Russell Growth and Value Indexes: the enduring utility of style

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Introduction

In this white paper—the third in a series examining the long history and performance of the Russell US indexes—we focus on the Russell Growth and Value indexes.

The Russell Growth and Value indexes were developed by the Frank Russell Company in 1987 to help Russell's manager research team analyze the investing styles and performance of active asset managers. Since then, the Russell Growth and Value indexes have proven to be useful tools both as benchmarks and as the basis for investment products.

As of December 31, 2019, there were $5.7 trillion of active strategies using Russell US Style indexes as performance benchmarks, and $466 billion of passive investment products using Russell US Style indexes as their underlying portfolio, a total of $6.2 trillion in assets benchmarked or tracking the Russell Style suite of indexes.[1] The wide adoption of the Russell US Style indexes led to the launch of the Russell Pure Style indexes in 2015, and in 2019, Russell's style methodology was applied to the flagship FTSE Global Equity Index Series (FTSE GEIS), extending coverage beyond the US equity market to the large-, mid- and small-cap segments of 49 equity markets globally.

The history of their development provides insights into how these indexes have been used, and how they can be used going forward.

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[1] Data as of December 31, 2019 as reported on April 1, 2020 by eVestment for institutional assets, Morningstar for retail mutual funds, insurance products, and ETFs, and additional passive assets directly collected by FTSE Russell. AUM data includes blended benchmarks and excludes futures and options. AUM data will not include active and passive assets not reported to a 3rd party source or FTSE Russell. Passive assets directly collected by FTSE Russell have been removed from third party sources to prevent double counting. No assurances are given by FTSE Russell as to the accuracy of the data.

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Executive summary

When the Russell Style Indexes were developed by the Frank Russell Company in 1987, their primary objective was to provide appropriate benchmarks for active asset managers. While the index construction methodology has evolved over time, the usefulness of splitting the market into growth and value buckets has only increased.

As of December 31, 2019, there were $5.7 trillion of active strategies using Russell US Style Indexes as performance benchmarks, and $466 billion using them as bases for passive investment, for a total of $6.2 trillion in benchmarked assets.[2]

This review of the history and evolution of the Russell US Style indexes highlights some key findings:

– The first Russell US Style indexes, the Russell 1000 Growth and Value Indexes, were originally developed to provide appropriate benchmarks for active managers that specialized in growth or value investing.

– Soon, the indexes became used as basis for passive investment; by splitting the market in two, investors could fill holes in style allocations when they could not find active managers to meet their requirements.

– Differences in composition and performance of the indexes led investors to use the style indexes to implement strategic or tactical tilts away from the market. Because the two sides always sum up to the overall market, style allocation tilts are fully transparent.

– The more recent focus on factors has not diminished the utility of style indexes as both benchmarks and transparent style-allocation tools.

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[2] Data as of December 31, 2019 as reported on April 1, 2020 by eVestment for institutional assets, Morningstar for retail mutual funds, insurance products, and ETFs, and additional passive assets directly collected by FTSE Russell. AUM data includes blended benchmarks and excludes futures and options. AUM data will not include active and passive assets not reported to a 3rd party source or FTSE Russell. Passive assets directly collected by FTSE Russell have been removed from third party sources to prevent double counting. No assurances are given by FTSE Russell as to the accuracy of the data.

Style as a benchmark

In the mid-1980s, investment management was dominated by active managers, with very little of the passive investment that has grown to be prevalent today. As a consultant, a major part of Russell Investments' mandate was to help clients identify successful active managers. The concept of using a market capitalization-weighted index as a benchmark against which to compare the performance of active managers was well accepted.

However, it became increasingly apparent that not all active managers pursued their craft in similar ways. Some managers were good at pinpointing outperformers among the largest capitalization stocks for which there was considerable public information, while other managers were more skilled at sleuthing out obscure opportunities among smaller stocks. Moreover, each group tended to outperform at different times. Using the same benchmark to compare all managers was a disservice to both types of managers and was not efficient. To rectify these issues, Russell launched the Russell 1000 and Russell 2000 indexes in 1984 to segment the broad market more appropriately into large- and small-cap camps.

However, the differences in manager investment styles did not stop there. Important distinctions arose even within the large- and small-cap space. Some managers used their analysis and skill to identify growth stocks, or companies they believed would grow rapidly, and thus generate above-average returns. Other managers focused on finding value stocks, or companies that appeared undervalued relative to their longer-term fundamental prospects.

These divisions likely emerged from growing interest in growth and value investing strategies, supported by investor demand for both styles, as well as from differences in manager skill sets. In any event, using a common benchmark for these two types of managers resulted in inappropriate benchmarking, highlighting the need for distinct growth and value indexes.

In the case of small versus large capitalization benchmarks, the index methodology was straight-forward: a simple process involving ranking companies by size and applying a breakpoint at the 1,000th largest stock was used to divide the market into large- and small-cap size segments, thus creating the Russell 1000 and Russell 2000 Indexes. Growth and value, however, were different asset management styles and the breakpoint was not as obvious. One well-known distinction between the two styles was valuation: growth stocks tended to have a market value that was expensive relative to their underlying fundamentals, while value stocks tended to be relatively cheap on that basis. As a result, the first version of the value and growth indexes used the book-to-price ratio as the dividing metric.[3] While this methodology went through several iterations, the critical concept was that the market was divided into two equal sections.

The introduction of the style benchmarks provided an invaluable tool for consultants who needed to distinguish between portfolio managers of different types, as well as for investors who needed to understand how their portfolios are allocated to these basic styles. The introduction of appropriate benchmarks also enabled active portfolios managers to differentiate skill from the vagaries of style performance.

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[3] Cariño (2011).

Style as the basis for investment

One aspect of segmenting the broad market into both the size and style components was its "completeness." When investors combined the two together, they regained the original entire benchmark. This naturally led to using the style indexes as a basis for investment products.

Consider investors who had the total index (e.g., Russell 1000) as a policy benchmark, and a stable of active managers to implement their investments. As discussed, it was more efficient for investors to benchmark their value managers to the value index and their growth managers to the growth index. However, suppose the two investments were unbalanced. For example, suppose that it was easy to find capacity among good value managers but not among growth managers. To overcome this imbalance, investors could invest in a portfolio passively tracking the growth index as a completion sleeve to fill the hole in their portfolio created by the lack of capacity of their growth managers. Thus, there was demand for style index-tracking investments to retain exposure to the total benchmark.

This leads to the important observation: the style indexes cannot be used to diversify the portfolio. Because of the completeness property of the indexes, investing passively with equal allocations to value and growth creates the same portfolio as investing in the underlying cap-weighted index. There may be some diversification benefit from dividing active management into the two styles if, for example, the value-added streams of the two styles are expected to be uncorrelated. However, while equal allocation to passive style investments is equivalent to investing in the underlying index, it can serve as the baseline for investors to overweight value or growth to implement their own strategic or tactical views, as discussed below.

Despite this lack of a diversification benefit, several rationales for investing in style indexes revolve around the differences between the styles. One obvious motivation would be if an investor has a long-term or strategic preference for one style or the other. Indeed, it was during the early 1990s that the first of a series of articles by Fama and French (1992) emphasized the expected long-term outperformance of value stocks. Another, more tactical, rationale is if an investor has a view that one style will outperform over a certain period. This timing rationale has led to considerable research into when and why one style has tended to outperform the other at different points in the market cycle. In the next sections, we examine the performance characteristics of the growth and value indexes to gain insight into why investors might use these investments tactically.

Methodology evolution

Measures of growth and value

Russell conducted extensive research to determine the best characteristic for delineating growth from value stocks. The goal was to propose a simple and transparent methodology that objectively distinguished between these two types of managers. The goal of the indexes was not to represent a specific growth or value strategy, but rather to provide an objective representation of the universe from which active growth and value managers make their portfolio selections. In order to fulfill this goal, the indexes were tested to determine whether they reflected fundamental characteristics and performance patterns of managers classified as growth or value.

Russell's original style index research looked at a variety of valuation and fundamental measures. Based on a number of considerations, book-to-price was ultimately selected as the most appropriate input for developing indexes that distinguished growth from value.[4]

Metrics considered to construct the original Russell Style Indexes

Valuation	Fundamental (5-year averages)
Book-to-price ratio	Dividend growth
Dividend payout ratio	EPS growth
Dividend yield	Return on equity
Earnings-to-price ratio	

Timeliness and reliability of data were key considerations in evaluating the various metrics. For example, earnings-to-price could be volatile, and earnings were more susceptible to manipulation via various accounting treatments. Book-to-price was considered a much more "stable" metric, not subject to manipulation and fairly comparable across industries. As a result, companies with lower book-to-price ratios were defined as growth stocks and companies with higher book-to-price ratios were defined as value stocks.

Over time, as the market evolved, Russell continued to test and improve upon their style index methodology and, as a result, a broader approach was developed. In 1995, the IBES long-term growth estimate was added, and in 2011, this characteristic was replaced with a combination of the medium-term growth estimate and sales per share growth rate. Currently, the methodology uses book-to-price, medium-term (two-year) earnings growth forecast, and sales per share historical (five-year) growth.[5]

The modularity and completeness aspect of the Russell Style indexes is central to their construction methodology. At the annual index rebalance,[6] the Russell 1000 and Russell 2000 are divided equally by market value into growth and value stocks.[7] By design, the Russell 1000 and Russell 2000 Growth and Value indexes represent half of their parent indexes.

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[4] Haughton and Christopherson (1989).

[5] See Cariño (2011) for some history of the methodology and discussion of the 2011 change.

[6] Russell indexes moved to annual reconstitution from June 1989 (from semi-annually 1987-1989 and quarterly 1979-1986).

[7] The Russell indexes are reconstituted annually in June, and market movements will cause the market values to drift throughout the year. Please see additional reasons noted in the ground rules on why the Russell 1000 Growth and Value indexes will not be precisely 50/50 even on rank day, such as 8.7 (5% rule), 8.8 (Banding), and 8.9 (asymmetry in capitalization distributions within the second and third quartiles): https://research.ftserussell.com/products/downloads/Russell-US-indexes.pdf. That being said, at the open of the reconstitution effective day, the Russell 1000 Growth and Value indexes will generally be close to 50/50.

Division methodology refined over time: growth, value, or both?

The original methodology developed in 1987 assigned companies completely to growth or value indexes based on their book-to-price ratio. After ranking by book-to-price, a breakpoint was calculated such that 50% of the benchmark capitalization was above the breakpoint, and 50% was below. All companies below the breakpoint were assigned to the growth index and all companies with book-to-price ratios above the breakpoint were assigned to the value index.

Over time, however, a couple of significant limitations in this process became apparent. First, Russell manager research recognized that active growth and value managers did not hold mutually exclusive names in their portfolios; many companies were held in both active growth and value portfolios.

Second, for investors managing portfolios passively against the indexes, this model could cause substantial turnover at rebalancing, particularly if a large company shifted from one index to the other. In that case, the entire market value of the stock would be removed from one style index and added to the other to preserve the balance in market value, even if that stock's valuation measures had not changed.

In 1993, Russell modified the methodology to include companies on a pro rata basis in both the growth and value indexes. This meant that from June 1995, Russell 1000 companies were assigned a growth and value weight and could be in both indexes (versus single designation of growth or value); the Russell 2000 Growth and Value indexes adopted this approach historically back to their inception date of December 31, 1978, from their launch in 1993.

After that change, a stock with a valuation score at the breakpoint would be assigned 50% to the growth index and 50% to the value index. Around the breakpoint there was an overlap region in which stocks were assigned to both growth and value categories, with their market value divided based upon their relative style score (e.g., 75% growth/25% value). Above some threshold, stocks with high valuations would be assigned 100% to the growth index and would have no weight in the value index, and vice versa for low-valuation stocks. On average, roughly 30% of companies in the Russell 1000 are in the overlap region and, therefore, are in both the growth and value indexes, while the remaining 70% are assigned to be either all growth or all value. This enhancement proved to be much more reflective of active manager behavior and dramatically reduced the amount of turnover at rebalancing.

Additionally, banding between the growth and value indexes was introduced in June 2011 at the annual reconstitution to reduce turnover,[8] which is now +/-0.10 of the Composite Value Score if the company remains in the same core index (Russell 1000 or Russell 2000).[9] The banding methodology has proved to reduce turnover caused by smaller, less meaningful movements while continuing to allow the larger, more meaningful changes to occur, signaling a true change in the company's growth or value characteristics relative to the market.

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[8] See Cariño (2011).

[9] https://research.ftserussell.com/products/downloads/Russell-US-indexes.pdf.

# Style index performance and characteristics

While the original purpose of the Russell US Style indexes was to allow portfolio managers to be characterized and benchmarked based on their active management style, a role soon developed for using these indexes as the basis of passive investments. Initially, the two style indexes were used as structural portfolio completion tools that allowed investors to maintain balanced allocations to the market. However, as differences in performance emerged between the styles, investors realized they could use these indexes to implement unbalanced allocations based on their strategic or tactical views.

Strategic tilting to styles

Performance—Russell 1000 Growth and Value

An investor who prefers a certain style can adopt a strategic tilt toward that style. To get an idea of the long-term differences between the performance of the style indexes, we reviewed the 41-year performance history of the indexes from January 1979 through December 2019. Chart 1 shows the cumulative return of the Russell 1000 Value and Growth Indexes for the entire period, using a log scale.

Chart 1: Russell 1000 Growth and Value Indexes—cumulative performance (log scale)
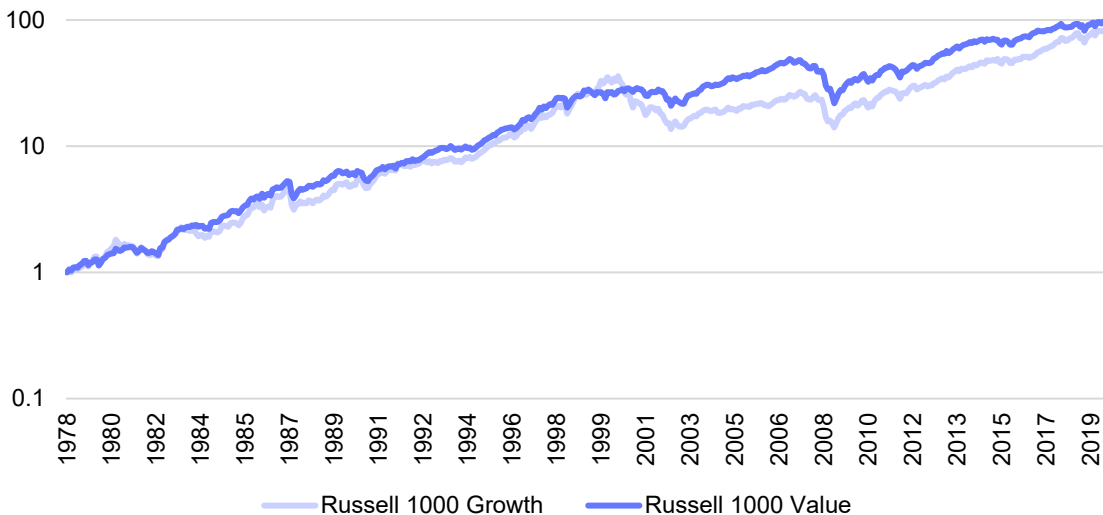
Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

As the chart above shows, while the performances of the two indexes gapped significantly around the time of the late 1990s tech bubble, they have been remarkably similar over the full period. The performance statistics in Table 1 confirm this point. The exception is in volatility, as Russell 1000 Growth is more volatile than Russell 1000 Value, which is not surprising given the boom-and-bust cycle of the tech bubble.

Table 1: Russell 1000 family performance, Jan 1979 – Dec 2019

	Russell 1000	Russell 1000 Growth	Russell 1000 Value
Average return (geometric)	11.98%	11.61%	12.00%
Standard deviation	14.94%	16.78%	14.38%
Return/volatility	0.80	0.69	0.83
Excess Return		-0.37%	0.02%
Tracking Error		4.44%	4.59%
Information Ratio		-0.08	0.00

Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

While the value premium, or the difference between performance of the value and growth indexes, looks modest based on these numbers, we should remember that these statistics cover the full cycle after the recent protracted period of value underperformance. We get a more nuanced view when using an "expanding window"—or when we calculate the differences in annualized returns using all available data from the beginning of the dataset up to that point in time. This view reflects the performance history investors would have had at their disposal at any given point over the full cycle.

Chart 2 presents the expanding window value premium for the Russell 1000 from December 1981 through December 2019. As this illustrates, while the value premium has narrowed steadily in recent years, it has fluctuated significantly since 1982, with stretches of declines followed by strong rebounds. The most notable of these was around the time of the tech bubble collapse. This spike does not occur after every crisis, as demonstrated by scant change around the global financial crisis (GFC) of 2008-2009. Intuitively, this suggests that extended bubble-like episodes of asset overpricing and subsequent market re-ratings have been the major drivers of value premium cycles.[10]

Chart 2: R1000—Expanding window value premium (differences in annualized returns)[11]
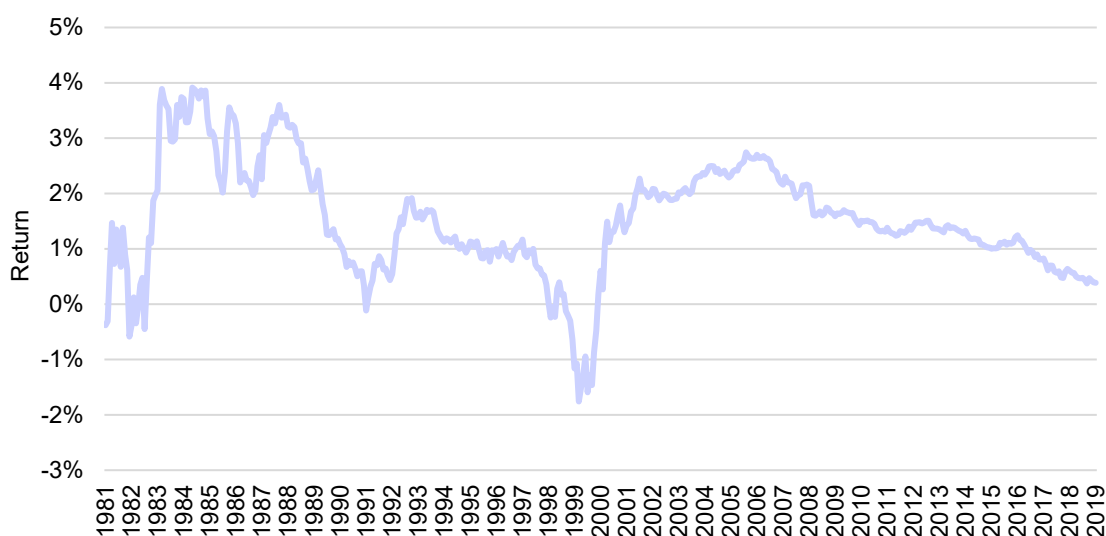
Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

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[10] During a previous period of Value weakness, Asness et al. (2000) made the following comment: "The recent performance of value strategies, and other historical bear markets for value, clearly shows that value can lose to growth for prolonged periods of time. 'The world has changed!' is a common cry heard from those skeptical of value strategies, especially after these rough periods. Today, new technology, globalization, and newly established franchise values, among other factors, may allow some companies to grow earnings far in excess of and longer than what the market has seen in the past."

[11] We start after building a 3-year window to reduce noise in the early period.

Performance—Russell 2000 Growth and Value

Now let us take a closer look at the profiles of the Russell 2000 Growth and Value indexes. Notably, as Chart 3 shows, the performance gap is much bigger between the small-cap Value and Growth indexes than between their large-cap counterparts. This is confirmed in Table 2. This is a good point to reiterate the completeness aspect (and resulting symmetry) of the Russell Style indexes: because the Value and Growth indexes combine to represent the underlying index, if one outperforms, the other one must underperform. Also, note that the volatility of all Russell 2000 indexes is higher than those of the corresponding Russell 1000 indexes, reflecting the consistently higher volatility of smaller-cap stocks.

Chart 3: Russell 2000 Growth and Russell 2000 Value Indexes—cumulative performance (log scale)
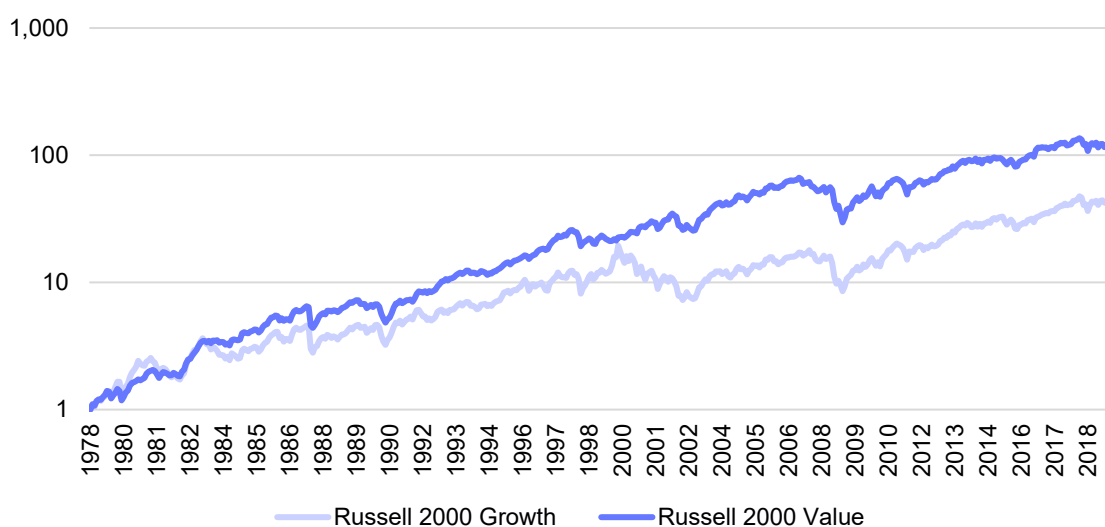
Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

Table 2: Russell 2000 family performance, Jan 1979 – Dec 2019

	Russell 2000	Russell 2000 Growth	Russell 2000 Value
Average return (geometric)	11.42%	9.83%	12.65%
Standard deviation	19.22%	22.21%	17.27%
Return/volatility	0.59	0.44	0.73
Excess Return		-1.59%	1.22%
Tracking Error		5.21%	5.60%
Information Ratio		-0.31	0.22

Source: FTSE Russell. Data from December 31, 1978, through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

In comparing the value and growth indexes across the Russell size segments (Chart 4), we see that most of the performance gap between the two Growth indexes seems to have surfaced in the run-up of the tech bubble, which benefited the large-cap Russell 1000 Growth index more than its small-cap counterpart. This performance edge has never completely unwound.

Chart 4: Russell Growth and Value Style Indexes by size—cumulative returns (log scale)
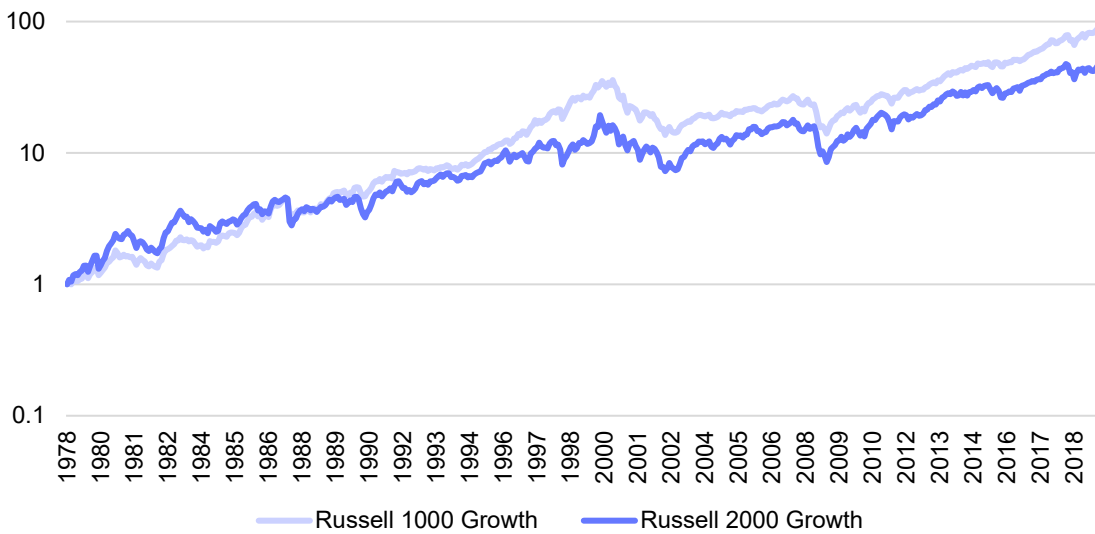
Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.
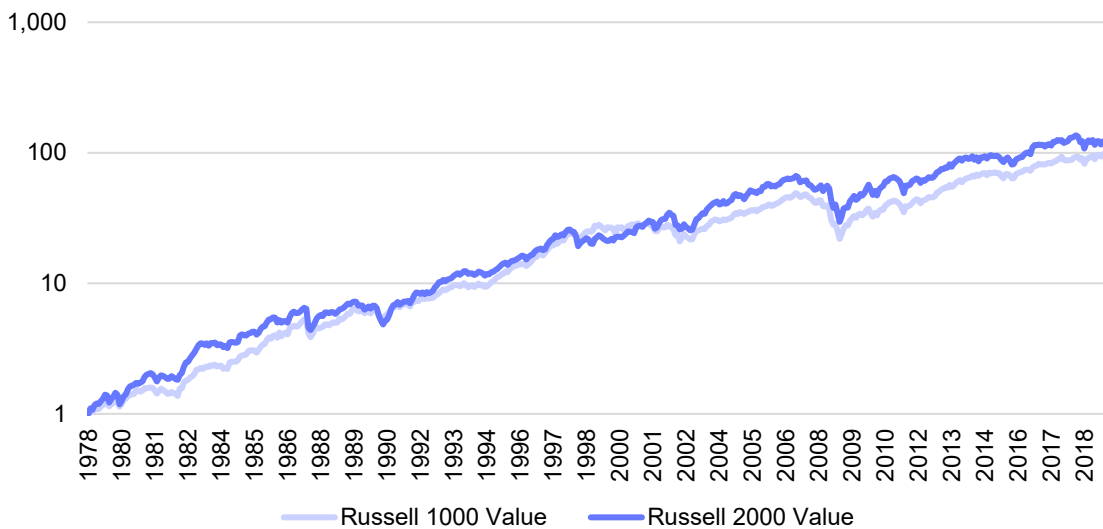
Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

When we consider the value premium in the Russell 2000, we see that it has followed the same general pattern as the Russell 1000, but has been higher. The recent period of value underperformance has reduced the expanding window value premium, but it was still above 2% at the end of the period (Chart 5).

Chart 5: R2000—Expanding window value premium (differences in annualized returns)
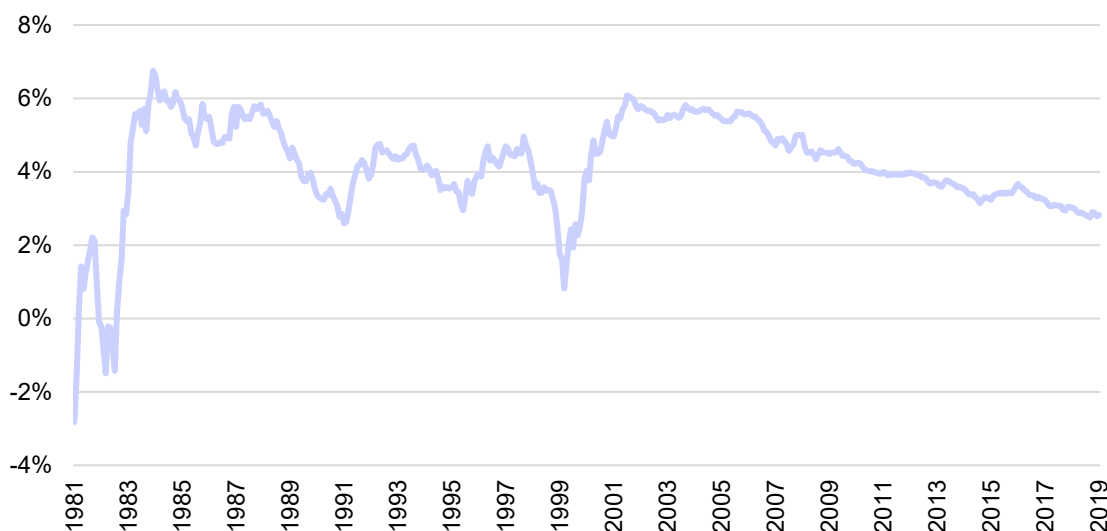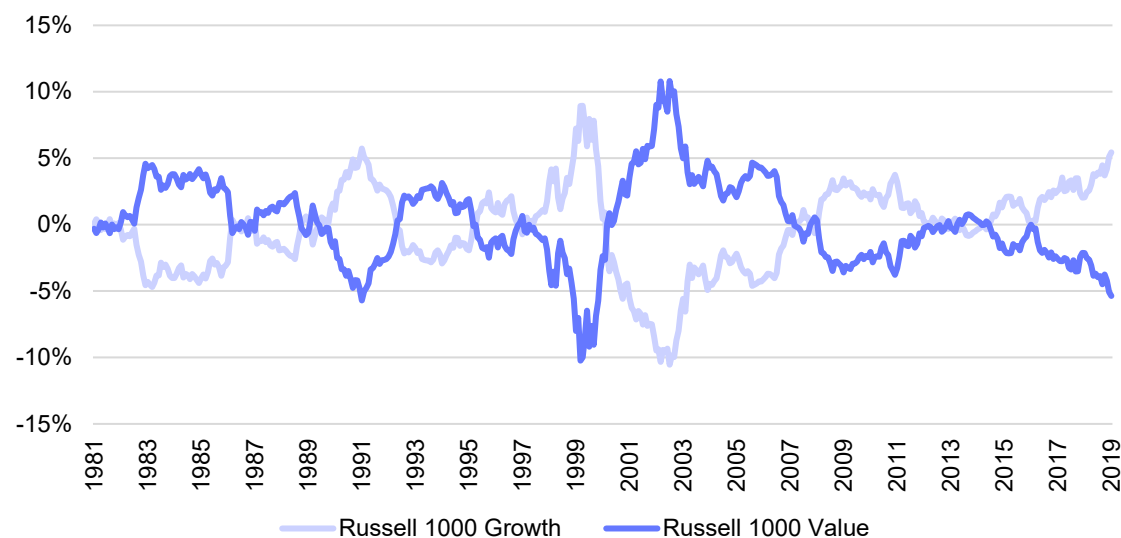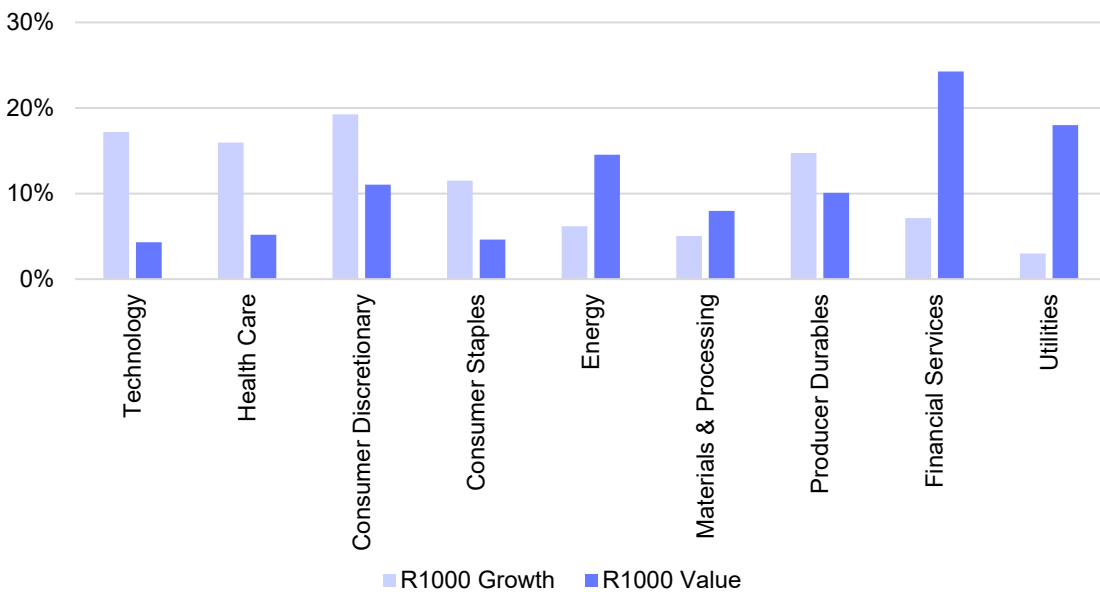

Source: FTSE Russell. Data through December 31, 2019.
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Transparency of strategic tilting

A couple of examples of strategic tilting can demonstrate the transparency of using style indexes for managing portfolios. Investors may develop views on the relative desirability of growth and value exposures and shift their overall policy benchmark to deviate from the 50-50 benchmark that is equivalent to the underlying benchmark. By allocating, say 55% to value and 45% to growth, investors can express their views in the overall portfolio, and then continue to use the style indexes to benchmark their managers to those allocations appropriately.

A simple extension of this example is to permit some of the investments to be passive investments based on style indexes. Whether this passive allocation is due to lack of appropriate managers or other implementation frictions is immaterial. By moving the policy benchmark away from the underlying 50-50 growth-value allocation, investors allow their views to determine the overall style allocation; then the specific implementation can depend on other considerations. The total of all actively or passively managed assets continues to match the strategic allocation.

Tactical tilting to styles

Cyclicality

One key difference between the Value and Growth indexes is their degree of cyclicality. This can be measured in various ways, some of which are displayed in Table 3.

The Russell 1000 Growth, for example, has upside and downside capture ratios that are above 1. This indicates that the index participates more than fully in both market rallies and market downturns, and is cyclical relative to the benchmark, with an average of 1.09.[12] In contrast, the Russell 1000 Value has an average capture ratio of 0.92, indicating that it is somewhat defensive relative to the benchmark. It is important to note that the notion of cyclicality used here is relative to the underlying benchmark and is not a more general concept of economic cyclicality. More specifically, because the Value index is less cyclical than the Growth index, and the two together add up to the underlying benchmark, the Value index must be relatively defensive compared to the benchmark, even if we do not think of value as being a defensive characteristic. This difference in performance pattern allows the style indexes to be used for tactical allocations.

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[12] The capture ratios used here are "simple" versions: the arithmetic average of monthly returns of the index over that of the benchmark when the benchmark is up (or down for downside capture).

The Russell 2000 indexes have followed a similar pattern. Notably, the excess capture ratios for the Russell 2000 Growth and Value indexes are larger in magnitude (further away from 1) than for their Russell 1000 counterparts, indicating that they are more cyclical or defensive than the large-cap indexes. The same goes for the calculated betas.[13]

Table 3: Russell Style Indexes by size—cyclicality measures (Jan. 1979 - Dec. 2019)

	Russell 1000 Growth	Russell 1000 Value	Russell 2000 Growth	Russell 2000 Value
Upside capture	1.06	0.94	1.10	0.89
Downsize capture	1.11	0.89	1.20	0.79
Average capture	1.09	0.92	1.15	0.84
Beta	1.09	0.92	1.13	0.86

Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

The long-term characteristics of the value and growth indexes guide strategic or long-term tilts toward styles, but differences in cyclicality highlight the second, more tactical, reasons for using style indexes.

A tactical orientation towards style indexes has evolved from an appreciation for what drives the relative performance of the indexes. Charts 6 and 7 show the excess returns for the Russell 1000 and Russell 2000 Style indexes measured over three-year-rolling windows. The first feature to jump out is the rough symmetry of the excess returns, again reflecting the completeness of the style index construction. While leadership between the two styles has swung back and forth, two events stand out:

–   The run-up of growth stocks and the significant underperformance of value-oriented stocks during the tech bubble. This was reversed in the collapse of the tech bubble in the subsequent years.

–   The extended underperformance of value stocks since the global financial crisis, leading many to question whether value is 'dead'.

Chart 6: Russell 1000 Style Indexes—annualized excess returns (%, three-year rolling)

Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

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[13] These betas are calculated from the monthly index returns.

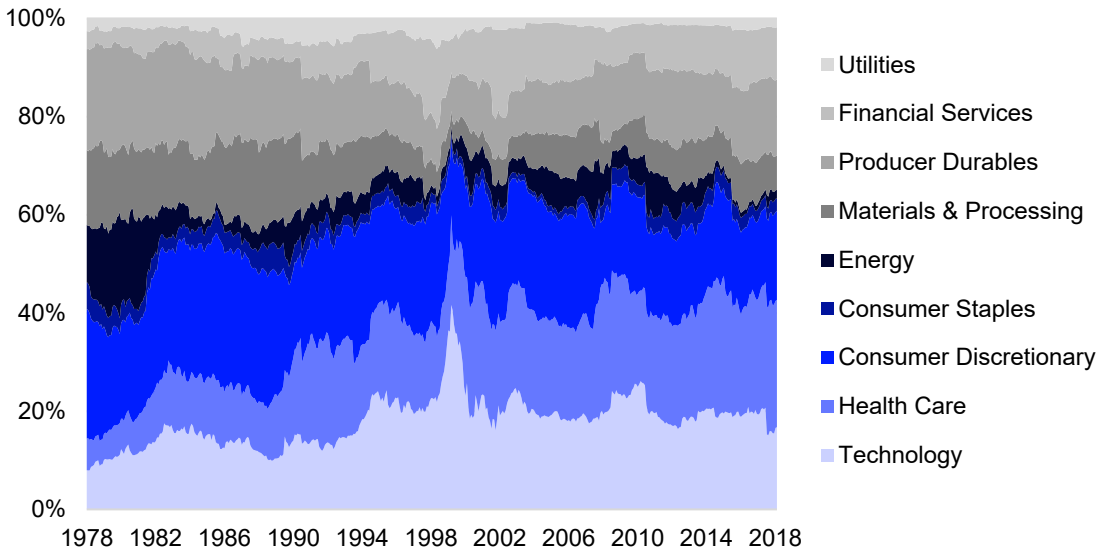**Chart 7: Russell 2000 Style Indexes—annualized excess returns (%, three-year rolling)**
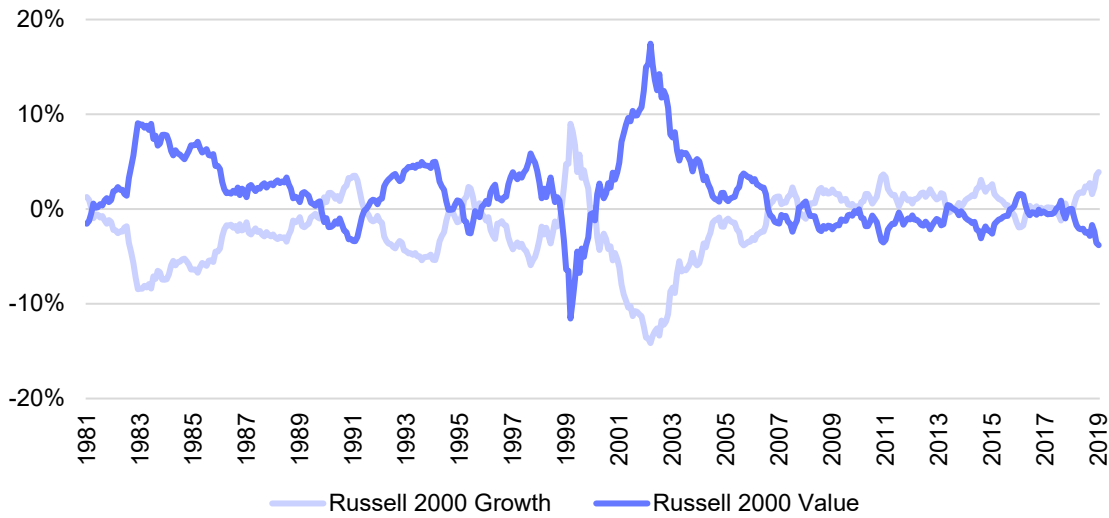
Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance. Please see the end for important legal disclosures.

Sector composition

A look at the industry compositions of the style indexes offers more insight into their relative cyclicality. Chart 8 shows the average Russell Global Sector (RGS) weights for the Russell 1000 style indexes. The cyclicality of the growth index is intuitive given its larger weights to the more economically cyclical sectors (Technology, Consumer Discretionary, and Producer Durables) and the smaller weights to the more defensive Utilities sector. Growth investors focus on analyzing fast-changing trends and ferreting out companies with innovative ideas and strong growth prospects. On the other hand, the highly regulated Utilities sector generally has moderate yet relatively stable growth prospects.

Chart 8: Russell 1000 Value and Growth—average sector weights (Dec. 1978-Jan. 2019)[14]

Source: FTSE Russell. Data from December 31, 1978, through January 31, 2019.
Past performance is no guarantee of future performance.

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[14] The historical Russell Global Sectors (RGS) classifications shown here were revamped in 2019.

This division between growth and value, then, maps fairly neatly into cyclical and defensive sectors, even though that was not the primary motivation for making the distinction. As a basis for investment, styles could be used not only to implement tactical views on whether value or growth stocks might outperform, but also on whether cyclical or defensive stocks might outperform. In other words, styles could be used to implement investment views on market and economic cycles.

For comparison, the average sector weights for Russell 2000 Value and Growth are shown in Chart 9.

Chart 9: Russell 2000 Value and Growth—average sector weights (Dec. 1978-Jan. 2019)
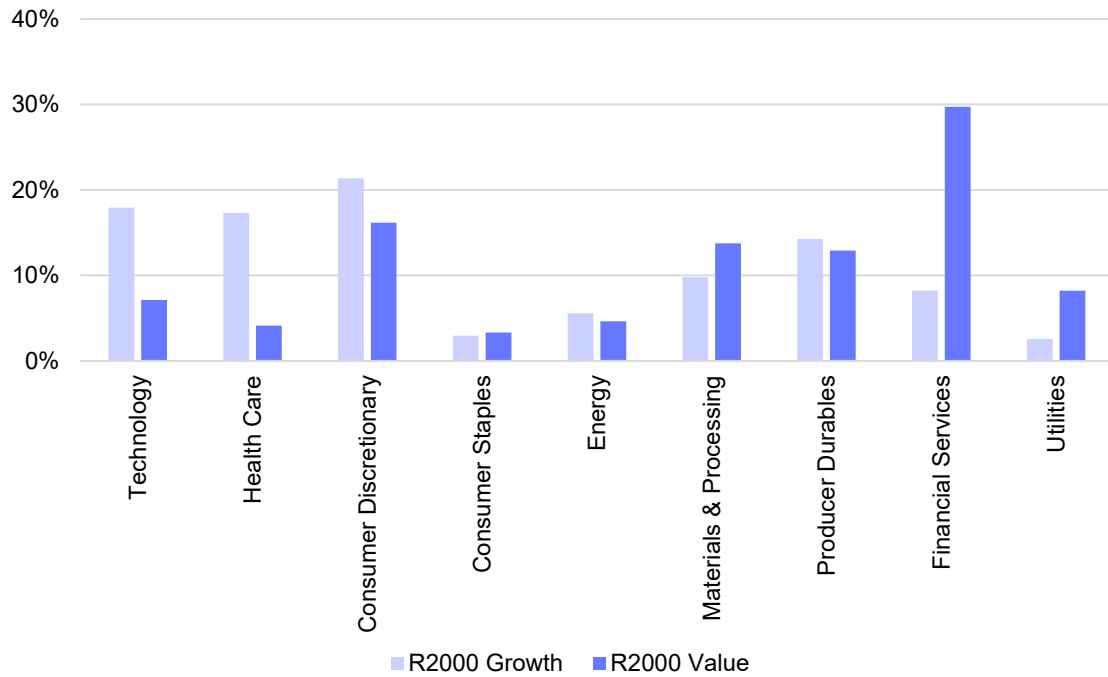
Source: FTSE Russell. Data from December 31, 1978, through January 31, 2019.
Past performance is no guarantee of future performance.

While the previous charts showed the average sector weights over the entire period, a time-series view (Charts 10 and 11) highlights some interesting compositional shifts:

– The Energy sector, once the largest weight in the Russell 1000 Growth index, has dwindled to almost nothing.

– The Growth index's exposure to Technology has increased significantly, which is not surprising considering the massive technological changes we have seen over the past four decades and the sector's impact on the US industrial structure.

– The Value index has seen a similar increase in the Financial Services sector, although this has been offset by similar decreases in the Utilities sector weight.

Chart 10: Russell 1000 Growth—sector weights (Dec. 1979-Jan. 2019)
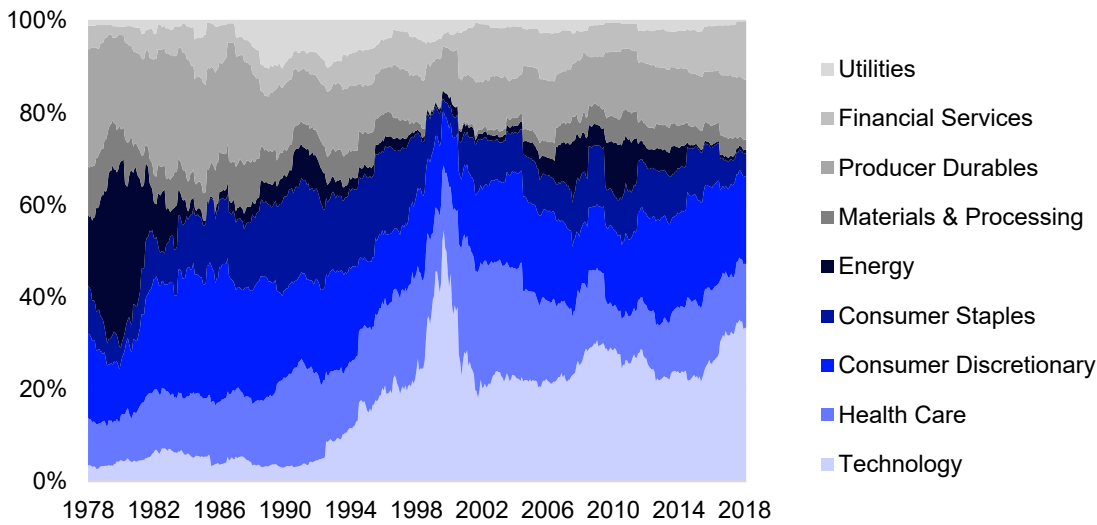
Source: FTSE Russell. Data from December 31, 1978, through January 31, 2019.
Past performance is no guarantee of future performance.

Chart 11: Russell 1000 Value—sector weights (Dec. 1978-Jan. 2019)
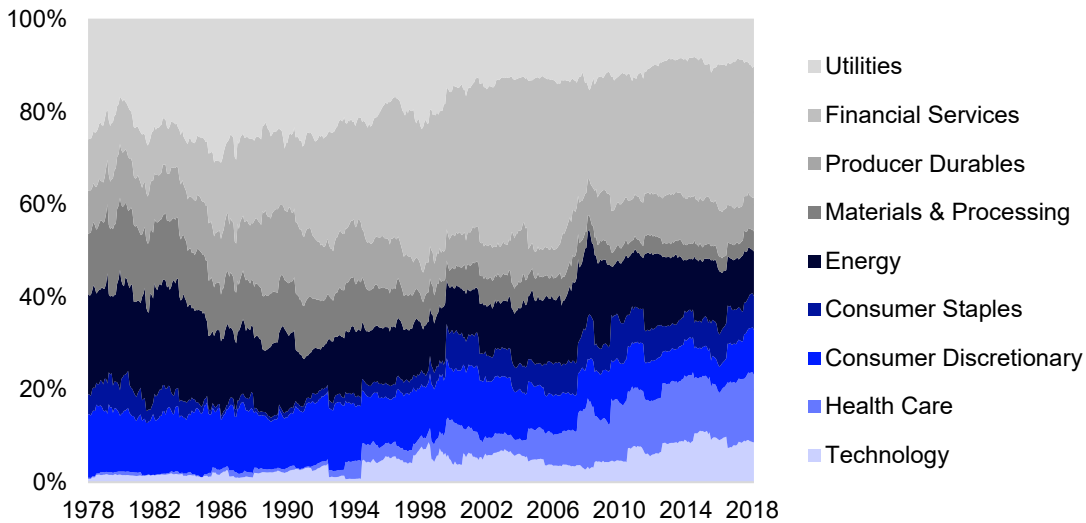
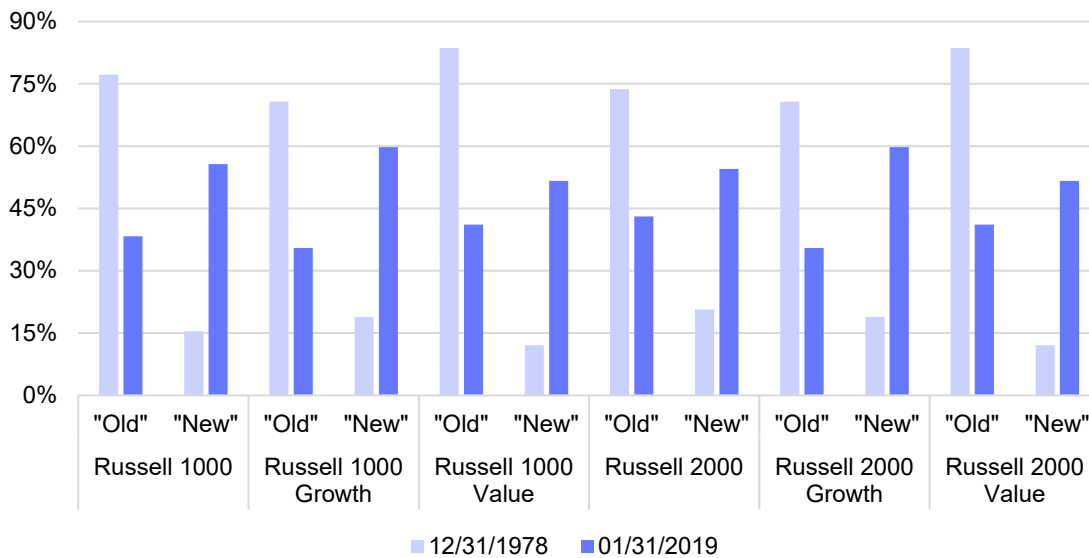Source: FTSE Russell. Data through December 31, 2019. Past performance is no guarantee of future performance.

The next two charts show the time-series changes of the sector composition of the Russell 2000 Growth and Value indexes. While mostly echoing the changes in the style versions of the Russell 1000, a couple of them stand out:

Exposure to Health Care has grown significantly but has stayed relatively stable to Technology. While the Russell 2000 Growth's exposure to Technology is significant, it is not as dominant as it is for its large-cap counterpart.

On the other hand, the Financial Services sector has become a dominant weight in the Value index, now accounting for approximately 41%.

Chart 12: Russell 2000 Growth—sector weights (Dec. 1978-Jan. 2019)

Source: FTSE Russell. Data through December 31, 2019.
Past performance is no guarantee of future performance.

Chart 13: Russell 2000 Value—sector weights (Dec. 1978-Jan. 2019)
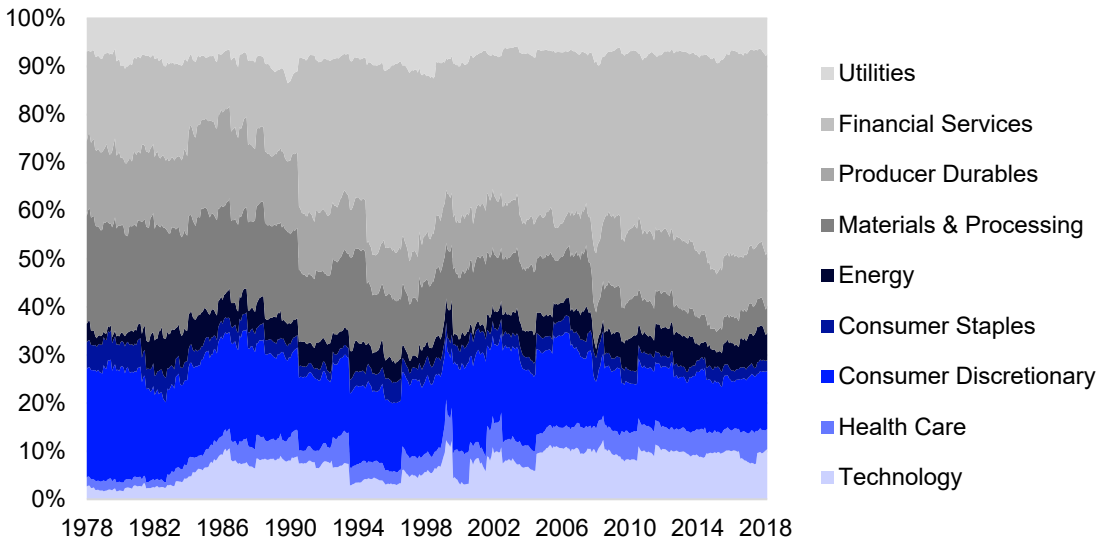
Source: FTSE Russell. Data from December 31, 1978, through January 31, 2019.
Past performance is no guarantee of future performance.

To summarize, during this period, exposure to some of the typical industrial production sectors have diminished, while technological-driven sectors have gained prominence. If we group five sectors (Consumer Discretionary, Energy, Materials & Processing, Producer Durables [i.e., industrials], and Utilities) into an "old economy" group, and three sectors (Technology, Health Care, and Financial Services) into a "new economy" group, we uncover some interesting exposure shifts over the period, as shown below.

Chart 14: "New" and "Old" sector group weights (Dec. 1978 and Jan. 2019)

Source: FTSE Russell. Data from December 31, 1978, through January 31, 2019.
Past performance is no guarantee of future performance.

Transparency of tactical tilting

In the examples above, we considered the transparency of using style indexes to tilt strategically away from the 50-50 baseline allocation. This transparency extends simply to tactical tilting. Based on the differential performance and sector characteristics of the style index seen above, investors may want to implement tactical views. By changing the policy benchmark mix, investors can transparently match the entire portfolio to their views, while maintaining appropriate benchmarks for their active managers and comparable passive investments based on the style benchmarks.

Style vs. Factor Exposures

One of the most significant developments in the investment landscape in recent years has been the emergence of factor investing. Factors, generally speaking, are stock characteristics that drive performance. Stock characteristics, such as value, had been used for decades as criteria for selecting stocks in a portfolio (see Graham and Dodd [1934]). Factor investing, however, took a different approach: because stocks with certain characteristics were shown to outperform over the long-term, investors could build diversified portfolios of stocks with those characteristics, without regard to the specific stocks in the portfolio.

Factor investing grew out of research in the 1960s (see Sharpe [1964] and Lintner [1965]) that led to the Capital Asset Pricing Model (CAPM), which showed that the cross-section of expected returns was related to "beta" as measured by the co-movement of stocks with the market. Thus, beta was the first factor, and research soon followed on other factors, including (low) Volatility (Black [1972], and Haugen and Heins [1972]), Value (Basu [1977]), and (small) Size (Banz [1981]).

In 1992, Fama and French published a ground-breaking paper that proposed a framework for studying factors that became the basis for much of the academic research that followed. Two other influential papers in the 1990s focused on two new factors: Momentum (Jagadeesh and Titman [1993]), and Accruals (Sloan [1996]). In 2015, Fama and French published a paper that extended their three-factor model by adding two new ones: Profitability and Investment. The new factors were intuitive extensions providing a more dynamic characterization of a firm's intrinsic value.

Since then, consensus has developed around the understanding that there are five main factors that potentially offer a positive expected premium, meaning that they are expected to outperform over the long term. These are: Value, Momentum, (small) Size, Quality, and (low) Volatility. While there is less consensus around the definition of Quality, it generally encompasses the robustness of a firm's earnings and its resilience to external shocks, and so includes measures of profitability, low accruals, and low leverage.

Factor investing remained of interest primarily for academic researchers and the growing category of quantitative investors (quants) until it gained much more traction with large institutional investors after the global financial crisis. An influential analysis of the Norwegian Government Pension Fund performance during the crisis found that "a significant component of performance is explained by exposure to systematic factors" (Ang et al., p. 9, [2009]). Subsequent academic and practitioner research has sparked keen interest in developing investment strategies that seek the return potential from persistent exposure to these common factors.

When considering growth and value styles within this context, it is important to keep several details in mind:

– The value style is not the same as the Value factor, despite the confusion of having the same label. As discussed, the value style is an index construction concept used to split the entire market into two segments, one in which value managers act, and the other in which growth managers act. The Value factor is an empirical/theoretical construct that helps investors understand the behavior of the equity market.

– Given that the five compensated factors are expected to drive equity behavior, it is useful to look at the exposure of any portfolio to these five factors to better understand how that portfolio may perform. Since the style indexes can be thought of as hypothetical portfolios, we can also look at the factor exposures of the style indexes.

– Factors do not have the completeness property discussed above. Because of completeness, overweighting the growth style necessarily implies underweighting the value style. However, while there are natural correlations between factors—which make it more likely that overweighting one factor results in underweighting another factor—it is possible to control these unintentional factor exposures to be overweight all factors. In the style context, because of completeness, there are no unintentional exposures. In the factor context, all factor exposures should be expressed intentionally, even though this is not necessarily done in practice.[15]

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[15] See FTSE Russell Research (April 2020) for a discussion of intentional factor exposures.

Value style and Value factor

Above, we describe the value style as a sub-category of the overall market. While an early definition of the value style relied only on book-to-price to demarcate the value side of the market from the growth side, subsequent versions used a combination of book-to-price and growth metrics, because they wanted to take into account aspects of both. This division was driven by the desire to draw a distinction between value and growth investment spheres, and had little to do with their inherent investment properties.

The Value factor, on the other hand, was analyzed specifically for its investment properties. In the 1970s and 1980s, academics began reporting the performance benefits of investing in stocks that had low market values (or prices) relative to some fundamental or intrinsic measure of Value. Early papers looked at earnings-to-price (Basu [1977]) and book-to-price (Fama and French [1992]). While these metrics had been used by investors for decades, they had primarily been employed by stock pickers to identify specific stocks to buy. The factor approach was different: stock selection became less important than getting diversified factor exposure.[16]

The factor exposures of styles

One way to disentangle the relationship between styles and factors is to look at the factor exposures of the style indexes. Chart 15 shows the average active factor exposures for the Russell 1000 Style indexes from June 2005 through December 2019.[17] We will make a few observations on each index.

Value style index

– The primary exposure is to the Value factor, as would be expected. On average, this has a portfolio-weighted Value Z-score that is approximately 0.57 higher than that of the benchmark. Since these are standard Z-scores, we can interpret this as the Value index having a Value factor exposure of approximately 0.57 standard deviations above that of the benchmark, where the standard deviations are calculated cross-sectionally every period.

– The Momentum active exposure is negative, which is not a surprise given the natural negative correlation between Value and Momentum.

– Size and Volatility are both modestly positive, indicating that the Value index is close to the benchmark exposure for these two factors, on average.

– Interestingly, the Russell 1000 Value has a strong under-exposure to the Quality factor, on average. This can be explained by the definition of Quality used here,[18] which contains a measure of profitability. The metrics used to delineate the Value index from its growth counterpart include earnings and sales growth, which are correlated with profitability. Moreover, strong corporate quality is a highly desirable investment characteristic and tends to command a premium.

Growth style index

– While the factor exposures of the Growth index are generally opposite to those of the Value index, it may seem counterintuitive that they are not simply negatives of the Value index exposures. That is because the definitions of the factors used here are not the same as those used to differentiate between the Value and Growth style indexes.

– In general, the Growth index is characterized by positive exposure to Momentum and Quality.

– The index is underexposed to the Value factor, as expected, and the Size and Volatility factor exposures are close to those of the benchmark.

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[16] We measure factor exposure as the portfolio-weighted average of the valuation metric, and the active exposure as the difference between the portfolio-weighted average and that of the benchmark. Other methods of calculating exposure often involve running regressions to measure each stock's sensitivity to factors.

[17] Our factor data starts later.

[18] See FTSE Russell Research (2020).

Chart 15: Russell 1000 Growth and Value indexes—average active factor exposures June 2005-Dec. 2019 (Z-scores)
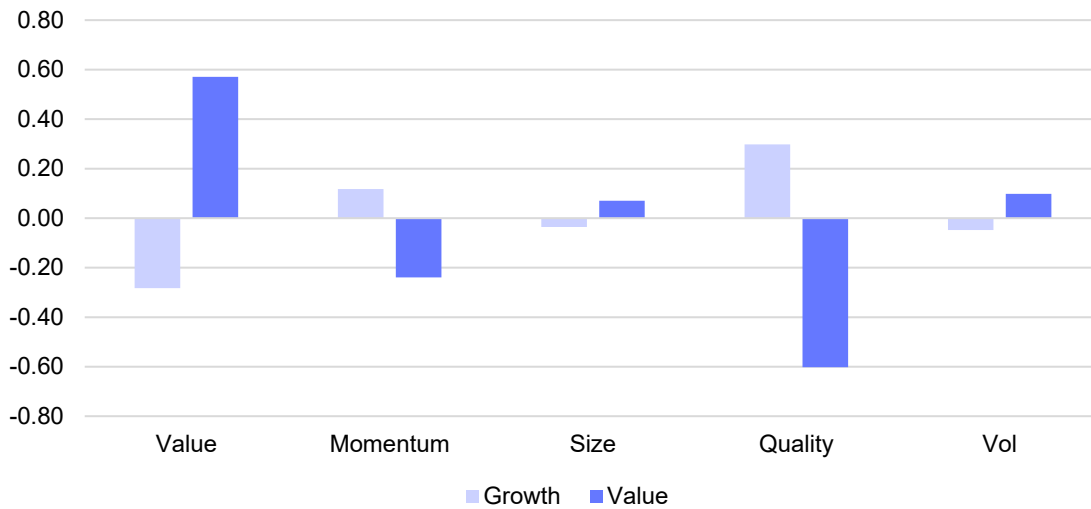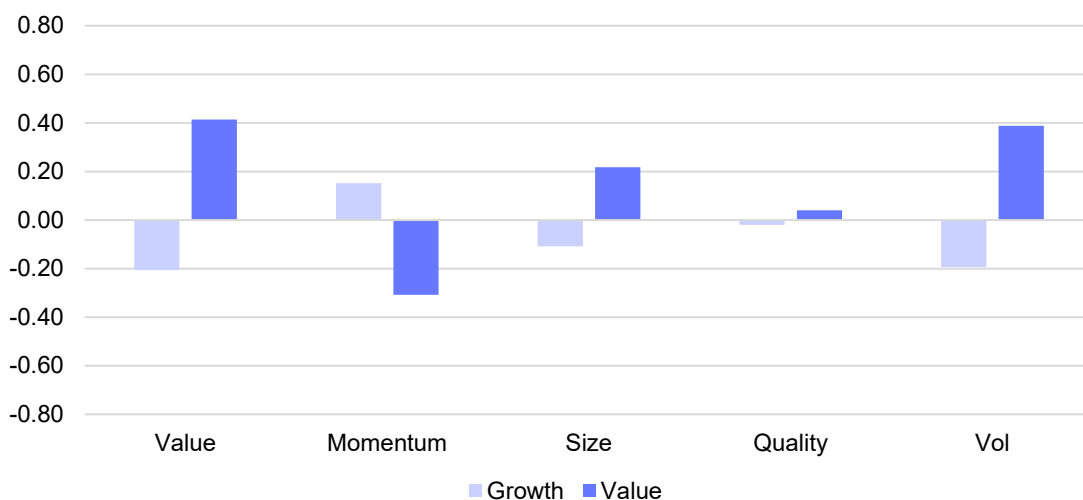

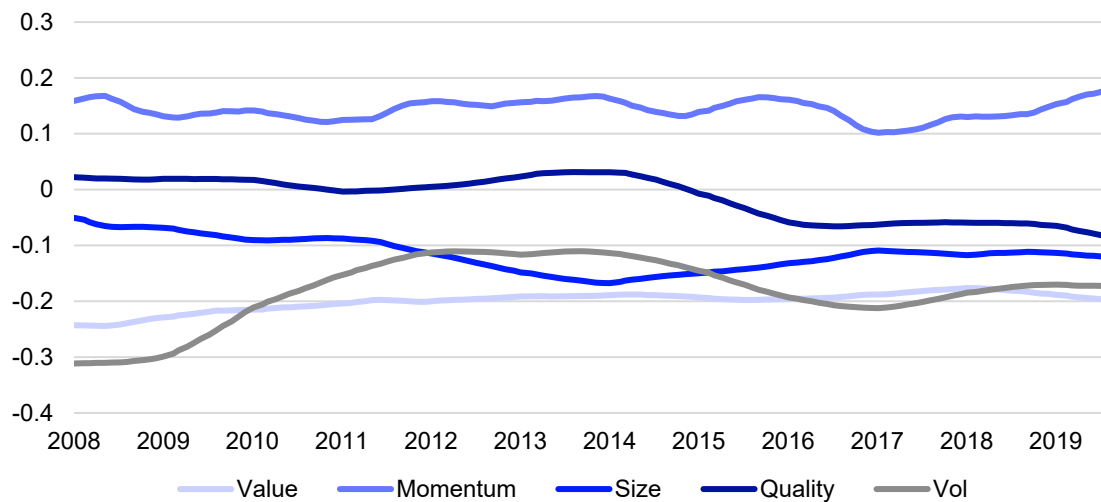Source: FTSE Russell. Data from June 1, 2005, through December 31, 2019.
Past performance is no guarantee of future performance.

Chart 16 shows the factor exposures for the Russell 2000 style indexes. Again, we can make some key observations:

– All the factors except for Quality have the same direction of active exposure as the Russell 1000 style indexes. It should be remembered that these are active exposures, so they signify something about both the index exposures and the benchmark exposures.

– Value and Momentum are core characteristics of the Value and Growth indexes, respectively.

– In the Russell 2000 universe, Size and Volatility factors take on more significance, with the Value index having more active exposure to both. Intuitively, value stocks tend to have smaller capitalizations, reflecting a price premium for the larger stocks in the universe. Also intuitively, growth stocks in the Russell 2000 tend to be more volatile than their large-cap peers.

– The Quality exposure for both indexes is close to that of the benchmark, on average. This is a significant difference from the Russell 1000 indexes and bears more analysis.

Chart 16: Russell 2000 Growth and Value indexes—average active factor exposures June 2005-Dec. 2019 (Z-scores)

Source: FTSE Russell. Data through December 31, 2019. Past performance is no guarantee of future performance.

The previous two charts examined average active factor exposures over a long period, but it is also helpful to look at how these exposures have changed over time. Chart 17 shows the 36-month moving averages of factor exposures for the Russell 1000 Growth index. In comparing these results to overall averages shown in the charts above, we make the following observations:

–   The positive Momentum and negative Value factor exposures are fairly stable over time.

–   The positive Quality exposure is also stable over time.

–   While the Size exposure is close to zero in the overall averages, we see that it started off slightly positive and drifted to negative territory by the end of the period. This indicates that the Growth index has grown more large-cap focused over time.

–   Volatility was also close to zero in the long-term averages, but started and finished the period negative. The positive active exposure during the middle of the period indicates that the Growth index was tilted to low Volatility at that time.

Chart 17: Russell 1000 Growth—36-month average active factor exposures (Z-scores)
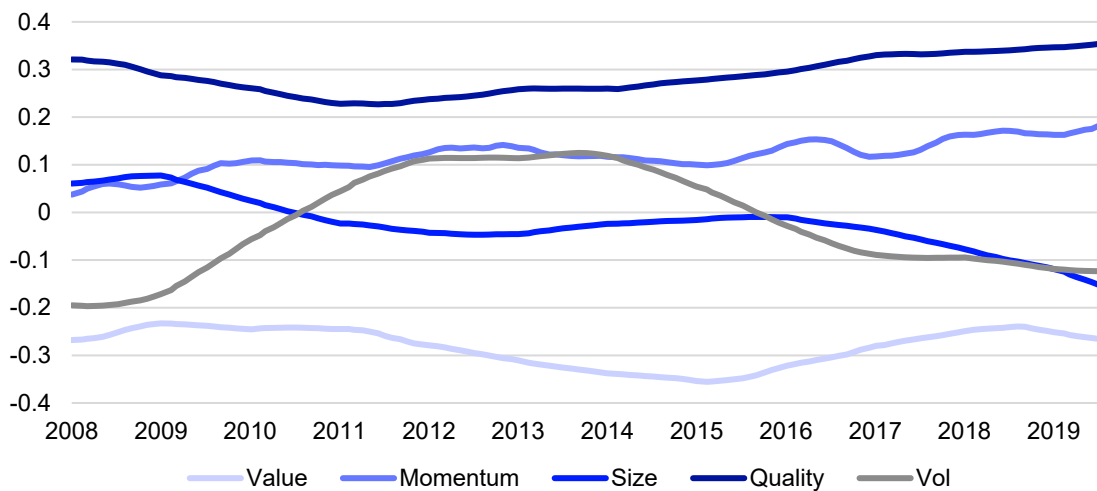
Source: FTSE Russell. Data through December 31, 2019. Past performance is no guarantee of future performance.

Chart 18 shows the moving averages of Russell 1000 Value index's factor exposures, which are mostly the opposite of those for the Growth index in pattern but differ in magnitude. Compared to the Growth index, which has recently been characterized as low valuation, high momentum, larger cap, high quality, and high volatility, the Value index has generally been characterized as smaller cap, low quality, and low volatility.

Chart 18: Russell 1000 Value—36-month average active factor exposures (Z-scores)
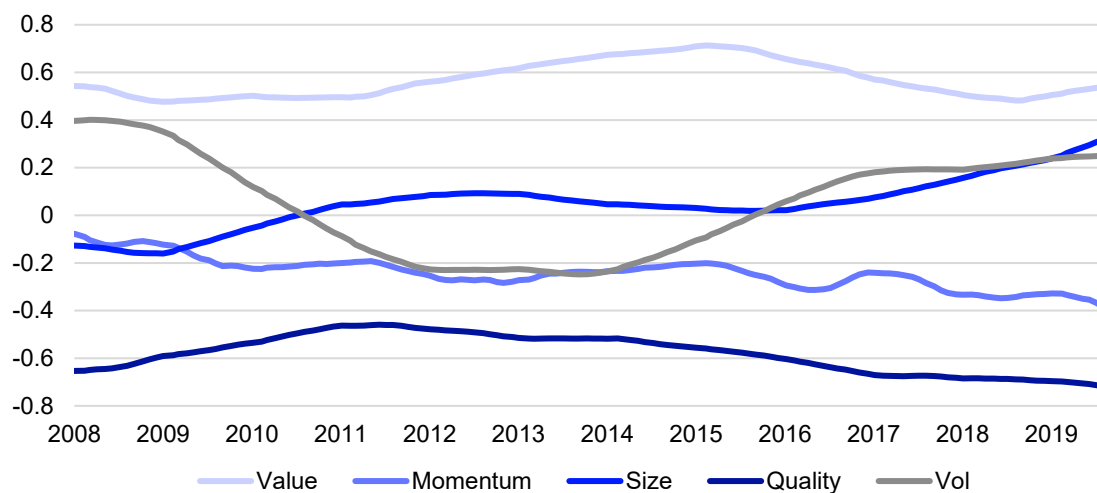
Source: FTSE Russell. Data through December 31, 2019. Past performance is no guarantee of future performance.

Chart 19 shows the moving averages of factor exposures for the Russell 2000 Growth index.

– Again, the Value (negative) and Momentum (positive) exposures are fairly stable.

– The Size exposure has been negative and fairly stable over the period, indicating that growth stocks are generally larger-cap within the Russell 2000.

– The Volatility exposure has fluctuated but has always been negative, intuitively characterizing the higher volatility of growth stocks.

– The exposure to Quality began the period slightly positive and ended it slightly negative, indicating that Russell 2000 Growth stocks have been of lower quality than their large-cap counterparts in recent years.

Chart 19: Russell 2000 Growth—36-month average active factor exposures (Z-scores)

Source: FTSE Russell. Data through December 31, 2019. Past performance is no guarantee of future performance.

Finally, as chart 20 illustrates, the active factor exposures for the R2000 Value index have generally been the mirror image of those of the Growth index. By the end of the period, the Russell 2000 Value index can be categorized as high value, low-momentum, small cap, low volatility, and high quality.

Chart 20: Russell 2000 Value—36-month average active factor exposures (Z-scores)
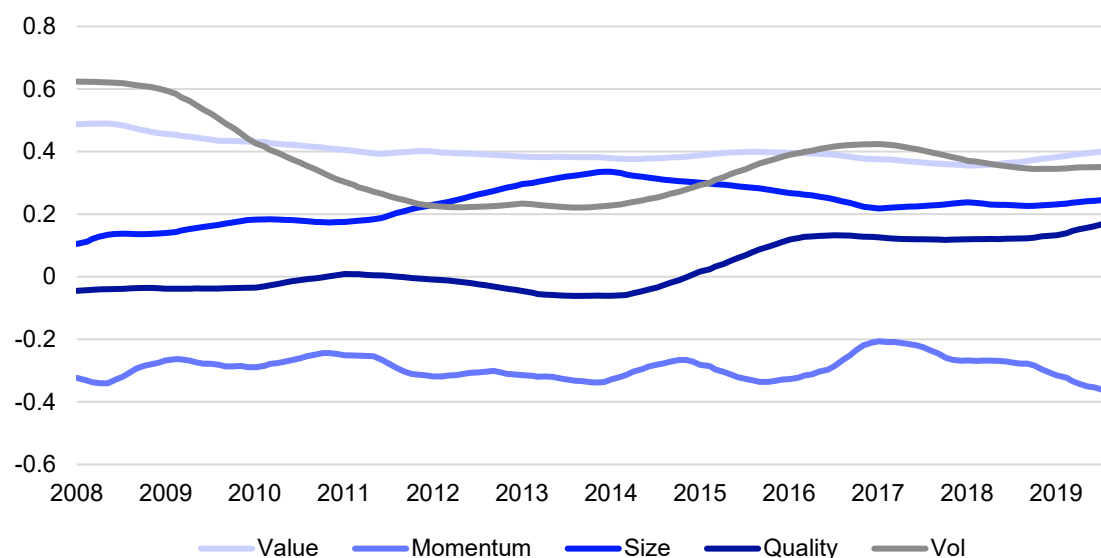
Source: FTSE Russell. Data through December 31, 2019. Past performance is no guarantee of future performance.

Do factors replace styles?

Observers that express the view that factors are replacing style miss the fundamental distinction that styles are benchmark constructs that have been used as a basis for passive investment products. The benchmark construction aspect of style has not changed, and styles will continue to serve as useful benchmarks for growth and value managers.

In terms of investments, style indexes will continue to serve a useful purpose by allowing investors to balance growth investments in whatever form (e.g., active or passive) with value investments in whatever form, such that they have neutral exposure to the benchmark. This cannot be replicated by factors because factors do not have the completeness property that allows them to be aggregated back up to the parent benchmark. If investors want to take tactical tilts toward growth or value, they can do so very transparently using growth and value indexes.

Nonetheless, style indexes should be evaluated in the context of factors in the same way that all portfolios should be evaluated—that is, as bundles of factor exposures. If the investor desires exposures to those factors, then the style indexes can serve as a convenient basis for factor investment. However, we think that is unlikely, given the completeness properties of the style indexes. A positive factor exposure in one style is an intentionally negative exposure in the other style. Furthermore, both styles have consistently positive exposure to one of the two core compensated factors (Value and Momentum) and negative exposure to the other core factor. Again, the investor may want to overweight both the Value and Momentum factors, but they cannot overweight both growth and value style indexes!

This issue is best understood when considering the standard style box framework that allows investors to split allocations into growth, core, or value buckets. If an investor wants to allocate to a growth manager, but that manager tilts the portfolio towards the Value factor, the portfolio will drift toward the core bucket. Similarly, the portfolio of a value manager who picks stocks with high momentum will drift away from the value bucket. Considering style and factors independently can cause allocation and performance objectives to clash.

Combining styles and factors is a more promising approach. For example, the FTSE Russell tilt methodology of building factor indexes allows a factor index to tilt away from any benchmark to gain active factor exposure or, more importantly, to neutralize undesired factor exposure. In many ways, this can be like a systematic active manager who starts with a benchmark but buys stocks with desirable characteristics and avoids stocks with undesirable characteristics. Adding this factor overlay can give investors exposure to long-term factor outperformance potential while maintaining allocations to the respective style indexes. This transparency in allocation allows investors to balance, for example, skilled active managers in one style with factor index exposures in the other style, which would avoid the requirement of giving up performance simply to balance style allocations.

A different approach would be to start with the underlying style index constituents and build portfolios of stocks that have the desired factor exposures using an optimizer. Like the tilt method, active factor exposures could be controlled by imposing appropriate constraints on the factor exposures. Factor exposures expected to reduce long-term portfolio performance could be controlled by these constraints. FTSE Russell has also introduced indexes using this methodology with the Russell US Factors Style Index Series. (See FTSE Russell, "Ground Rules: Russell US Factors Style Index Series", v1.4, December 2020.)

Both tilting and optimization address the problem of style drift that is a direct result of combining the style definitions with factor definitions. Because growth indexes intentionally contain a negative Value factor exposure—and value indexes unintentionally include a negative Momentum exposure—removing these exposures will cause the portfolios to "drift" away from the style bucket. This points out that the two-dimensional style boxes may not be useful when thinking about styles and factors in isolation. However, depending on investor preferences, careful control of all active factor exposures can result in an exposure profile that is better aligned with expected factor risk premia, while also maintaining exposures that are acceptably close to the underlying style indexes.

Conclusions

The Russell Style indexes have a long history of providing investors with useful investment tools. Examining the history of the indexes reminds us that they were originally constructed as benchmarks that split the manager universe into equal value and growth manager sub-universes based on market capitalization. This completeness characteristic allowed the style indexes to be used as the basis for completion investments when style investments were unbalanced.

The indexes as the basis for investments in their own right developed over time as investors understood the characteristics of the different style indexes well enough to use them to express strategic and tactical views. Relative to the overall market, growth indexes are more cyclical, while value indexes are more defensive. Investors could use these characteristics to position their portfolios to reflect their views on the market cycle or risk appetite, while maintaining a clear view on their positioning relative to the market. This will continue to be the case.

The increased focus of investors on factors does not negate these uses for the style indexes. The understanding that factors drive market performance and that compensated factors are expected to have a long-term pay-off adds more tools to the investor's toolbox. The next step is to combine the performance aspects of factor investing with the well-established allocation advantages of style indexes. Careful control of factor exposures can result in portfolios that maintain a specific value or growth style profile, and yet can take advantage of the expected factor premia.

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