

Research

FTSE
Russell

Russell Dividend Growth Index Series

Capturing dividend growth stocks
while maintaining representation
and diversification

Executive summary

1. Interest among market participants is growing in “dividend growth” companies – those that pay increasing dividends over time.
2. The Russell Dividend Growth Index Series is designed as a tool for use by market participants in this area, and the indexes are designed to avoid concentrated individual constituent or sector exposures.
3. Over more than 19 years, the three Russell Dividend Growth Indexes achieved an annualized return ~ 2-4 % higher than their respective parent indexes, with significantly improved Sharpe ratios.

Based on an analysis of Russell U.S. index constituent data from 1987-2014, companies that regularly increased their dividend payments over a period of ten years or more returned a year-on-year average of 13.9%, as opposed to the year-on-year average 10.1% returns of companies that paid dividends but did not increase them.¹ This paper introduces the Russell Dividend Growth Index Series, which includes U.S. stocks that have succeeded in increasing their dividend payments over a period of ten years or more.² Companies are screened for liquidity and dividend payment status, then selected and equal-weighted on a quarterly basis, subject to a maximum sector weight of 30%. These indexes, constructed using FTSE Russell’s transparent, rules-based methodology, are ideal tools for research, for benchmarking exposure to this interesting market segment, and for creating tradable products such as ETFs. An outline of the construction methodology is presented, along with structural and performance characteristics of the indexes.

Why invest in dividend-growing companies?

A common strategy among investors is to invest in “growth” companies – those whose key objectives include increasing their turnover, often by reinvesting profits into their businesses in order to fund business growth, in lieu of paying regular dividends. Their shareholders believe that over the long term this will lead to greater share price outperformance over that of the broad market. However, many other investors believe that conversely, the practice of paying dividends – among companies generally considered to be “value” companies – indicates a greater commitment to returning cash to shareholders, and through a combination of share performance and dividend payments, a better overall performance. The belief is commonly known as the “Dogs of the Dow” investment-selection approach, which was popularized by O’Higgins and Downes in 1991.³

A smaller group of companies issuing stocks, however, pays *increasing* dividends over time. These companies are viewed by some investors as demonstrating particular management confidence in future earnings; balance

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¹ Source: ProShares and Ned Davis Research: Russell 3000 constituent analysis, February 2, 1987, to December 31, 2014.

² In certain rare circumstances, companies with fewer than ten years of dividend growth could be included in the indexes. These are explained in the section “Diversification: Constituent selection and weighting process” on page 4, as well as in the index construction and methodology document available from ftserussell.com.

³ O’Higgins, M., with J. Downes, 1991, in *Beating the Dow*, HarperCollins.

sheet strength and strong market performance; and commitment to creating shareholder value. Increasing dividends may be seen as an indicator of these companies' long-term potential for better performance in terms of higher returns, lower volatility and/or smaller drawdown risk.

The Russell Dividend Growth Index Series

To meet the needs of investors who seek to focus on companies that are growing their dividends, FTSE Russell has created the Russell Dividend Growth Index Series, a series of indexes that tracks the performance of U.S. companies that have consistently increased their dividend payments over ten or more years.⁴ Each Dividend Growth Index is a specially selected subset of a parent Russell U.S. market cap-weighted index, as identified in Table 1.

Table 1: Russell Dividend Growth Indexes and their respective parent indexes

Russell Dividend Growth Index	Russell U.S. Index (parent index)
Russell 1000® Dividend Growth Index	Russell 1000® Index
Russell 2000® Dividend Growth index	Russell 2000® Index
Russell 3000® Dividend Growth Index	Russell 3000® Index

Construction methodology

The initial starting universe for each Russell Dividend Growth Index is the parent index noted in the above table (Table 1). Screens are then applied to ensure replicability (liquidity and tradability screens), dividend growth and diversification.

Liquidity and tradability screening

For each of the three Dividend Growth Indexes, the same liquidity and tradability screen is used. This is created using the Russell 2000 index constituents, which are ranked in order of 20-day average daily dollar traded volume (ADDTV)⁵. The ADDTV of the company at the 20th percentile is noted, and this ADDTV threshold, computed from the Russell 2000 constituents, is applied to the constituents within each of the three parent indexes. For each universe, therefore, constituents that are at or above that threshold comprise the set of securities eligible for further screening.

Dividend growth criteria

The remaining securities are assessed for dividend growth over time. Eligible securities must have paid increasing per-share regular cash dividends for ten or more consecutive years. They must meet either of these two conditions:

- Increasing annual dividend per share (DPS) in each year, over ten years.⁶

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⁴ For more information, refer to the construction and methodology at ftserussell.com.
⁵ ADDTV is defined as the accumulated trading value over the past twenty trading days, divided by twenty. For additional information on ADDTV, refer to the Russell Global Index construction and methodology document available at ftserussell.com.
⁶ In certain rare circumstances, companies with fewer than ten years of dividend growth could be included in the indexes. These are explained in the section "Diversification: Constituent selection and weighting process" on page 4, as well as in the index construction and methodology document available from ftserussell.com.

- If dividend data is missing for any individual quarter, quarterly DPS must have increased at least once in each of the last ten years, and there must not have been any decreases in quarterly DPS.

Diversification: Constituent selection and weighting process

1. FTSE Russell then assesses the number of remaining eligible stocks in each universe. Where there are fewer than 40, constituents with nine years of increasing dividends are added to the remaining list in descending order of dividend yield, until the total number of remaining constituents is 40. If there are still fewer than 40, constituents with eight years of increasing dividends are added. If after this step there are still fewer than 40 constituents, no further additions are made.
2. The remaining stocks are equal-weighted.
3. Where any sector represents 30% or more of the index, constituents are removed from that sector in ascending order of dividend yield until the sector represents less than 30%.
4. If the total number of remaining constituents is fewer than 40, constituents with nine years of increasing dividends are added to sectors with weights below 30%, in descending order of dividend yield, until there are 40 constituents. If there are still fewer than 40, the process is repeated, using constituents with eight years of increasing dividends. If after this step there still are fewer than 40 constituents, the process is not continued further.

To maintain its relevance and representativeness over time, each index in the Russell Dividend Growth Index Series is completely reconstituted annually in June, in parallel with the reconstitution of the Russell indexes.

Reconstitution and quarterly review

To maintain its relevance and representativeness over time, each index in the Russell Dividend Growth Index Series is completely reconstituted annually in June, in parallel with the reconstitution of the Russell indexes.⁷

To reduce the deviation from constituent equal weights resulting from market movements, the indexes are rebalanced to equal weight each quarter, at the close of the last business day in both March and September. In December, the rebalance is completed at the close of the third Friday of the month.

Russell Dividend Growth Index Series – characteristics

How different are the Russell Dividend Growth Indexes when compared to their parent indexes? In the following section, we report major differences in key company characteristics between the Dividend Growth Indexes and their respective parent indexes, as well as differences in sector and style exposures.

⁷ Reconstitution of the Russell Global Index and the Russell Dividend Growth Index Series is effective the last Friday in June, with the following exceptions: If the last Friday in June is the 29th or 30th, reconstitution will occur on the Friday prior. A full calendar for reconstitution is made available each spring on ftserussell.com. More information on the reconstitution of the Russell Global Index is included within the Russell Global Indexes Construction and Methodology document, available at ftserussell.com.

Key descriptive statistics

Table 2 presents general statistics showing the effect, as of December 31, 2015, of applying the Russell Dividend Growth Index Series methodology. For both the Russell 1000 and Russell 3000 Dividend Growth Indexes, the dollar-weighted average and median market capitalization fell, showing a tilt away from the largest constituents of the parent indexes. For the Russell 2000 Dividend Growth Index, on the other hand, the dollar weighted average and median market capitalization was similar to that of the parent index despite the significant drop in the number of constituents from 1988 to 56.

Five-year average dividend yield in the broad-market Russell 3000 and large cap–focused Russell 1000 both increased notably, from 2.0% to 2.8% and 2.7%, respectively. In the small cap part of the market, the increase in the 5-year average dividend yield of the Russell 2000 Dividend Growth Index relative to the parent Russell 2000 Index was even greater – from 1.5% to 2.9%. Additionally, the 5-year average dividend payout ratio was significantly higher for the Dividend Growth Indexes compared to the broader parent indexes, more than double in the case of the Russell 2000 Dividend Growth Index.

Average price-to-earnings declined slightly for the Russell 1000 Dividend Growth Index and the Russell 3000 Dividend Growth Index, and declined by over a third in the Russell 2000 Dividend Growth Index compared to the Russell 2000. Typically growth-oriented measures such as 1 Year EPS forecast – I/B/E/S and 5-year EPS growth were lower for the Dividend Growth indexes compared to the parent indexes. This is consistent with a tilt toward value examined later in this paper. However, 10-year earnings variability was significantly lower for the Dividend Growth indexes compared to the parent indexes.

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Table 2: Index characteristics as of December 31, 2015

	Russell 1000 Dividend Growth	Russell 1000	Russell 2000 Dividend Growth	Russell 2000	Russell 3000 Dividend Growth	Russell 3000
Market Capitalization (\$ Weighted Avg in billions)	32.5	125.0	1.9	1.9	25.4	115.6
Market Capitalization (\$ Weighted Median in billions)	12.7	60.5	1.8	1.7	7.9	52.5
Number of Holdings	186	1033	56	1988	242	3021
Dividend Yield – 5 year average	2.7	2.0	2.9	1.5	2.8	2.0
Dividend Payout Ratio – 5 year average	49.8	34.1	53.2	22.1	50.5	33.3
Price/Earnings	20.8	21.2	21.5	33.5	21.0	21.8
Price/Sales	1.5	1.8	1.6	1.4	1.5	1.8
Price/Book	2.8	2.7	2.1	2.1	2.6	2.7
Price/Cashflow	13.3	13.2	12.9	17.6	13.2	13.4
1 Year EPS Forecast – I/B/E/S	4.2	6.7	3.5	12.3	4.0	7.0
EPS Growth – 5 Years	6.4	9.4	3.4	10.8	5.7	9.5
Return on Equity – 5 year average	18.6	17.8	12.6	10.7	17.1	17.3
EPS Variability – 10 years	30.7	46.4	28.7	87.1	30.2	49.0

Source: FTSE Russell, data as of December 31, 2015. Please see the disclaimer page for important legal disclosures.

Sector weightings

Because the Russell Dividend Growth Indexes select stocks based on dividend growth and then equal-weight constituents, it would be expected that their sector weights would be tilted away from the parent indexes (Table 3, as of December 31, 2015). As of the evaluation date, the dividend-growth index construction methodology resulted in a general move in index sector weightings, primarily away from companies in the Technology and Health Care sectors and toward Utilities and Producer Durables. We note that the small cap Russell 2000 Dividend Growth Index exhibited a particularly noticeable increase in exposure to Consumer Staples at December 31, 2015, relative to its parent universe, the Russell 2000.⁸

Table 3: Comparative sector weightings as of December 31, 2015

	Russell 1000 Dividend Growth	Russell 1000	Russell 2000 Dividend Growth	Russell 2000	Russell 3000 Dividend Growth	Russell 3000
Consumer Discretionary	12.06	14.78	6.95	14.20	10.87	14.73
Consumer Staples	12.10	8.31	14.18	3.23	12.58	7.93
Energy	3.24	6.25	0.00	2.26	2.49	5.95
Financial Services	21.39	19.70	20.86	26.63	21.27	20.23
Health Care	3.83	14.50	5.27	16.43	4.16	14.65
Materials & Processing	10.57	3.54	3.45	5.70	8.92	3.70
Producer Durables	18.57	10.66	19.21	11.97	18.72	10.76
Technology	4.78	17.02	0.00	14.71	3.68	16.85
Utilities	13.46	5.23	30.09	4.87	17.31	5.21

Source: FTSE Russell, data as of December 31, 2015. Please see the disclaimer page for important legal disclosures.

Style implications

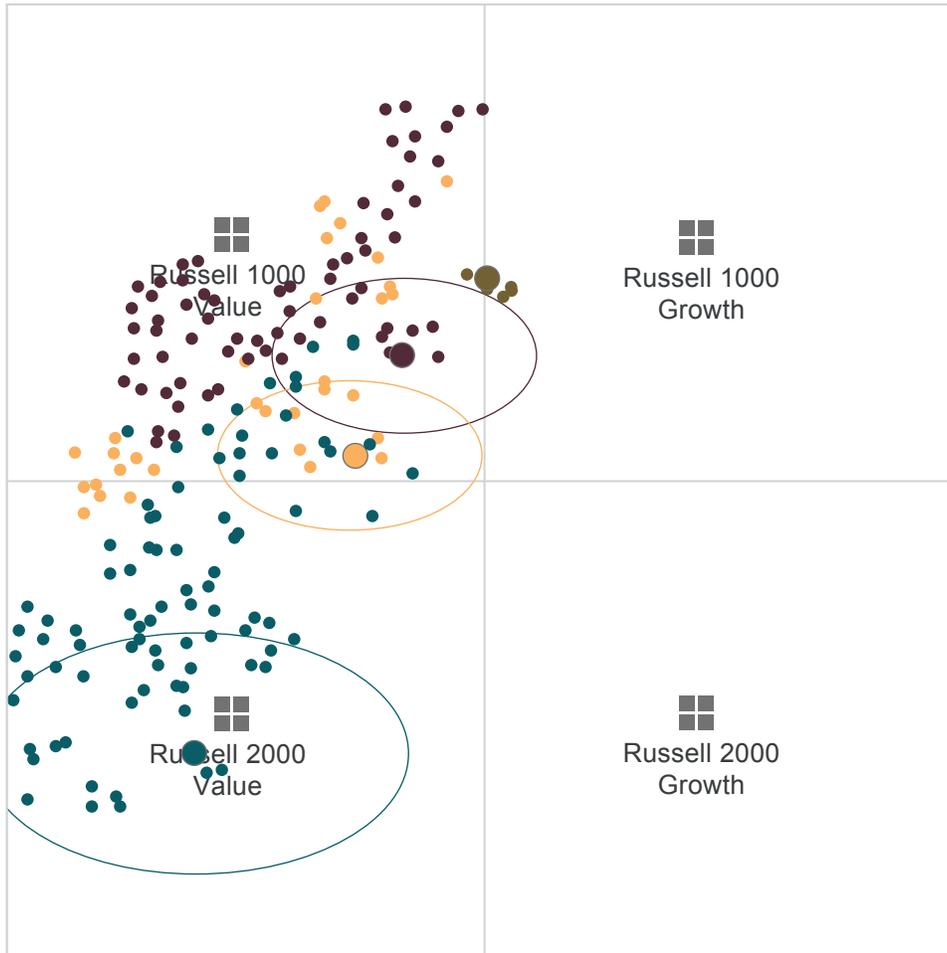
An analysis of the style characteristics of the Russell Dividend Growth Indexes shows the expected tilt towards value that follows from selecting stocks showing steady dividend growth over a long period of time, despite the underlying parent indexes – the Russell 1000, 2000 and 3000 – being style-neutral at their annual reconstitutions (Figure 1). Of the three dividend growth indexes, the Russell 2000 Dividend Growth Index exhibits the strongest value style based on returns.

As of the evaluation date, the dividend-growth index construction methodology resulted in a general move in index sector weightings, primarily away from companies in the Technology and Health Care sectors and toward Utilities and Producer Durables.

⁸ These tilts are constrained by the index construction and methodology rules, which require that no individual sector can more than 30% of the overall index weight at the annual index reconstitution.

Figure 1: Style profile, July 1996–December 2015

Returns-Based Style Trail



Investment Name	R-Squared
● Russell 1000 Dividend Growth	92.64
● Russell 2000 Dividend Growth	89.5
● Russell 3000 Dividend Growth	93.63
● Russell 3000	100

○ 12/31/2015 ○ Confidence Region

Source: FTSE Russell, data as of December 31, 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures. Returns-based style analysis calculated by Morningstar Direct.

Russell Dividend Growth Index Series – performance

Over the period July 1996–December 2015,⁹ the Russell Dividend Growth Indexes would have achieved higher annualized returns and lower standard deviations, and, as a consequence, a noticeable improvement in Sharpe ratio¹⁰ in each case, compared to their parent indexes (Table 4). Each Dividend Growth index showed a low beta relative to its respective parent index, especially the Russell 2000 Dividend Growth Index. An R-squared¹¹ value between 65.7% and 69.6% for each of the Russell Dividend Growth Indexes, when regressed against their respective parent indexes, indicates that a sizable proportion of the Dividend Growth Indexes' performance is driven by factors other than broader market movements.

Table 4: Historical performance and statistics, July 1996–December 2015

Description	Annualized return	Annualized standard deviation	Beta	Alpha	Sharpe ratio	R-Square
Russell 1000 Dividend Growth	10.42	14.57	0.77	3.51	0.59	69.63
Russell 1000	8.04	15.68	1.00	–	0.42	100.00
Russell 2000 Dividend Growth	11.71	15.62	0.63	5.50	0.64	65.74
Russell 2000	7.69	20.11	1.00	–	0.35	100.00
Russell 3000 Dividend Growth	10.83	14.27	0.75	4.07	0.63	68.15
Russell 3000	7.97	15.79	1.00	–	0.42	100.00

Source: FTSE Russell and Morningstar Direct. Data from end July 1996 to end December 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

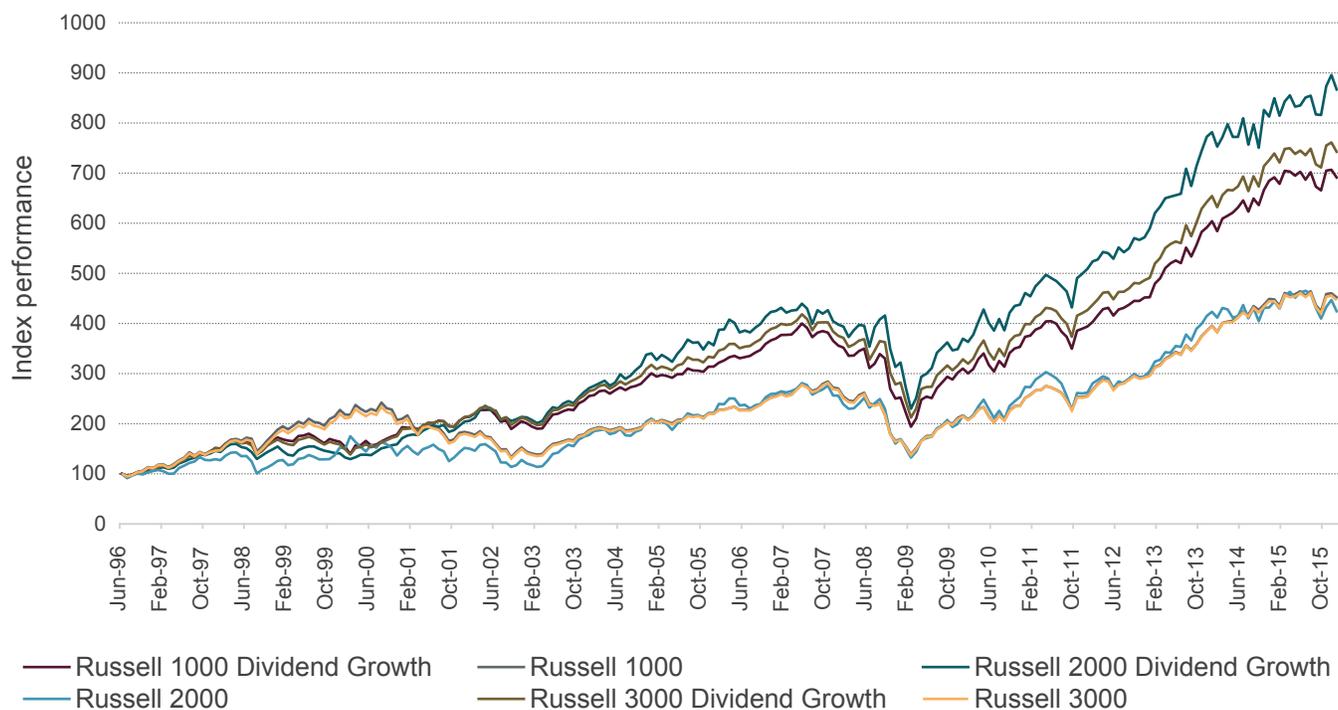
⁹ The Russell Dividend Growth Indexes started “live” calculation on November 25th 2014. Index values prior to this are back-calculated. Historical returns prior to the live production date are calculated using the same Russell methodology; however, application to the performance calculation may vary due to data sources, corporate actions and the availability of historical data with respect to certain securities.

¹⁰ Sharpe ratios within this paper are calculated by Morningstar Direct. Sharpe ratio (arithmetic) is calculated as annualized total return minus the annualized return of the risk-free rate, as measured by 3-month U.S. Treasury bills, divided by annualized standard deviation. The Sharpe Ratio is a measure of the excess return for a given amount of investment risk.

¹¹ R-squared is a statistical indicator of the percentage of a fund or index' movements that can be explained by the performance of the broader market or universe index, respectively.

As shown in Figure 2, over this same period, each of the Russell Dividend Growth Indexes would have outperformed the broad-market Russell 3000 Index and their respective parent indexes on a cumulative basis, with that performance primarily resulting from both avoidance of the full effects of market drawdowns and from steady outperformance during market bull runs (Figure 3). The most notable underperformance would have been during the 1998 to 1999 run-up preceding the technology downturn of 2000 to 2002, when the underexposure of the Russell Dividend Growth Indexes to technology companies in the initial period drove underperformance. During the subsequent market downturn, however, the Dividend Growth indexes outperformed their respective parent indexes. The small cap-oriented Russell 2000 Dividend Growth Index, as would be expected, exhibited more volatility than its peers, but ultimately it has outperformed the Russell 1000 Dividend Growth and Russell 3000 Dividend Growth Indexes and the respective parent indexes over the back-tested index history.

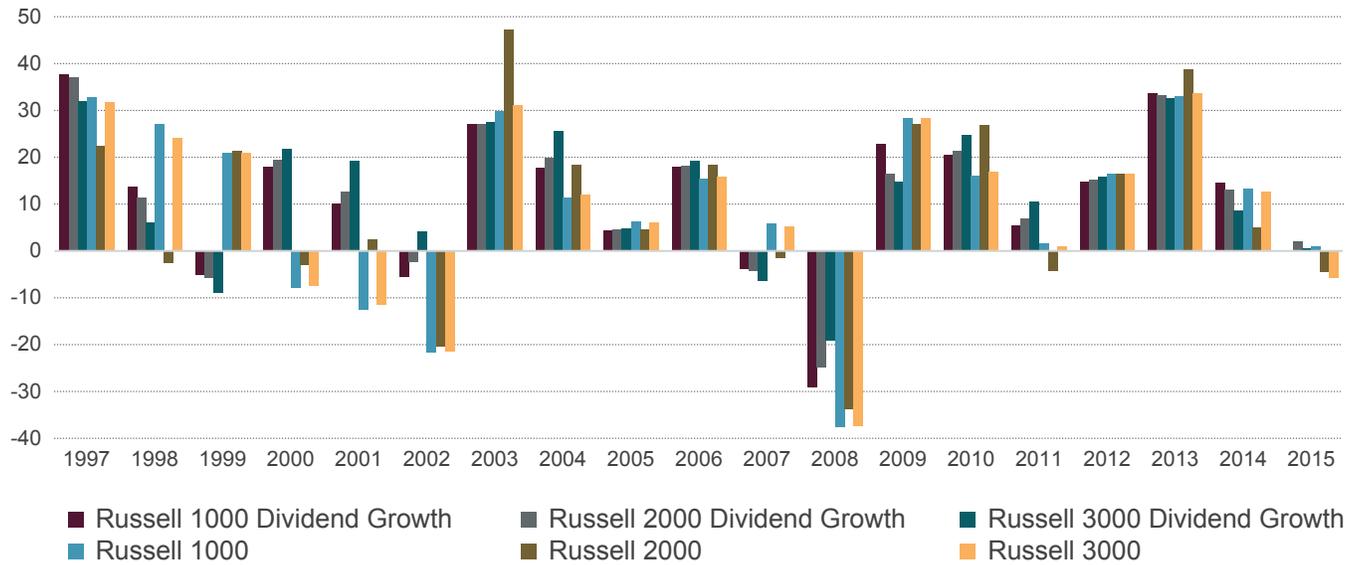
Figure 2: Historical cumulative index performance, July 1996–December 2015



Source: FTSE Russell, data as of December 31, 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

Figure 3 charts historical calendar year performance for the Russell Dividend Growth Indexes and their parent indexes, 1997–2015. Note that in years of severe market downturns, such as 2001, 2002 and 2008, the Dividend Growth Indexes suffered a less significant fall in value than their parent indexes, and in 2001 and 2011 they achieved positive returns.

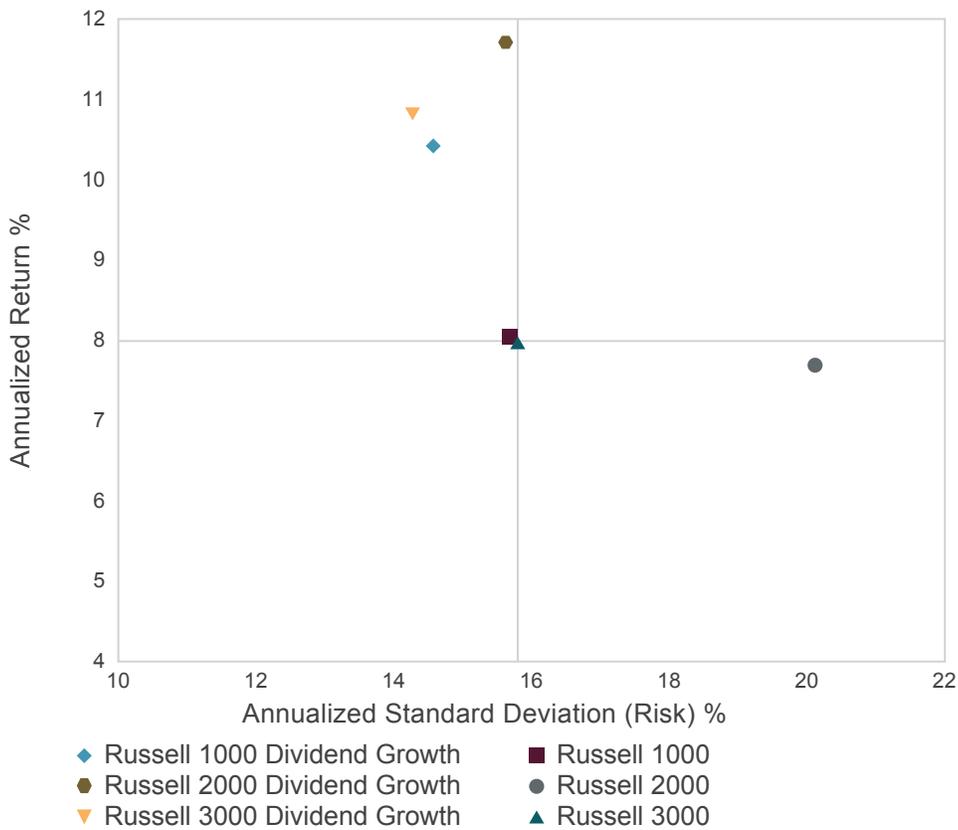
Figure 3: Historical calendar year performance, 1997–2015



Source: FTSE Russell, data as of December 31, 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

Figure 4 plots risk, as represented by annualized standard deviation, and annualized total return of the three Russell Dividend Growth Indexes and their respective parent indexes over the period examined. As expected, each index improved on the return of the parent index and reduced standard deviation. For the large cap–focused Russell 1000 and broader Russell 3000 Dividend Growth Indexes, the reduction in annualized standard deviation exceeds 1%, paired with a return increase of over 2%. In the case of the Russell 2000 Dividend Growth Index, the reduction in annualized standard deviation – from 20.1% to 15.6% – is particularly notable, despite a larger increase in return of 4% than for the others.

Figure 4: Risk/return profile July 1996–December 2015¹²

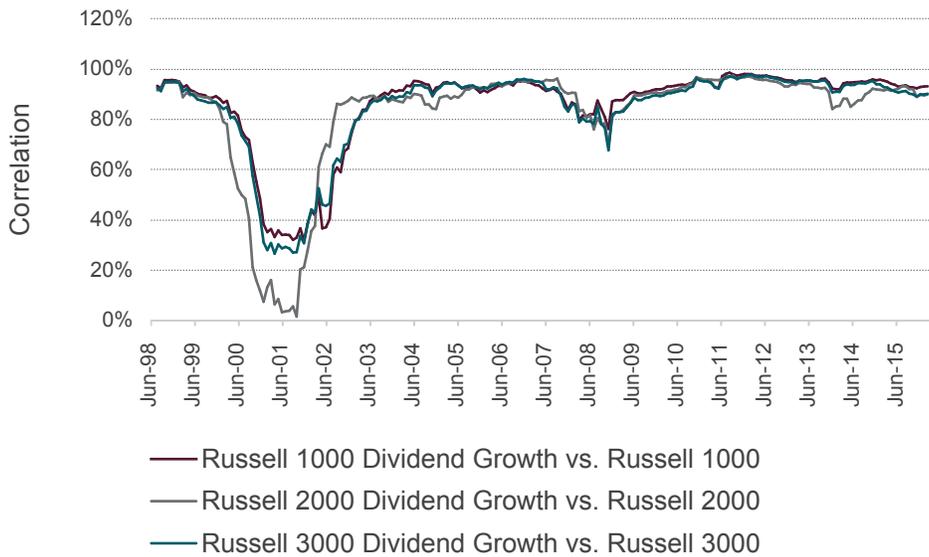


Source: FTSE Russell, data as of December 31, 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

¹² Annualized returns for the Russell 1000 and 3000 are very similar over the full period (despite notable differences for sub-periods); hence, the appearance of their figures on the chart. Please refer to Figure 2 for confirmation.

Over the full period of the calculated index back-history, the two-year rolling correlation between the Russell 1000 Dividend Growth Index and the Russell 1000 was 83.4%; between the Russell 2000 Dividend Growth Index and the Russell 2000, 81.0%; and between the Russell 3000 Dividend Growth Index and the Russell 3000, 82.5% (Figure 5). Large dips in correlations between the three Dividend Growth Indexes and their parent indexes were, however, prominent during significant market drawdowns. Comparative performance over these periods – the years 2000, 2001 and 2008, as shown in Figure 3 – reflects the performance of the Dividend Growth Indexes compared to their respective parent indexes.

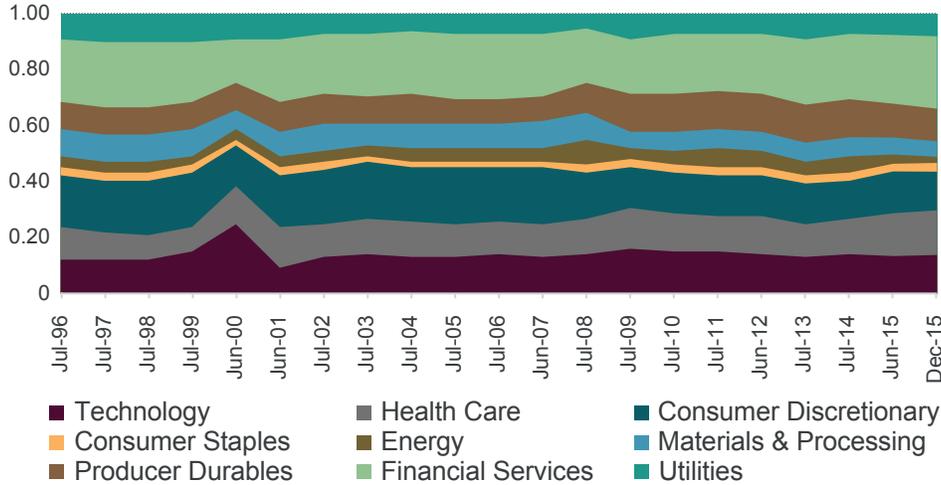
Figure 5: Historical 2-year rolling correlations, July 1996–December 2015



Source: FTSE Russell, data as of December 31, 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

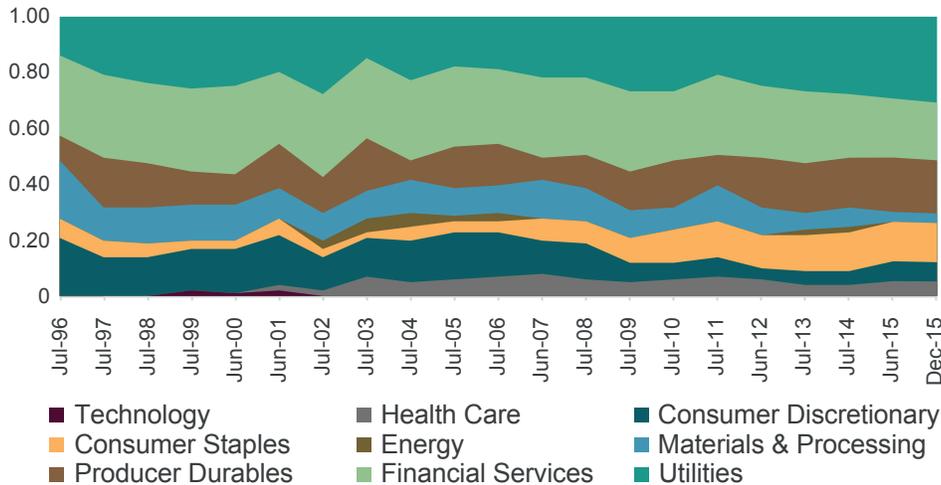
A significant fall in correlations, particularly those between the Russell 2000 and the Russell 2000 Dividend Growth Index, is evident between 2000 and early 2001, coinciding with the end of the technology bubble and the following crash. An analysis of sector exposures for the two indexes indicates the primary reason for this, namely that there were very small levels of exposure to Technology, Energy and Health Care companies in the Russell 2000 Dividend Growth Index, due to the nature of those companies being at the time generally both young companies and also less likely to be dividend issuers. Figures 6 and 7 show the index sector exposures over time for the Russell 2000 and the Russell 2000 Dividend Growth Index, respectively. At this time, performance in the Russell 2000 was to a great extent being affected by these Technology, Energy and Health Care companies, so their absence from the Russell 2000 Dividend Growth Index (and from the Russell 1000 and Russell 3000 Dividend Growth Indexes) resulted in the unusually low correlations seen.

Figure 6: Historical sector weightings: Russell 2000, July 1996–December 2015



Source: FTSE Russell, data as of December 31, 2015. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

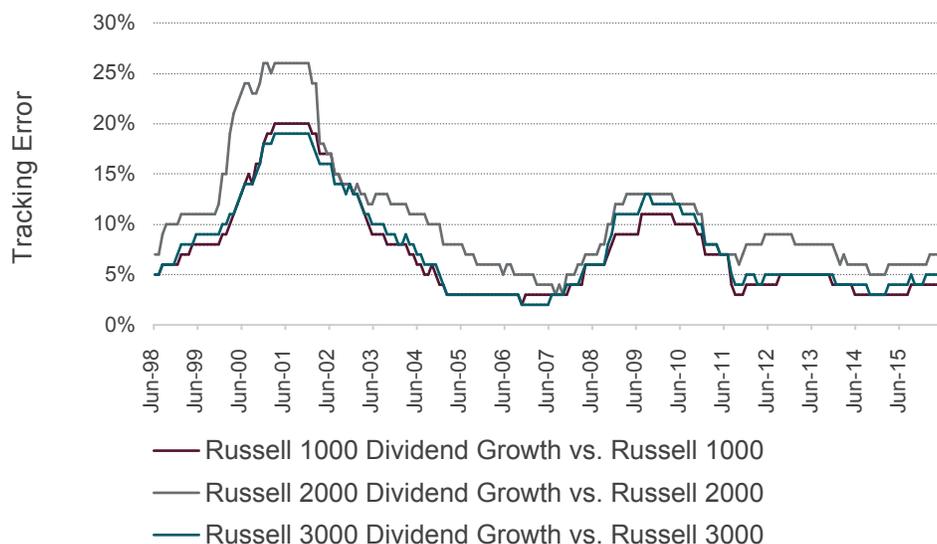
Figure 7: Historical sector weightings: Russell 2000 Dividend Growth, July 1996–December 2015



Source: FTSE Russell, data as of December 31, 2015. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

Confirming these observations, peaks in tracking error between the Russell Dividend Growth Indexes and their respective parent indexes (Figure 8) occurred during the same market downturns noted above. Over the full period, average rolling two-year tracking error was 8.8% for the Russell 1000 Dividend Growth Index, 11.8% for the Russell 2000 Dividend Growth Index, and 9.0% for the Russell 3000 Dividend Growth Index.

Figure 8: Historical two-year rolling annualized tracking error, July 1996–December 2015



Source: FTSE Russell and Morningstar Direct, data as of December 31, 2015. Past performance is no guarantee of future results. Certain returns shown reflect hypothetical historical performance. Please see the disclaimer page for important legal disclosures.

Conclusion

Investor interest in dividend-paying companies has been strong for a number of years. More recently, attention has focused on the need to ensure the long-term viability of the dividends being paid, rather than simply on maximizing the current dividend yield, and on the creation of index-based investment products such as ETFs and mutual funds that meet this interest.

The Russell Dividend Growth Index Series selects U.S. companies that have increased their dividend payments over a period of ten years¹³ or more, and that meet liquidity criteria that ensure that the resulting indexes contain suitably tradable constituent baskets. Rather than weighting by dividend or by market capitalization, FTSE Russell then equal-weights constituents to ensure diversification – and to further support diversification, does not allow any individual industry sector weight to exceed 30% of the index. To maintain appropriate weightings, index constituents are rebalanced to equal weight on a quarterly basis.

These indexes, constructed using FTSE Russell’s transparent, rules-based methodology, are ideal tools for research, for analyzing this interesting market segment and for creating tradable products such as ETFs.

¹³ Under certain rare circumstances, companies with less than ten years of dividend growth could be included in the indexes. These are explained in the section “Diversification: Constituent Selection and Weighting Process” on page 3, as well as in the index construction and methodology document available from ftserussell.com.

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