

Is Value Dead?

December 2019

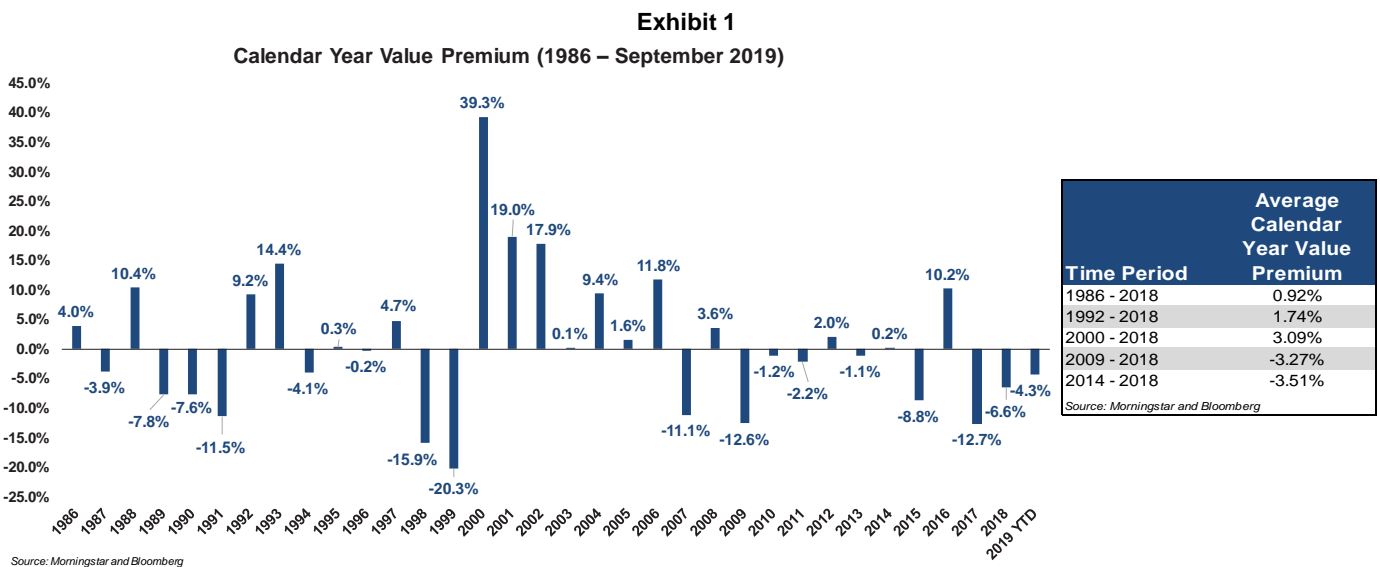
Give Up Now and You Might Regret It!

- Over the past decade, value stocks have underperformed growth stocks substantially. Historically, the value premium has experienced prolonged periods of underperformance. We do not believe that value investing is broken.
- Value stocks look historically cheap relative to both growth stocks and their own historical valuations.
- Given the historical return pattern of the value premium, we recommend a balanced portfolio with exposure to both value and growth stocks.

Value investors have had a rough decade. The investment style has experienced one of the most prolonged periods of underperformance in recent memory. Value has consistently and significantly underperformed growth, leading investors to question whether value investing itself is dead. We do not believe that is the case and expect value investing to recover eventually. In fact, we caution investors against abandoning value in their portfolios.

For our discussion, we define the value premium as the excess return of the Russell 3000 Value Index over the Russell 3000 Growth Index.

Exhibit 1 below illustrates the calendar year value premium every year since 1986 with the table showing the average calendar year value premium over various periods of time.

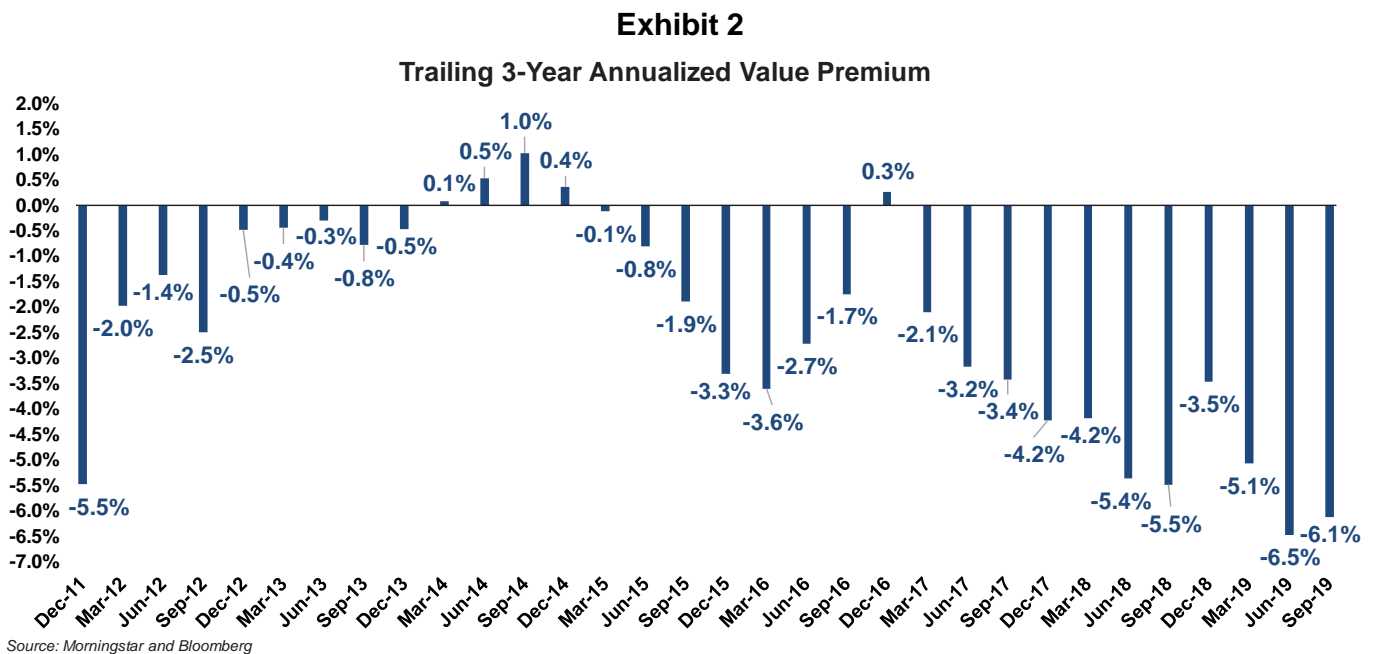


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Value works over the long-term but has performed poorly over the past decade. Its underwhelming performance has continued in 2019, as the value premium has generated a negative 4.30 percent return through September.

Another way to assess value’s performance is to look at the value premium on an annualized basis over longer periods. Exhibit 2 below shows the trailing three year annualized value premium on a quarterly basis over the past 10 years.



As illustrated in the chart above, value has persistently underperformed growth no matter how you slice the data. The sustained underperformance has led many investors to question whether the value premium is dead.

We don’t think that value investing is “broken,” but we do believe value is historically cheap. We assessed the valuation of value using several different methodologies.

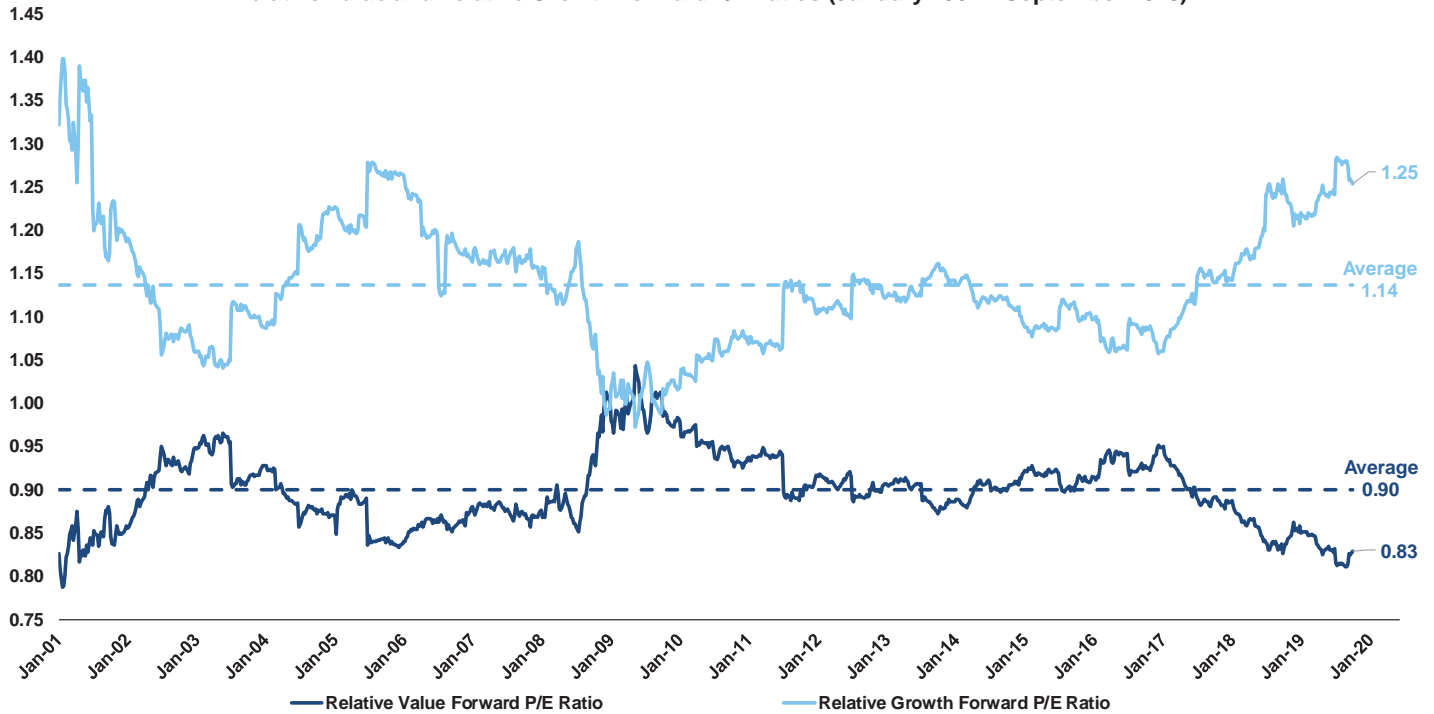
First, we looked at the forward P/E ratio of the Russell 3000 Value Index divided by the forward P/E ratio of the Russell 3000 Index (“the Relative Value Forward P/E”) and the forward P/E ratio of the Russell 3000 Growth Index divided by the forward P/E ratio of the Russell 3000 Index (“the Relative Growth Forward P/E”). This gave us a sense of the valuation of both value and growth relative to a core index.

Below, Exhibit 3 shows the historical results.

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Exhibit 3

Relative Value and Relative Growth Forward P/E Ratios (January 2001 – September 2019)



Source: Bloomberg

Exhibit 3 highlights the Relative Value Forward P/E ratio is currently well below its historical mean. In fact, as of the end of September, the ratio was 1.67 standard deviations below its historical mean, implying that value stocks look cheap based on their historical valuation relative to core.

On the flip side, the Relative Growth Forward P/E ratio was 1.58 standard deviations above its historical mean at the end of September. Thus, in addition to value stocks looking historically cheap, growth stocks look historically expensive.

The second method we employed to assess value's valuation was to look at the historical valuations of the underlying stocks in the Russell 3000 Index. Exhibit 4 groups the stocks in the Russell 3000 Index into deciles by forward P/E on a monthly basis going back to January 1995 and shows how each decile is currently valued, as well as statistics around each decile's historical valuation.

Exhibit 4

Decile	Current Median Forward P/E of Stocks in Decile	Historical Average of the Median Forward P/E of Stocks in Decile	Standard Deviation of the Median Forward P/E of Stocks in Decile	Number of Standard Deviations Current Median Forward P/E is Above / (Below) the Historical Average
Decile 1	78.02	65.09	17.29	0.75
Decile 2	36.79	30.95	4.34	1.35
Decile 3	25.77	23.24	2.49	1.02
Decile 4	20.90	19.61	1.94	0.66
Decile 5	17.71	17.24	1.73	0.27
Decile 6	15.09	15.47	1.66	(0.23)
Decile 7	13.09	13.99	1.61	(0.55)
Decile 8	11.45	12.55	1.57	(0.70)
Decile 9	9.55	10.82	1.49	(0.86)
Decile 10	6.52	8.04	1.32	(1.15)

Source: Bloomberg

The median forward P/E ratio of the stocks in Decile 10, which represents the cheapest stocks, currently registers 6.52x compared to a historical average of 8.04x. In addition, the stocks in Decile 10 are currently trading more than one standard deviation cheaper than their historical average valuation.

Conversely, the most expensive stocks contained in the first three deciles all trade at large premiums to their historical average valuations. All told, growth stocks are trading at a steep premium relative to their history. The combination of these factors makes value stocks look attractive on both an absolute and a relative basis.

Given the attractive valuations of value stocks today, we sought to determine if any relationship exists between the relative valuation of value and the future performance of the value premium. To determine, we assessed the Relative Growth to Value Forward P/E Ratio – which we define as the Relative Growth Forward P/E ratio divided by the Relative Value Forward P/E ratio – at the end of each month relative to its history and compared it to the value premium over the next twelve months.

Exhibit 5 below depicts our findings.

Exhibit 5

Relative Growth to Value Forward P/E Ratio	Average Value Premium Over Next 12 Months	Number of Observations
0.5 Standard Deviations Above the Mean (Value is Cheap)	5.50%	55
1.0 Standard Deviations Above the Mean (Value is Cheaper)	10.65%	25
1.5 Standard Deviations Above the Mean (Value is Cheapest)	11.60%	15
0.5 Standard Deviations Below the Mean (Value is Expensive)	-2.66%	72
1.0 Standard Deviations Below the Mean (Value is More Expensive)	-2.32%	36
1.5 Standard Deviations Below the Mean (Value is Most Expensive)	-2.09%	15

Source: Morningstar and Bloomberg

As Exhibit 5 shows, the value premium, is positive on average when value stocks look cheap relative to growth stocks and negative when growth stocks look cheap relative to value stocks. Additionally, on average, the value premium increases as value stocks become more attractively priced relative to growth stocks.

At the end of September, the Relative Growth to Value Forward P/E ratio registered 1.73 standard deviations above its historical mean, which means value stocks look quite cheap relative to growth stocks on a historical basis.

Although it is impossible to time or know when value's performance will turn, current relative valuations suggest that at some future point, after years of underperformance, the value premium may very well turn positive again.

This begs the question, what does this mean for your portfolio? Many investors have either given up or are considering abandoning value due to its underperformance over the past 10 years. Some investors think tactically allocating to value is the best approach and avoid investing in value stocks until the moment they believe the value premium will turn positive.

Unfortunately, we think both approaches are flawed. When growth outperforms, it tends to do so consistently and for a long period. However, when value outperforms it typically generates substantial outperformance over a much shorter period. Therefore, we think timing value's outperformance is a fruitless endeavor. Investors who

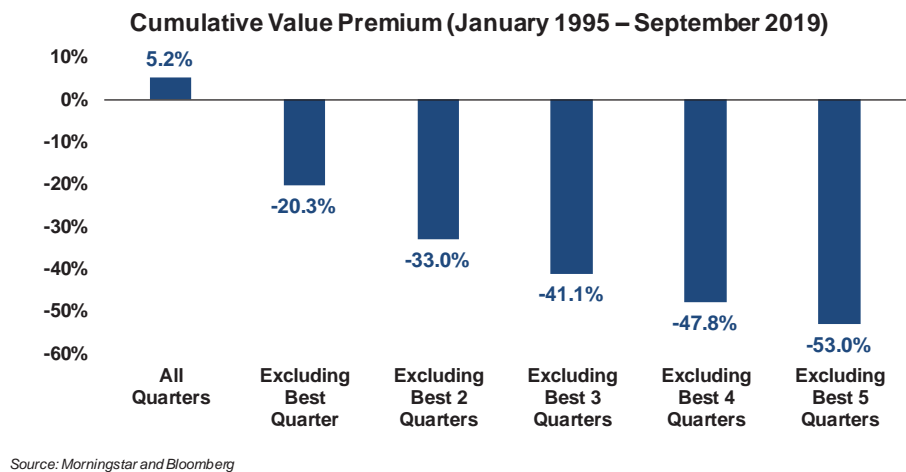
avoid value entirely will miss out on its premium over time while investors who try to time the value premium run the added risk of buying or selling value stocks at the wrong time.

Below, Exhibit 6 highlights the dangers of tactically allocating to value.

Exhibit 6

Average Quarterly Value Premium		
Number of Quarters Included in "Best"	Best Quarter(s)	Remaining Quarters
1	31.95%	-0.11%
2	25.47%	-0.31%
3	21.60%	-0.46%
4	19.40%	-0.60%
5	17.74%	-0.72%
6	16.05%	-0.81%
7	14.79%	-0.90%
8	13.83%	-0.99%
9	13.04%	-1.07%
10	12.33%	-1.15%

Source: Morningstar and Bloomberg



The table in Exhibit 6 illustrates the average quarterly value premium in the top performing quarters compared to all the other quarters in the sample. The chart shows the cumulative value premium over the entire period versus what it would have been if the best performing quarters in the sample were excluded. In the sample, mistiming the allocation to value by just one quarter eliminated all of value's excess return for investors who missed its best performing quarter. We are skeptical of investors who claim to possess the ability to time their allocation to value and mistiming the allocation by a small amount can lead to disastrous outcomes.

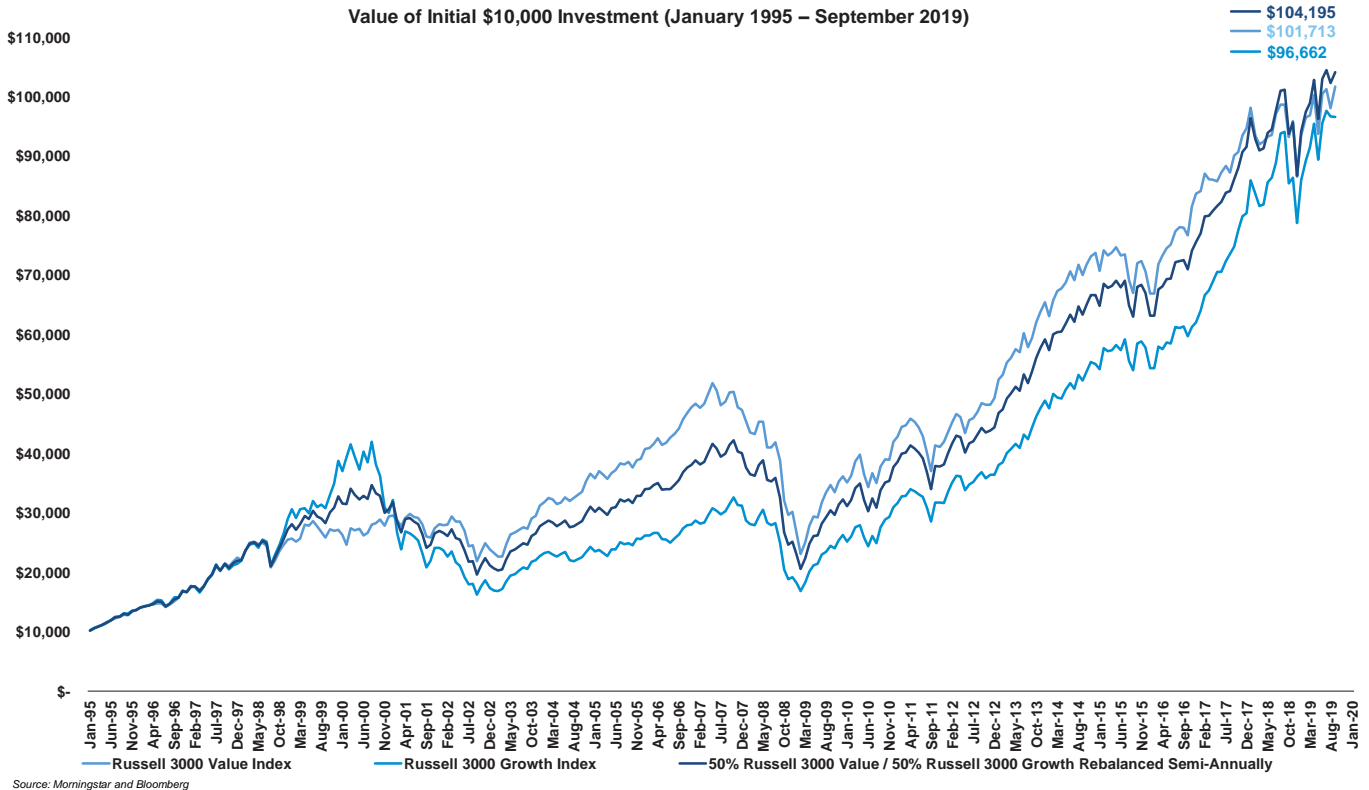
On the other hand, the attractive valuations of value stocks may tempt investors to eliminate or reduce their exposure to growth stocks in favor of increasing their value allocations, which we also think is a poor choice. The dangers of trying to time a style allocation also apply to this scenario as growth could continue its prolonged outperformance.

Maintaining a balanced portfolio, with exposures to both growth and value, has historically provided investors with the smoothest ride.

Below, Exhibit 7 charts the growth of an initial \$10,000 investment in January 1995 through September 2019 in the Russell 3000 Value Index, the Russell 3000 Growth Index and a portfolio that invests half of its assets in each, rebalanced semi-annually. To no surprise, the 50/50 blend is a smoother ride and arrive at the same place over the long-term.

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Exhibit 7



The past decade is not the first time value stocks experienced a rough patch. Historically, value goes through prolonged slumps but generates a return premium over the long-term. Today, we see no reason value stocks will continue to underperform in perpetuity. Value stocks look historically cheap today, especially relative to growth stocks, but it is impossible to time when the relative performance of value and growth will turn. For these reasons, investors should remain disciplined and maintain a balanced portfolio with both value and growth exposure across equity asset classes.

Appendix

We define the value premium as the geometric excess return of the Russell 3000 Value Index relative to the Russell 3000 Growth Index. In some cases, this metric is annualized and in other cases it is not annualized but this is always noted explicitly in the paper. We also use the terms “value excess return” and “value excess return relative to growth” interchangeably with the term “value premium”. Please note that all of these share the same definition.

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A P O L L O N

W E A L T H M A N A G E M E N T

The second method that we employed to assess value's valuation was to look at the current and historical valuations of the underlying stocks in the Russell 3000 Index. Going back to January of 1995, we pulled the forward P/E at the end of each month for all of the stocks in the Russell 3000 Index. At the end of each month, we sorted the stocks from smallest forward P/E ratio to largest forward P/E ratio (excluding stocks with negative forward P/Es or with no data available) and divided the stocks into deciles based on the number of stocks with data available. Next, we calculated the median forward P/E of the stocks in each decile.

The decile portfolios did not always contain an equal number of stocks because the number of stocks with data and with positive forward P/E ratios was not always perfectly divisible by 10. Our method of allocating extra stocks to the decile portfolios was to add the first remaining stock to the Decile 5 portfolio, the next stock to the Decile 4 portfolio, the next stock to the Decile 6 portfolio, the next stock to the Decile 3 portfolio, the next stock to the Decile 7 portfolio, the next stock to the Decile 2 portfolio, the next stock to the Decile 8 portfolio, the next stock to the Decile 1 portfolio and the last possible remaining stock to the Decile 9 portfolio. This was an arbitrary selection but we wanted to first add stocks to the decile portfolios towards the middle of the distribution. For this section we used the underlying forward P/E ratios using the underlying companies' estimated earnings over the next twelve months. All stocks with negative earnings estimates or without data were excluded from each cross-sectional sample. We pulled the data for the underlying stocks in the Russell 3000 Index at the end of every month from January 1995 through September 2019.