The Future of Factor Investing

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FOR PROFESSIONAL INVESTORS ONLY
Factor-based investing has grown quickly since the crisis

Assets invested in factor-based strategies (global)

Source: Morningstar, Citi, LGIM. (1) Morningstar (2) Citi projections. (3) LGIM projections – filling in linearly for 2017, 2018, 2019 (based on Citi projections for 2016 and 2020)
Two pathways – one destination

Active funds

- Belief in index-beating strategies
- Disillusioned with outcomes after fees
- Commonality of active strategies

Factor-based funds

- Lower fees vs. active
- Lower turnover vs. active
- Beliefs-based

Index funds

- Preference for efficient implementation
- Belief in rewarded factors
- Desire to improve outcomes
Our clients tell us that they want to........

**Reduce costs**
- We want to replace active equity with factor-based investing due to governance and cost considerations
- A sovereign wealth fund

**Enhance returns**
- Our members currently invest in market-cap index funds but are seeking additional return
- DC Pension Scheme

**Reduce risk**
- I'm near retirement but want to retain equity exposure – although I'm worried about volatility
- Individual investor

**Generate income**
- We're in negative cashflow and looking for income-generating strategies to support flows
- DB pension scheme

**Diversify**
- Holding traditional asset classes but looking for diversification, particularly where bonds and equities perform poorly at the same time
- Insurance company
Why are investors globally looking to factor-based investing?

- **Return enhancement**: 58% (2016), 52% (2015), 62% (2014)
- **Risk reduction**: 46% (2016), 52% (2015), 63% (2014)
- **Improve diversification**: 36% (2016), 40% (2015), 43% (2014)
- **Provide specific factor exposure**: 24% (2016), 31% (2015), 29% (2014)
- **Cost savings**: 16% (2016), 25% (2015), 15% (2014)
- **Income generation**: N/A, 5% (2015), N/A (2014)
- **Other**: 6% (2016), 3% (2015), 3% (2014)

Source: FTSE Russell Global Smart Beta Survey 2016
It’s difficult to be certain about factor performance

Global factor returns


Source: LGIM, Style Research. Data to 31/12/2016. Past performance is no guarantee of future results.
The case for multifactor

As factors go through different cycles, allocating to a number of factors helps to smooth performance and increase risk-adjusted returns.

Source: LGIM, Style Research. Past performance is no guarantee of future results.
## Top-down vs. bottom-up

Understanding the choices for multi-factor indices

There are different ways to achieve exposure to multiple factors:

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<thead>
<tr>
<th>Top-down</th>
<th>Bottom-up</th>
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<tbody>
<tr>
<td>Allocates to factors as individual building blocks.</td>
<td>Gives each stock in the universe a score on each of the desired factors. Individual scores are combined for an overall multi-factor score which is used to derive a weight in the portfolio. There is significant variation in methodology across different bottom-up indices.</td>
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<td>For example, a top-down multi-factor strategy might have allocations to a value portfolio, a quality portfolio and a low volatility portfolio.</td>
<td>Considers stocks that score moderately well on each factor without scoring particularly well on one (“all-rounder” stocks).</td>
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<td>Tends to favour stocks that score particularly well on one or more factors (“specialist” stocks).</td>
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## What are the strengths and weaknesses of either approach?

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<tr>
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<td><strong>Strengths</strong></td>
<td>Transparent, easy to attribute performance at factor level</td>
<td>Typically integrates all information in portfolio construction</td>
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<td>Modular, building block construction helpful in limiting number of funds</td>
<td>Naturally allows for “virtual” crossing to occur</td>
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<td>Top-down approach is more academically linked</td>
<td>More compatible with use of a stock level risk model</td>
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<td><strong>Weaknesses</strong></td>
<td>Usually does not consider all information in portfolio construction</td>
<td>More complicated, not as easy to understand</td>
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<td>Inefficient if allocating across indices/funds that do not allow crossing</td>
<td>Factor exposure stability can be more difficult to achieve</td>
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<td>Inconsistency issues if using different index providers for building blocks</td>
<td>Fewer papers in academia supporting approach</td>
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Global market cap indices are concentrated
50% of the value is concentrated in just 6% of stocks

Source: FTSE All World Index, 31 Dec 2016
Choosing a weighting scheme
Understanding the choices

After deciding to invest into a factor, an investor needs to choose a weighting scheme

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<th>Market cap weighting</th>
<th>Alternative weighting schemes</th>
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<td>Use market cap weighting as the starting point</td>
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<td>E.g. A low volatility portfolio might start with the lowest 20% of stocks on share price volatility then weight them in proportion to their market cap weights</td>
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<td>Such as equal weighting - where the lowest volatility stocks are all given the same weight.</td>
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<tr>
<td>• Lower levels of concentration and more diversification reduces the effect of stock-specific risks</td>
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<tr>
<td>• Marginally higher turnover relative to market-cap weighting strategy.</td>
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<td>• Bias towards smaller-sized companies that needs to be taken into account</td>
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We believe it’s important that factor-based approaches pay significant attention to diversification and the weighting scheme used is an important element of this.
Before you employ factor-based investing
Things to think about:

What are your objectives?
- Cost reduction?
- Risk reduction?
- Return enhancement?
- Income generation?
- Diversification?

What is your time horizon?

What investments are you considering?

What is your governance structure?

Do you understand how the strategy works?

Do you understand the costs of implementation?
- Increased turnover versus market cap indices
- Increased license fee versus market cap indices
Case Study: The Future World Strategy
A long-term strategy that helps manage climate risk.....

AIMING FOR BETTER RISK-ADJUSTED RETURNS

- Low costs
- Alternatively weighted index
- Potential to outperform from factor-based tilts

RESPONDING TO CLIMATE RISK

- Reduce risks from future climate policy and technology changes
- Investing in companies that support a low-carbon approach

POSITIVELY INFLUENCING CHANGE

- Climate Impact Pledge
- Active engagement to bring positive change
- Putting investment to good use

.....and helps to build a better future
Factor-based investing at LGIM

Expertise in Index Fund Management
• Managing index assets for 30 years
• Leading global manager of index strategies, over £300bn of AUM
• Unique value enhancing approach to implementation
• Business model aligned with our clients’ interests

Leading provider of Factor Based Investment funds
• Over £25bn AUM in over 20 strategies

ESG & Corporate Governance focus
• Dedicated resources to Corporate Governance
• Exercise stewardship actively for clients’ benefit
• We strive to achieve positive societal impacts through investments
• We use our scale to influence company and market behaviour

Developing strategies to meet our clients’ objectives
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