## Do Size and Value Still Matter?

As an investment philosophy, we believe, through empirical evidence and substantial research, that certain factors drive investment returns. In fact, Dr. Eugene Fama, Professor of Economics at the University of Chicago, received a Noble Prize in 2013 for proving this philosophy beyond any doubt.


To review, Dr. Fama specifically emphasized a system using two factors, company size and price-relative-to-earnings as these factors increase the probability of improved risk-adjusted returns. Fama's price-relative-to-earnings factor divides the world of stocks into two halves; value and growth. Value stocks are defined as stocks with prices that are low relative to the company's financial performance, measured by such fundamentals as the company's revenue, dividends, yield, earnings and profit margins. The other half, growth stocks are priced based on their rapidly growing revenue, earnings and cash flow and have higher prices relative to their earnings.

At Sharper Granite, our portfolio models follow Dr. Fama's strategy, emphasizing small and value stocks within portfolios. Not only are these two factors highly researched and supported by many studies, but they also align with investor intuition. For example, small companies are inherently riskier than large companies, which means that they should also have higher expected returns. Professor Fama proved that this additional small-company risk is well compensated with additional returns.

After this past decade, where large-cap stocks have surged past small-cap stocks and value has lagged growth, some are questioning if this philosophy is still valid. Should we change our asset allocation strategy? This is a concern we investigate continuously.

In these examinations, we are first reminded of a well-known behavioral finance trap that can lead to poor investment decisions - "recency bias." Recency bias is the tendency to place too much emphasis on experiences that are freshest in memory, even if they are not the most relevant or reliable. ${ }^{1}$

With recency bias, an investor makes a decision based on recent events and expects those same events to repeat in the future. These expectations are often irrational, encourage an investor to deviate from well thought out plans, and lead to bad outcomes.

As an example, consider what could have happened if one had chased a hot sector like energy, the best-performing sector in the S\&P 500 Index in 2016. The energy sector delivered an annual return of $27 \%$ that year. After seeing this, some investors may have invested heavily in energy stocks, thinking this sector would continue its strong performance. In this case, they would have been disappointed the next year when the sector returned only $-1 \%$ while the S\&P 500 Index returned $19 \%$.

For a better investment experience, and as long-term investors, we want to avoid recency bias and make decisions based on probabilities. Strategies rooted in science and backed by probabilities deliver the greatest likelihood of getting to our desired outcome.

The size premium (the amount by which small stocks beat large stocks) over any 1-year period has a $56 \%$ chance of being positive. This is a larger advantage than casinos have over gamblers at roulette, one of the casinos' most profitable games. Even more powerful is the value premium which has a $60 \%$ chance of being positive. ${ }^{2}$ And on average, value stocks have outperformed growth stocks by $4.54 \%$ annually in the US since $1928 .{ }^{3}$ The rational move is to continue to bet on the higher probability of outperformance, small and value stocks.

We get similar results when considering a 10 -year rolling average, but the results are even more pronounced in favor of the value premium. In the chart on the right, the rolling 10 -year premiums show that growth has outperformed value in only three periods across the last 83 years. One of those periods is occurring right now. ${ }^{4}$

For the size premium, the next chart shows the growth of one dollar invested in small stocks versus large stocks between 1926 and 2019. An investment in small stocks grew nearly three times that of large stocks, $\$ 25,617$ versus $\$ 9,237 .{ }^{5}$

As discussed, growth stocks have outperformed for the last decade. Since mid-2020, however, signals indicate that large-growth dominance may be waning. The chart on the following page shows the rolling 10 -year performance of the stock market's lowest price-to-earnings (P/E) stocks, or value stocks, against the highest $\mathrm{P} / \mathrm{E}$ stocks, or growth stocks. In the decade prior to February 2000, growth beat value stocks by $2.7 \%$ a year. We now have a similar situation. ${ }^{6}$

## Historical Observations of 10-Year Premiums

Value minus growth: US Markets
1937-2019


Historical Growth of One Dollar
Monthly growth of wealth (\$1), 1926-2019


## 10-Year Annualized Outperformance of Low P/E stocks vs High P/E Stocks



Not only are value stocks overdue for a comeback, but current economic trends may also favor value stocks. The recent increase in money supply, low interest rates, and vaccine availability may soon lead to consumers spending pent-up cash. This will likely lead to moderate inflation which tends to be positive for value stocks. ${ }^{7}$ Additionally, the regulatory pressures mounting worldwide against tech giants may force a shift in the growth landscape.

Both size and value advantages are rooted in sound economic theory. In addition to being economically sensible, these premia are supported by evidence spanning nearly a century in the U.S. and virtually all countries where measured. But despite compelling theoretical and empirical evidence supporting these premia, investors may be tempted to extrapolate the recent past into the distant future. This can lead investors to abandon their investment philosophy and strategy.

Maintaining discipline and sticking to a plan are always important factors for successfully reaching goals. If your goals and timeframe have not changed, then your asset allocation likely does not need to drastically change either.

## Notes and Acknowledgements:

1.Thinking Fast and Slow, Daniel Khaneman, Nobel Laureate, 2011
2. Why Value?, Dimensional Webcast. This percentage is calculated over a rolling 1-year period using monthly return data from June 1927 to December 2019 for size and value, May 21,2020
3. "When It's Value vs Growth, History is on Value's Side", Dimensional July 21,2020
4. Value minus Growth based on Fama/French U.S. Value Research Index minus the Fama/French U.S. Growth Research Index, Dimensional 2020
5. Monthly Growth of $\$ 1$ from 1926 - 2019; U.S. Small Cap Index is the CRSP 6-10 Index; U.S. Large Cap Index is the S\&P 500 Index; Long-Term Government Bonds Index is 20 -year U.S. government bonds; Treasury Bills are 1-Month U.S. Treasury bills; 1 -Month Treasury Bills Index is the IA SBBI US 30 Day Treasury Bill TR USD. Treasury Index data sourced from Ibbotson Associates, via Morningstar, Dimensional 2020
6. Ken French Data Library, July 31,1951 - December 31, 2019, with data through January 31, 2020 using WisdomTree's attribution software on the S\&P500 for the final months
7. Wisdom Tree, November 2020

