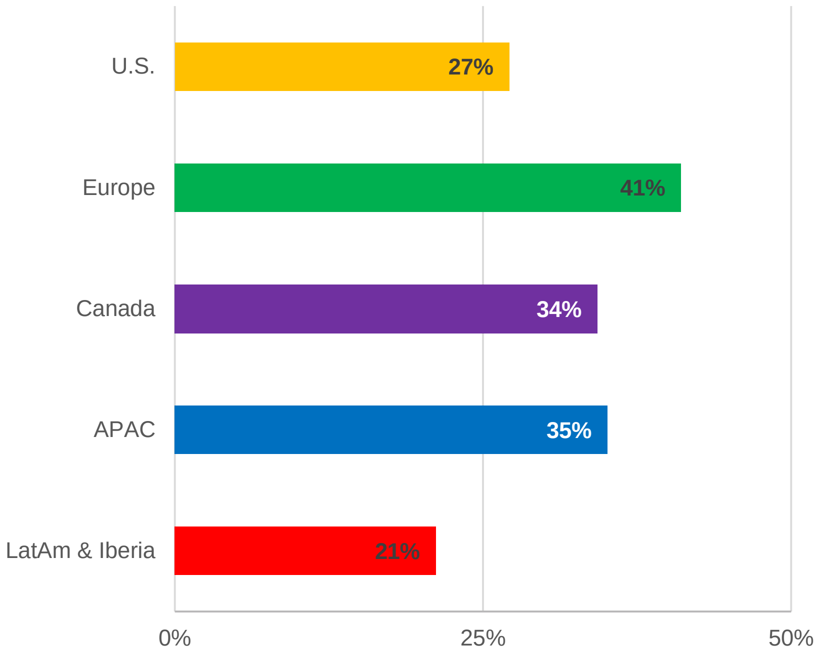
Smart Beta Product	Annual Asset Growth	YTD Flows ($23.1bn)
Fixed Income	20%	0.3
Single Factor	55%	3.5
Minimum Volatility	132%	5.9
Equal Weight	40%	5.2
Multi-Factor	58%	7.1
Dividend	28%	1.1

Source: BlackRock, SimFund. ETP flows as of June 2015

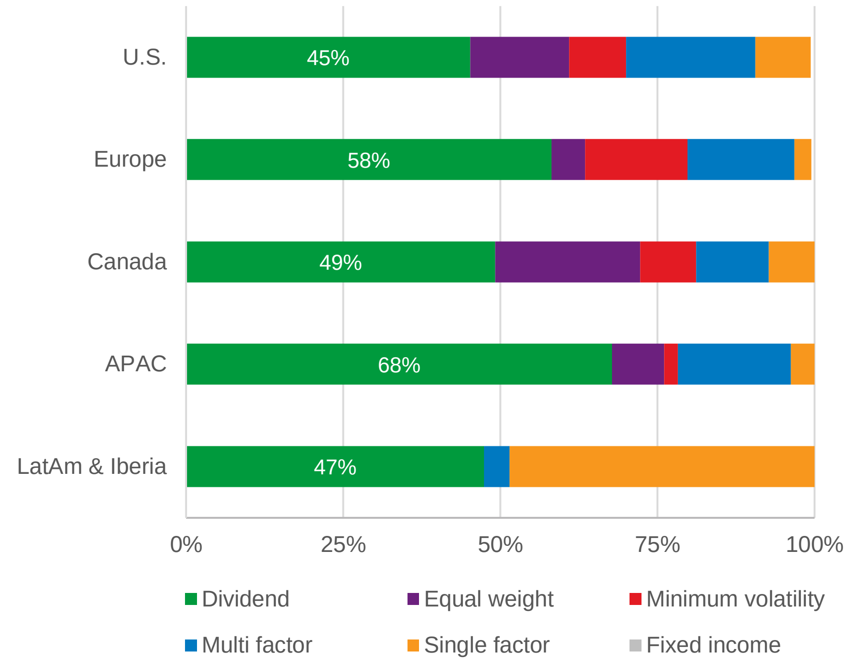
Smart Beta growth is global

Global growth is strong across geographic regions

Average annual organic growth rate*



Share of assets by listing region and category

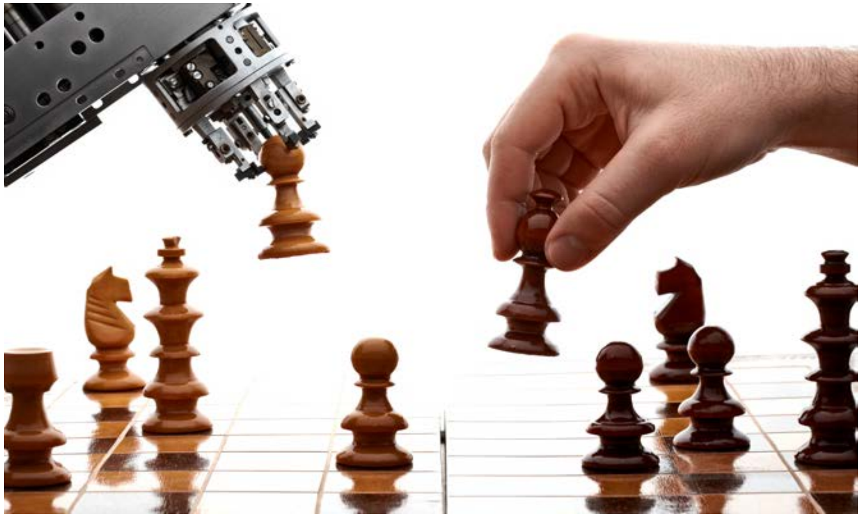


*Since 2012 including YTD July 2015 annualized

When it comes to Smart Beta… what matters most?

Despite all the machines…
many human choices are required

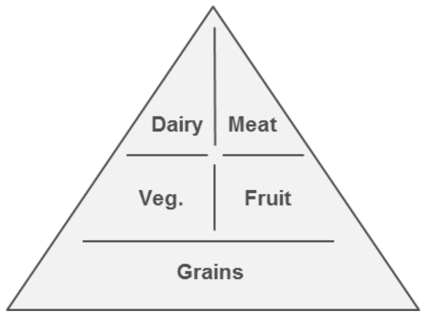
- Factor exposures matter
- Portfolio construction matters
- Implementation matters



Factor exposure matter

Factors are broad, persistent drivers of return

Broad Universe | **Traditional Categories** | **Most Basic Elements**



Nutrients	
Fiber	65%
Protein	25%
Carbohydrates	<1%
Fat	10%
Sodium	>1%

Understanding the nutritional content drives decisions around what foods you eat

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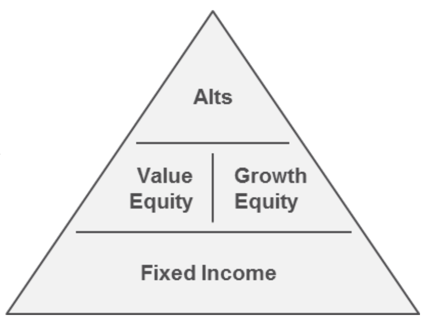
Domestic Equity **Real Estate** Diversified Credit Large Cap Commodities Farmland **Small Cap** Direct Lending ***REITs*** Event Driven Risk Parity Timber *Synthetic Overlay* TIPS Smart Beta *Private Equity* **Emerging Markets** ETFs Real Return Cash *Leveraged Loans* Core Fixed Income Energy *Hedge Funds*



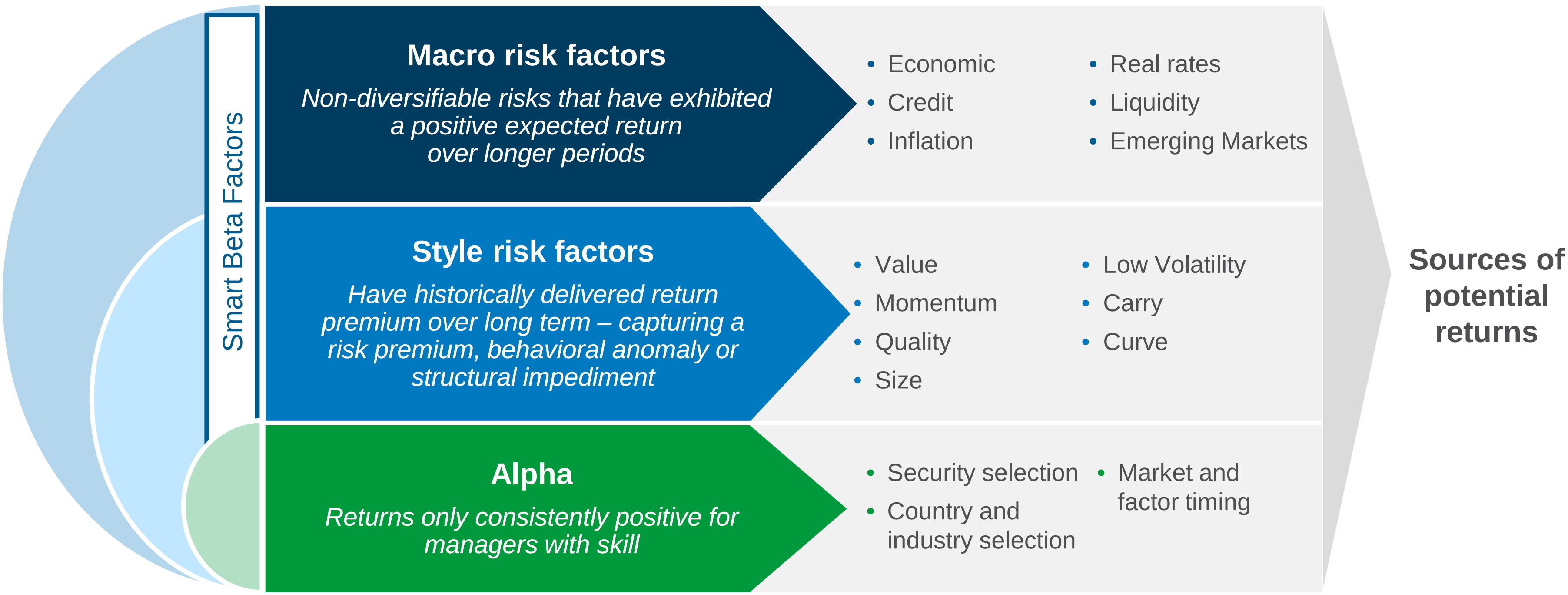
Risk Factors	
Interest Rates	120 bps
Credit Spreads	75 bps
Inflation	53 bps
Economic Growth	620 bps
Currency / FX	12 bps

Understanding drivers of market returns allow investors to build more diversified portfolios and make better investment decisions

Factors are the fundamental building blocks of investment returns

Factors are broad, persistent drivers of return

A framework for explaining investment returns



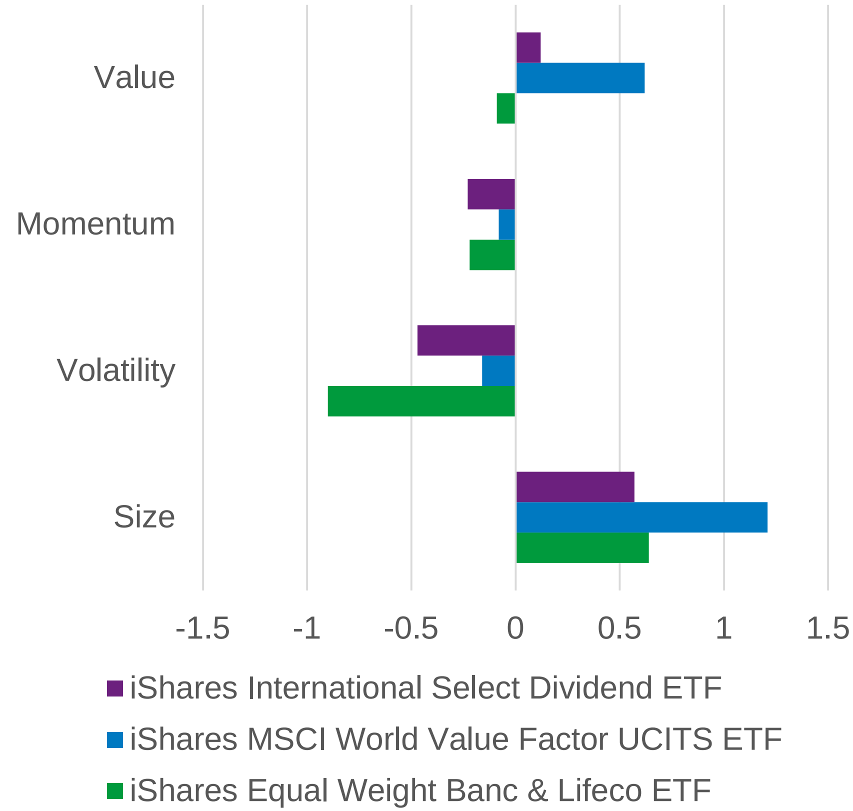
Factor-based investing is focused on allocating to *risk* instead of capital to *fundamental drivers of returns* instead of asset classes or securities

A rose by any other name…

Factors see through asset classes and methodology rules

- Three different sounding strategies have very similar style exposures

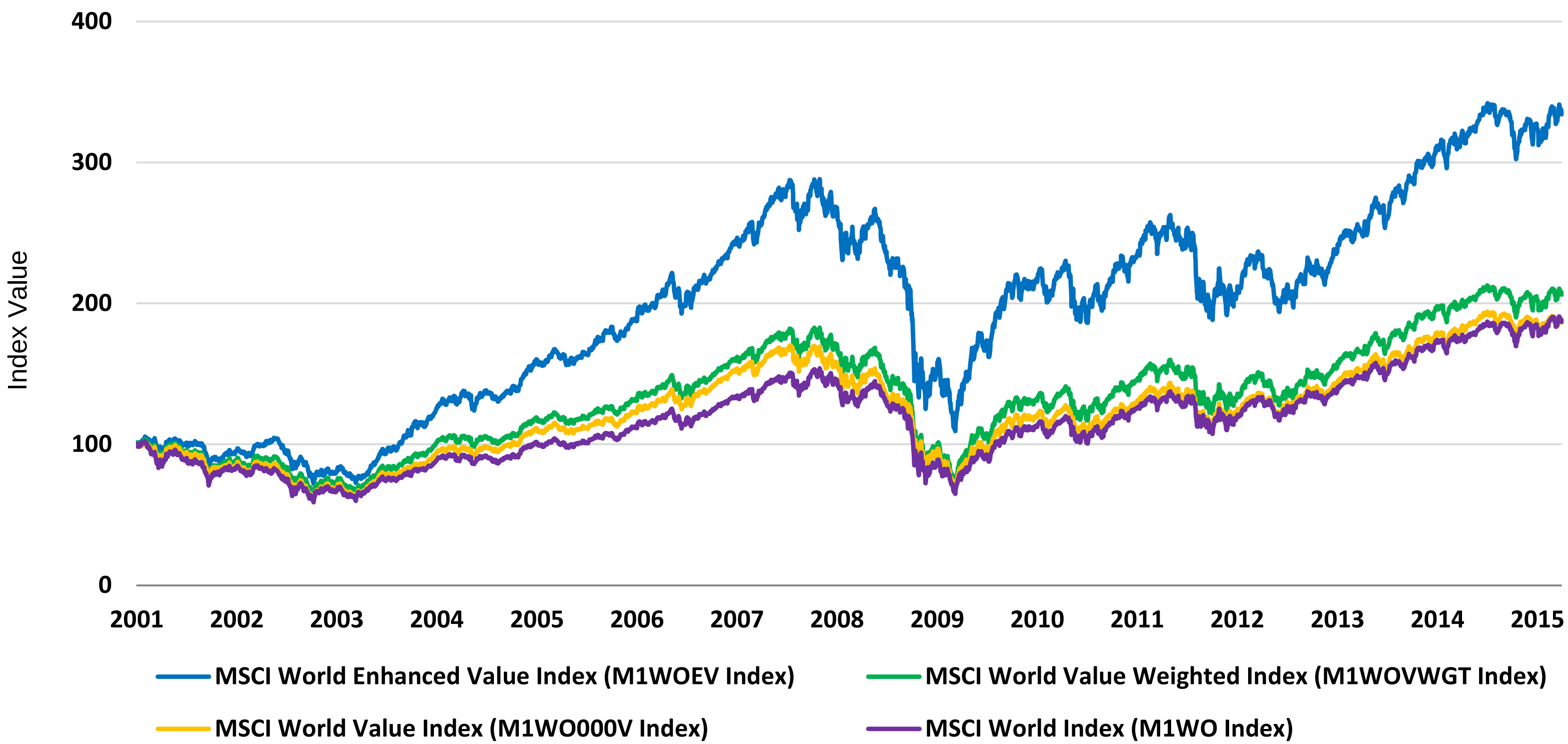
Z-score for style exposures



Source: BlackRock Fundamental Equity Risk Model, as of 7/31/2015

Portfolio construction matters

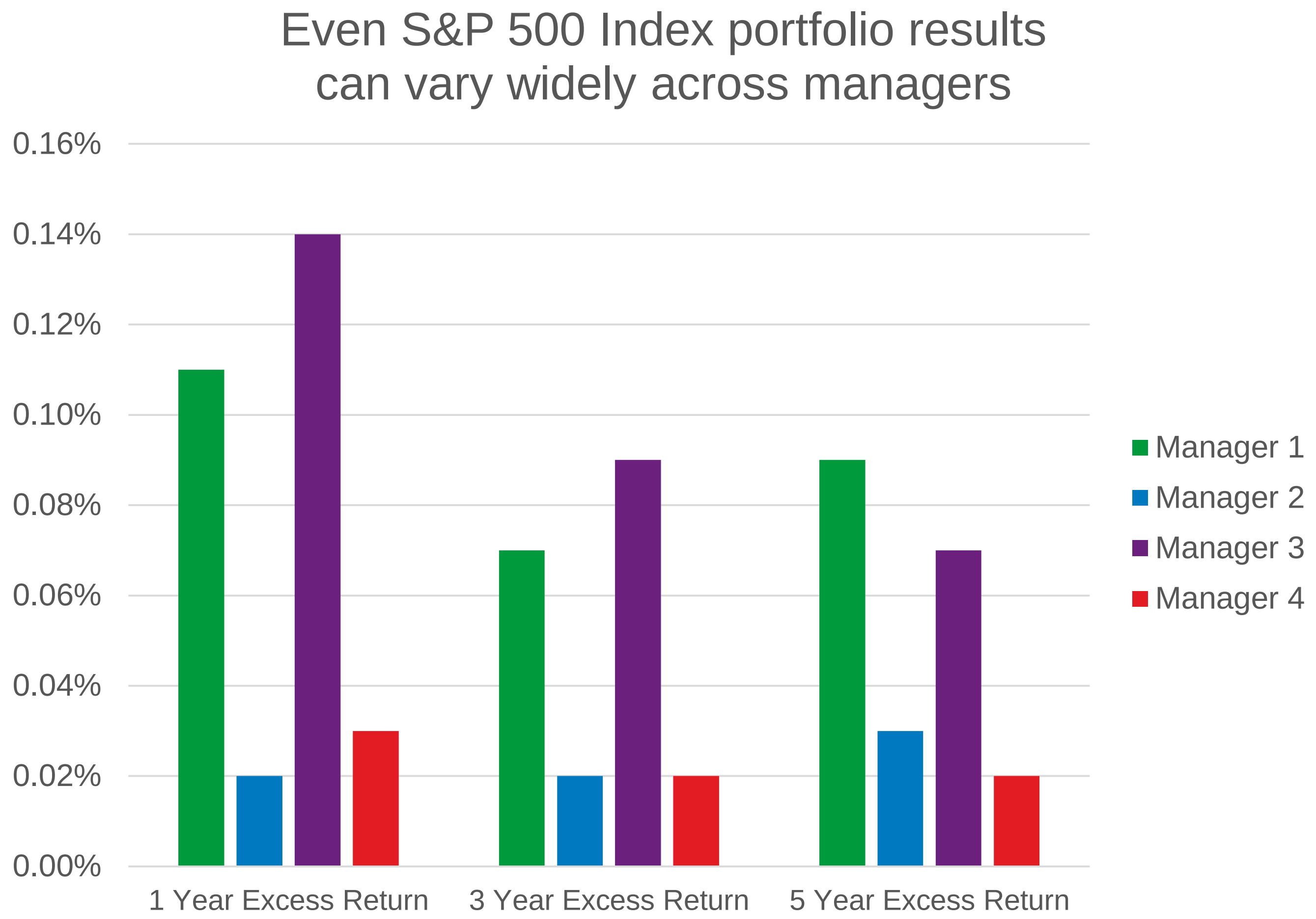
Cumulative Return Comparison of Value Strategies



Value is persistently rewarded over the long term…
but variants differ widely

Source: MSCI, Bloomberg, BlackRock. As at the end of Mar-2015. Based on US$ denominated net total return indices.
Index values have been re-based to 100 as at 1-Jan-2001. Past performance is not an indicator of future results.

Implementation matters



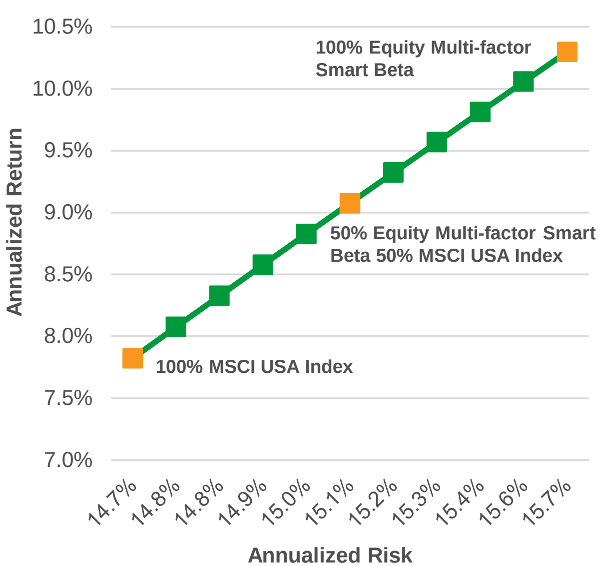
Returns through Q4 2014 – 3 Yr ,5 Yr, and 10 Yr returns are annualized
Source: eVestment. Gross of fees for all managers. BLK, BNYM, and NT are reporting with CTFs (of which only BLK reports ERISA), whereas SSgA and Vanguard are reporting with mutual funds. BLK, BNYM, and SSgA include securities lending, whereas Vanguard doesn't and NT is N/A.

Smart Beta can help achieve a specific outcome

Today's market challenges:

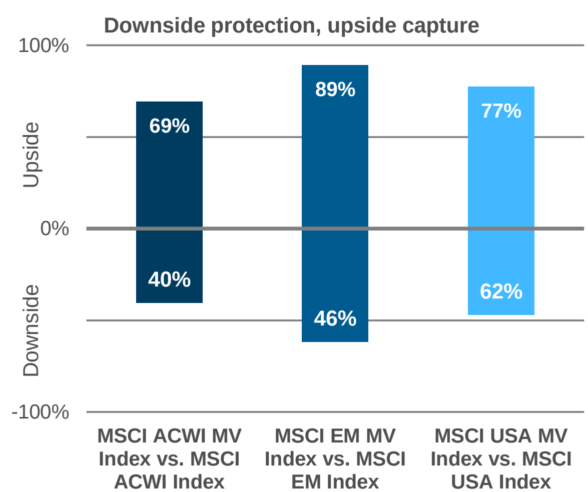
- Low yields and modest expectations for forward returns increase pressure to generate incremental returns
- Investors demand "smoother ride" in an environment of market divergence and rising equity market volatility
- Concerns about interest rate risk and its impact on bond portfolios

Complement index equity exposure with return-seeking smart beta strategies



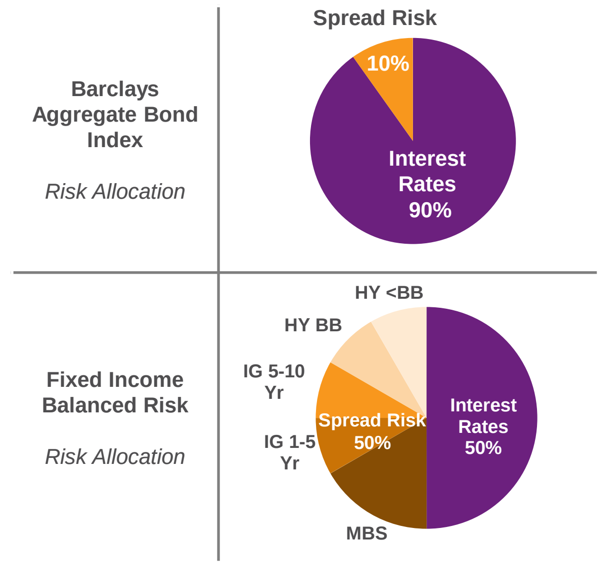
Source MSCI: Equity smart beta is represented by the MSCI US Diversified Multi factor Index. Annualized 10 year risk and return for combinations of MSCI USA Index and MSCI US Diversified Multi factor through 12/31/2014.

Complement index equity allocation with minimum volatility strategies



Source: Morningstar. Based on monthly index returns from 12/1/09 – 12/31/14. MSCI USA MV Index incepted: 5/30/08, all other MSCI MV Indices above incepted: 11/30/09.

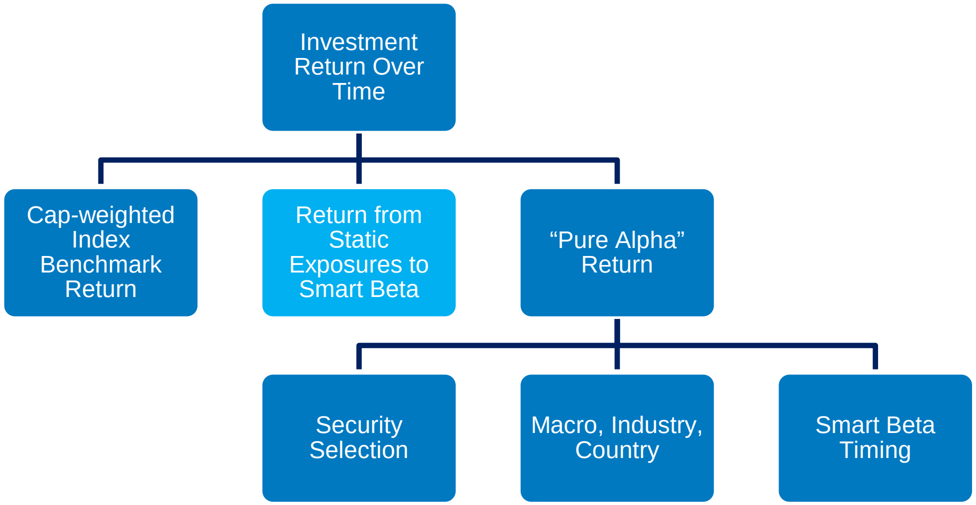
Complement core fixed income with diversified smart beta FI strategies



The FIBR Strategy Target for illustrative purposes only. *Using monthly Barclays Index Data between August 1988 and December 2014, interest rate risk was 92% of the Agg's total risk. Excess returns were used to proxy spread risk. Total Returns – Excess Returns were used to proxy interest rate risk. Using the same dataset but running a one-factor regression against the Agg's total returns resulted in a beta of 90% with an R-squared of 89%.

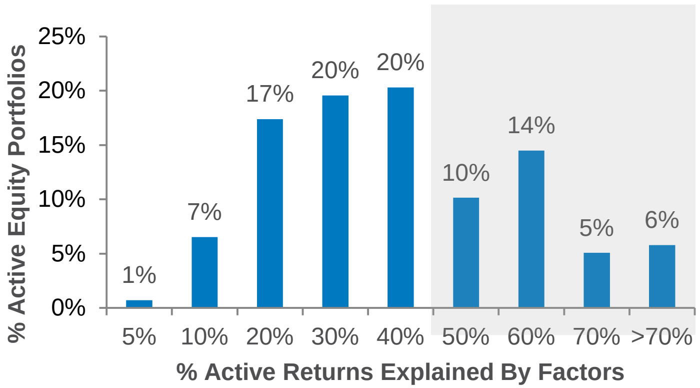
A lens for manager analysis

Investment Return Composition

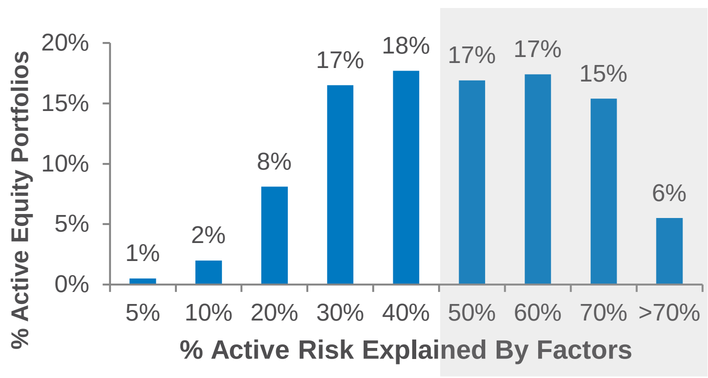


% of Active Risk Budget in Smart Beta
Study of 138 Global Equity Funds*

Single Fund Analysis



10 Fund Analysis



Smart Beta accounts for a significant portion of active risk budgets

- On average, for 35% of active strategies, more than half of active risk was explained by factors
- In a multi-manager analysis (random selection of 10), 55% of aggregate portfolios had half of their active risk explained by factors, since smart beta returns are correlated across funds while pure alpha returns are not

Investors need pure alpha from active managers

- Smart beta is increasingly available at lower cost

Source: BlackRock, eVestment 4/11 to 3/14. Global Equity data includes all 138 actively global equity strategies included in the eVestment database. See the BlackRock manuscript “Smart Decisions about Smart Beta”, by Kahn and Lemmon, September 2014. Four Smart Beta Factors were Market, Size, Value, and Momentum.
*This represents all global equity funds that are tracked in eVestment from 4/11 to 3/14

What does the future look like?

- Factor-based investing empowers investors
  - The construction and evaluation of smart beta – and all strategies – will increasingly be based on a factor-based view of the world
    - Increasing recognition of factors as a source of return, and factor-based investing as a style of investing
    - Manager success evaluated through this lens
    - Asset allocation will become more factor aware

- Directly targeting broad, persistent drivers of returns may allow investors to achieve better outcomes

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