

# Global Markets Exploration

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## Fundamental Indexes: An alternative view of the Asia Pacific Region

For approximately the last five decades, the market cap-weighted index has been the main tool used in the management of investment products. Over time, Russell Indexes has made various enhancements and improvements to the market cap-weighted index including: applying free-float adjustments to individual stocks' shares outstanding, aiming to represent only investable markets, and – to better evaluate investment managers' different types of strategies – classifying markets into large cap/small cap and growth/value segments.

Despite these improvements and cap weighting's extensive and long-standing utilization, innovative new products have emerged that complement the traditional market cap index. Over the past 10 years, there has been a growing movement toward using indexes not only in their original benchmark function but also as tools for seeking active beta. While some indexes, such as Shariah indexes, seek this active beta by specially selecting constituents in order to represent a narrower investable target, others seek active beta by weighting constituents by measures other than market cap. Particular attention has recently been paid to the latter – that is, to “alternative weight” indexes. Examples of alternative weight indexes are the Russell Fundamental Index<sup>®</sup>, the Russell Equal Weight Index and the Russell Global GDP indexes.

This paper examines the fundamental index, a type of alternative index selected from such nontraditional indexes. The Russell Fundamental Index series is a family of indexes built in collaboration with Research Affiliates<sup>®</sup> to offer a new category of passive management solutions that are designed to capture the beta of active management. These fundamental indexes are constructed from five-year averages of three objective measures of company size to select and weight securities, instead of the traditional method of determining weight by market cap.<sup>1</sup>

While fundamental indexes tend to be studied in the context of the U.S. equity market, this paper focuses on the Asia Pacific region as a case study, outlining the characteristics and performance of the Russell Fundamental Asia Pacific Index.

### Overview

- The Russell Fundamental Asia Pacific Index has enjoyed attractive long-term performance

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<sup>1</sup> See Russell Fundamental Index<sup>®</sup> Construction and Methodology, May 2011, for further details.

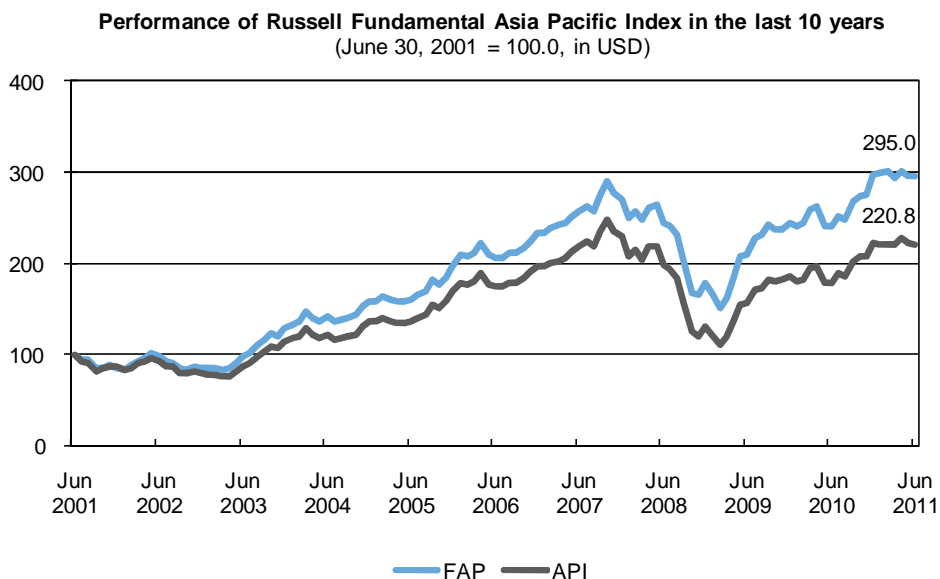
- Three fundamental variables (adjusted sales, retained operating cash flow, and dividends plus buybacks) are used to select and weight stocks to compile the Russell Asia Pacific Fundamental Index, which shares characteristics with the Russell Asia Pacific Value Index but features its own distinct methodology
- The country structure of the Russell Fundamental Asia Pacific Index shows a disproportionately large weighting to Japan. The Russell Fundamental Asia Pacific sector structure exhibits underweighting to financial services relative to the cap-weighted Russell Asia Pacific Index
- Over the last 10 years, the Russell Fundamental Asia Pacific Index has performed better and with lower standard deviation than the cap-weighted Russell Asia Pacific Index
- The Russell Fundamental Asia Pacific Index has outperformed the cap-weighted Russell Asia Pacific Value Index

### The Russell Fundamental Asia Pacific Index: Snapshots of performance and characteristics

#### The Russell Fundamental Asia Pacific Index has outperformed the regional cap-weighted index

Figure 1 shows the Russell Fundamental Asia Pacific Index’s historical performance over the past 10 years, with June 30, 2001, as base 100. The Russell Fundamental Asia Pacific Index (“FAP”) has nearly tripled in the last 10 years (in U.S. dollars, as in all other performance data). On the other hand, the market cap-weighted Russell Asia Pacific Index (“API”) has slightly more than doubled.

Figure 1 / As of June 30, 2011



Source: Russell Indexes – June month end data

Index inception dates: FAP 2/24/2011, API 1/17/2007

Index returns shown here and in subsequent charts represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Historical returns for the Index noted above prior to the inception date were constructed for research purposes, calculated using the same Russell methodology; however, application to the performance calculation may vary due to data sources, corporate actions, and the availability of historical data with respect to certain securities.

### Three fundamental variables form the distinct characteristics of the Russell Fundamental Index Series

The Russell Fundamental Index Series selects companies (after a liquidity screen) by non-price measures of firm size using three fundamental variables: adjusted sales, retained operating cash flow, and dividends plus buybacks. Each of the three variables is equally weighted to determine the aggregate score for each individual company. Companies with negative scores, and those scoring in the bottom 2% of ranked constituents, are removed. The weight of each remaining company in each index is then determined according to its score.

With a large proportion of the constituents being accounted for by companies with high sales, cash flow and dividends, the price/sales and price/cash flow values of the Russell Fundamental Indexes tend to be relatively low, while their dividend yield values tend to be high.

Table 1 illustrates this tendency in the Russell Fundamental Asia Pacific Index. Relative to the core index values of the Russell Asia Pacific Index, the Russell Fundamental Asia Pacific Index demonstrates a slightly higher dividend yield value and slightly lower price/sales and price/cash flow values.

**Table 1 / As of May 31, 2011**

Characteristics of Russell Fundamental Asia Pacific Index vs. Russell Asia Pacific Index				
	Russell Fundamental Asia Pacific Index	Russell Asia Pacific Index		
		Core Index	Value Index	Growth Index
Price/sales	0.5	0.9	0.7	1.3
Price/cash flow	5.7	7.5	6.1	9.5
Dividend yield (%)	2.63	2.56	2.75	2.38
Price/earnings (I/B/E/S 1-year forecast EPS)	12.7	13.0	12.6	13.4
Price/book	1.17	1.47	1.05	2.35
L.T. growth forecast (%) (I/B/E/S medians)	15.5	15.5	13.2	17.6
Return on equity (%) (5-year average)	11.7	14.6	9.9	19.1

Source: Russell Indexes

### Not a value index

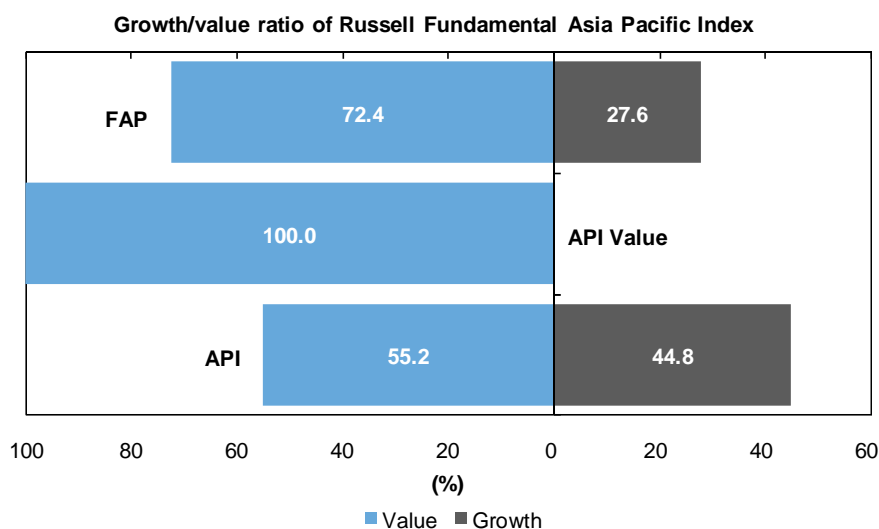
A closer examination of the data in Table 1 reveals that the characteristics of the Russell Fundamental Asia Pacific Index are similar to those of the Russell Asia Pacific Value Index, one of the Russell Asia Pacific Index sub-indices. Both indexes demonstrate similar values, not only for price/sales, price/cash flow and dividend yield, but also for price/earnings, price/book and return on equity.

Despite these similarities, Russell Fundamental Indexes are not style indexes. In Russell's fundamental indexes, each stock's weight is determined by the aggregate score of the three fundamental variables. In Russell's style indexes, each stock's weight is determined by its market cap weight as well as by the variables used to determine the stock's growth/value probability. The variables that Russell Indexes uses to determine a security's growth and value probabilities consist of price/book and long-term growth forecast, neither of which is used in the creation of the Russell Fundamental Index series.

Figure 2 highlights the percentage breakdowns of value and growth stocks for the Russell Fundamental Asia Pacific Index (FAP), the Russell Asia Pacific Value Index (API Value) and

the Russell Asia Pacific Index (API), respectively. The FAP has a relatively high proportion of value stocks compared to the API. But in comparison to the Russell Asia Pacific Value Index, which includes only value stocks, it is apparent that the FAP is not a value index. More than a quarter of the FAP's constituents are accounted for by growth stocks, which represents a significant growth exposure.

**Figure 2 / As of June 30, 2011**



Source: Russell Indexes

### The structure of the Russell Fundamental Asia Pacific Index

#### High weighting to Japan

By examining the FAP constituent countries and their weights in Table 2, it is clear that Japan holds the highest weight in the FAP, followed by Australia, South Korea, Taiwan and China. A comparison of the Fundamental Asia Pacific Index to the market cap-weighted Russell Asia Pacific Index reveals that only Japan and South Korea have higher weights under the fundamental weighting method; the remaining countries have higher weights under the market cap-weighting method. The use of different size-measurement variables in the fundamental and global methodologies results in Japan accounting for approximately 35% of the total weight of the cap-weighted Russell Asia Pacific Index and approximately 54% of the total weight of the Russell Fundamental Asia Pacific Index. Conversely, China is ranked third with 12.6% by the cap weight methodology but fifth with 5.8% by fundamental weight.

Japan's high index weight in the Russell Fundamental Asia Pacific Index has resulted in a notable difference in the proportion of developed versus emerging countries in the FAP and the API. As shown in Figure 3, emerging countries' weight in the Russell Fundamental Asia Pacific Index stands at approximately 30%, some 10 percentage points lower than the market cap-based weight of approximately 40% in the Russell Asia Pacific Index.

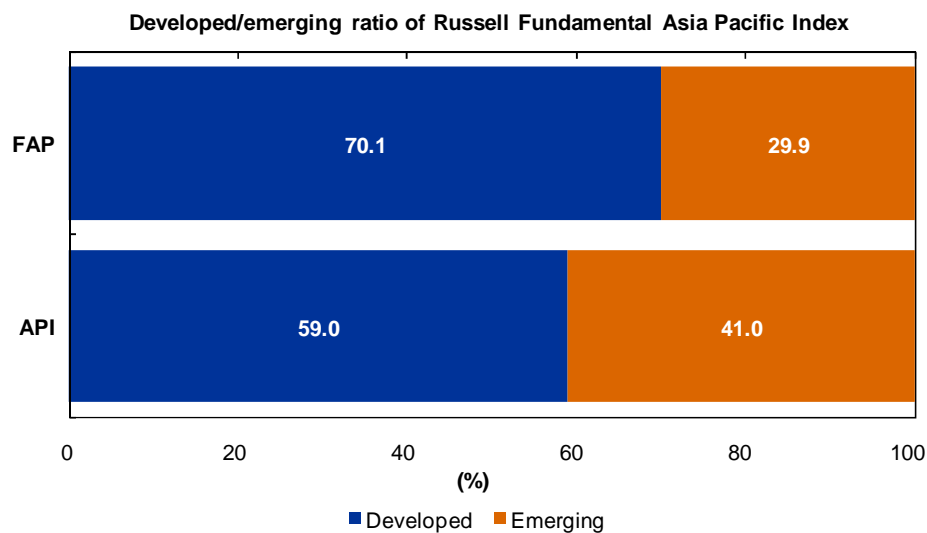
**Table 2 / As of June 30, 2011**

Country	Russell Fundamental Asia Pacific Index		Russell Asia Pacific Index	
	Number of constituents	Weight (%)	Number of constituents	Weight (%)
Japan	710	53.8	1,136	35.0
Australia	119	11.4	317	15.5
South Korea	149	11.4	309	9.2
Taiwan	164	7.9	418	8.3
China	142	5.8	580	12.6
Hong Kong	44	2.2	155	4.5
Singapore	42	2.2	140	3.6
India	71	2.1	456	5.4
Malaysia	35	1.0	143	2.2
Thailand	34	0.9	108	1.2
Indonesia	25	0.7	102	1.7
New Zealand	11	0.4	28	0.4
Philippines	7	0.1	49	0.5
Total	1,553	100.0	3,941	100.0

Source: Russell Indexes

Note: Developed countries are represented in blue and emerging countries are represented in orange

**Figure 3 / As of June 30, 2011**

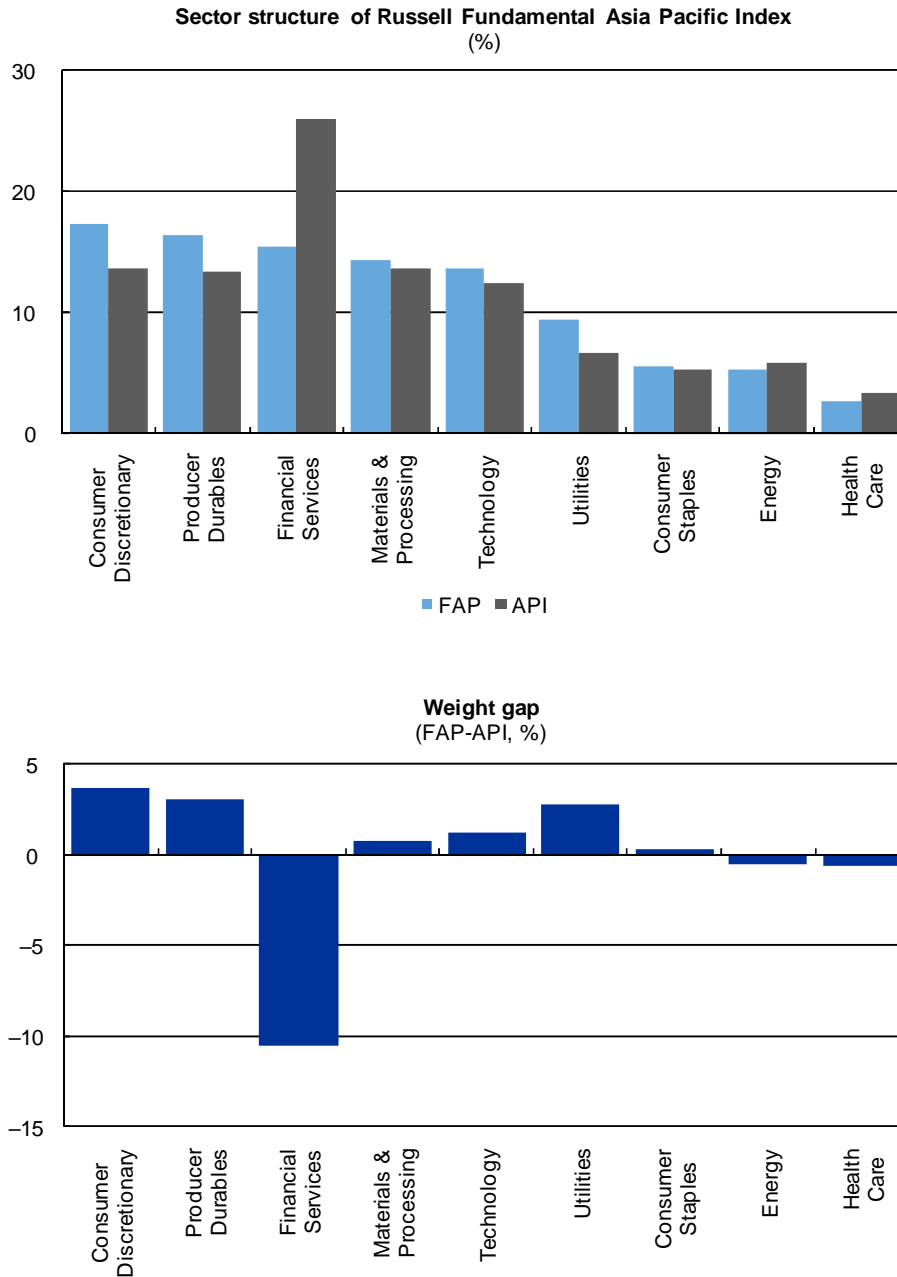


Source: Russell Indexes

### No pronounced weighting in financial services

The Russell Fundamental Asia Pacific Index (FAP) also differs from the market cap-weighted Russell Asia Pacific Index (API) in sector composition. As shown in Figure 4, Financial Services is significantly overweight in the API relative to the FAP, accounting for approximately a quarter of the API sector structure. But in the FAP, the sector's weight is lower, at approximately 10 percentage points less than in the API. This relative underweight to Financial Services in the FAP has the potential to decrease the FAP's sector risk.

Figure 4 / As of June 30, 2011



Source: Russell Indexes

## Return characteristics of the Russell Fundamental Asia Pacific Index

### The FAP has performed better and with lower standard deviation than the market cap-weighted API

Table 3 shows the annualized average returns and annualized standard deviation of the two indexes for the past one, three, five and 10 years. Although it falls marginally short of the Russell Asia Pacific Index for the past year, the Russell Fundamental Asia Pacific Index outperforms the API over the past three, five and 10 years. The FAP's standard deviation is also smaller than the API's for all periods, indicating less volatility.

**Table 3 / As of June 30, 2011**

**Average return and standard deviation of Russell Fundamental Asia Pacific Index  
(Annualized, % in USD)**

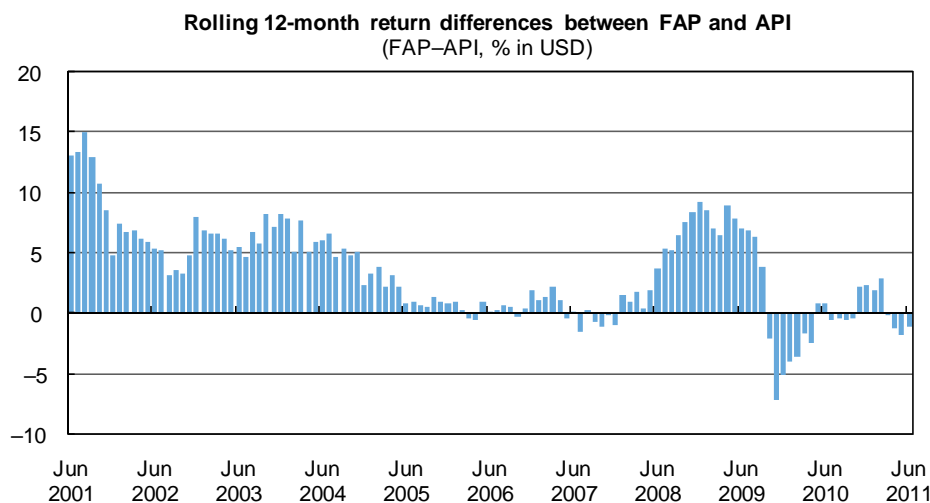
	Average return		Standard deviation	
	FAP	API	FAP	API
Past 1 year	22.9	24.0	12.5	12.9
Past 3 years	6.5	3.5	22.5	24.7
Past 5 years	7.5	4.8	19.1	21.3
Past 10 years	11.4	8.2	17.2	18.5

Source: Russell Indexes

### The FAP consistently generates superior returns

Looking more closely at the difference between the performance of the Russell Fundamental Asia Pacific Index and that of the Russell Asia Pacific Index, we can see that the fundamental weighting method has consistently generated higher returns. As Figure 5 shows, even though the FAP has underperformed during some 12-month periods over the last 10 years, most notably in 2010, it has outperformed the API in most periods.

**Figure 5 / June 2001-June 2011**



Source: Russell Indexes – June month end data

## The Russell Fundamental Asia Pacific Index has outperformed the Russell Asia Pacific Value Index

In addition to the previously mentioned methodological differences between the Russell Fundamental Asia Pacific Index and the Russell Asia Pacific Value Index, there are also differences in constituent composition and consequently in relative performance.

Table 4 shows a performance comparison of the Russell Fundamental Asia Pacific Index (FAP) and the Russell Asia Pacific value and growth indexes. In each of the past one-, three-, five- and 10-year periods, the FAP outperformed the Russell Asia Pacific Value Index. A comparison of the FAP's performance to that of the region's growth index shows that the FAP underperformed the growth index in the past year, yet outperformed the growth index in the past three-, five- and 10-year periods. The Russell Fundamental Asia Pacific Index has outperformed both the Russell Asia Pacific Value Index (API Value) and the Russell Asia Pacific Growth Index (API Growth) for sustained periods of time over the past 10 years.

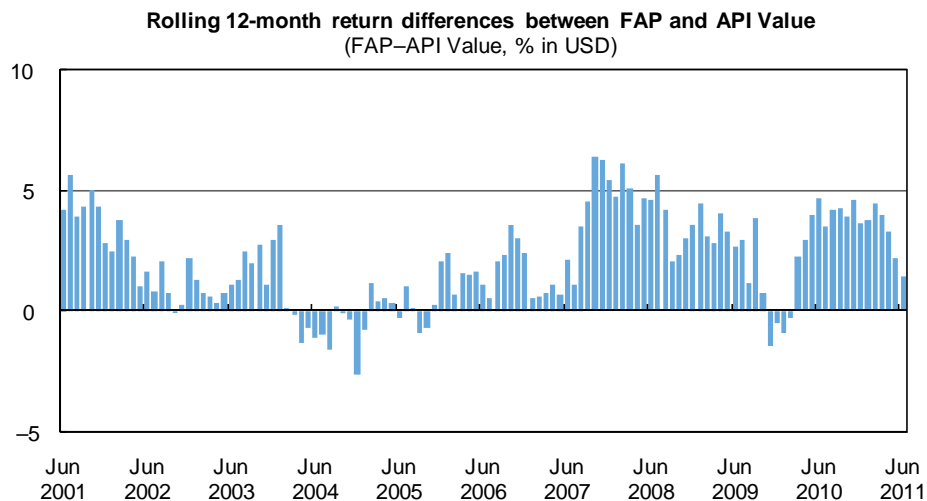
**Table 4 / As of June 30, 2011**

Comparison of returns with value/growth Indexes (annualized, % in USD)			
	Russell Fundamental Asia Pacific Index	Russell Asia Pacific Index	
		Value	Growth
Past 1 year	22.9	21.4	26.7
Past 3 years	6.5	3.5	4.3
Past 5 years	7.5	4.2	5.7
Past 10 years	11.4	9.5	7.1

Source: Russell Indexes

Figure 6 shows the rolling 12-month return differences between the FAP and the API Value. For most of the time periods over the past 10 years, the FAP has outperformed the API Value.

**Figure 6 / June 2001–June 2011**



Source: Russell Indexes – June month end data

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## Conclusion

These results illustrate the fact that in the Asia Pacific region, the fundamental weighting index has historically outperformed a number of cap-weighted indexes in the Asia Pacific region. Additionally, the FAP has historically outperformed not only the cap-weighted API but also the API Value and API Growth indexes, thus emphasizing that fundamental indexes, while potentially having a growth or value tilt, are not inherently growth or value indexes. Style indexes rely on market capitalization to determine constituent weights. Fundamental indexes are based on the analysis of completely distinct variables – adjusted sales, retained operating cash flow, and dividends plus buybacks – that do not factor into the construction of style indexes.

In addition to significant and consistent outperformance, this case study has found that the FAP is allocated much more evenly across all nine sectors than is the cap-weighted API, and, most notably, the FAP is underweight to Financial Services relative to the API. The FAP's relative underweight to Financial Services may help FAP performance during times of Financial Services underperformance, which may in turn decrease sector risk. This analysis has also found that reweighting cap-weighted indexes according to fundamental variables shifts developed versus emerging exposures. These findings illustrate fundamental indexes' characteristic ability to historically deliver returns that are unaffected by market bubbles, market perceptions or other price-related factors.

The Russell Fundamental Index series as a family captures the beta of active management while maintaining both passive investment strategies and the methodological principles of transparency, objectivity and broad diversification. Although market cap-weighted indexes perform a significant function in representing the market and describing the investable opportunity set, fundamental indexes represent an opportunity to achieve unique beta exposure and to potentially capture returns in excess of the benchmark. A cost-efficient alternative to active management, fundamental indexes can play an important role in an investment portfolio as a complement to cap-weighted passive investments.

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