

# Small Cap Stocks: Strategic Allocation

WHITEPAPER

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Small capitalization (a.k.a. “small cap”) stocks refer to the smaller companies in the equity universe by market capitalization. Academic research showed that US small cap stocks outperformed large cap stocks, and as a result, they have become a mainstream asset class for most institutional investors. More recent data shows that the benefits of small cap stock investing have diminished, and there is some debate around the cause of this decline and whether it is a permanent change.

The potential for active managers to generate excess returns (i.e., “alpha”) appears to be higher in small cap stocks than in large cap equities, though the likelihood of active managers generating alpha may also have decreased. Even given the evolution of the small cap stock market, we believe that long-term investors are still likely to benefit by allocating to small cap stocks because of their superior return potential relative to large cap stocks, the higher potential for alpha when using active management, and the modest diversification benefits.

## Small cap stocks

Capitalization is a stock market measure that refers to the total market value of a company's eligible equity securities, calculated by multiplying the number of outstanding shares by the current stock price. Firms with relatively low total market value are considered small cap stocks.

Definitions of what constitutes a small cap stock vary. The broadest definition is that the bottom 50 percent of stocks when ranked by market capitalization (this definition includes microcap stocks, which are the smallest of the small cap universe) comprises the small cap universe. Alternatively, small cap stocks are those companies ranked 1001 to 3000 in market cap in the Russell index family (i.e., the Russell 2000) or those numbered 901 to 1500 in market cap in the S&P index family (i.e., the S&P 600). Some investors prefer to define the universe in more absolute terms, such as all stocks under \$5 billion in market capitalization; however, this definition is clearly susceptible to change over time.<sup>1</sup> Despite the small relative size of the stocks in this universe, taken together they represent a large opportunity set.<sup>2</sup>

There are several qualitative differences between large and small cap stocks. Large cap stocks are highly liquid and widely followed by Wall Street analysts, whereas small cap stocks are less liquid and receive less analyst coverage. Thus, while large cap stocks

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<sup>1</sup> When Meketa Investment Group started publishing papers on small cap stocks over 20 years ago, the small cap universe was considered those stocks under \$1 billion in market capitalization.

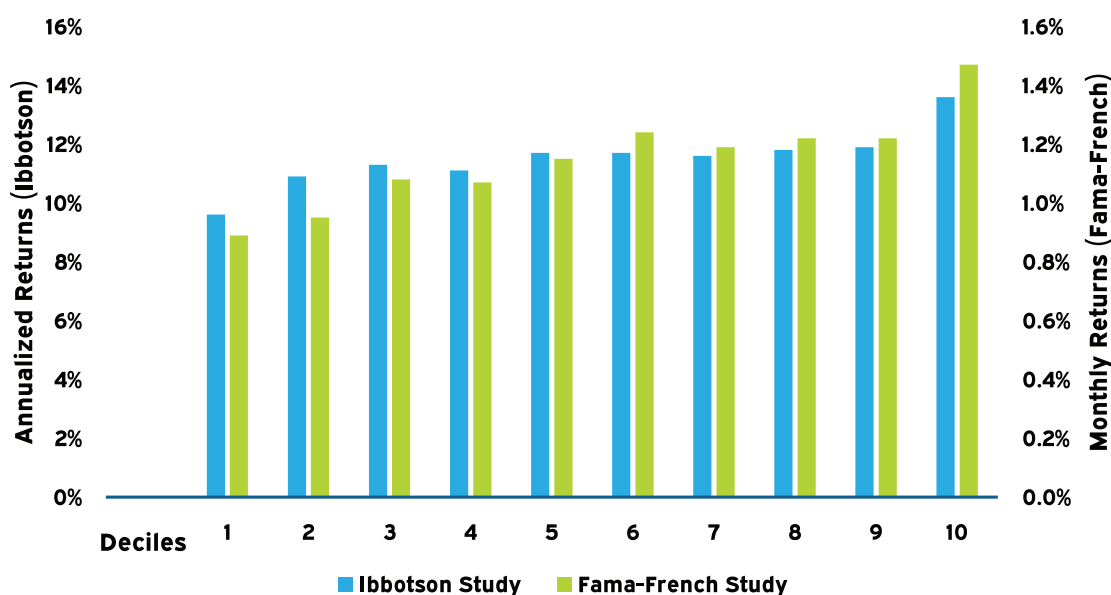
<sup>2</sup> As of June 30, 2021, the market capitalization of the Russell 2000 index was \$3.0 trillion and the S&P 600 was \$1.1 trillion.

are cheaper to trade because they are more liquid, it is more difficult to locate mispricings. And conversely, small cap stocks are more expensive to trade, but mispricings are theoretically easier to identify.

## The “small stock” effect

In the 1980s and 1990s, a few academics<sup>3</sup> noticed something interesting about the stock market: namely, smaller stocks had significantly outperformed larger stocks historically. More specifically, smaller stocks outperformed large stocks on an annualized basis, provided the measurement period encompassed at least 25 years (i.e., several market cycles). This gave rise to the concept of the small stock effect, more commonly referred to in academic studies as the size effect.

<sup>3</sup> See, for example, Fama, Eugene and French, Kenneth. “Size and Book-to-Market Factors in Earnings and Returns.” *Journal of Finance* 50 (1992) 131-55. This followed the work of Rolf Banz in “The Relationship Between Return and Market Value of Common Stocks” published in the *Journal of Financial Economics* in 1981 and Richard Roll in “A Possible Explanation of the Small Firm Effect” published in *The Journal of Finance* in 1981.



**FIGURE 1**  
**Return for US Stocks, by Market Cap Decile**

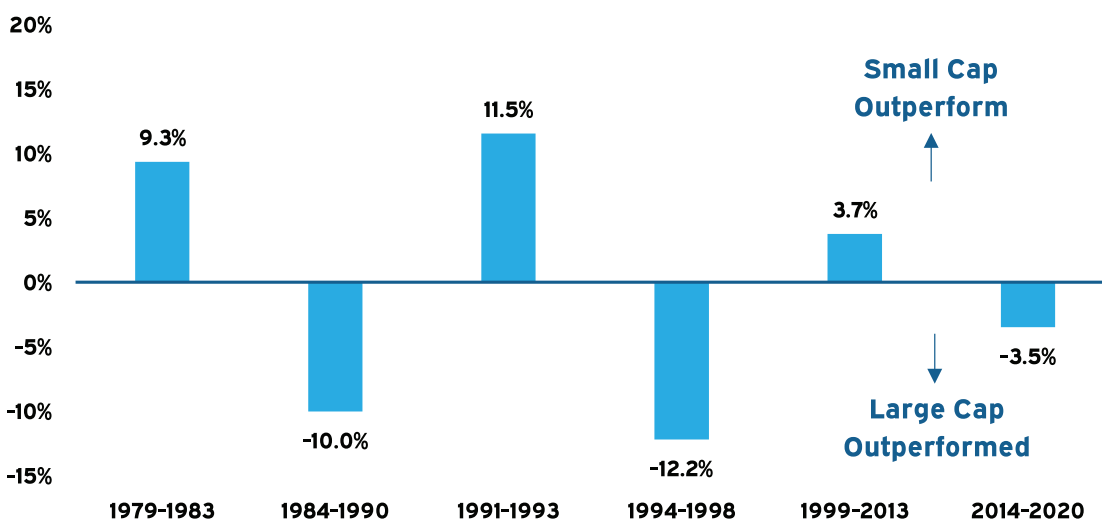
Source: Ibbotson Associates data is for the period from 1926 to 2007 (they have since ceased to publish data for stock market performance by decile). Fama-French data is for the period from 1963 to 1990.

Previous empirical studies sought to explain this anomaly, and four common theories have evolved as possible explanations.

- First, because smaller stocks are riskier (both in terms of business prospects and market volatility), investors demand extra return to compensate them for the increased risk of investing in small cap stocks.
- Second, the small cap market is much less efficient (e.g., professional analyst coverage is far more limited), this allowing for greater mispricing.
- Third, because small stocks are starting at a lower base, there is higher potential earnings growth (in percentage terms) which leads to higher returns.
- Finally, some have argued that the size effect is really a “value” effect, in that small cap stocks tend to trade at lower price ratios than larger stocks.

It is worth noting that not all of these explanations have to be true to justify the small cap effect, nor are they mutually exclusive.

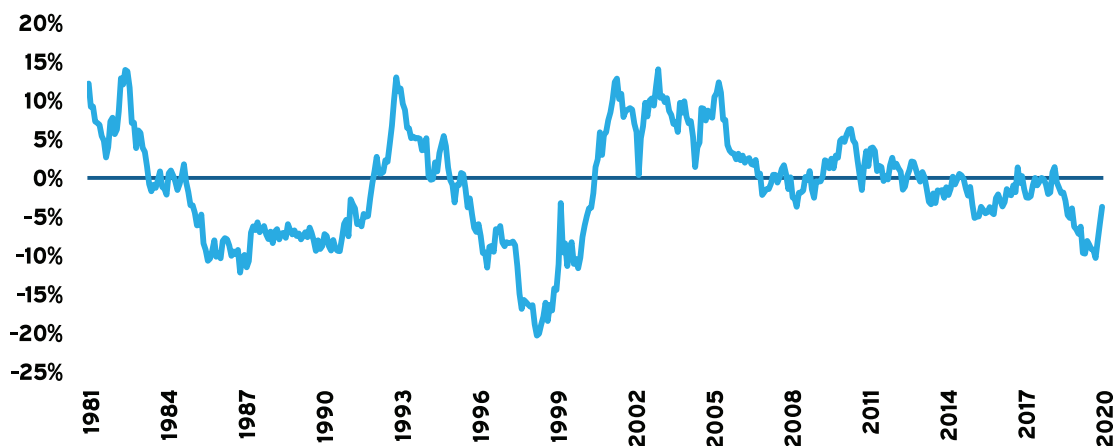
However, the path to outperformance has been highly cyclical (see Figure 2). While small stocks have tended to outperform large stocks over long holding periods, over shorter periods, smaller stocks may lag large stocks. Unfortunately, there is no predictable pattern to the timing of relative performance cycles for large and small cap equities. Also, although the average period of time that one group of stocks has outperformed the other has been about seven years, the apparent cycles have ranged in length from one year to twelve years.



**FIGURE 2**  
**Difference in Annualized Returns of Small Cap Stocks vs. Large Cap Stocks**

Source: Russell 2000 for small cap, S&P 500 for large cap.

However, since the Global Financial Crisis ("GFC"), small cap stocks have failed to outperform large cap stocks. Further, while the relative performance of small caps has always moved in cycles, the volatility of the cycles appears to have declined (see Figure 3). This coincides with other trends that imply greater market efficiency (such as the great democratization of information availability made possible by the internet).

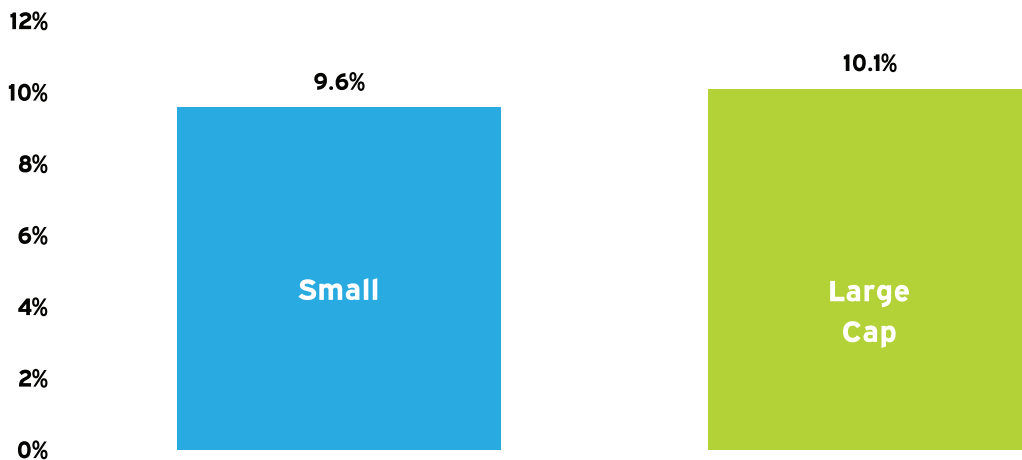


**FIGURE 3**  
**Difference in Rolling 3-Year Annualized Returns (Small Cap Minus Large Cap)**

Source: Russell 2000 for small cap, S&P 500 for large cap.

In recent years, there has been some debate about whether small cap stocks still command a premium. It has been argued that the "small stock effect" has disappeared<sup>4</sup> since Fama & French published their paper in the 1990s (see Figure 4). (See the Appendix for further discussion on the "small stock effect.")

<sup>4</sup> Schwert, William, 2003, "Anomalies and market efficiency," Handbook of the Economics of Finance 1:1, 939-974.



**FIGURE 4**  
**Annualized Performance for Small and Large Cap (1994-2020)**

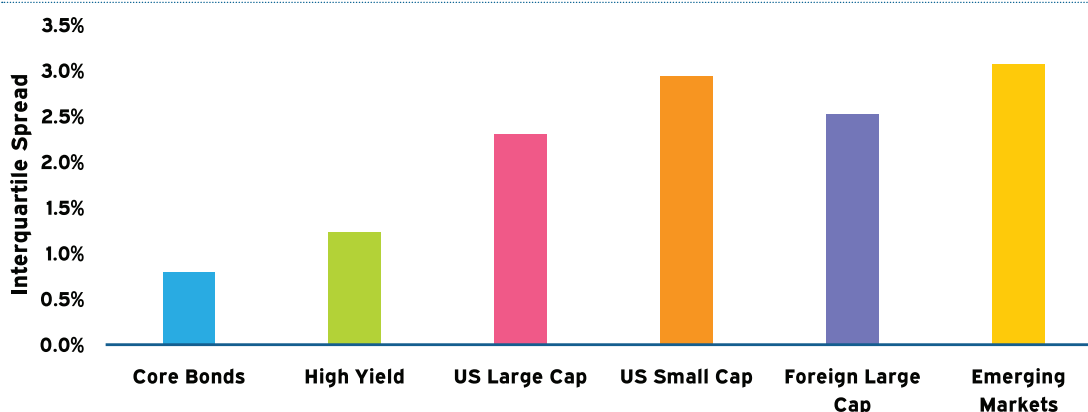
Source: Russell 2000 for small cap, S&P 500 for large cap.

## Active management

In addition to the “beta” portion of investing in small cap stocks (i.e., anticipating they will outperform larger stocks), many investors pursue small cap stocks for the “alpha.” That is, they expect that the managers they hire to invest on their behalf will outperform the benchmark, this providing added returns.

The traditional argument for this is that small stocks do not receive the same broad research coverage as large cap stocks. Therefore, a skilled investor in small cap stocks has a greater opportunity to identify undervalued securities and thus produce abnormal returns through research and analysis.

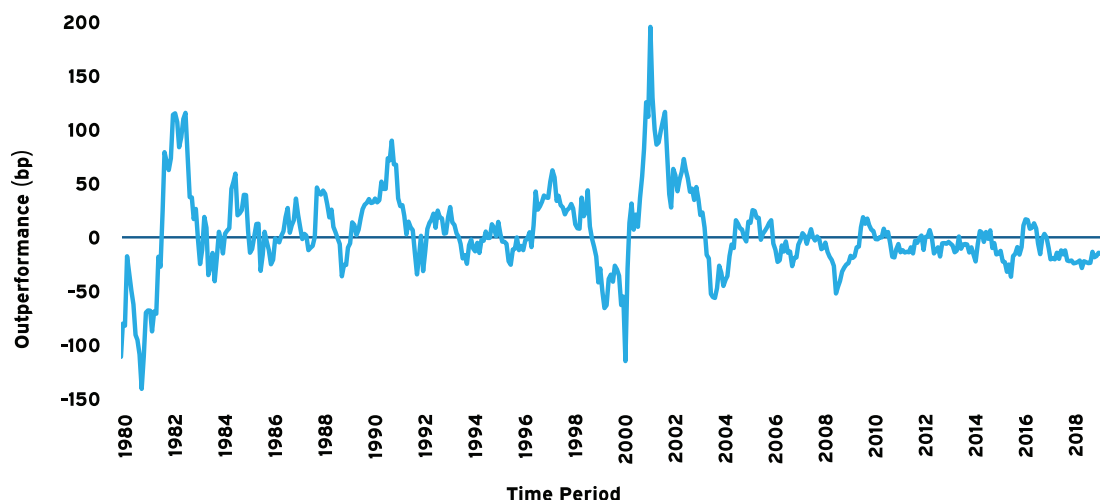
While active management can be considered a “zero sum game” (before costs) as a whole, there is reason for investors to have greater optimism about active management in small cap equities.



**FIGURE 5**  
**Dispersion of Active Management Performance: Interquartile Spreads**

Source: Since inception through September 2019. Based on median interquartile spread per asset class and considering all available history.

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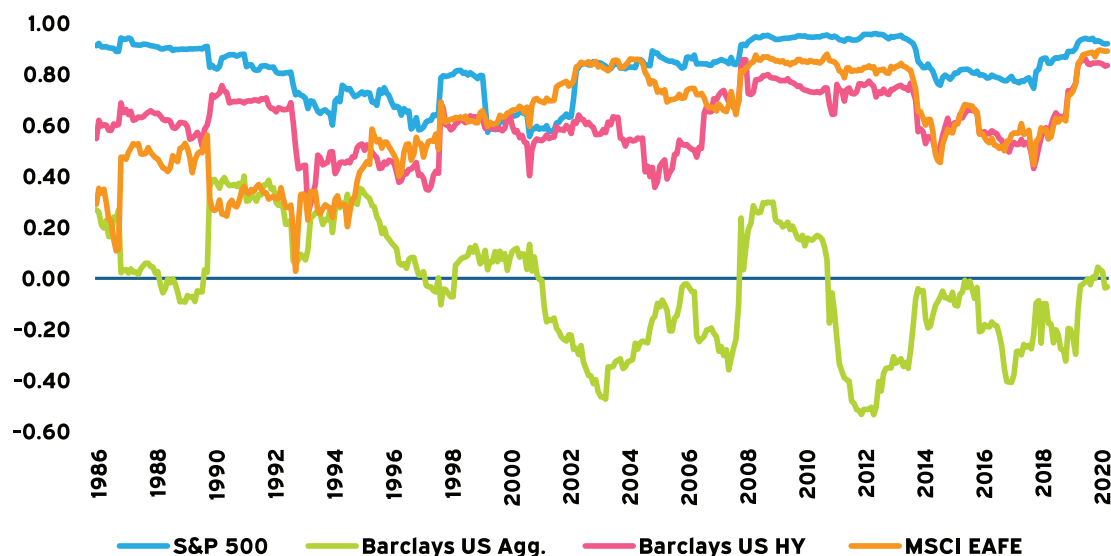
**FIGURE 6**  
**Cyclicality of Manager Outperformance: US Small Cap**

Source: Reflects rolling median one-year performance minus the respective benchmark performance over that same period. [See Meketa's white paper on manager alpha.](#)

Unfortunately, there is also some reason for pessimism about active management. The average alpha, net of fees, has been negative for the better part of the past two decades (see figure 6). During this same period, small cap managers seem to be performing closer to the benchmark, and the size of the changes in cyclicality has decreased. This reinforces the earlier implication of greater market efficiency.

## Diversification?

There are many different ways to look at diversification benefits, including an examination of historical correlations among asset classes. The returns of small cap US stocks have been highly correlated with large cap US stocks, foreign stocks and high yield bonds, and uncorrelated with high quality bonds (see figure 7). Hence there are only modest diversification benefits to expect from expanding a portfolio that already contains a significant equity allocation to include small cap stocks.



**FIGURE 7**  
**Rolling 3-Year Correlations (1986 to 2020)**

Source: Russell 2000 for small cap, S&P 500 for large cap, Bloomberg Aggregate for investment grade bonds, Bloomberg High Yield for high yield, MSCI EAFE for international equities.

## Implementation issues

Investing in small cap stocks brings with it some unique implementation issues. The first few of these derive from the size and liquidity of the market. Small stocks are less liquid than larger stocks, and hence, they are generally more expensive to trade. Therefore, it makes sense for all but the largest investors to use commingled vehicles as the pooling of assets allows managers to better control trading costs.

Investors who choose to pursue active management should be aware that management fees are higher than for most other public market asset classes. Another challenge is that some managers close their products to new investors after reaching a certain size in assets under management (“AUM”). Hence, many of the managers who have been the most successful historically do not accept new mandates.

We consider the closing of an actively managed product to new investors to be beneficial to the existing investors in a fund, as it helps mitigate the “asset bloat” effect. As a manager grows AUM, trading activity will increasingly drive the prices of the securities in which it invests, and this is particularly true for securities with less liquidity, such as small cap stocks. Hence, a manager has little choice but to invest in more stocks or in more liquid (i.e., larger cap) stocks as it grows beyond a certain threshold, either of which changes the nature of the portfolio.

Investors must also make portfolio construction decisions when investing in small cap stocks. For example, should they use active or passive management, or some combination of the two? Should they use a single core manager, or complementary strategies (e.g., value and growth mandates)? Is there a specific amount of tracking error the investor is willing to take versus a policy benchmark? What benchmark should they use (e.g., Russell 2000 or S&P 600<sup>5</sup>), be it for either active or passive management?

<sup>5</sup> There is a meaningful difference in the small cap benchmarks. [See Meketa's white paper on small cap equity benchmarks.](#)

## Summary

Meketa Investment Group recommends that investors have an allocation to small cap stocks that is at least equal to that of the broad market. To ignore the market's small stocks would exclude an investor from benefiting from the wealth-generating power of a substantial portion of the US stock market.

It is increasingly difficult to argue for an overweight to small cap stocks based on the idea of the small cap premium. While small cap stocks may outperform larger stocks due to any number of behavioral or structural issues, the data is less supportive of this position than it used to be. Investors with long term horizons are in a good position to accept the added volatility of small caps and to capture their return potential.

The potential for active managers to generate alpha appears to be higher in small cap stocks than in large cap equities. However, net of fees, alpha has been non-existent on average for small cap managers over the past two decades. The decision of whether investors should employ an active manager comes down to their confidence in their ability to identify skilled managers, along with their willingness to accept additional costs and risks.

## Appendix: the small stock effect

The relevance of the “small stock effect” has been debated for decades after seeming to have declined or disappeared since initially being discovered. This section explores some of the recent research around the “small stock effect” and provides further discussion on its relevance. While the period since the GFC may not have seen the greatest return from small cap stocks, as mentioned above, periods of small cap stocks underperforming can occur at times, and this recent period may just be one of those times.

Recent research discussed by Jiang, et al.,<sup>6</sup> find that the size effect still exists but only within the S&P 500 index. As is observed in the overall market, in the S&P 500, the smallest stocks will not outperform the largest stocks all of the time, and large caps may outperform small caps over the short term. They also find that inflows into index funds raise the price of large cap stocks more than small cap stocks because funds flow mainly to stocks in high demand. This can lead to large cap stocks becoming larger, as can be seen with technology stocks such as the FAANG stocks obtaining an increasing share of the S&P 500 index. It becomes this cycle where large cap stocks within the S&P 500 can become overvalued as those that are already overvalued will become more so when money flows into S&P 500 index funds. The opposite pattern will be true for the smallest group of stocks.

<sup>6</sup> Jiang, Hao, Vayanos, Dimitiri, and Zheng, Lu, 2020, “Tracking Biased Weights: Asset Pricing Implications of Value-Weighted Indexing,” National Bureau of Economic Research.

In terms of the value premium that may be inherent to small cap stocks, Fama and French (2020)<sup>7</sup> find lower expected value premiums for the time period of 1991 to 2019, though they say it cannot be determined if the value premium has completely disappeared. They state that “the high volatility of monthly value premiums precludes us from drawing any conclusions about the change in the expected value premium based on this time period.” Despite the value premium being weaker since 1991, it cannot be concluded with any confidence whether the value premium has disappeared or if this has just been a period of underperformance. Similar to small cap stocks underperforming over certain time periods, it can be expected that value will underperform from time to time.

<sup>7</sup> Fama, Eugene, and French, Kenneth, 2020, “The Value Premium,” Fama-Miller Center for Research in Finance, The University of Chicago.

Looking further at the size effect, it can be noted that the much of the effect stems from microcaps and/or migration where small cap stocks become large cap stocks and earn large positive returns. Fama and French<sup>8</sup> conclude that “microcaps are influential in the size effect observed in tests on all stocks.” In another paper, Fama and French<sup>9</sup> show that “almost all of the value and size premia are driven by stock migration: by value (small) stocks that are upgraded to growth (big) stocks.” This shows that the size premium is largely due to returns of small stocks that move to a big stock portfolio from one year to the next. As for stocks that do not migrate, they find that small value stocks have higher average returns than small growth stocks that do not move.

<sup>8</sup> Fama, Eugene, and French, Kenneth, 2007, “Dissecting Anomalies,” The Journal of Finance, 63:1 1653-1678.

<sup>9</sup> Fama, Eugene, and French, Kenneth, 2007, “Migration,” Financial Analysts Journal, 63:3, 48-58.

Chen and Zhao<sup>10</sup> find that “the size premium has not disappeared: excluding growth firms, the size premium is as robust as ever.” They show that “The negative growth size premium during 1981-2006 is the sole reason for the “disappearance” of the size premium and the reason for this is small growth firms having lackluster performance and too low returns during this time period.” They also find results consistent with Fama and French where “there is no size premium without migration and in fact, small firms are punished for staying small.” Similarly, Asness, et al.,<sup>11</sup> find that “controlling for junk produces a robust size premium that is present in all time periods, with no reliably detectable differences across time from 1957 to 2012, in all months of the year, across all industries, across nearly two dozen international equity markets, and across five different measures of size not based on market prices.” In this paper “junk” refers to small cap growth stocks with low profitability (i.e., stocks of low quality). These two papers show that the size premium is still relevant when certain groups of firms are removed from the equation.

<sup>10</sup> Chen, Long, and Zhao, Xinlei, 2009, “Understanding the Value and Size Premia: What Can We Learn From Stock Migrations?” SSRN Electronic Journal.

<sup>11</sup> Asness, Cliff, Frazzini, Andrea, Israel, Ronen, Moskowitz, Tobias, and Pedersen, Lasse, 2018, “Size Matters if you Control Your Junk,” *Journal of Financial Economics* 129:3, 479-509.

Index sector weighting can also shed light on some of the recent underperformance of small cap versus large caps stocks. Looking at the Russell 1000 index compared to the Russell 2000 index provides further insight. Much of the recent large cap outperformance can be attributed to the FAANG stocks. Looking at the sector weighting differences of the Russell 1000 and the Russell 2000, at the end of 2019, the size of the technology sector of the Russell 2000 is about 11% lower than that of the Russell 1000. Looking at a few other sectors, “energy and technology companies in the Russell 2000 have significantly underperformed their Russell 1000 peers, and Russell 2000 financial services and utilities have significantly outperformed.”<sup>12</sup> Such cyclicity in sector performance can explain why at times the Russell 1000 may outperform the Russell 2000 and vice versa, given their meaningfully different sector weights.

<sup>12</sup> <https://www.ftserussell.com/research/russell-2000-forty-years-insights>.

Historically, value stocks have had higher returns than growth stocks. Chan, et al.,<sup>13</sup> conclude that for late 1999, the “success of large cap growth stocks had captured investors’ attention and enthusiasm, which had pushed up valuations even higher and their returns further boosted as investors chased performance.” Their findings provide a behavioral explanation where market optimism inflated large cap growth stocks’ performance. Their paper also concluded that the operating performance for those stocks could not have been the trigger for their huge price gains. For the time period observed, it appeared that investors became excited about certain successful companies and favored companies in certain sectors. In this case, investors ended up pushing returns away from usual long-term patterns. This shows that behavioral factors can influence performance. Investors can become overly optimistic about certain companies and this can irrationally increase those stocks’ prices while leading to neglect of other stocks.

<sup>13</sup> Chan, Louis, Karceski, Jason, and Lakonishok, Josef, 2000, “New Paradigm or Same Old Hype in Equity Investing?” *Financial Analysts Journal*, 56:4, 23-36.

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