Methodology Matters

A Q&A with IndexUniverse on the components of quality index construction

David Koenig, CFA, FRM
Investment Strategist, Indexes
Russell Investments

OCTOBER 2013
David A. Koenig, CFA, FRM

*Investment Strategist, Indexes*

Russell Investments

David Koenig serves as Investment Strategist on the Research and Innovation team for Russell Investments’ family of global indexes. David is responsible for the development of white papers and other educational materials for financial advisors and other clients. David serves as a spokesperson for Russell Indexes with the media and as a speaker on webinars and at industry conferences. Previous to this, David served as Director of Investment Strategy for Russell Investments’ global ETF business. David served on Russell’s ETF distribution leadership team and was responsible for the ongoing development and management of investment content and other key messaging in support of the ETF business. David joined Russell in 2010 and is based in San Francisco.

Prior to joining Russell, David worked as assistant vice president of investment communications with Wells Fargo’s Funds Management Group. In this role, David was instrumental in building a team of investment communications professionals and growing the institutional investment communications capabilities for the Wells Fargo Advantage Funds.

Previous to joining Wells Fargo, David worked as a channel manager in dealer communications for Franklin Templeton Investments. Prior to that, he spent approximately 15 years as a financial journalist with the San Diego Union-Tribune and San Francisco Chronicle.

David is a member of the CFA Institute, the CFA Society of San Francisco and the Global Association of Risk Professionals.
Methodology matters
All indexes are not created equally

Categories for understanding index accuracy

Key criteria varies widely and produces meaningful differences in exposure
Methodology matters
All indexes are not created equally

Key criteria in each category

- Representativeness
- Portfolio fit
- Objectivity & transparency
- Weighting
- Corporate actions
- Rebalancing

Decide based on your market exposure objectives and risk tolerance
Representativeness
Does the index accurately represent your intended exposure?

Market benchmark
Is the market accurately represented and complete?

- U.S. Small Cap
- Developed ex-U.S.

Smart beta
Do the characteristics accurately target intended exposure?

- Fundamental
- Low volatility

Key criteria vary widely and produce meaningful differences in exposure
Portfolio fit
How does the index influence my intended risk/return profile?

Market benchmark
Do individual market cap-weighted indexes provide the necessary building blocks?

Smart beta
Does this index provide your preferred focused exposure?

Overall modularity

Characteristics most important to you
Modularity Eliminates Gaps / Overlaps

Inadvertent exposures can undermine intended asset allocation

LARGE CAP

SMALL CAP

Gaps may lack fully representative exposure to an asset class

Overlaps may deliver “extra” exposure

Choose a modular approach for defined capitalization and intended exposures
Comparison of Russell and S&P U.S. indexes

- **Russell 3000® Index**: $422.1 B
- **Russell 1000® Index**: $19.6 B
- **Russell Top 200® Index**: $2.6 B
- **Russell 2000® Index**: $128.9 M
- **Russell Midcap® Index**: $30 M
- **S&P 1500**: $6.7 B
- **S&P 500**: $595.5 M
- **Russell 2000® Index**: $2.6 B
- **Russell 1000® Index**: $19.6 B
- **Russell 3000® Index**: $422.1 B
- **Russell Top 200® Index**: $2.6 B
- **Russell Midcap® Index**: $30 M
- **S&P 1500**: $6.7 B
- **S&P 500**: $595.5 M
- **Russell 2000® Index**: $128.9 M
- **Russell 1000® Index**: $19.6 B
- **Russell 3000® Index**: $422.1 B
- **Russell Top 200® Index**: $2.6 B
- **Russell Midcap® Index**: $30 M
- **S&P 1500**: $6.7 B
- **S&P 500**: $595.5 M
- **Russell 2000® Index**: $128.9 M
- **Russell 1000® Index**: $19.6 B
- **Russell 3000® Index**: $422.1 B
- **Russell Top 200® Index**: $2.6 B
- **Russell Midcap® Index**: $30 M
- **S&P 1500**: $6.7 B
- **S&P 500**: $595.5 M
- **Russell 2000® Index**: $128.9 M


Russell Index holdings represent the preliminary reconstitution holdings as of rank day, May 31, 2013, which became effective after market close on June 28, 2013. S&P holdings are as of May 31, 2013.
Objectivity & transparency
Are rules clear, unbiased and readily available?

- More predictable, easier to track
- Less predictable, harder to replicate & track

Any uncertainty can undermine deliberate asset allocation and lead to unexpected outcomes.
## Weighting

Is the index weighted by market cap, or another approach?

<table>
<thead>
<tr>
<th>Weighting of Index Constituents</th>
<th>Market Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>By size as determined by price times number of shares outstanding</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regular Rebalancing</th>
<th>Annual reconstitution</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Turnover</th>
<th>Lower</th>
</tr>
</thead>
</table>

**Reconstitution** helps an index continue to accurately represent the full opportunity set because companies can move from one index to another.
## Adjusting for float

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>TOTAL MARKET CAPITALIZATION (BILLIONS)</th>
<th>RUSSELL 1000 RANKING</th>
<th>FLOAT-ADJUSTED MARKET CAPITALIZATION (BILLIONS)</th>
<th>RUSSELL 1000 RANKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>$422</td>
<td>1</td>
<td>$422</td>
<td>1</td>
</tr>
<tr>
<td>Wal-Mart Stores</td>
<td>$246</td>
<td>6</td>
<td>$121</td>
<td>24</td>
</tr>
<tr>
<td>Visa</td>
<td>$141</td>
<td>21</td>
<td>$93</td>
<td>33</td>
</tr>
<tr>
<td>UPS</td>
<td>$81</td>
<td>37</td>
<td>$62</td>
<td>54</td>
</tr>
<tr>
<td>Facebook</td>
<td>$59</td>
<td>58</td>
<td>$41</td>
<td>82</td>
</tr>
</tbody>
</table>

As of June 28, 2013.
Any stock level commentary is for illustrative purposes only and is not a recommendation to purchase or sell any security.
## Weighting
Other methodologies focus on specific risk factors

<table>
<thead>
<tr>
<th>WEIGHTING OF INDEX CONSTITUENTS</th>
<th>MARKET CAP</th>
<th>EQUAL</th>
<th>FUNDAMENTAL</th>
<th>FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>By size as determined by price times number of shares outstanding</td>
<td>By size as determined by price times number of shares outstanding</td>
<td>Constituents, sectors or some combination have an equal weight in the index</td>
<td>By fundamental characteristics such as revenues or dividends</td>
<td>By exposure to a specific factor such as low volatility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGULAR REBALANCING</th>
<th>MARKET CAP</th>
<th>EQUAL</th>
<th>FUNDAMENTAL</th>
<th>FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual reconstitution</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TURNOVER</th>
<th>MARKET CAP</th>
<th>EQUAL</th>
<th>FUNDAMENTAL</th>
<th>FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>Higher</td>
<td>Higher</td>
<td>Higher</td>
<td>Higher</td>
</tr>
</tbody>
</table>
Equal weight by sector and then by constituent

Russell 1000® Index

- Consumer Discretionary 14%
- Financial Services 18%
- Consumer Staples 9%
- Utilities 6%
- Health Care 12%
- Materials & Processing 4%
- Energy 10%
- Technology 15%
- Producer Durables 12%

Cap weight results in a 59% concentration in Technology, Consumer Discretionary, Financial Services and Health Care.

Risk/return can be driven by one or two sectors.

Russell 1000® Sector Equal Weight Index

- Consumer Discretionary 11.11%
- Financial Services 11.11%
- Consumer Staples 11.11%
- Utilities 11.11%
- Health Care 11.11%
- Materials & Processing 11.11%
- Energy 11.11%
- Technology 11.11%
- Producer Durables 11.11%

Sector equal weight diversifies across all sectors.

Minimizes negative impact of any one sector.

Russell 1000® Constituent Equal Weight Index

- Consumer Discretionary 17%
- Producer Durables 14%
- Financial Services 22%
- Consumer Staples 5%
- Utilities 6%
- Health Care 12%
- Energy 7%
- Technology 12%

Constituent equal weights results in a 53% concentration in Financial Services, Consumer Discretionary and Producer Durables.

Risk/Return can be driven by one or two sectors.

Example as of March 29, 2013 for illustrative purposes.
Rebalancing
How to maintain exposure and manage turnover?

<table>
<thead>
<tr>
<th>Market benchmark</th>
<th>Smart beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>Semi annual</td>
<td></td>
</tr>
<tr>
<td>Quarterly</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td></td>
</tr>
</tbody>
</table>

- **Annual**
  - Reconstitution provides accuracy while helping limit turnover

- **Semi annual**
  - Must make sacrifices to avoid excessive turnover

- **Quarterly**
  - Maintains exposure. Potentially higher turnover

- **Monthly**
  - Highly focused. Potentially higher turnover
### Corporate actions
Are actions accounted for using objective, transparent process?

<table>
<thead>
<tr>
<th>Corporate Action</th>
<th>Description</th>
</tr>
</thead>
</table>
| **MERGERS & ACQUISITIONS**            | Two companies form a new company
|                                       | One company purchases another; no new company is formed |
| **INITIAL PUBLIC OFFERINGS**          | The initial sale of a company's stock to public shareholders |
| **SHARES OUTSTANDING**                | Changes can occur from stock buybacks, secondary offerings, merger activity, etc. |
| **SPIN-OFFS**                         | A new entity resulting from the spinning off of assets and equity from a parent company |

Scheduled maintenance provides you with more predictability and certainty.
Additions of new opportunities

Timely inclusion

› Russell’s annual reconstitution as well as additions of eligible IPOs quarterly allows for the timely addition of newly available opportunities

› S&P’s subjective membership determination does not allow for predictable additions of newly available opportunities

› The S&P 500 Index included these three well known companies years after they were added to the Russell 1000® Index

› Cumulative returns for Starbucks, Google and Microsoft for the periods depicted were 389%, 622% and 3443%, respectively

Source: Bloomberg data as of June 29, 2012
Any stock level commentary is for illustrative purposes only and is not a recommendation to purchase or sell any security.
Also consider . . .

**Investability**
- Readily available?
- Easily bought and sold?
- Less liquid or not available?

**Operational capabilities**
- Established and widely used?
- Proven operational capabilities?
- Broad client services support?

**Data availability**
- Published and widely accessible on major platforms? (Bloomberg, Factset, Morningstar, Axioma, Barra)
Perspective, Precision, Predictability

<table>
<thead>
<tr>
<th>Market cap</th>
<th>Russell</th>
<th>S&amp;P</th>
<th>MSCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Float adjustment</td>
<td>Russell</td>
<td>MSCI</td>
<td>S&amp;P</td>
</tr>
<tr>
<td>Multi-factor styles</td>
<td>Russell</td>
<td>MSCI</td>
<td>S&amp;P</td>
</tr>
<tr>
<td>Fully representative universe of global stocks</td>
<td>Russell</td>
<td>MSCI</td>
<td></td>
</tr>
<tr>
<td>Global index: No gaps or overlaps</td>
<td>Russell</td>
<td>MSCI</td>
<td></td>
</tr>
<tr>
<td>Global relative</td>
<td>Russell</td>
<td>MSCI</td>
<td>S&amp;P</td>
</tr>
<tr>
<td>Third Dimension of Style</td>
<td>Russell</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


MSCI adopted Float adjustment in 2002, source: [www.msci.com/eqb/pressreleases/archive/20001210_pr01.pdf](http://www.msci.com/eqb/pressreleases/archive/20001210_pr01.pdf);
Russell Institutional Index of choice

72% of institutional U.S. Equity products are benchmarked to a Russell Index

98% Small cap indexes
98% Style indexes
88% Broad market indexes
52% Large cap indexes

$4.1 trillion assets benchmarked globally

In Conclusion

› Key Benefits

› Precise tools for accessing accurate, consistent exposure to the full U.S. equity market.

› Modular design delivers building blocks for effective asset allocation with no gaps or overlaps.

› Objective, transparent approach to improve understanding of expected outcomes.
Russell Advisor Resources

Websites
› Methodologymatters.com
› Russell.com/Indexes
› Russell.com/helpingadvisors

Helping advisors
› Economic Indicators Dashboard
› Advisor Health Index
› Helping Advisors Blog
About Russell Indexes

Russell’s index business began in 1984 to accurately measure U.S. market segments and track investment manager behavior for Russell’s investment management and consulting businesses. Today, our series of U.S. and global equity indexes reflect distinct investment universes—including asset class, geographic region, capitalization and style—with no gaps or overlaps.

Russell Indexes offers more than three dozen product families and calculates more than 700,000 benchmarks daily, covering 98% of the investable market globally, 80 countries and more than 10,000 securities. Approximately $4.1 trillion in assets are benchmarked to the Russell Indexes as of year end 2012.

For more information about Russell Indexes visit www.russell.com/indexes

Contact
+1-866-551-0617
index@russell.com
www.russell.com/indexes
Disclosures

Copyright © Russell Investments 2013. All rights reserved. This material is proprietary and may not be reproduced, transferred, or distributed in any form other than as delivered in this presentation format, without the prior written permission from Russell Investments. It is delivered on an “as is” basis without warranty.

Russell Investments, a Washington, USA corporation, operates through subsidiaries worldwide, and is a subsidiary of The Northwestern Mutual Life Insurance Company.

Russell Investments is the owner of the trademarks, service marks, and copyrights related to its indexes. The Russell logo is a trademark and service mark of Russell Investments.

Indexes and/or benchmarks are unmanaged and are provided for general comparison purposes only. They cannot be invested in directly. Returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.

Unless otherwise noted, source for the data in this presentation is Russell Investments.

Index benchmark return information is provided by vendors and although deemed reliable, is not guaranteed by Russell Investments or its affiliates. The information, analyses and opinions set forth herein are intended to serve as general information only and should not be relied upon by any individual or entity as advice or recommendations specific to that individual or entity. Anyone using this material should consult with their own attorney, accountant, financial or tax adviser or consultants on whom they rely for investment advice specific to their own circumstances.

This material is not an offer, solicitation or recommendation to purchase any security.

Nothing contained in this material is intended to constitute legal, tax, securities, or investment advice, nor an opinion regarding the appropriateness of any investment, nor a solicitation of any type. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

First use October 2013. CORP-8951
Thank you.