



Index Insights | Russell US Indexes

Trends in growth and value: Cycles and market regimes

Part 3: Transition points

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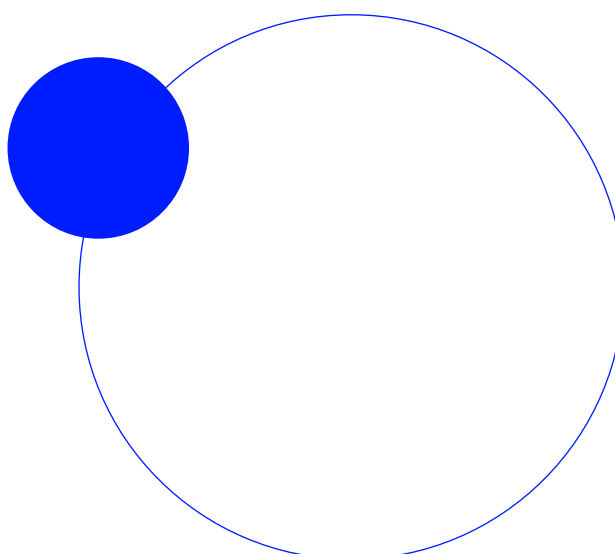


Overview

Few frameworks have proven as simple, yet efficacious, in examining recent market volatility as the Russell growth and value indices. The utility of style is no momentary phenomenon. Extending analysis back to 1979 captures over four decades of explanatory power behind this enduring market bifurcation.

Relying on only three basic inputs, Book to Price, 2-year growth forecasts, and 5-year historical sales per share growth, this clear delineation not only benchmarks contrasting approaches to investing, but also provides a valuable schema for analysing market cycles and rotation. In this cyclical nature of style returns, we can see distinct periods where each strategy is positioned in the ascendancy; assessing these regime level patterns is the focal point of our four-part *Trends in growth and value* research series. Whereas previous instalments focus on regime longevity and intensity, this analysis centres on transition points between growth and value cycles. Do different typologies exist in terms of how style regimes transition, and can understanding their behaviours better inform investment decisions?

This question is assessed on three principal fronts. Foremost is contrasting the aggressive shifts from growth to value against the more attenuated transitions from value-to-growth cycles, quantified with a displacement methodology. Secondly, this paper examines the tendency for growth to exhibit exuberant returns in latter stages of a style regime, and second-order impacts on the distributions of style returns. Third, volatility patterns leading up to and extending through regime transition are deciphered, revealing fundamental differences between growth and value indices, regimes and transitions. Against a backdrop of nine style cycles, quantifying market motions at key inflection points not only carries insight for market timing narrowly, but for managing risk exposure more broadly as well. On this point a central conclusion emerges, that over allocating to value after having transitioned into a value regime offers a superior strategy in terms of risk efficiency.



Part 1: The trend is your friend – until it changes!

With mean intra-regime active monthly style return reaching 1.15%, on average \$600 billion in shareholder wealth is reallocated along lines of growth and value styles each month – what happens when the trend changes? The 15-year Great Growth Regime spanning 2006 through 2021 numbered investors to the reality that style regimes can and do change every 46 months on average, when excluding this great aberrant. Given that systematic style drift is 40% larger than average expected equity returns, allocation between growth and value will be most investors second largest risk contribution, exceeded only by overall equity exposure. Rationalizing shifts in growth and value style, when these portfolio risks transform from latent to realized, can inform investors as to the cyclical nature of style and avoid emotionalized decision making.

Figure 1: Ratio of growth to value total returns: 1979–2022



Depiction of Russell 1000 Growth Index total returns divided by Russell 1000 Value Index total returns, parity set to 100 with an inception date of December 31st, 1978. Upward trends indicate strong growth performance, downward trends reveal strength in value – there are nine regimes identified in total.

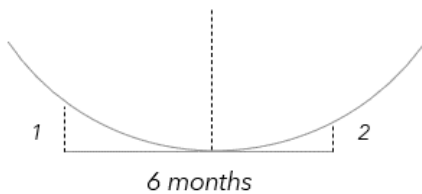
Source: FTSE Russell, December 2022.

In assessing these style phase changes, it is instructive to expand upon the style return methodology introduced in the first part of this analysis series. By measuring the ratio of total returns of the Russell 1000® Growth Index to the Russell 1000® Value Index, we can cross-compare a range of style performance data since a starting point of December 1978. As depicted in figure 1, not only does the approach standardize the 40-year compounded returns, it highlights the key turning points in style regimes. Importantly, upward trends indicate growth outperforming and downward movements reveal rotations into value.

A leading consideration in evaluating these transition points is understanding just how aggressive these events are for investors. Do they represent gradual changes from the primacy of one style to another, and thus sinusoidal in nature; or are they sharp ruptures in continuity – akin to a market ricochet? This

question of U or V shape transition is best quantified by measuring total market movements during each of these phenomena. Figure 2 illustrates this methodology, where at each local maxima or minima, percentage point changes in the ratio of growth and value returns are added together from three months in both directions.

Figure 2: Turning point

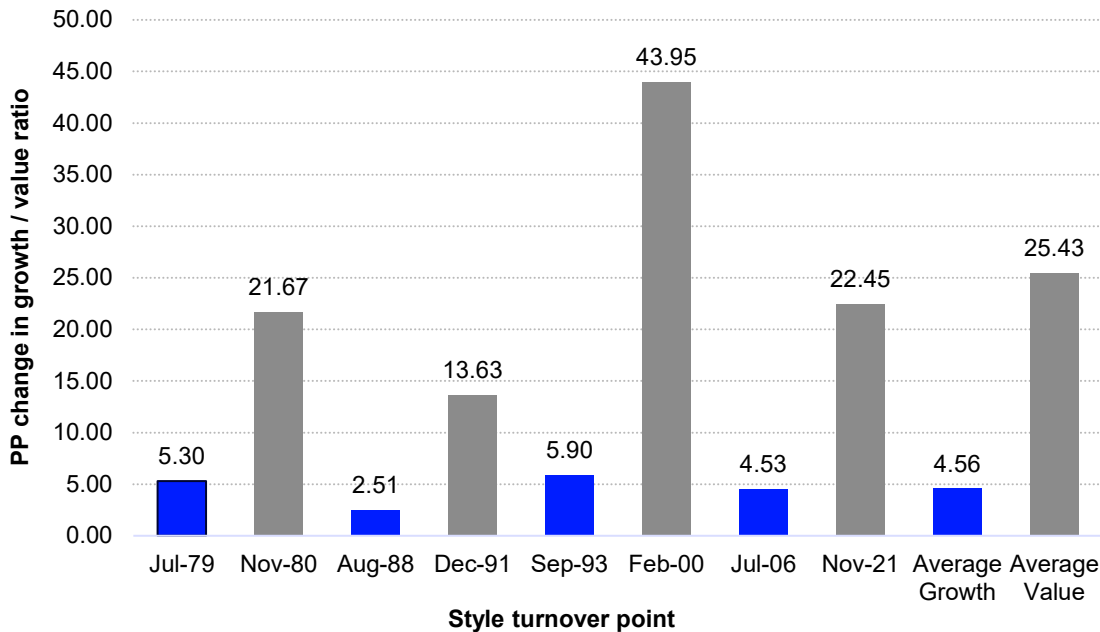


At each local maxima or minima, values measure the total percentage point change in growth/value ratio 3 months in both directions (1 + 2).

Source: FTSE Russell, August 2023.

These measurements underscore perhaps the striking differentiation between growth and value regimes, namely the relative severity of growth to value transitions compared to value to growth. Figure 3 charts the total market displacement at each style turning point, and universally, shifts to value are far more traumatic market events. Indeed, the average transition to value features 25.43 percentage points of market deviation, 5.57 times greater than the figure for shifts to growth at 4.56 percentage points. Even the least dynamic transition to value remains 2.3 times higher than the most aggressive changeover to growth; categorically these are distinct market phenomena.

Figure 3: Market movements at regime turning points



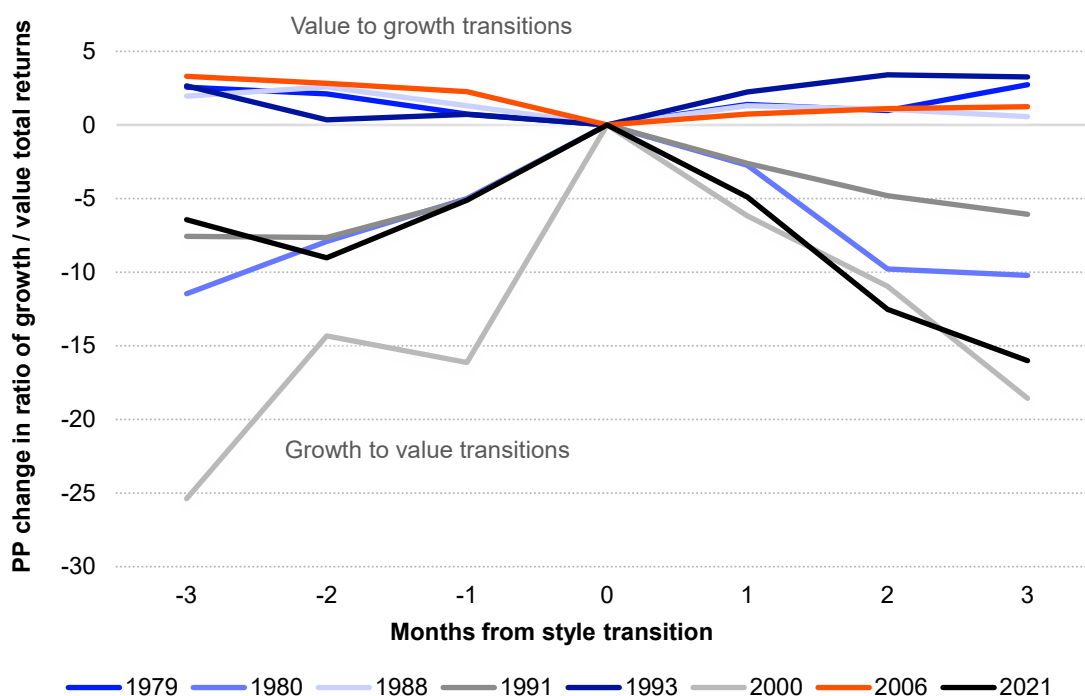
Total market displacement (absolute value) at each style regime transition point, 3 months leading and following the extrema, expressed in percentage point change in the ratio of Russell 1000 Growth to Russell 1000 Value Index total returns. Blue indicates growth regimes; grey indicates value regimes.

Source: FTSE Russell, July 2023.

To emphasize this disparity in market transition, the average shift to value is fully 14 standard deviations from the mean shift to growth in terms of market displacement. Figure 4 visualizes this stark divide in intensity by charting the three-month forward and back performance window, expressed in percentage points of the ratio of growth to value returns, for each of the eight turning points. Relative to the deep chevron of the growth to value transitions in the bottom portion, the shallow crest of the value to growth turnovers on top is hardly perceptible.

Figure 4 also depicts the symmetry in performance pre and post style rotation, that there is roughly equal market displacement on each side of a style regime turning point. This effect is especially pronounced with the growth to value style turns, with total displacement falling 49% to 51% leading and following the style extrema. Shifts to growth, by contrast, are not nearly as symmetric with 61% of total displacement front-loaded in the style turnover, but it is difficult to make absolute judgements on small sample sizes. Regardless, investors can expect approximately equivalent market movement heading into a style transition point as exiting from one.

Figure 4: Symmetry of style returns at regime transitions



The percentage point changes in ratio of growth to value total returns in the three months leading into and following style transition. The shallow value to growth transitions on top are contrasted against the deep value to growth to value transitions below the zero value on the vertical axis. Notice the near perfect symmetry, in aggregate pre and post transition.

Source: FTSE Russell, July 2023.

This analysis carries numerous implications from an investor’s standpoint. Foremost, in a market timing capacity, an investor will have ample opportunity to assess shifts in style returns during a value to growth transition and reallocate to their liking – precision in timing is not an imperative. The same assertion, however, does not hold for shifts from growth to value regimes, where the degree of market movement acutely penalizes imperfect market timing. In this latter case, not only are markets changing direction but they are doing so at immense pace – nearly 3.7 times the average style regime drift of 1.15 percentage points per month. In pointed juxtaposition, transitions to growth are relatively quiet affairs, with style shifts fully one third below average at only 0.76 percentage points per month.

How do these differentials in style transitions impact long-term portfolio management? To illustrate the power of style returns, the second paper within this research series examined how optimal exposure to the favoured style trend could significantly bolster returns. We extend this framework in figure 5 to

evaluate the impact of correctly allocating to style cycles but with a three-month margin of error to show the dynamism of style transition. While the Russell 1000 Index appreciated 128-fold in the 43 years from 1979 to 2022, perfect style play extends these gains to a resounding 874 factor increase, a further 511 basis points in annualized returns. If an investor were to miss rotations to growth with a three-month delay, principal would multiply 802 times – still a handsome reward with only a 23 bp reduction in annualized returns. Should the investor consistently lag transitions to value by 3 months, the performance penalty is over four times as great with total returns curtailed to a 564-fold gain. Combining early entry to both growth and value rotations diminishes these returns yet further to only a 519 multiple increase.

Figure 5: Impact of style transition timing

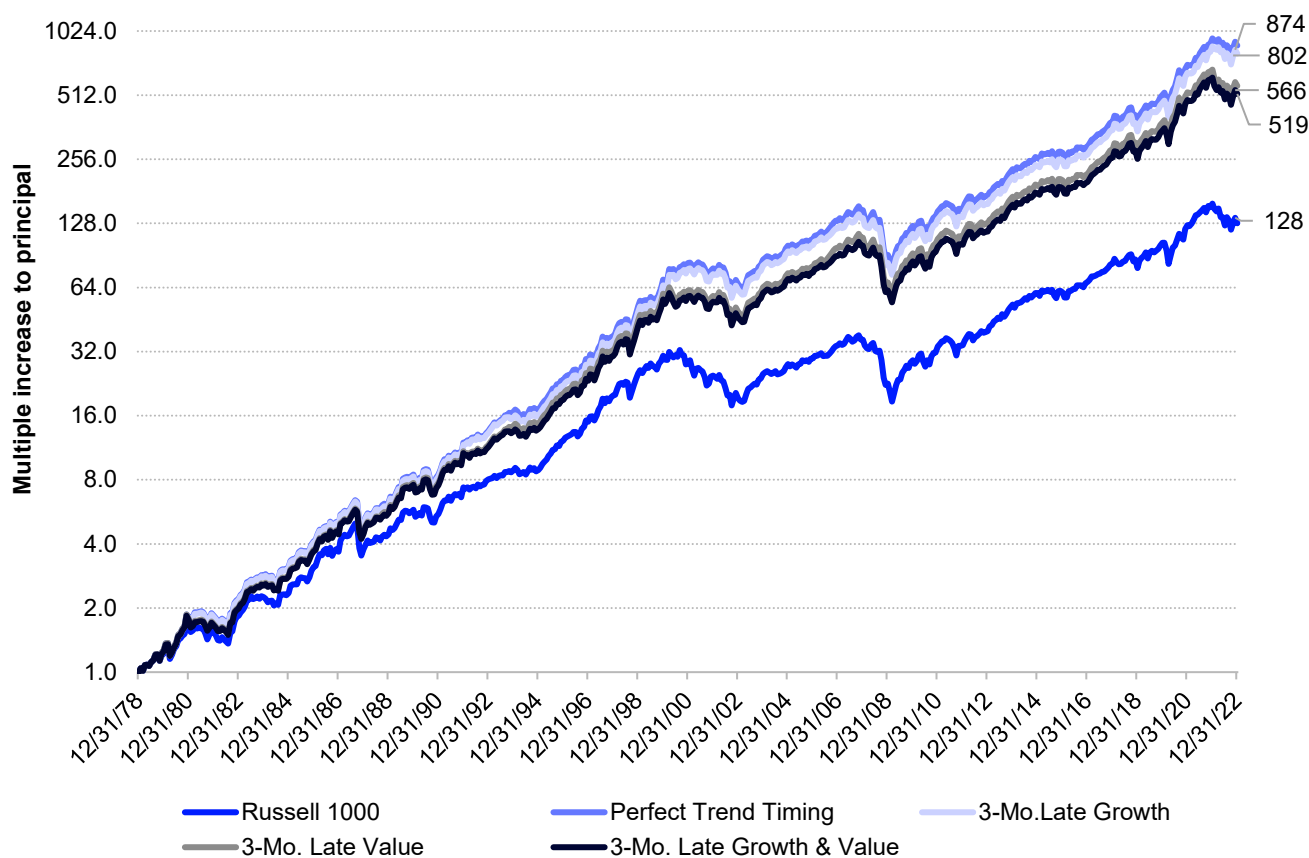


Figure 5: Even slight deviation from perfect execution of regime transition carries great cost to cumulative returns; note the higher impact of mistiming value as opposed to growth rotations.

Source: FTSE Russell, July 2023.

This example illustrates both the critical import of, and disparity between, these two types of market transitions; being wrong only 4% of the time decreases return premium by an astonishing 51%. Moreover, due to the symmetry between style behaviour pre and post cycle transition, being three months early is just as damaging as being late, with scalar returns of 763, 564 and 493 for growth, value and combined timing errors, respectively. Investment managers must be wary of the style risk they assume at these inflection points, even if market rotation is not an explicit component of their investment strategy.

Part 2: The exuberance of growth

The dichotomy between growth-to-value and value-to-growth transitions is one of the defining features of style investing. A prime causal factor for this divide, however, rests with the tendency of growth cycles to flare in exuberance as the trend culminates. This effect can be seen as a consistent, visually identifiable pattern in figure 1. Growth spikes occur at the ends of regimes one, three, five/six, and eight. While the causes of this phenomenon are complex and will be explored in the fourth instalment of this research series, identifying the fundamental characteristics of this behaviour is our purpose at hand. Suffice to say that this behaviour spans economic, psychological and monetary motivations. Collectively, these result in an excess of optimism for the future and an unwarranted discounting of risk. Nonetheless, this growth surge results in the disparate market displacement patterns observed in growth and value transitions. The consequences reverberate throughout the broader cyclicity of style investing.

While this final surge in style returns is common to all growth regimes, it is not always equally potent. Figure 6 examines the progression of the five growth cycles over time, showing the contribution of each period to total style returns when broken down into fifths – values in the right column in excess of 0.2 indicate a growth spike. Accordingly, the last 20% of a growth regime by time accounts for an outsized share of the cycle’s overall excess returns, on average 50.8% of all contributions, or 2.54 times an even distribution. Even the mildest of growth spikes, belonging to the 1988 cycle, saw the final fifth capture a 60.4% premium to parity contribution. While not quite an example of the 80/20 rule, the Great Growth Regime beginning in 2006 witnessed the last 20% of the regime deliver 60.9% of all growth style gains. This figure implies that the rate of growth outperformance was 6.23 times greater than occurred in the other four fifths of the regime. These growth spikes are powerful market forces.

Figure 6: Late-stage growth regime spikes

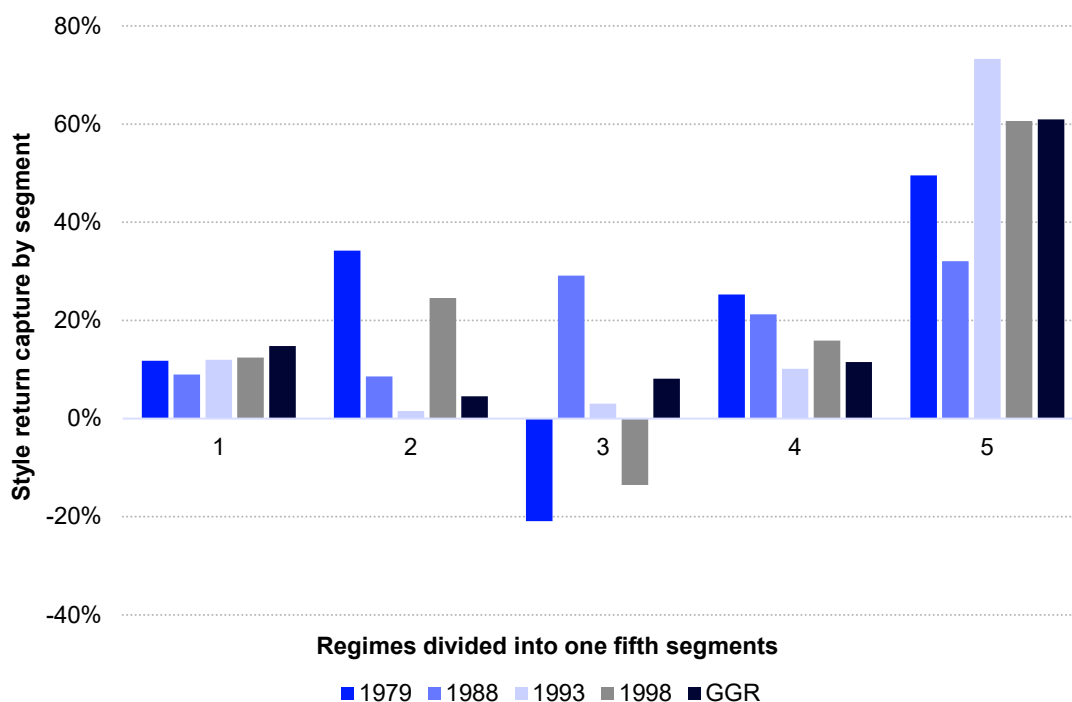


Figure 6: Growth regimes are segmented into one fifth buckets by time progression, illustrating their capture rate of total regime style returns.

Source: FTSE Russell, July 2023.

This analysis is not to suggest that growth regimes are steady, straight-line marches inexorable leading toward trend conclusion. To the contrary, they are lumpy in how style returns are accrued, and hence why figure 6 features performance broken into five periods and not into more discrete intervals. The intention is to depict the under contribution of early and mid-cycle towards trend progression, and the overcontribution of the culminating surge. Indeed, the presence of negative values in figure 5 indicates that trend reversal can occur over sustained periods of time.

Additionally, the mid-90's growth cycles of regimes five and six deserve special consideration in the context of growth spikes. As back-to-back growth cycles, their properties are substantially different. For instance, while delivering slight returns to growth, regime five is closer to neutral than it is to characteristics of either a full-throated value or growth cycle. It is the only period with near zero style returns on record of a mere 0.115 percentage points per month. This reality argues against the temptation to combine the two regimes, or to consider regime six as the growth spike to regime five. There is more difference between these two cycles than there is between growth and value regimes on average. From an analytical perspective, however, significant growth flaring occurs whether the period from 1993–2000 or from 1998–2000 is considered and, hence, why figure 7 depicts both groupings.

Figure 7: Asymmetric distributions of style returns throughout growth regimes

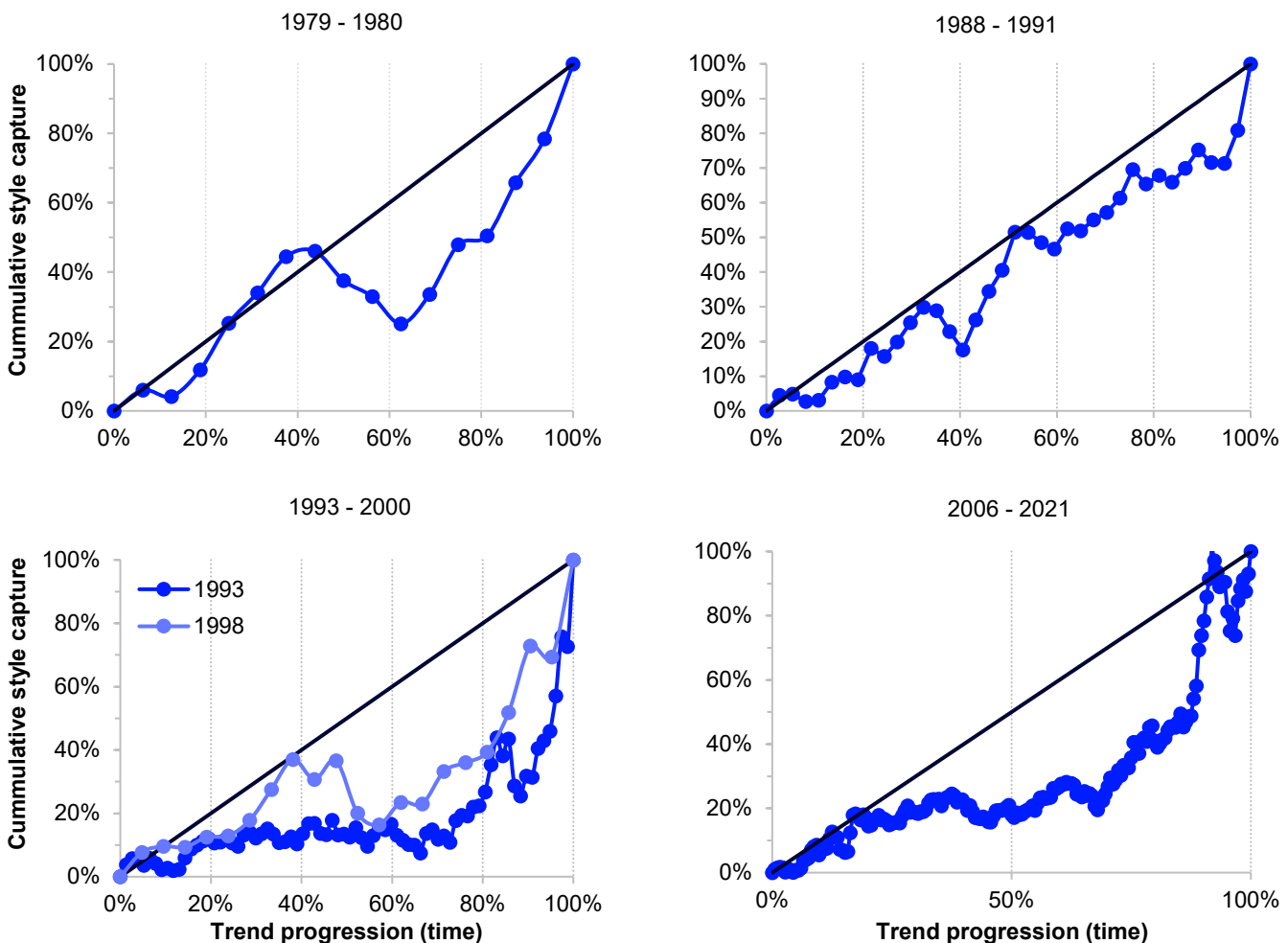


Figure 7: The late cycle surge is a defining feature of growth regimes, where the last one fifth of the regime accounts for a disproportionately large share of style returns. The diagonal lines indicate even pacing, and trend Gini coefficients are featured as well (parenthetical values).

Source: FTSE Russell, July 2023.

The practical implication of these late-cycle growth upwellings is to recognize how inequitably style returns are dispersed throughout regimes – far from uniform in distribution. For style, when it rains it pours. Risk-tolerant allocators can capitalize on this effect knowing that the preponderance of growth style returns occur in the final innings and can choose to remain closer to benchmark early and mid-cycle. Figure 7 highlights these unequal distributions, charting the percentage of total regime style returns on the y-axis against time progression on the x-axis. In many respects this is a granular examination of the trends in figure 6. The diagonal line indicates equal pacing between returns and time. Note how in each of these instances the actual growth sequence lines fall well below this idealized 45-degree line. This dynamic implies dramatic under contribution of the initial periods, and rapid catchup effect or growth spike in the terminal phase.

This methodology is the same used to model inequalities in the distribution of wealth. It is a well-suited analogy to analyse the concentration of style “wealth” within final segments of a growth regime. The four growth regimes can be summarized and cross-compared with the Gini coefficient. This measures the extent the actual distribution of returns falls below the line of equality – scaled zero to one. Values range from the most equal regime of 1988 at 0.202 to the most unequal cycle of the Great Growth Regime at 0.418, with the average at 0.308. To place these values in context, on average growth style returns are as unequally distributed as wealth is in Burma; and the style inequality of the GGR surpasses the level of income inequality in the United States. The end sum is that due to the prominence of the culminating spike in growth regimes, style returns are not allocated on an even basis with respect to time, but rather are subject to high concentration immediately before regime transition.

Exuberant collapse? Value with a vengeance

Given the symmetry of style returns before and after a regime transition, these distinctive growth surges imply striking collapses after sequencing into a value cycle. The data bear out this pattern where value regimes are not only remarkably front-loaded in terms of style return distributions but, in aggregate, precisely match the excess concentration observed in growth cycles. Figure 8 illustrates the periodization of the four value regimes into one-fifth segmentation, the same approach as in figure 6. On average, the first 20% of a value regime accounts for 50.8% of all style gains to value. This sum never falls below a twice proportional weight. Indeed, the market forces that propel growth to such excess prior to transition precipitate an equally striking counter motion post transition.

Figure 8: Early-stage value surges

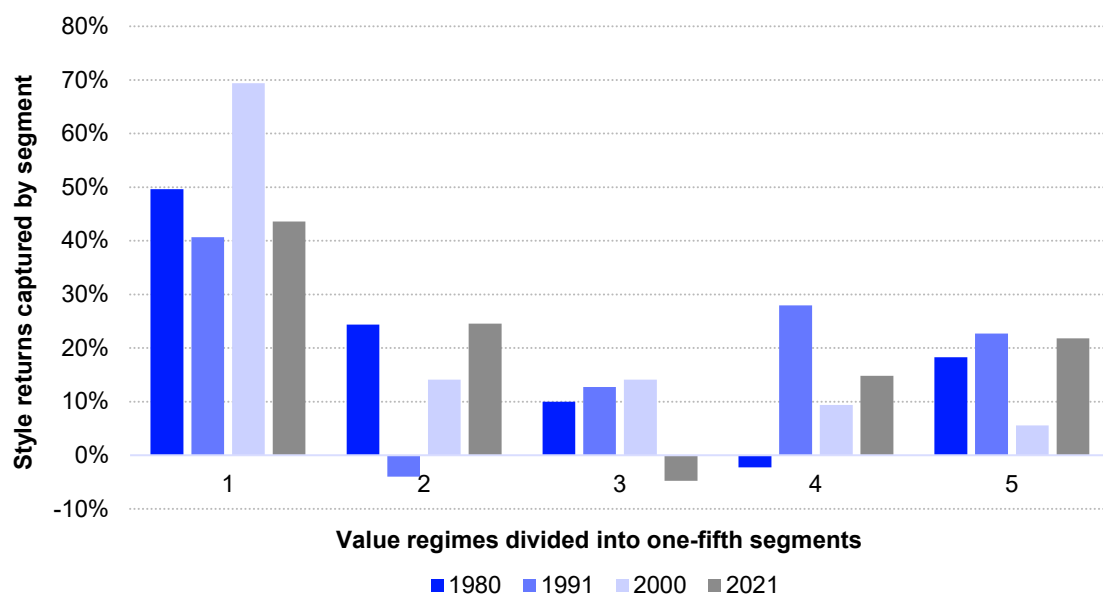


Figure 8: Value regimes are segmented into one fifth buckets by time progression, illustrating their capture rate of total regime style returns.

Source: FTSE Russell, July 2023.

When cycling into a value regime, the narrative is not as simple as a controlled demolition of the growth style, however as value consistently achieves not just relative, but absolute gains as well. In the six months following a growth spike, the Russell 1000 Value Index appreciated on average by 6.02% vis-à-vis a 6.65% contraction in the Russell 1000 Growth Index. The market rotation post transition is more dynamic and complex than a mechanism featuring the rise and fall of growth – value as a style emerges as a unique driver of returns. Said differently, value is more than just the absence of growth.

Figure 9: Front-loaded capture of style returns by value regimes

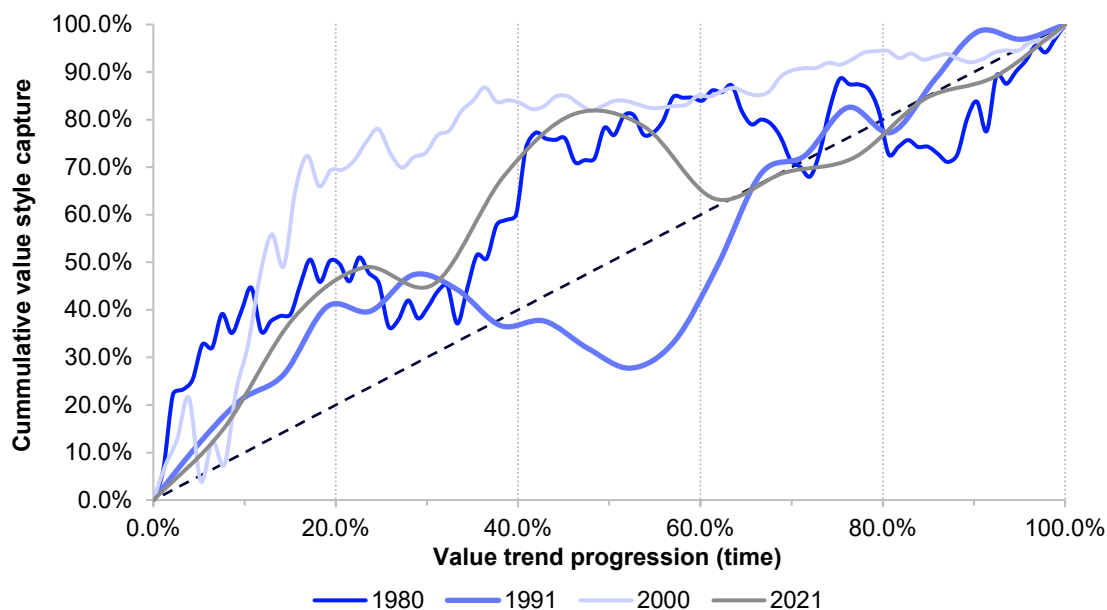


Figure 9: Diagonal line indicates one-for-one pacing of a value regime, i.e., that 20% of style returns are attributed to the first 20% of a regime’s time progression. Note the asymmetrical distribution in style returns for value cycles, the first fifth capturing 150% excess to a pro rata contribution.

Source: FTSE Russell, July 2023.

This early regime concentration underlies a series of characteristics unique to value cycles. Foremost, value trends exhibit a continual deceleration in intensity as the regime progresses, in contrast to the ramping up seen with growth cycles. For instance, the style drift occurs on average 4.13 times faster in the first 20% of a value regime compared to the remaining four-fifths. This dynamic is depicted in figure 9, where cumulative value style returns for the four regimes are charted against progression in terms of time. Similar to figure 7, the diagonal line represents even paced style progress, and the common overshooting of the line illustrates how the early phases of a value regime do a disproportionate share of the style heavy lifting. With an inverse Gini score averaging 0.292, the value regimes see their style returns distributed only slightly less unequally than with growth regimes. Note however the exception of 1991, which features a uniquely equal apportionment of style returns over time. Contrast this even dispersion with the value cycle of 2000, which is the most asymmetrically distributed regime on record with a Gini coefficient of 0.511 – this figure is on par with the income distribution of Brazil.

The reality is that the intensity of style returns is non-constant for both growth and value regimes and coupled with the disparate behaviour of growth to value and value to growth transitions, actionable strategies emerge. While trying to capture the final ramp up in growth regimes is a high-risk endeavour, given the impending rollover and aggressive value reversion, over allocating to value after regime transition is a highly risk efficient strategy. Not only does this approach see allocators leveraging into a decrescendo of style distributions, but when the eventual transition to growth occurs, history indicates this shift will be comparatively mild. Hence investors will have ample opportunity to approach style neutrality and subsequently rotate into growth. This is the chief insight we can draw from growth spikes and value resurgences in navigating style transition.

Part 3: Don't call me volatile, I prefer eccentric

To better understand the actual pivot points of style rotation, this analysis has thus far focused on total market displacement and late-stage growth spikes, but what further insights can the usage of a lens of volatility reveal? It is important to recognize that volatility is erratic, eruptive and idiosyncratic – as a market factor it does not cleanly align with broader economic or style cycles and certainly follows its own rhythm. This eccentricity notwithstanding, growth and value transitions do exhibit differing volatility patterns, and this understanding can help investors navigate the many layers of risk as markets undergo rotation. In particular, the framework of volatility will give empirical backing to the aforementioned strategy of aggressive value positioning after transition as the most risk efficient style play.

Figure 10: Market, growth and value volatilities against style regimes

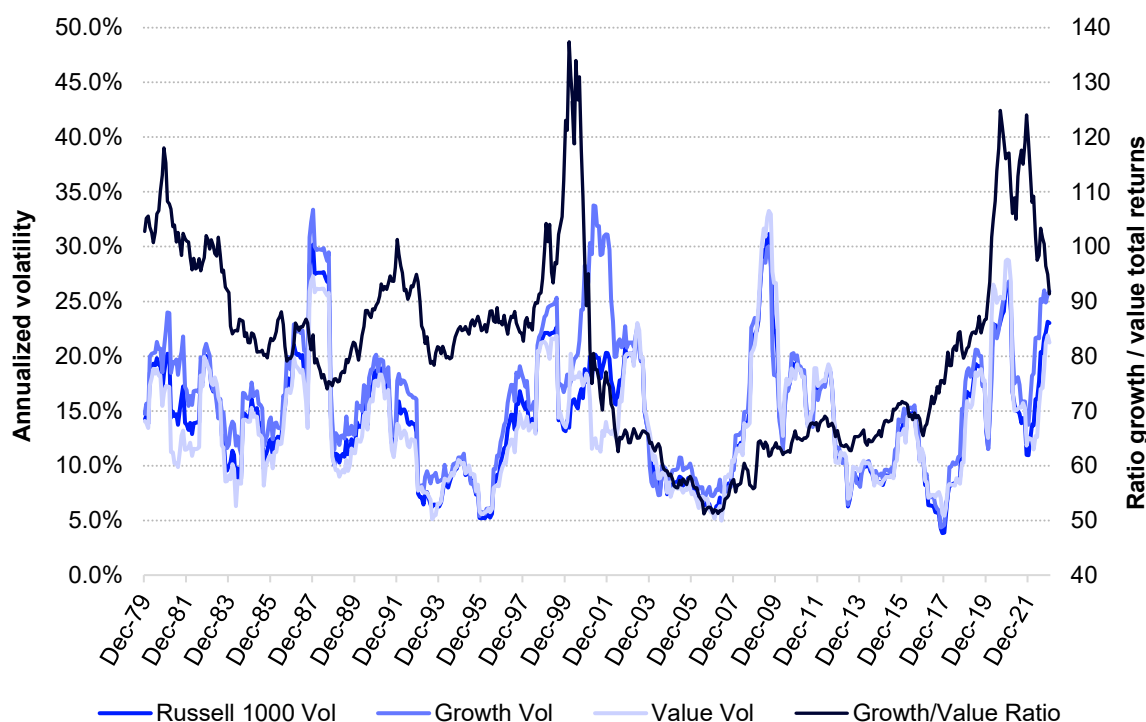


Figure 10: Annualized volatilities based on standard deviations within a rolling 12-month period for the Russell 1000, Russell 1000 Growth and Russell 1000 Value indices, along with the ratio of total returns of the latter two indices on the right-hand side. Note the high correlations between index volatility, but modest connection with regime cyclicality.

Source: FTSE Russell, July 2023.

Using rolling 12-month observations, figures 10 and 11 superimpose the annualized volatility of four different market exposures against the ratio of growth and value total returns from figure 1. The science of volatility is complex, and the preceding caveat on data noisiness certainly applies, but let's deconstruct these charts one element at a time and draw high-level insights. Foremost, concentrate on the three lines in figure 10 that closely hug each other, which track the volatilities of the Russell 1000, Russell 1000 Growth and Russell 1000 Value indices. An immediate takeaway is that growth demonstrates consistently greater volatility than value, across the timeseries averaging 15.9% annualized risk versus 13.7% for value – a 15.6% premium. Moreover, consider how closely these volatilities trend together; both style indices strongly correlate to the benchmark with coefficients of 0.94 and 0.96 for growth and

value respectively. While not quite as lockstep, even the two style indices can explain 67% of each other's volatilities, the notable deviation being the behaviour of growth and value vols during the Dot-com crash. In fact, remove the three-year period from June 1999 to June 2002 and this correlation rebounds to 0.91.

Figure 11: Style trend and market volatilities against style regimes

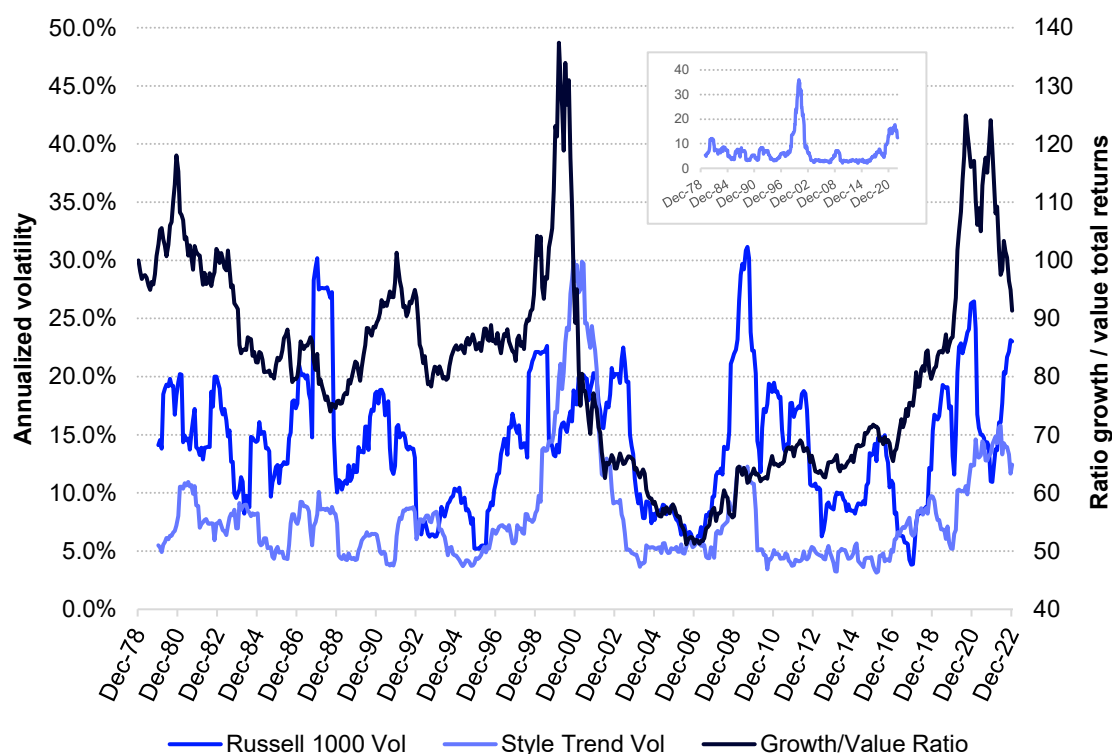


Figure 11: Style trend volatility juxtaposed against Russell 1000 volatility, circled in red are instances of notable noncorrelation or anticorrelation. Inset depicts style trend vol in isolation to convey visually the extremity of the Dot-com bubble.

Source: FTSE Russell, July 2023.

Focusing now on figure 11, the volatilities of the Russell 1000 Growth and Value indices are removed, and in their place is added the volatility of style trends, specifically the standard deviation of percentage changes the ratio of growth to value total returns. In other words, the light blue line is the volatility of changes in the black line, which has been the foundational metric for style analysis in this research series. The foremost insight is that the volatility of style trends is far less than that of the market overall, at 7.9% versus 14.2%, respectively. This 45% lower volatility is what renders style trends so attractive as a market force, not only are they far more consistent than overall equity returns, but they are larger in magnitude as well. In fact, 82% of the time style vol is below 10.0%, and in only 7% of the data history does it exceed the average for overall market volatility.

Much like the Dot-com bubble was an extraordinary episode for style index vol correlations, it was also an exceptional period for style trend volatility. In stark contrast to relatively tame baseline vol, annualized risk for style trends peaked at 30.0% in November 2000, lying 4.7 standard deviations from the average. The inset to figure 11 isolates this lone spike beset by flatlines on each side; Covid was barely half as extreme in comparison, a mere foothill! Eliminating the same three-year stretch of June 1999 to June 2002 from sample, the average volatility not only drops by 1 point to 6.9%, but the standard deviation of style vol (the volatility of volatility) collapses from 4.69% to 2.64%. Indeed, this reduction mirrors the same extent of decrease from market vol down to style vol. When looking outside the growth to value transition during the Dot-com bubble, style trends become alarming consistent from a volatility perspective.

Three lenses of volatility

After a first few forays into the labyrinth that is style volatility, deeper patterns will be deciphered through three lenses of volatility: first, at the regime level; second, in linking market and style vol behaviours; and third, during periods of style transition. From a visual level alone, it can be seen in figures 10 and 11 that volatility has few behaviours consistent at the regime level. Table 1 breaks down the four different volatility measures by each regime, as well providing averages for growth and value cycles overall. The primary distinction to be drawn is that style trend vol is 65% higher under value regimes compared to their growth counterparts, at 10.4% versus 7.1%, respectively.

Figure 12: Regimes by market and style trend volatility

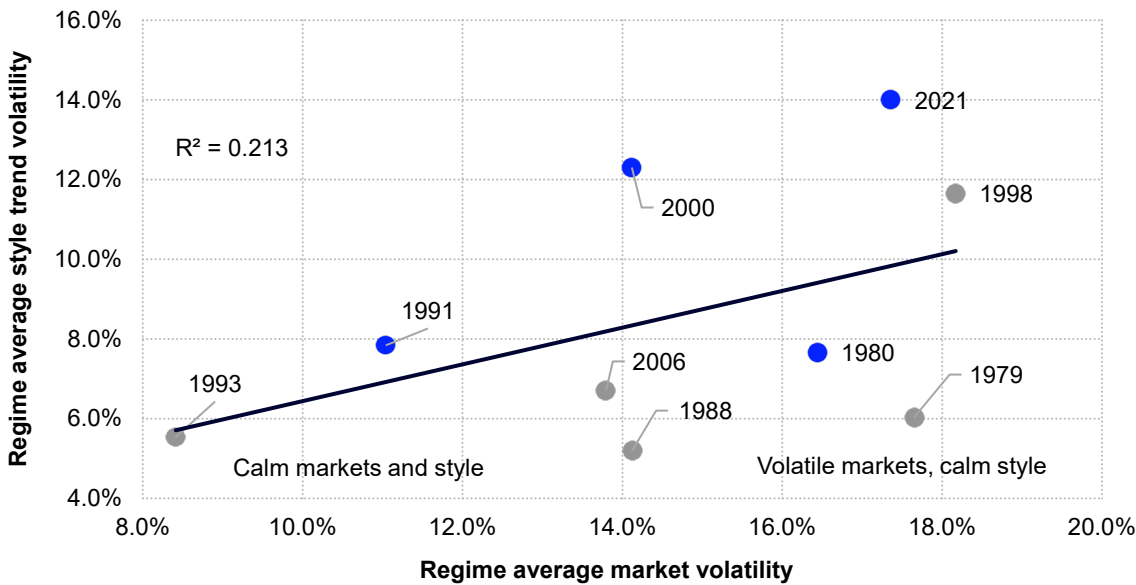


Figure 12: Blue observations indicate value regimes, and grey datapoints reflect growth regimes.

Source: FTSE Russell, July 2023.

With the exclusion of regime 6 beginning in 1998, the remaining growth regimes are all lower in style vol than the least volatile value regime, and they do not scale with respect to regime level market volatility either, as depicted in figure 12. Moreover, the recent value rotation beginning in 2021 features the most elevated style trend volatility on record, surpassing the 2000 Dot-com crash regime by 14%. A further insight is that the growth and value style indices are more volatile in regimes during which they are out of favour, although this effect is slighter with value regimes.

Table 1: Style regimes quantified by four volatility measures

	Russell 1000	Russell 1000 growth	Russell 1000 value	Style trend
2021 (V)	17.36%	21.37%	15.65%	14.00%
2000 (V)	14.12%	17.62%	13.11%	12.30%
1991 (V)	11.04%	13.21%	10.04%	7.84%
1980 (V)	16.44%	18.58%	15.09%	7.65%
2006 (G)	13.79%	14.34%	14.23%	6.70%
1998 (G)	18.17%	20.49%	17.90%	11.65%
1993 (G)	8.41%	9.42%	8.34%	5.54%
1988 (G)	14.12%	15.55%	13.13%	5.20%
1979 (G)	17.65%	18.96%	16.78%	6.04%
Average growth	14.43%	15.75%	14.08%	7.11%
Average value	14.74%	17.70%	13.47%	10.45%

Table 1: Volatility calculations use the regime average rolling 12-month standard deviations of monthly returns, which are subsequently annualized. Most pronounced disparity is in style cycle vol between average growth and value regimes.

Source: FTSE Russell, July 2023.

The second relationship of our focus, between market and style trend volatility, is likewise nuanced. In figure 11 a generalized pattern of co-movement can be observed between these two volatility measures, yet a cursory glance can recognize periods of noncorrelation and even striking divergence. Two examples of the latter effect include 2017, when market vol cratered to all-time lows at 3.9% yet style trend vol remained at average levels, and late 2021 when style trend vol ascended to its second highest peak but market vol plummeted. Furthermore, 1987 is an instance where volatility in the market surged, however style trend risk remained only modestly above average. In summary, there are numerous cases where overall markets gyrate, but style trend volatility remains muted, and vice-versa.

Figure 13: The Dot-com bubble and style trend volatility

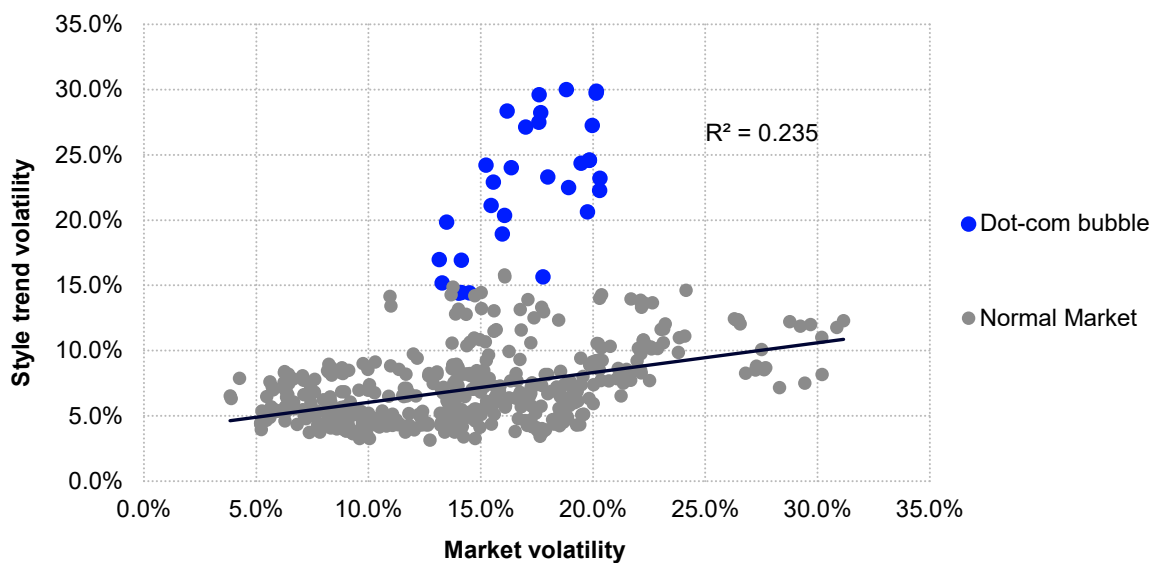


Figure 13: The Dot-com bubble observations in blue include the style trend volatility datapoints above 14.0%, encompassing the period from 8/31/1999 to 2/28/2002.

Source: FTSE Russell, July 2023.

Taking a more empirical perspective, figure 13 charts market volatility against style cycle volatility to reveal a moderate correlation of 0.383. Also visible is the top-hat effect of the Dot-com bubble datapoints, depicted in blue, which comprise uniformly the top 4.5% of style trend vol observations. By isolating these values with style volatilities above 14.0% during this bubble period – ranging from August 1999 to February 2002 – it becomes possible to assess the more typifying relationship between market and style cycle volatility. This narrowed down data range increases the correlation modestly to 0.485, but it remains the case that the overwhelming majority of variance (77%) in these two vol metrics is determined by other factors.

This cumulative understanding in volatility can now be applied to our third focal point, vol patterns during style transition. A volatility assessment reinforces our previous understanding of how divergent growth to value and value to growth style transitions are, as we can discern clear separation during these moments of market rotation. Examining the three months leading and following the turning point, shifts to growth feature below average market and style trend volatility, metrics lower by 1.4 percentage points in each case. This finding is striking, that a trajectory changing market phenomenon could be marked by low volatility, even when including the distorting effects of the 1988 rotation on the heels of the 1987 vol incident. For this reason, an adjusted datapoint for the 1988 growth transition is calculated using a truncated six-month observation window instead of the 12-month standard, so the hang-on effects of the 1987 crash do not unduly skew volatility figures.

Figure 14: Regime transitions assessed by market and style volatility

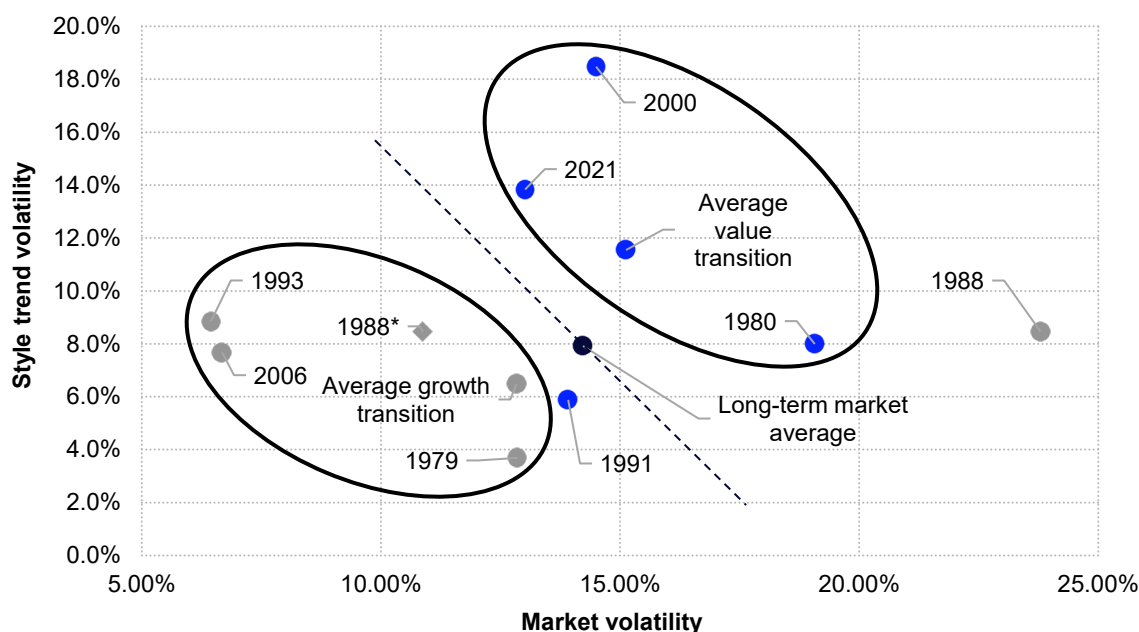


Figure 14: Grey points connote growth regime, and blue value cycles.
 *Data observations based on averaged volatilities during the 7 months encompassing each transition point (3 months prior to, the month of transition and 3 months trailing). 1988 receives an adjusted volatility measure as a supplement using 6 instead of 12 months rolling standard deviations of monthly market returns. This addition is to compensate for the near unprecedented 1987 crash which occurred 10 months prior to the 1988 regime crash, which otherwise produces an extraordinary data result not reflective of vol patterns before, during or after regime turnover.

Source: FTSE Russell, July 2023.

By contrast, transitions to value witness sharply elevated volatility, with annualized market risk on average increasing by 0.9 percentage points to 15.1% and style trend vol by 46% to 11.5%. This regime-based disparity is practically expressed with the style vol for the two types of transitions falling at the 48th and 86th percentiles for growth and value, respectively, relative to the full data history. The schismatic nature of these two market transitions is illustrated in figure 14, where the two clusters capture the distinctive vol patterns of these rotations. Importantly, the average value transition undergoes volatility 17.9% higher at the market level and 78.3% higher at the style level compared to the average growth

transition. Not only are value rotations high volatility events, but the risk level increases as the rotation progresses. In fact, style vol rises 53.6% on average in the three months following the actual transition date relative to the three months preceding this market extrema – growth transitions by contrast see no discernible change.

While volatility is an intricate market factor, analysing successive layers of risk behaviour gleans actionable insights on how market regimes transition, namely a continuing distinction between growth and value. Not only does style trend volatility emerge as an independent risk from broad market volatility, it is more consistent as well, especially when omitting the extravagance of the 2000 dot-com bubble (81.5% lower in this case). Furthermore, we gain an additional recognition of the greater dynamism of growth to value versus value to growth transitions, complementing similar observations from our displacement and style skewedness inquires. For the practice-oriented investor, these findings inform when portfolios are exposed to heightened market and style risk during the oscillatory journey of growth and value.

Conclusion

By reviewing 43 years of data history encompassing nine distinct style regimes, we have undertaken a three-fold evaluation of how Russell 1000 Growth and Russell 1000 Value indices transition through phases of market favourability. First, we examine the degree of market displacement that occurs at style inflection points, finding 5.57 times as much style churn in transitions to value as compared to shifts to growth; the former are V shaped, the latter U shaped. The key ramification is that the luxury of time for risk assessment does not extend to value transitions, which are categorically a disparate market event from growth transitions. Delaying reallocation to value by three months following regime change, relative to optimal timing over this four-decade period, reduces capital appreciation by 2.5 times the baseline gains to the Russell 1000 Index.

As a causal mechanism to this schism in transition intensity, the signature tail-end spike to growth regimes is investigated second. This culminating surge sees the last 20% of a growth regime account for 50.8% of regime style returns on average, referencing the changes in the ratio of growth to value total returns. Additionally, value cycles undergo symmetric retracement of this growth exuberance, creating a defining pattern of concentrated style returns that recurs through the 40 plus year history. Third, applying a volatility lens not only reveals that style trend risk is a distinct factor from broad market volatility – explaining 14.7% of each other's behaviour – but it underscores the extreme nature of value transitions as well. By considering four different measures of volatility, the mundane nature of rotations to growth readily emerges, as these events exhibit below average style trend and market volatilities despite the profound implications they carry.

A resonating theme throughout this analysis is that the most risk efficient means to benefit from style transition is to aggressively allocate to value after a corresponding regime change. The merits to this strategy are manifold; not only is the value style 13.8% less volatile than growth overall, but during value regimes it is the lowest possible of any style allocation, demonstrating a 24-basis point decrease in risk. Moreover, value transitions are highly discernible landmarks in terms of navigating market trends; they provide a clear launch point with even the tamest rotation featuring 41% of style returns concentrated in the first fifth of the cycle. Finally, the contrasting docile transitions to growth mitigate the risks of overshooting the value trend once growth returns to favour; these are low volatility events with only gradual shifts in market and style behaviour.

Whether aiming to time market rotations ambitiously, or manage their risk factors with more conservative intent, grasping the mechanics of style transition is a foundational understanding for the modern investor. Building on the insights into the duration and intensity of style regimes featured in the first two parts of this research series, the fourth instalment will focus on the motivating forces behind style performance, including valuation, the equity risk premium and market concentration.

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