

# SMALL CAP PERSPECTIVES

RUSSELL 2000® INDEX QUARTERLY ANALYSIS

FTSE  
Russell

December 2015

# Market Recap Commentary – Fourth Quarter 2015

## Presidential election special report

*"To paraphrase Winston Churchill, I did not take the oath I've just taken with the intention of presiding over the dissolution of the world's strongest economy."*

— President Ronald Reagan — 1981 inaugural address.<sup>1</sup>

As we take a final look at 2015, we also begin the transition to 2016 and a Presidential election year in the United States. Whoever wins the U.S. Presidency will likely have Churchill and Reagan's pledge in mind: do no harm to the strongest economy in the world. But how much influence does the President have over the economy, and in particular, the stock market? There is a wide body of research which explores those questions and the general consensus seems to be: perhaps some, but not much. So whether you're hoping for a "Hillary" or a "Trump" presidency, the outcome probably won't affect American's 401Ks. It's more likely that intervention by the Fed, oil prices, and international events will dictate growth under the next President.<sup>2</sup>

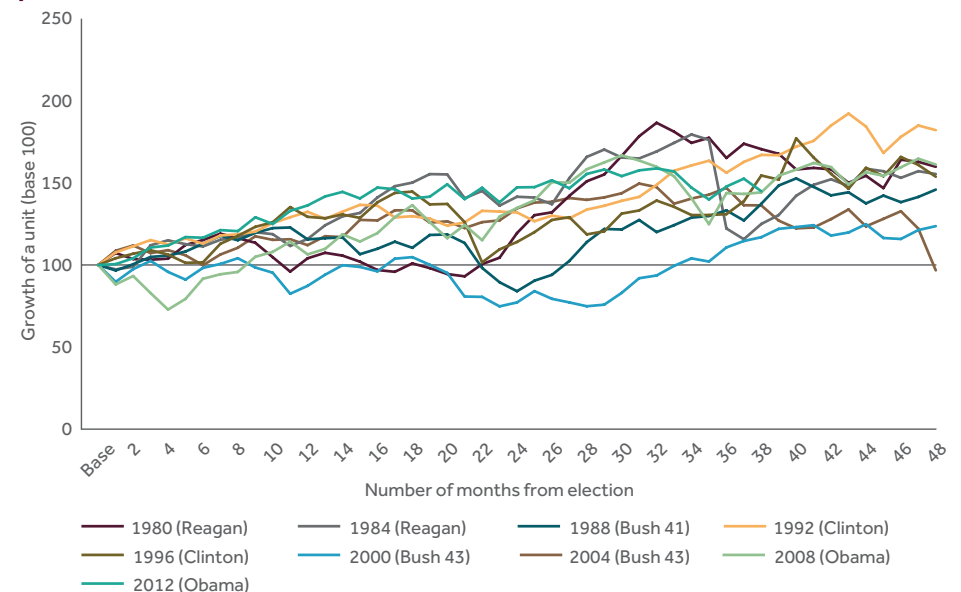
But despite a lack of empirical evidence linking Presidents to the performance of the stock market, many Americans have had a hard time separating the two in their minds. The President is generally viewed, rightly or wrongly, as bearing some responsibility for most aspects of American life — think Truman and "the buck stops here." For example, the Reagan Presidency is remembered for "Reaganomics" which included a mix of tax and spending cuts which is credited with helping breaking the U.S. out of economic stagnation. The Clinton Presidency is remembered for the dot com revolution and breakout of the "Information Age." Finally, President Bush (43rd president) took office during the onset of Technology sector bust and left office as the country plunged further into what became the "Global Financial Crisis." These events remind us that, at least in memory, Presidents, the economy, and the market are often inextricably intertwined.

The Russell 2000® Index has some loose ties to the U.S. Presidential election: its inception history dates back to 1979, the lead up to the 1980 Carter vs. Reagan election, and it was launched during the 1984 Reagan vs. Mondale face-off. With those connections in mind, and the 2016 election now in focus, we explore the performance of the Russell 2000 Index across U.S. Presidential elections since 1980. Figure 1 shows the

48-month cumulative performance of the Russell 2000 Index starting at each of the nine Presidential elections that have taken place in its history.

- Small caps, as measured by the Russell 2000 Index, have finished better under every four-year term except for Bush's (43) second term, which began in 2004.
- The first Clinton term starting in 1992 saw small caps post their best 48-month performance of any four-year term evaluated.
- The second Reagan term beginning in 1984 saw the largest drawdown of the Russell 2000 Index during any presidency, falling close to 35.6% following the market selloff in October 1987.
- The first term for Clinton was also the only full 48-month period where the performance of small caps did not fall below their starting value – through 38 months the second Obama term has also stayed entirely in positive territory.

**Figure 1: 48-month cumulative returns for the Russell 2000 Index from each presidential election (Nov – Oct)**



Source: FTSE Russell and MPI Stylus as of December 31, 2015. Certain results shown reflect hypothetical historical performance. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

(continued)

<sup>1</sup> Source: <http://www.presidency.ucsb.edu/ws/?pid=43130>

<sup>2</sup> Binder, A.S. & Watston, M.S. (2013). Presidents and the Economy: A Forensic Investigation. Princeton University, accessed on 1/7/2015 at: [https://www.princeton.edu/~mwatson/papers/Presidents\\_Blinder\\_Watson\\_Nov2013.pdf](https://www.princeton.edu/~mwatson/papers/Presidents_Blinder_Watson_Nov2013.pdf)

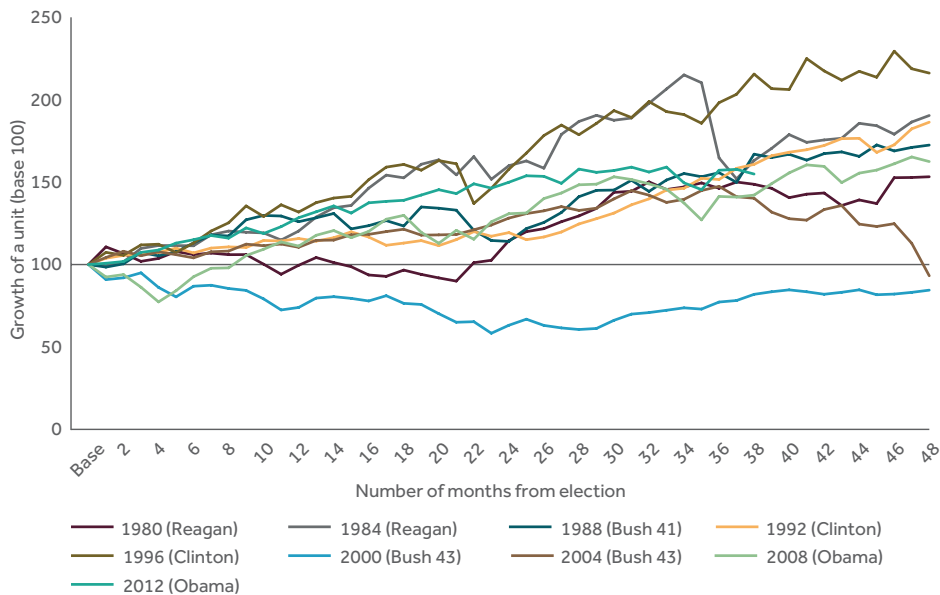


## Market recap commentary *(continued)*

The performance of the Russell 1000® Index over the same set of Presidential cycles shows a wider spread of outcomes.

- Picking up where the Russell 2000 Index left off during the first Clinton term, U.S. large caps as represented by the Russell 1000 Index posted the largest 48-month cumulative return over any presidential cycle during Clinton’s second term (Figure 2).
- While small cap performance during Bush’s (43) first term recovered in his third year to finish up 23.7%, large cap performance was in a bigger hole coming out of the 2001 recession and never got back to breakeven.<sup>3</sup> The 2000–2002 drawdown of 41.7% was the largest for the Russell 1000 Index during any four-year Presidential cycle.
- The two Bush 43 terms were the only four-year periods where the Russell 1000 Index finished beneath its starting value.

**Figure 2: 48-month cumulative returns for the Russell 1000 Index from each presidential election (Nov–Oct)**



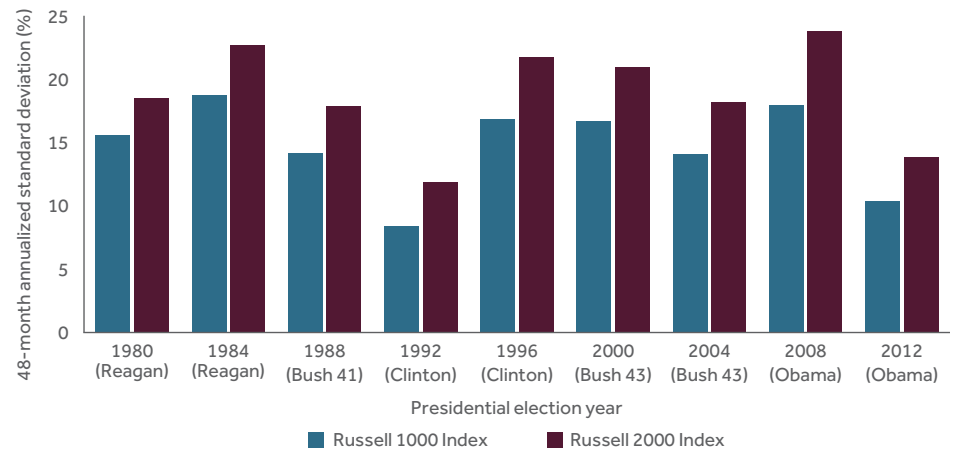
Sources: FTSE Russell and MPI Stylus as of December 31, 2015. Certain results shown reflect hypothetical historical performance. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

<sup>3</sup> Source: <http://www.nber.org/cycles/november2001/>

Performance across Presidential cycles can also be viewed through the volatility that was experienced by the market. Volatility, defined for our purposes here as the 48-month standard deviation corresponding with each presidential election, has often varied widely across Presidencies, as shown in Figure 3.

- The twin peaks of volatility of the Russell 2000 Index occurred during the 1984–1988 Reagan term and 2008–2012 Obama term at 22.7% and 23.8%, respectively.
- Volatility during the second Reagan term spiked, likely in response to the October 1987 crash, and volatility under Obama’s first term was compounded by the “V” shaped bottoming and subsequent bounce after the March 2009 financial crisis low.
- Markets were calmest during the first Clinton term which may have been a reflection of the post-Gulf War, post-Soviet Union period, and the second Obama term as the U.S. market moved steadily from recovery to expansion.

**Figure 3: 48-month annualized standard deviation (%) of the Russell 2000 Index and the Russell 1000 Index from each presidential election (Nov–Oct)**



Sources: FTSE Russell and MPI Stylus as of December 31, 2015. Certain results shown reflect hypothetical historical performance. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

*(continued)*

## Market recap commentary (continued)

In addition to comparing market performance across Presidential terms, there is perhaps an even larger body of research and commentary comparing whether the economy and the stock market does better under Republican or Democratic administrations.<sup>4</sup> Some of that research suggests a significant market premium during Democratic Presidencies. However other work adjusted for factors like volatility and exogenous shocks find much more muted differences.<sup>5</sup> While we do not seek to identify statistically meaningful differences between the political parties and stock market returns as part of this report, we have analyzed returns and volatility along those lines.

**Table 1: Returns and volatility characteristics under Republican and Democratic Presidencies<sup>7</sup>**

	Republican Presidency	Democratic Presidency
<b>Summary</b>		
Years in office since 1980	20 years	15 years
Russell 1000 Index positive returns	15 years (75%)	15 years (100%)
Russell 2000 Index positive returns	14 years (70%)	13 years (87%)
<b>Russell 1000</b>		
Average positive return	17.7%	17.1%
Average negative return	-17.5%	*
Average standard deviation (%)	4.3%	3.9%
<b>Russell 2000</b>		
Average positive return (%)	21.6%	17.3%
Average negative return (%)	-17.1%	-6.1%
Average standard deviation (%)	5.4%	5.1%

\* There were no negative 12 month periods during the Democratic Presidency periods evaluated.

Sources: FTSE Russell of December 31, 2015

Table 1 presents a group of characteristics divided by Republican and Democratic Presidential terms. In the 35 years of Russell Indexes returns available across nine presidential elections, a Republican President has been in office 20 of those years, and a Democrat 15. The Russell 2000 Index posted a positive return 70% of the time under a Republican President and 87% under a Democrat.<sup>6</sup> However, on average, when there were *positive* 12-month returns for the Russell 2000 Index, the index performed an average of 4.3 percentage points better under Republican Presidents than Democratic Presidents, with no appreciable difference in volatility.

### Market Recap

Small cap stocks bounced back in the fourth quarter of 2015 with a Russell 2000 Index return of 3.6%. This wasn't enough to overcome a merciless third quarter (-11.9%) that resulted in the Russell 2000 Index ending the year down 4.4%. 2015 marked the first time in four years that the Russell 2000 Index finished with a negative return, and posted the worst calendar year return for the index since the financial crisis. The Russell 2000 Index started 2015 by posting a solid first quarter gain of 4.4% followed by an anemic 0.4% return in the second quarter, finally being swept up in fears about global growth in the third quarter, declining 11.9%. Investors often seek safety in defensive pockets of the market including "blue chip" companies when volatility and uncertainty lurks.<sup>8</sup> We saw this play out as the uptick among small caps in the fourth quarter lacked conviction, and the market overall was led by the Russell Top 200 Index of mega caps which returned 7.7%.

(continued)

<sup>4</sup> Santa-Clara, P. & Valkanov, R. (2003). The Presidential Puzzle: Political Cycles and the Stock Market. *Journal of Finance*, 58, pgs 1841-1872.

<sup>5</sup> Campbell, S.D. & Li, C. (2004). Alternative Estimates of the Presidential Premium. U.S. Federal Reserve Working Paper access on 1/8/2016 at: <http://www.federalreserve.gov/pubs/feds/2004/200469/200469pap.pdf>; Binder, A.S. & Watston, M.S. (2013). Presidents and the Economy: A Forensic Investigation. *Princeton University*, accessed on 1/7/2015 at: [https://www.princeton.edu/~mwatson/papers/Presidents\\_Blinder\\_Watson\\_Nov2013.pdf](https://www.princeton.edu/~mwatson/papers/Presidents_Blinder_Watson_Nov2013.pdf)

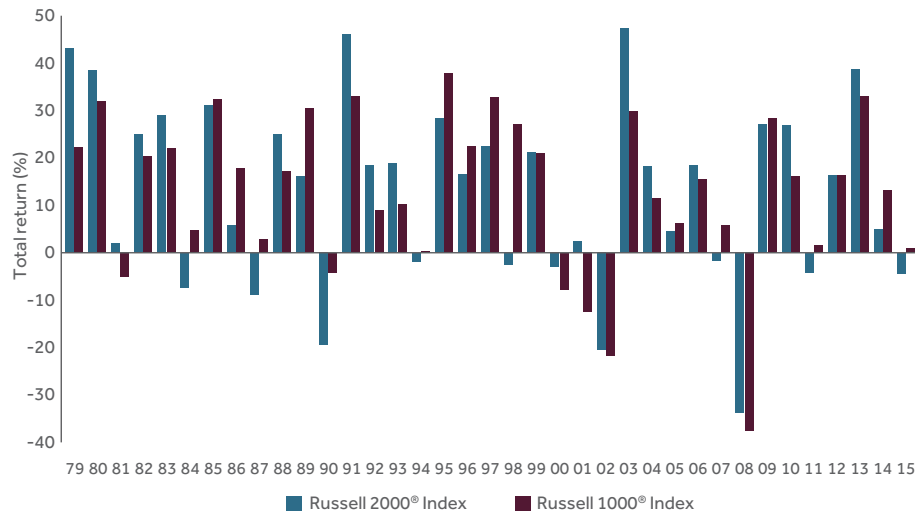
<sup>6</sup> Figures in Table 1 are based on underlying 12-month returns from Nov.-Oct..

<sup>7</sup> Figures in Table 1 are based on underlying 12-month returns from Nov.-Oct..

<sup>8</sup> Bigica, K. (2011). Value in Large Cap Defensive Stocks: BlackRock Exec. CNBC access on 1/16/2016 at: <http://www.cnbc.com/id/43383467>

## Market recap commentary *(continued)*

For a historical perspective, 2015 was only the 11<sup>th</sup> time since 1979 that the Russell 2000 Index posted a negative annual return, as shown in the chart below. Incredibly, the Russell 2000 Index has only had back-to-back negative annual returns once in its history, in 2007 and 2008.



Source: FTSE Russell as of December 31, 2015. Certain results shown reflect hypothetical historical performance. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

Large cap stocks, as measured by the Russell 1000 Index, did provide some relative safety in 2015. The Russell 1000 Index managed to end the year with a modest 0.9% rise. Mega caps as measured by the Russell Top 200® Index were the best performing cap segment of 2014, returning 2.4%. The performance of mega caps gained strength as the year progressed and market sentiment soured. The Russell Top 200 Index underperformed the Russell 2000 Index by 3.8 percentage points in the first quarter of 2015, and then outperformed by 0.5 percentage points, 5.6 percentage points and 4.1 percentage points across the final three quarters of the year.

### Smallest companies struggled in the second half of 2015

Across the market cap tiers, the smallest companies as measured by the Russell 2000 Index held an early advantage in 2015, outpacing the Russell 1000 Index by 2.7 percentage

points in the first quarter. The Russell Microcap Index then took the baton and sprinted ahead of the Russell 1000 by 2.7 percentage points in the second quarter.

A shift occurred in the third and fourth quarters, however, that saw the higher-beta small cap segments underperform large caps as U.S. and international markets, China in particular, became turbulent. In the third quarter of 2015 the Russell 2000 Index underperformed the Russell 1000 Index by 5.1 percentage points, while Microcaps as measured by the Russell Microcap® index fared worse, underperforming by 7.0 percentage points. The spread moderated in the fourth quarter but small caps still lagged large caps by about 2.9 percentage points. For more on the market beta-driven sell off in the third quarter please refer to our Third Quarter 2015 Small Cap Perspectives Report available on the FTSE Russell blog at [www.FTSERussell.com](http://www.FTSERussell.com).

Layering in style and stability we observe growth exceeding value in both the large and small cap segments in the fourth quarter, and for the full year. In-line with expectations during a more risk-aware second half of 2015, defensive-oriented stocks overtook dynamic-oriented stocks in the third quarter and held that year to date lead through the fourth quarter, as measured by the Russell 2000® Defensive Index versus the Russell 2000® Dynamic Index. Small cap dynamic stocks did clip small cap defensive stocks by 0.2 percentage points in the fourth quarter, but were socked with a loss of 17.4% for the third quarter leading to 8.9% for the year.

### The market gets the shivers

No, we aren't referring to the onset of winter, but rather the heightened volatility that characterized the summer and fall of 2015. After just one day in the first half of 2015 with a daily market move greater than 2.0%, the second half saw six days that exceeded 2.0%. There were 17 days in the first half that moved more than 1.0% and 23 in the second half. The standard deviation of daily returns in the first half was 0.9%, increasing to 1.2% in the second half.

Despite the bumpiness of the second half, 2015 can still be described as calm on a relative basis. In 2013 the Russell 2000 Index had seven daily moves of at least 2%, including one daily move of 3% or more. In 2012 the index had 18 daily moves of at least 2%, including one daily move of 3% or more. And 2011, the index had ten daily moves of at least 5%, with one of those a plunge of nearly 9%!

*(continued)*

## Market recap commentary *(continued)*

### U.S. economy moderately paced

According to both the U.S. Federal Reserve ("the Fed") and U.S. Bureau of Economic Analysis (BEA), the U.S. economy continues to expand. The BEA reported that third quarter GDP growth was approximately 2.0%, which was down from 3.9% in the second quarter. The quarter-over-quarter slowdown was attributed to less inventory investment and fewer exports — perhaps reflecting the strength of the U.S. dollar.<sup>9</sup> Unemployment remained steady at just 5.0%, and U.S. home values increased by an estimated 3.9% in 2015 according to Zillow.<sup>10</sup>

Through November 2015, inflation was 1.3%, based on the Fed's core personal consumption expenditures index. Inflation remains below the 10-year average of 1.7% and beneath the Fed's long-range target of 2.0%. At 0.4%, the total personal consumption expenditures index, which includes spending on energy and food remained well below its 10-year average of 1.8% due to an over supply of oil in global markets.<sup>11</sup>

### Operation "Twist"?

We're not talking about the Ben Bernanke lead move to lower the long-term yield curve back in 2011. It's the challenging market environment for small caps that appears to be providing the "twists." On one hand small cap companies might be less exposed to a slowdown in China, but on the other they are typically viewed as a riskier asset class and tend to underperform in risk-sensitive periods like the third quarter of 2015. So where might opportunities still exist among small caps? Using the recent performance of the Russell Style and Stability Indexes as a guide, they suggest that growth and defensive-oriented small caps may offer tactical pockets of opportunity even when small caps more broadly are out-of-favor.

### Fed finally starts the climb

Any review of the fourth quarter of 2015 would not be complete without a mention of the Fed's action. After keeping market participants anxious throughout 2015, the Fed finally announced following its December Open Market Committee meeting that the target Fed funds rate would increase to between 0.25% and 0.5%. Now that the initial rate hike has occurred, the market can begin occupying itself with guesses as to how steep and how long the current tightening cycle will be. Indications from the Fed are that it will remain dovish in its approach to raising interest rates:

<sup>9</sup> Source: <http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>

<sup>10</sup> Source: <http://www.zillow.com/home-values/>

<sup>11</sup> Source: <http://www.frbsf.org/economic-research/indicators-data/pce-personal-consumption-expenditure-price-index-pcepi/>

<sup>12</sup> Source: <http://www.federalreserve.gov/newsevents/press/monetary/20151216a.htm>

*"The Committee expects that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run."*

— Federal Open Market Committee — December 16, 2015.<sup>12</sup>

### Bottom line

2015 was a year divided. In the first half, small caps outperformed large caps. In the second half where small cap lagged large caps. The fulcrum was uncertainty coming out of China and Europe that clouded investors Goldilocks view of the U.S. market and raised doubts about future U.S. corporate earnings. Defensive-oriented small caps as represented by the Russell 2000 Defensive Index offered stronger results than its dynamic counterpart during a tough third quarter that pushed small caps into negative territory. A lukewarm rebound in the fourth quarter when the Fed finally took action to raise interest rates could not save the year. The 2016 Presidential Election will be entertaining, but probably not hugely impactful on stock market returns over time.

## Market performance

### Size

- The relative durability of the U.S. economy appeared to support a cautious fourth quarter recovery that primarily benefitted the largest stocks. Although all market cap segments had positive fourth quarter returns, only mega caps represented by the Russell Top 200 Index had gains that exceeded their third quarter losses. The Top 200 Index and the Russell 1000 Index of large caps continued to be in-favor on a relative basis, outpacing the Russell 2000 Index by 4.1 percentage points and 2.9 percentage points respectively (see Exhibit 1).
- The sharply negative performance market-wide in the third quarter was the determinant of the full year performance across size segments. The Russell Top 200 Index was the best performer, gaining 2.4% for the calendar year, followed by the Russell 1000 Index at 0.9%. Small caps fared worse with the Russell 2000 Index finishing with a -4.4% return and the Russell Microcap Index down -5.2%.

### Style

- Growth stocks continued to be in favor during the fourth quarter. The Russell 2000® Growth Index, at +4.3%, outpaced the Russell 2000® Value Index (+2.9%) by 1.4 percentage points. The return difference was similar in the large cap space at 1.7 percentage points (see Exhibit 2).
- Like the large-small leadership change during the second half of 2015, defensive-oriented companies overtook dynamically-oriented companies in the second half of 2015 — based mostly on performance during the third quarter. As the market looked for a directional footing in the fourth quarter, the Russell 2000 Dynamic Index returned 3.7% followed closely by the Russell 2000 Defensive Index at 3.5%. The reverse occurred in the large cap space with the Russell 1000 Defensive Index gaining 6.8% to the Russell 1000 Dynamic Index's 6.2%.
- For the full year only the Russell 1000 Growth Index (+5.7%) and the Russell 1000 Defensive Index (+2.5%) managed to finish in positive territory. All other style and stability segments were negative with the Russell 2000 Dynamic Index (-8.9%) and Russell 2000 Value Index (-7.5%) wearing the "worst performers" labels.

### Exhibit 1: Market Cap Performance

Total Return (%) (as of 12/31/2015)

	2015 4th qtr	3rd qtr	2nd qtr	1st qtr	12 Mos
Russell 3000® Index	6.3	-7.3	0.1	1.8	0.5
Russell Top 200® Index	7.7	-6.3	0.9	0.5	2.4
Russell 1000® Index	6.5	-6.8	0.1	1.6	0.9
Russell Midcap® Index	3.6	-8.0	-1.5	4.0	-2.4
Russell 2000® Index	3.6	-11.9	0.4	4.3	-4.4
Russell Microcap® Index	3.7	-13.8	2.8	3.1	-5.2

### Exhibit 2: Style Performance

Total Return (%) (as of 12/31/2015)

	2015 4th qtr	3rd qtr	2nd qtr	1st qtr	12 Mos
Russell 1000 Growth Index	7.3	-5.3	0.1	3.8	5.7
Russell 2000 Growth Index	4.3	-13.1	2.0	6.6	-1.4
Russell 1000 Value Index	5.6	-8.4	0.1	-0.7	-3.8
Russell 2000 Value Index	2.9	-10.7	-1.2	2.0	-7.5
Russell 1000 Defensive Index	6.8	-3.6	-0.9	0.5	2.5
Russell 2000 Defensive Index	3.5	-6.5	0.0	3.3	-0.1
Russell 1000 Dynamic Index	6.2	-10.0	1.1	2.7	-0.7
Russell 2000 Dynamic Index	3.7	-17.4	0.9	5.4	-8.9

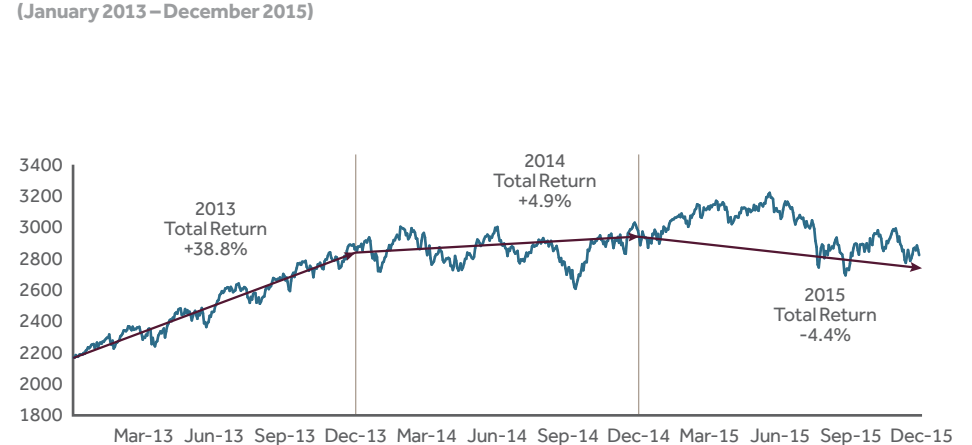
Russell Investments considers style along three dimensions: size, valuation and stability. The size dimension includes large cap and small cap as defined by market capitalization. Valuation includes growth and value measures. Stability provides a risk dimension to style by assessing a variety of factors related to quality and volatility exposures. Stability includes **dynamic** (companies with greater economic sensitivity and more variable earnings profiles) and **defensive** (companies with less economic sensitivity and more stable earnings profiles). For more information on Russell's style definitions, please refer to the Complete methodology document: Russell U.S. Indexes available at [Russell.com/Index.es](http://Russell.com/Index.es).

Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

### Small cap performance analysis

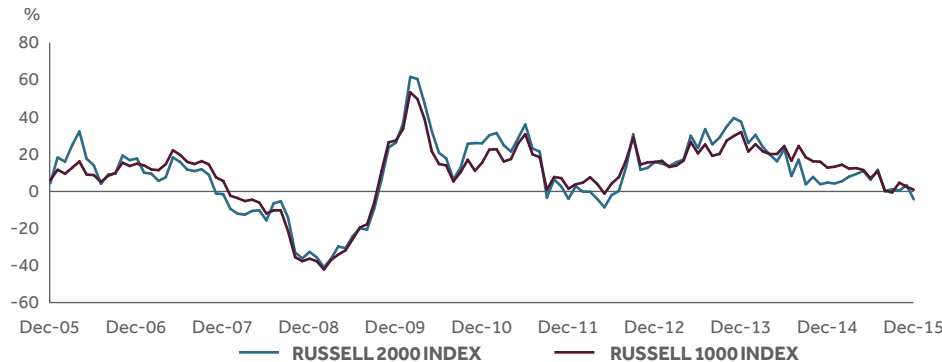
- In the fourth quarter return trends were mixed for the Russell 2000 Index. October had three days with gains in excess of 2%, November held the longest streak of consecutive positive days (5) and December saw the worst daily return (-2.2%). Positive days averaged a return of 1% with a standard deviation of 0.72%; the negative days averaged a return of -0.88% and a standard deviation of 0.58%. Of the 64 trading days in the quarter, the Russell 2000 Index was split evenly between up days and down days.
- Small cap stocks bounced off of their third quarter lows to move higher in the fourth quarter, although performance lagged large caps by a considerable margin. The Russell 2000 Index was up in three of four quarters for the year but down overall (-4.4%).
- On a cumulative basis, the Russell 2000 Index has advanced 263.2% since the financial crisis trough on March 9, 2009, but is down -9.2% since its previous peak in the second quarter (see Exhibit 5).

### Exhibit 3: Russell 2000 Index Price Performance (January 2013 – December 2015)

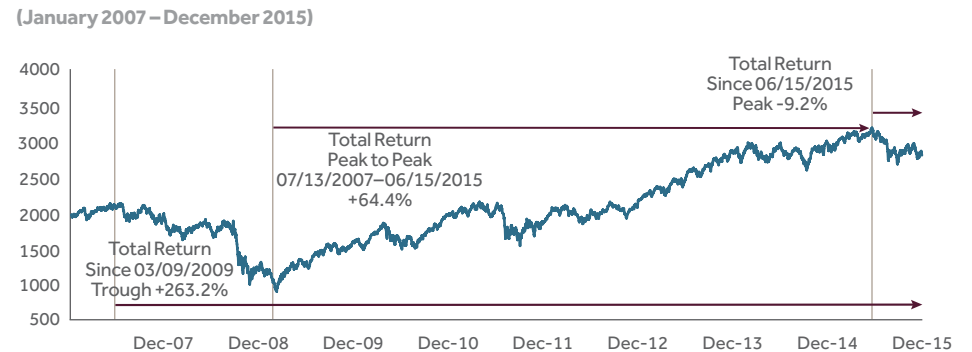


### Exhibit 4: 12-Month Rolling Returns

Total Return (%) – 10 Years (as of 12/31/2015)



### Exhibit 5: Russell 2000 Index Price Performance (January 2007 – December 2015)



### Exhibit 6: Performance

Total Return (%) (as of 12/31/2015)

	Annualized returns (%)						Calendar year return (%)				
	4th Qtr	YTD	1 Yr	3 Yr	5 Yr	10 Yr	2014	2013	2012	2011	2010
Russell 2000 Index	3.59	-4.41	-4.41	11.65	9.19	6.80	4.89	38.82	16.35	-4.18	26.85
Russell 1000 Index	6.50	0.92	0.92	15.01	12.44	7.40	13.24	33.11	16.42	1.50	16.10

Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

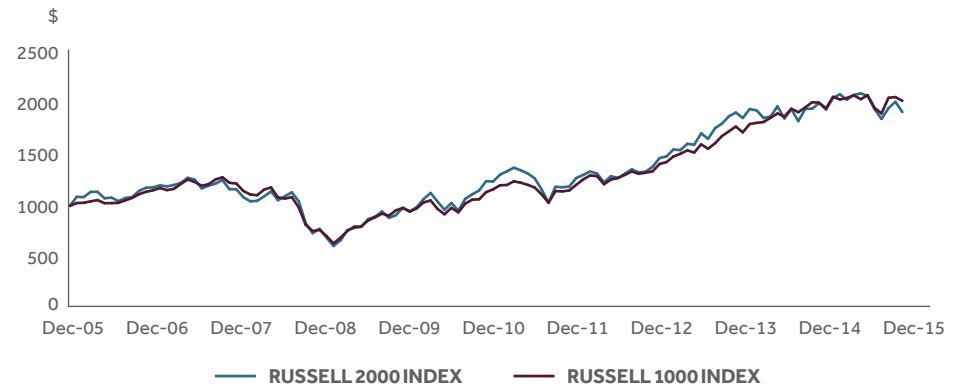


### Relative returns analysis (140)

- Large caps continued to outpace small cap using a 10-year growth of a unit return. Large caps overtook small caps in July and widened their lead during a disappointing third quarter. Through year end 2015 the Russell 2000 Index was -8.8% off its June high, while the Russell 1000 Index slipped -2.7% from its July peak (see Exhibit 7).
- The intersections of size and style show the Russell 1000 Growth Index turned in the strong fourth quarter performance (+7.3%). The Russell 2000 Value Index was the worst performing style segment in the fourth quarter (+2.9%) and for all of 2015 (-7.5%). Growth remained in favor and maintained its 2015 leadership across the size and style spectrum (see Exhibit 8).

### Exhibit 7: Performance – Growth of \$1,000

Total Return (%) – 10 Years (as of 12/31/2015)



### Exhibit 8: Russell Index Style Performance

Total Return (%) (as of 12/31/2015)

	4Q 2015			2015		
	Value	Core	Growth	Value	Core	Growth
Large (1000)	5.64	6.50	7.32	-3.83	0.92	5.67
Mid	3.12	3.62	4.12	-4.78	-2.44	-0.20
Small (2000)	2.88	3.59	4.32	-7.47	-4.41	-1.38
	2014			2013		
	Value	Core	Growth	Value	Core	Growth
Large (1000)	13.45	13.24	13.05	32.53	33.11	33.48
Mid	14.75	13.22	11.90	33.46	34.76	35.74
Small (2000)	4.22	4.89	5.60	34.52	38.82	43.30

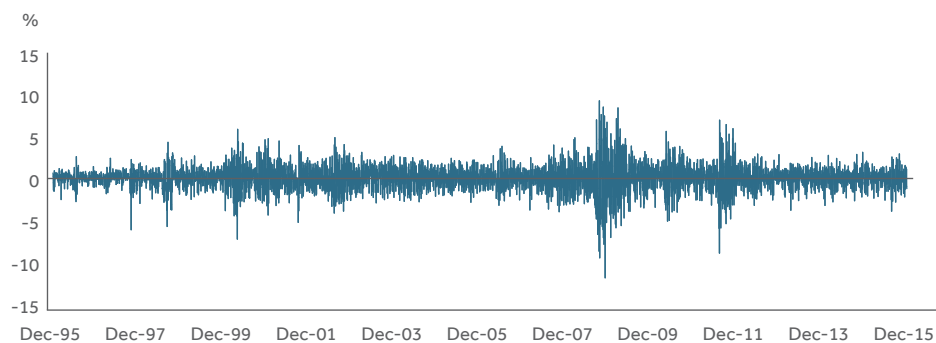
Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

## Risk analysis (150)

- Expected volatility for small caps moderated during the fourth quarter, eventually receding below small caps' 10-year average (26.1), which was breached during the volatile third quarter. The CBOE Russell 2000 Volatility Index (RVX) ended the third quarter near its long-term average, but finished the year at 20.6 (see Exhibit 9).
- Realized volatility, as measured by the daily returns of the Russell 2000, held steady, with a standard deviation of approximately 1.2% in the fourth quarter — the same level as compared to the third quarter (see Exhibit 10).
- The difference in 12-month rolling standard deviation between large caps and small caps essentially touched zero in October before moving back to a spread of about 1% at year-end (see Exhibit 11). Despite an up-and-down finish to 2015, volatility remained moderate when compared to long-term averages that include the effects of the financial crisis.

### Exhibit 10: Russell 2000 Index Daily Returns

Total Return (%) – 20 Years (as of 12/31/2015)



### Exhibit 12: Risk Characteristics

Annualized (as of 12/31/2015)

	Standard Deviation (%)				Sharpe Ratio			
	1 yr	3 yr	5 yr	10 yr	1 yr	3 yr	5 yr	10 yr
Russell 2000 Index	13.87	13.96	15.81	19.70	-0.26	0.86	0.63	0.38
Russell 1000 Index	12.81	10.48	11.78	15.26	0.13	1.39	1.05	0.47

Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

### Exhibit 9: Implied Volatility

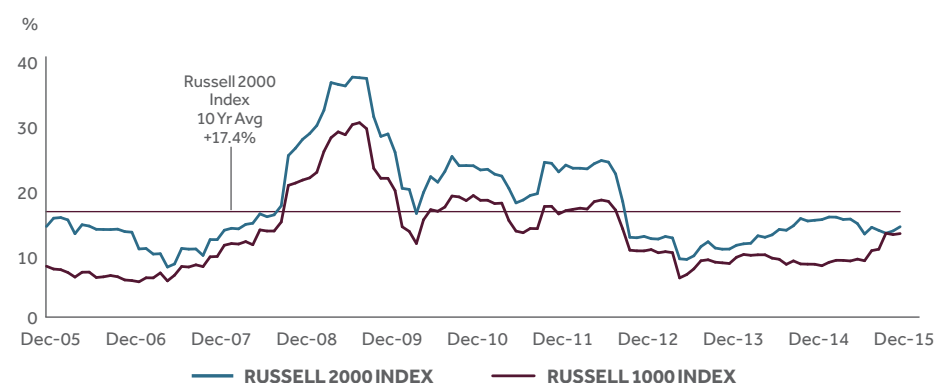
CBOE Russell 2000 Volatility Index (RVX) (December 2005 – December 2015)



Source: CBOE. CBOE®, Chicago Board Options Exchange®, CBOE Volatility Index®, and VIX® are registered trademarks of Chicago Board Options Exchange, Incorporated (CBOE). RVX is a service mark of CBOE. The Russell 2000 Index is a registered trademark of The Frank Russell Company, used under license. This data is believed to be correct but CBOE does not guarantee the accuracy of the data and will not be held liable for consequences of its use.

### Exhibit 11: 12-Month Rolling Standard Deviation (%)

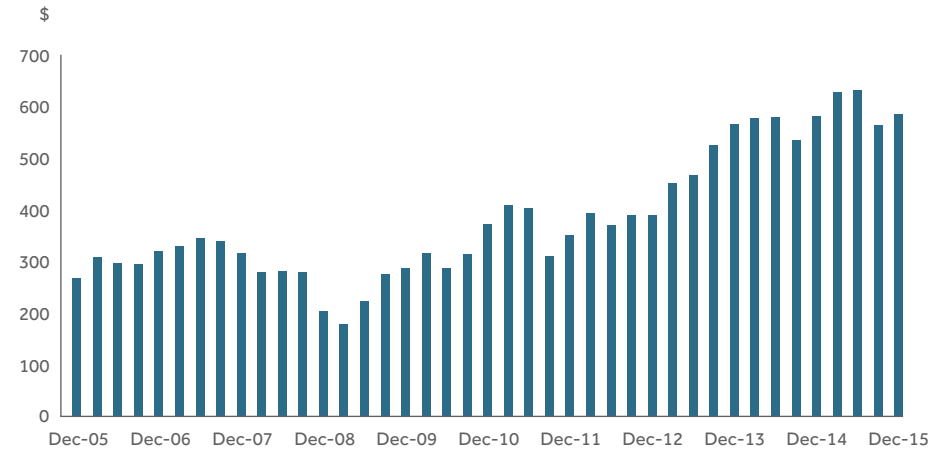
10 Years (as of 12/31/2015)



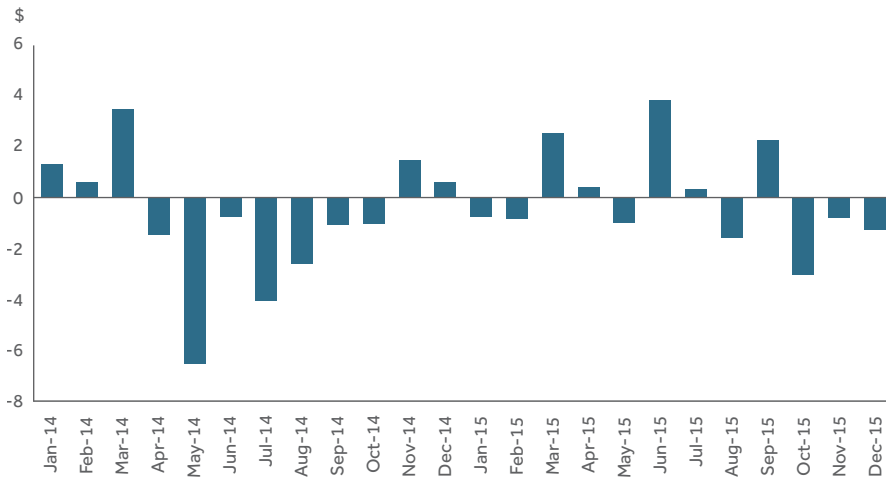
### Small cap asset flows (175)

- Small cap ETF assets ended the year at \$98.8 billion, just off of the all-time high set in June 2015. Total assets including mutual funds also finished the year below their June high (\$630.9 billion) at \$584.3 billion (see Exhibit 13).
- Small cap flows were eerily balanced between ETFs, which had \$10.3 billion of inflows in 2015, and mutual funds which experienced \$10.3 billion of outflows in 2015. The congruence between the ETF inflows and mutual fund outflows would seem to support the recent trend towards passive funds at the expense of active funds.<sup>13</sup>

**Exhibit 13: Quarterly Small Cap Total Assets (\$ billions)**  
10 Years (As of 12/31/2015)

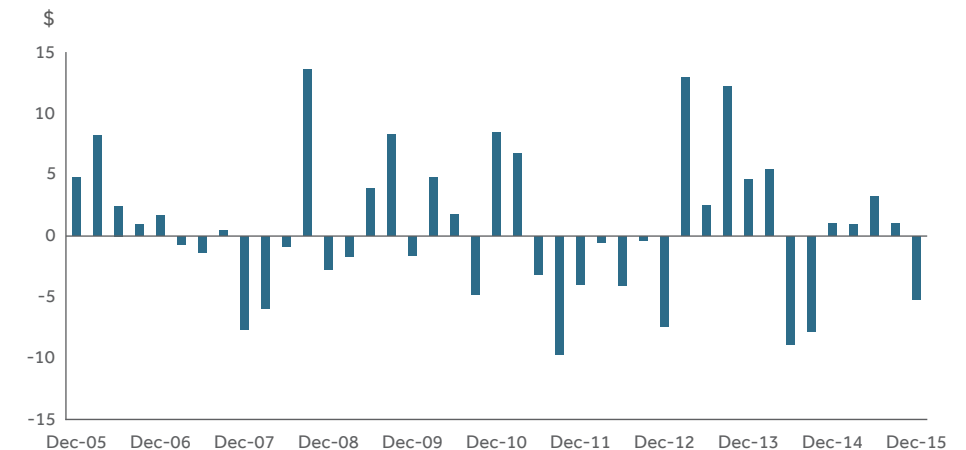


**Exhibit 14: Monthly Small Cap Asset Flows (\$ billions)**  
Estimated Net Flows (January 2014 – December 2015)



Source: Morningstar Direct. Total assets and estimated net flows are for all U.S.-domiciled open-end mutual funds (excluding money market funds and funds-of-funds) and Exchange Traded Products (ETPs) categorized as small cap, small cap growth or small cap value by Morningstar.

**Exhibit 15: Quarterly Small Cap Asset Flows (\$ billions)**  
Estimated Net Flows — 10 Years (As of 12/31/2015)

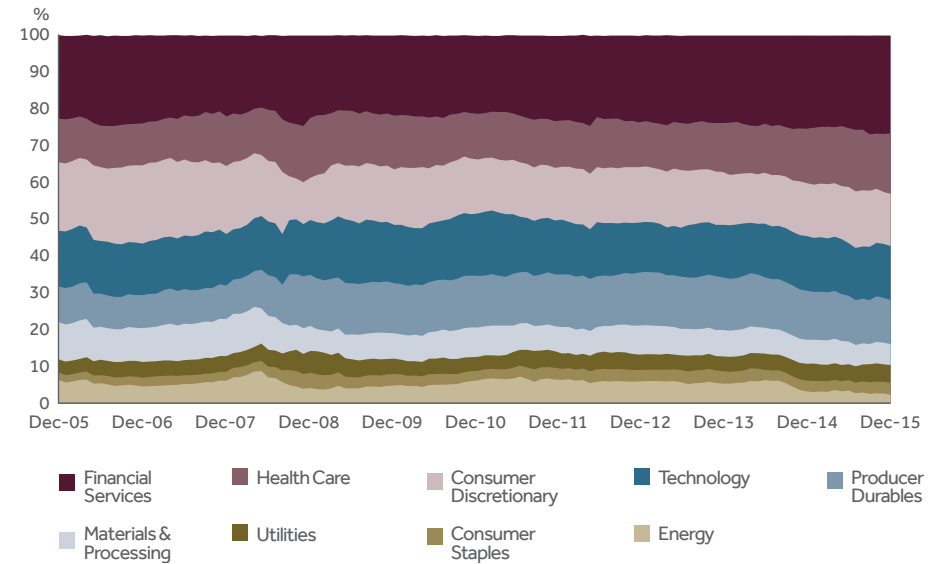


<sup>13</sup> Karabell, Z. (2015). Solving the Active Vs. Passive Investing Debate. *Barron's* accessed on 1/18/2016 at: <http://www.barrons.com/articles/solving-the-active-vs-passive-investing-debate-1422304950>

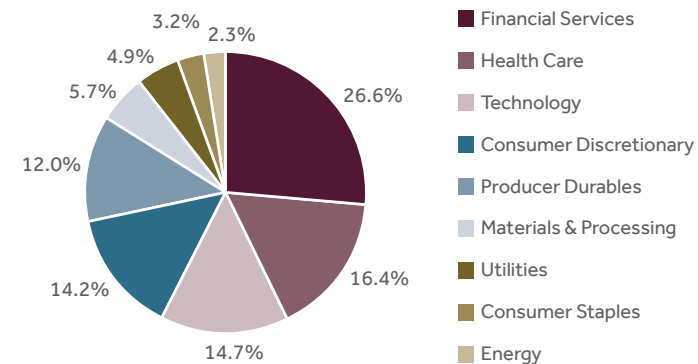
### Russell 2000 Index sector weights (250)

- Just when things couldn't seem to get worse for the Energy Sector oil continued to lose value, leading to a fourth quarter index weighting decline of 0.27 percentage points (see Exhibit 17). The fourth quarter skid contributed to the full year loss of approximately 0.9 percentage points. The Energy Sector's weight in the Russell 2000 Index has dropped more than 3 percentage points since the end of 2013, ending the year with a weight of 2.3%.
- Sector shifts quarter-over-quarter were subdued with no index weight change larger than Healthcare's approximately 1.1 percentage point gain in the fourth quarter. Healthcare's uptick came at the expense of the Consumer Discretionary which lost an equivalent 1.1 percentage point over the final quarter.
- The largest year-over-year change in the sector composition of the Russell 2000 Index was Health Care, which had gained 1.6 percentage point at the finish of 2015 (see Exhibit 16). Our second quarter Small Cap Perspectives report explored the drivers for growth in the Health Care Sector and can be found on the FTSE Russell blog at ftserussell.com.

**Exhibit 16: Historical Sector Weightings (%)**  
10 Years (as of 12/31/2015)



**Exhibit 17: Current Sector Weightings (%)**  
(as of 12/31/2015)



Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

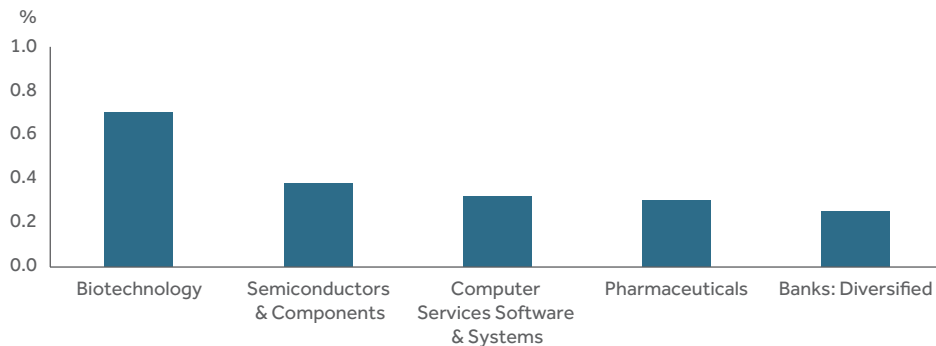


### Russell 2000 Index sector attribution analysis (150)

- Arguably two of the biggest storylines in 2015, Healthcare and Energy, were again the influencers of small cap performance overall in the fourth quarter. Healthcare made the largest positive contribution to the Russell 2000 Index (+1.4 percentage points), followed by Financial Services (+0.9 percentage points) and Technology (+0.8 percentage points). Energy (-0.2 percentage points) and Consumer Discretionary (-0.4 percentage points) were the only two negative contributors for the quarter (see Exhibit 18).
- Deconstructing sector performance by industry, Biotech (+0.7 percentage points) was the top contributor for the fourth quarter. Four of the top ten contributors by industry belonged to the Healthcare Sector in the fourth quarter; making up nearly 40% of the Russell 2000 Index's fourth quarter return (see Exhibit 19).
- The biggest stragglers among industries during the fourth quarter were tied to the Consumer Discretionary Sector. Specialty Retail and Apparel & Shoes subtracted approximately 0.4 percentage points from the return of the Russell 2000 Index (Exhibit 20).
- The Health Care sector had the highest total return (+16.4%) for the fourth quarter. Energy was hardest hit returning -10.6% but only contributed a loss of 0.2 percentage points because its index weight has fallen to such a low level (see Exhibit 21).

### Exhibit 19: Top Industry Contributors (%)

Fourth Quarter 2015



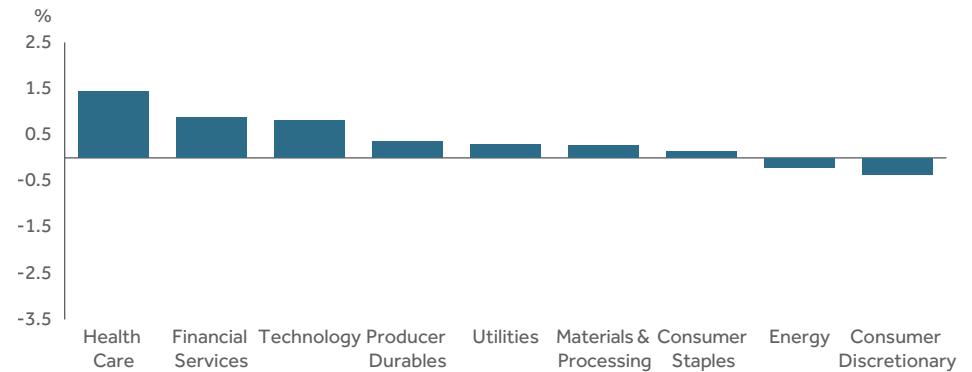
### Exhibit 21: Sector Review

Fourth Quarter 2015 (as of 12/31/2015)

	Financial Services	Health Care	Technology	Consumer Discretionary	Producer Durables	Materials & Processing	Utilities	Consumer Staples	Energy
Russell 2000 Index Weight (%)	26.6	16.4	14.7	14.2	12.0	5.7	4.9	3.2	2.3
Total Return (%)	3.36	9.76	5.88	-2.65	2.85	4.47	5.99	4.65	-10.60
Contribution to Return (%)	0.88	1.43	0.80	-0.35	0.36	0.26	0.29	0.14	-0.21

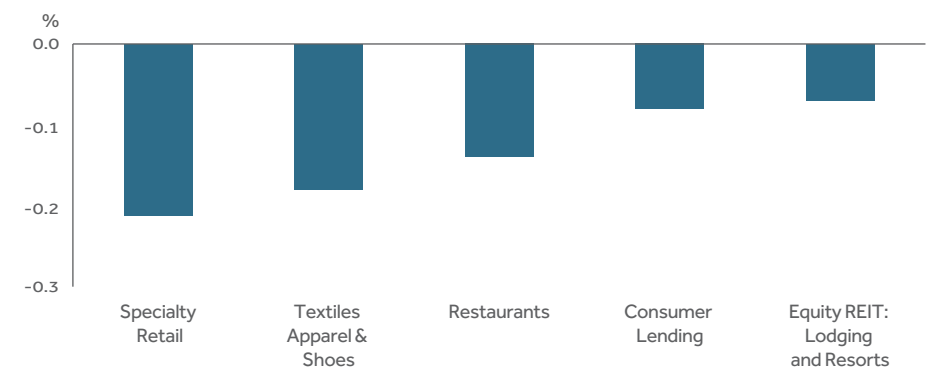
### Exhibit 18: Sector Contribution to Return (%)

Fourth Quarter 2015 (as of 12/31/2015)



### Exhibit 20: Bottom Industry Contributors (%)

Biggest detractors — Fourth Quarter 2015



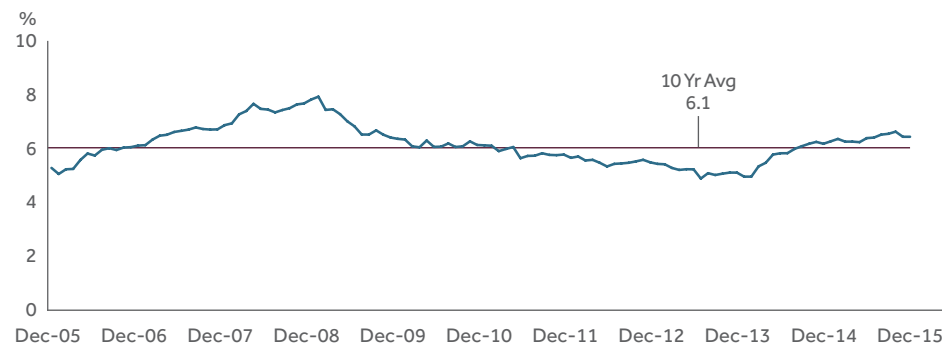
Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

### Russell 2000 Index fundamental characteristics (140)

- The valuation of the Russell 2000 Index finished 2015 above its 10-year average (16.4) at 17.4, based on the index's price-to-earnings ratio using 1-year forecasted earnings per share. Market experts suggest that earnings may be harder to come by in 2016 based on a strong dollar and structural challenges in emerging markets (see Exhibit 22).
- Profitability, as measured by five-year return on assets (ROA), ended the year at 6.4 — slightly above the long-term average of 6.1 (see Exhibit 23).
- Forecasted earnings growth continued downward trend during the year, sliding to 12.5% vs. 13.5% at the end of 2014. After not falling below 13% since June 2013, every month since June 2015 finished sub-13% (see Exhibit 24). October 2015 marked the lowest forecasted growth (12.4%) recorded during the 10-year period evaluated.

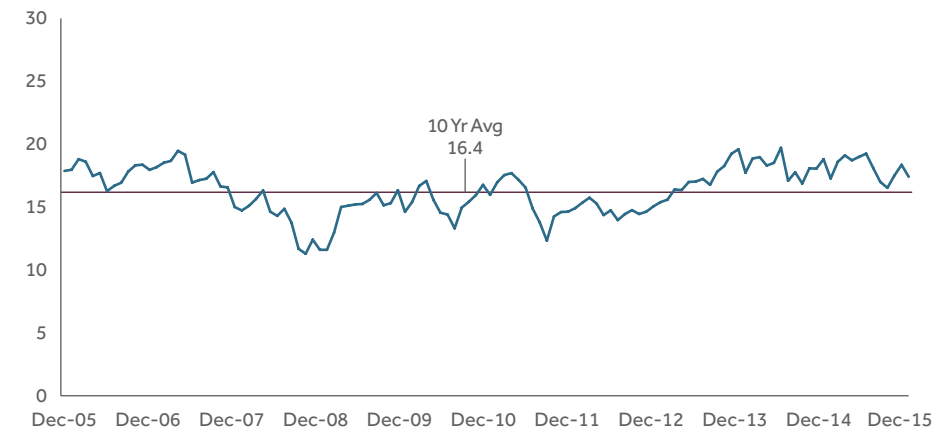
### Exhibit 23: Return on Assets (ROA)

Trailing 5 Years (%) – 10 Years (as of 12/31/2015)



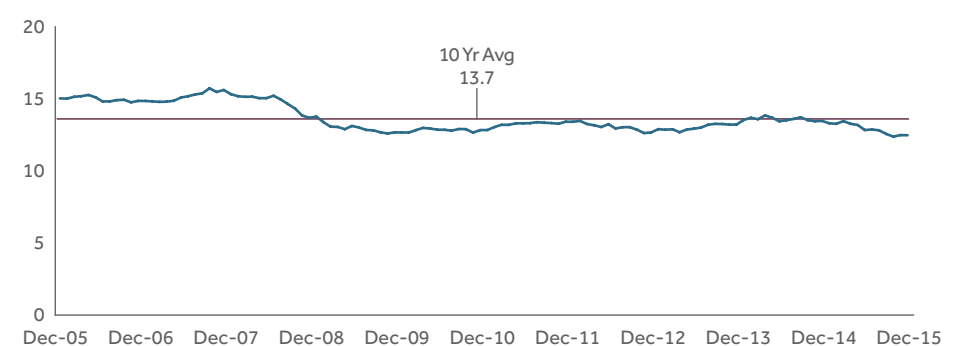
### Exhibit 22: Price-to-earnings Ratio (P/E)

I/B/E/S 1-year forecasted – 10 Years (as of 12/31/2015)



### Exhibit 24: Earnings Growth

I/B/E/S 5-year forecasted EPS – 10 Years (as of 12/31/2015)



### Exhibit 25: Fundamental Characteristics

Market Snapshot (as of 12/31/2015)

	Valuation			Growth			Quality		
	P/E – I/B/E/S 1 Yr Forecasted	Price/Book	Price/Cash Flow	Sales Per Share Growth – 5 Yr	Long Term Forecasted Growth – I/B/E/S Median	EPS Variability – 5 Yr	ROA 5 Yr Avg	Debt/Equity	Dividend Yield
Russell 2000 Index	17.41	2.12	17.61	6.75	12.48	46.85	6.44	0.97	1.51
Russell 1000 Index	16.66	2.73	13.19	7.16	9.93	29.33	11.11	1.34	2.11

Source: FTSE Russell, data as at December 31, 2015. Past performance is no guarantee of future results. Please see important legal disclosures at the end of this report.

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