

Microcap stocks are generally defined as the smallest capitalization companies within the stock market. A typical institutional investor has little exposure to microcap stocks, and rarely are microcap stocks recognized as a separate asset class. This paper reviews microcap stocks' historical risk and return, correlation to major asset classes, compares active and passive management, as well as discusses implementation considerations.

What is microcap?

Market 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. Microcap stocks refer to the smallest publicly traded companies, ranked by this measure, in the equity market.

Concrete definitions of microcap stocks vary, and different sources use different guidelines to define the asset class. In addition, the definition tends to change over time as the overall value of the market grows. For example, as of 2023, the SEC and NASDAQ defined microcap stocks as those with a market capitalization of less than \$300 million.¹ The S&P Dow Jones US Micro-Cap Total Stock Market Index consists of companies with market caps too low to be included in the Large and Small Cap US Market Indices but that still meet the index's requirements.² The index primarily used to depict returns throughout this paper, the Russell Microcap Index, consists of the smallest 1,000 companies in the small-cap Russell 2000 Index plus the next 1,000 smallest eligible companies by market cap.³ To put this in context, the weighted average market cap of each stock in the Russell Microcap Index is \$0.64 billion, compared to the Russell 3000's \$547 billion.⁴ Perhaps the most time-independent definition of microcap stocks is the bottom two deciles of companies ranked by market cap. Despite microcap equity occupying the lowest market capitalization deciles, they represent approximately 43% of public company investment opportunities.⁵

The "Small Stock Effect"

Historical studies have shown that over very long periods of time, small cap stocks have cumulatively outperformed larger cap stocks. This is most notably found in Fama and French's 1992 study, though many subsequent academic studies have likewise sought to explain this "small stock effect."⁶ Four common theories have evolved from empirical studies as possible explanations for this anomaly.

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¹ Sources: NASDAQ, "Microcap Stock: Definition, How It Works, Pros, Cons & Strategies," July 18, 2023. SEC, "Microcap Stock: A Guide for Investors," September 18, 2013.

² Source: S&P, "Dow Jones U.S. Total Stock Market Indices," July 2023.

³ Source: Russell, "Russell Microcap Index Fact Sheet"

⁴ Source: Russell, "Russell Microcap Index Fact Sheet," as of September 30, 2023.

⁵ Source: NASDAQ, "The Microcap Universe: Overview and Opportunities," June 7, 2022.

⁶ Source: 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.

- 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 (and micro) cap market is much less efficient (e.g., professional analyst coverage is far more limited), allowing for greater mispricing.
- Third, because small stocks start 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 these explanations have to be true to justify the small cap effect, nor are they mutually exclusive.

Is the “Small Stock Effect” still relevant?

When looking at Fama and French’s value-weighted decile data, we find that since the data began in 1926, microcap equity has outperformed large cap equity. However, when looking at this data in a more recent period of the past 20 years, we find that the trend has flipped.⁷ Over the past 20 years, microcap equity has underperformed relative to small, mid, and large cap equity (see Figure 1).

The market phenomenon of higher volatility as company size becomes smaller has remained constant both since inception as well as over the past 20 years.

One potential reason why the “small stock effect” appears to have flipped may be the dominance of megacap companies such as the “Magnificent Seven” and FAANG stocks.⁸ These stocks have been among the largest and best performing of the past two decades and represent a meaningful portion of large cap indices. More broadly, over the last 20 years, the quality swath⁹ of the US equity universe has outperformed the broader universe. Higher quality businesses tend to skew larger cap, which has created a tailwind for large cap.

⁷ Other research has also found the “small stock effect” to have essentially disappeared, such as William Schwert’s, “Anomalies and market efficiency,” from 2003 in the Handbook of the Economics of Finance 1:1, 939-974.

⁸ The FAANG’s include Facebook, Amazon, Apple, Netflix, and Google, while the “Magnificent Seven” include Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta Platforms.

⁹ In this context, a quality swath refers to the stocks of higher quality companies. Higher quality companies can be defined along a wide range of parameters, such as those with stable earnings, stronger relative balance sheets, higher margins, and higher ROE and ROIC, among others.

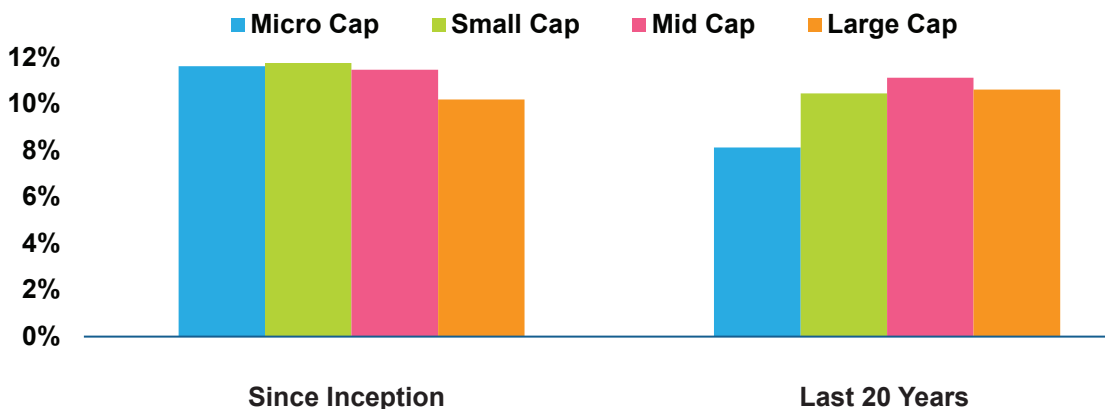


FIGURE 1
Fama and French Decile Annualized Returns

Source: Kenneth R. French Data Library monthly value-weighted returns as of October 2023. For the periods 7/1/1926 to 7/1/2023 and 8/1/2003 to 7/1/2023. Deciles broken down as: Microcap = 1 & 2, Small Cap = 3, 4, 5, Mid Cap = 6, 7, 8, Large Cap = 9 & 10.

While the rise of these mega-cap stocks may justify some of large cap's high performance over the last 20 years, it does not explain the underperformance of microcap versus small and midcap. There are many possible theories that may explain this phenomenon. Perhaps the most credible is that the fastest growing small companies now comprise a much smaller portion of the public markets. With the rise of private markets over the last two decades, there are fewer publicly listed companies. Venture capital now serves as a mainstream way for start-ups and other small companies to raise capital, whereas they previously might have had to go public to do so. Moreover, it is easier for these companies to stay private, as the overall growth of the private equity asset class means they can receive additional rounds of funding. In addition, as they move further up in size, buyouts offer a large market for acquisitions, especially of small- and midcap companies.

Cyclical return patterns

Figure 2 plots the difference in annual returns of microcap stocks and large cap stocks. Up until the 2000's, microcap stocks exhibited extended periods of out- and underperformance, and the differences – both on the up and down sides – could be very dramatic. Over the past two decades, these cycles have become shorter and less amplified. After the last extended period of outperformance ended in 2004, there has not been a consecutive period of under- or outperformance lasting more than three years.

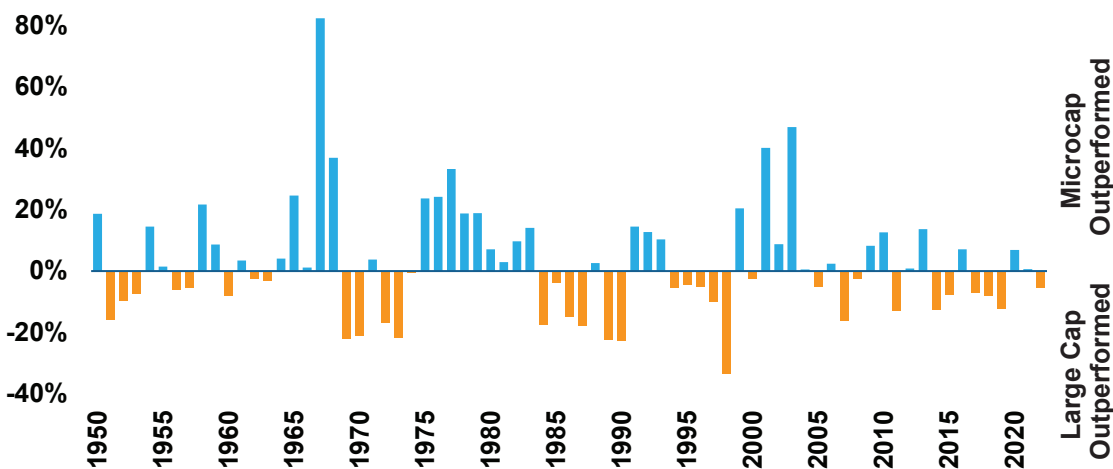


FIGURE 2
Difference in Calendar Year Returns of Microcap Stocks vs. Large Cap Stocks

Source: Kenneth R. French Data Library annual value-weighted returns as of October 2023. Returns include dividends. For the period 7/1/1950 to 7/1/2023. Deciles broken down as: Microcap = 1 & 2, Large Cap = 9 & 10.

It is extremely difficult to accurately predict the timing of relative performance cycles for larger and smaller capitalization equities, let alone to do so with any consistency. However, despite the uncertain causes of the performance cyclicalities, there have been certain fundamental conditions associated with the outperformance of smaller stocks in the past. Examples of two of these conditions are listed below.

- **Low relative valuations** | Microcap stocks tend to outperform larger stocks when priced at a discount relative to larger stocks.
- **Post-recession upswings** | Cycles of microcap outperformance have often begun during the early stages of economic rebounds. For instance, when the economy rebounded from stagflation in 1979 and recessions in 1991, 2002 and 2010, microcap stocks rallied more strongly than did large cap issues.

Historical performance

Figure 3 shows that, for the past two decades, US large, small, and microcap stocks have all followed very similar return patterns and trends.

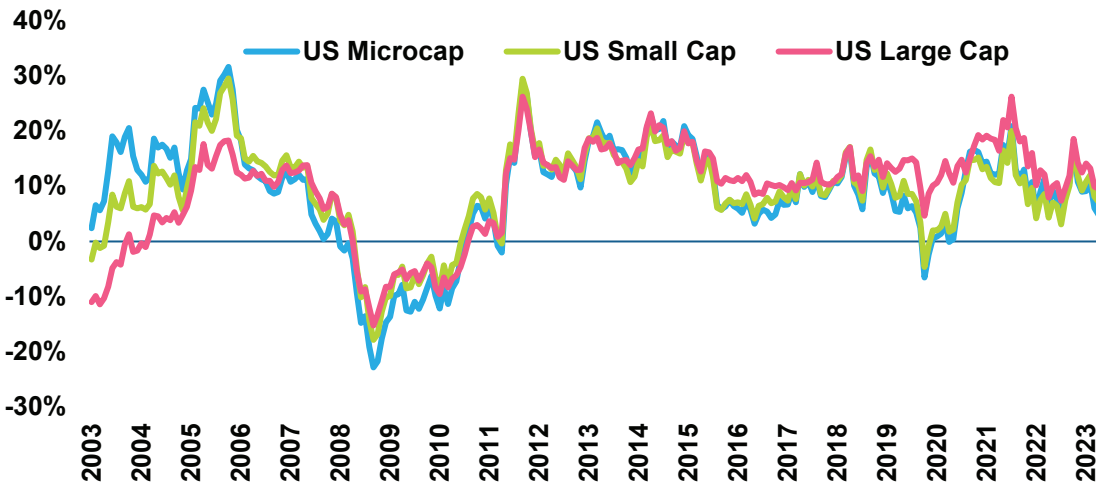


FIGURE 3
Rolling 3-Year Total Returns

Source: Bloomberg monthly returns as of October 2023. Indices Used: Russell Microcap Index TR, Russell 2000 TR, Russell 1000 Index TR.

Volatility

Figure 4 shows that the volatility of US microcap stocks has followed the same trends as small and large cap equity, and that microcap has been consistently more volatile. This is expected as there has historically been an inverse relationship between capitalization size and risk. That is, the smaller the company size, typically the greater the risk.

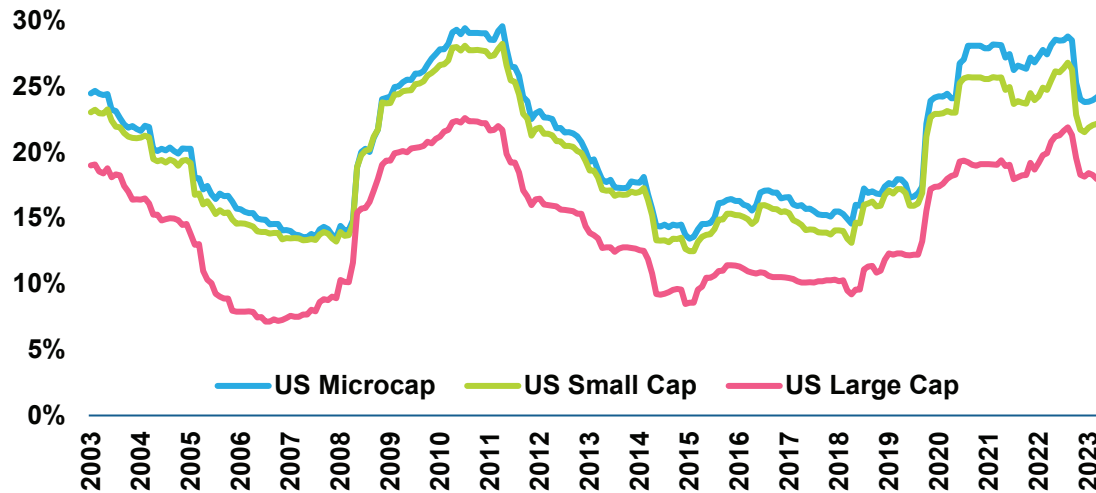


FIGURE 4
Rolling 3-Year Volatility

Source: Bloomberg monthly returns as of October 2023. Indices Used: Russell Microcap Index, Russell 2000, Russell 1000 Index.

Correlations

Figure 5 shows how US microcap equity has had a consistently high correlation with small cap US equity and a slightly lower (but still high) correlation to US large cap equity and foreign equity. Since 2000, US microcap has exhibited an average correlation of 0.98 with US small cap, a 0.84 correlation with US large cap, a 0.0 correlation to US bonds, and a 0.75 correlation to foreign equity.¹⁰ Some of the reason

¹⁰ Source: Bloomberg monthly returns as of October 2023. Indices Used: Russell Microcap Index TR, Russell 2000 TR, Russell 1000 Index TR, Bloomberg US Aggregate Bond Index, MSCI EAFE Total Return USD. For the period spanning 7/1/2000 to 9/30/2023.

for US micro and small cap's high correlation is the overlap between the two indices, as the smallest 1,000 companies in the small-cap Russell 2000 index are also in the Russell Microcap index.

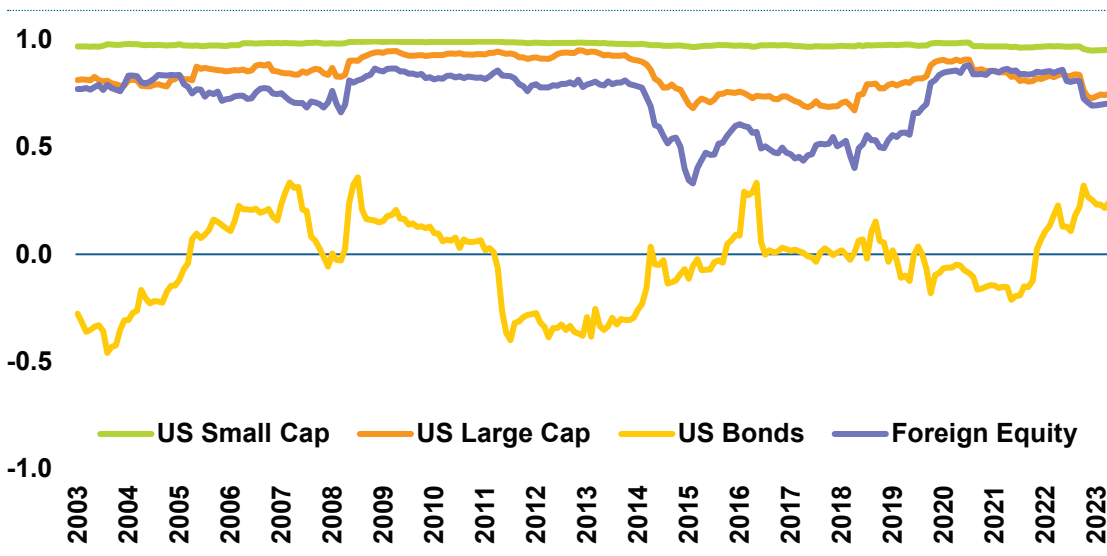


FIGURE 5
Rolling 3-Year Correlation

Source: Bloomberg monthly returns as of October 2023.
Indices Used: Russell Microcap Index TR, Russell 2000 TR, Russell 1000 Index TR, Bloomberg US Aggregate Bond Index, MSCI EAFE Total Return USD.

Active versus passive management

Manager outperformance in the US microcap asset class has historically been highly cyclical, as shown in Figure 6. For our analysis, we examined both the Morningstar and eVestment US microcap universes. Interestingly, the average annualized outperformance of the median active US microcap manager (before fees) differs considerably between the two reporting sources. For example, over the full measurement period, the average annualized outperformance of the median active US microcap manager (before fees) in the Morningstar universe was 176 basis points.¹¹ Over the same period, the median outperformance in the eVestment universe was nearly a full percent higher, at 267 basis points.¹²

Over the past ten years, the average outperformance in the Morningstar and eVestment universes have followed the same trend of declining. However, the two differ in the extent of the drop. The average annualized manager outperformance dropped by more than 100 basis points, to 62 basis points in the Morningstar universe. Over the same period, average manager outperformance in the eVestment universe only dropped a few basis points to 260. While both reporting sources show high cyclicity and follow the same trends, the average manager in the eVestment universe tends to report higher overall outperformance compared to those in Morningstar.

The median “rack rate” fee of 100 basis points in microcap may present a challenge for active management.¹³ Additionally, in some cases, managers will also charge a performance-based fee. However, depending on the situation and size of the mandate, an investor may be able to negotiate a lower fee.¹⁴

¹¹ Source: Morningstar. Outperformance represents geometric mean of manager returns over one year minus the benchmark return for the period where data is available. Inception date starts when there are at least 10 funds to evaluate and goes through September 2023.

¹² Source: eVestment Alliance. Outperformance represents geometric mean of manager returns over one year minus the benchmark return for the period where data is available. Inception date starts when there are at least 10 funds to evaluate and goes through September 2023.

¹³ Source: eVestment Alliance. Median sliding fee for all product types as of September 30, 2023. Backdated fee information is unavailable.

¹⁴ Traditionally, active management fees are often much higher than passive management fees, so an active manager would have to outperform the benchmark by its higher fee for the investor to break even.

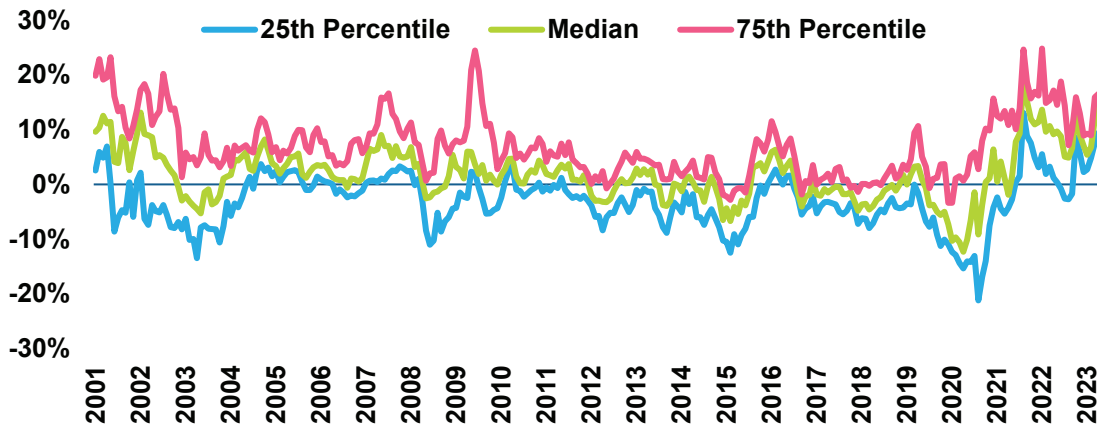


FIGURE 6
Rolling Median
Outperformance

Source: Morningstar. Data as of September 30, 2022. Gross of fees. Due to the small number of funds at inception, some of the asset classes' early year relative returns may be skewed. For more information, see [Meketa's Manager Alpha Whitepaper](#).

Interquartile spreads can be interpreted as how much potential value lies in selecting superior active managers within each asset class. Over the past ten years, US microcap has had an interquartile spread of 9.5%,¹⁵ higher than US small cap's 5.7% and US large cap's 4.4%.¹⁶ This higher interquartile spread may imply that US microcap offers more potential for alpha than other US equities when choosing superior active managers. However, it is worth noting that this higher interquartile spread may partially be due to the smaller number of funds in the microcap asset class over the last 10 years.¹⁷

¹⁵ eVestment has very a similar 10-year interquartile spread of 9.6%.

¹⁶ Source: Morningstar. Gross of fees. Data is for the trailing 10 years as of September 30, 2023. eVestment's interquartile spreads are evaluated by taking the difference between the geometric average of the 75th percentile return and the 25th percentile over a rolling 12-month period.

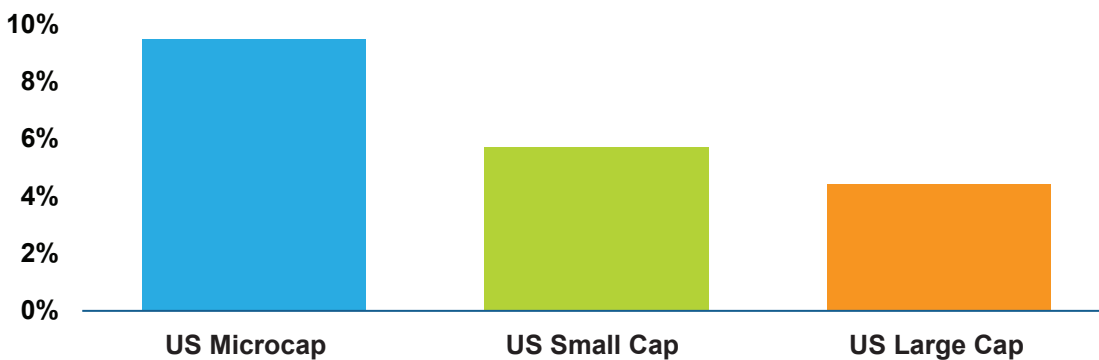


FIGURE 7
Trailing 10-Year
Interquartile Spread

Source: Morningstar. Gross of fees. Data is for the trailing 10 years as of September 30, 2023. Morningstar's interquartile spreads are evaluated by taking the difference between the geometric average of the 75th percentile return and the 25th percentile over a rolling 12-month period.

Implementation considerations

Microcap equity brings unique challenges when implementing in a portfolio. The first of which is due to the size and liquidity constraints of the asset class. Since smaller-sized stocks are generally less liquid than larger stocks, it can be difficult to buy and sell microcap stocks in a timely manner, particularly when the market as a whole or an individual issue is experiencing selling pressure. Further, since lower liquidity is generally associated with higher trading costs, microcap stocks tend to be more expensive to trade than for larger-sized issues. While transaction costs for microcap stocks have declined considerably over the past decade, they still remain higher than those for large cap stocks.

One of the most important aspects of investing in microcap stocks is finding skilled investment managers. However, once such portfolio managers are identified, another problem may arise. Many microcap strategies with good track records are closed to new

¹⁷ US Microcap has a smaller average number of funds (21) than US small cap (127) and large cap (310).

investors, due to capacity issues. This can make it challenging to find open microcap managers in whom an investor has high conviction. It can also be difficult for large institutional investors to sufficiently allocate to microcap as mandate sizes may be too large for managers to accept or, conversely, a large mandate to an emerging manager may breach the institution's own guidelines for concentration in a manager, even if they pursue investment in multiple microcap managers.

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 their assets under management, 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 microcap 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.

Finally, the multitude of stocks in the microcap market creates an environment of widely varying returns across individual stocks and groups of stocks. Smaller companies often have narrow product lines and are more vulnerable to outside forces than large firms are. Thorough diversification across companies ensures that a portfolio has limited exposure to any single company and that a portfolio's results are not highly exposed to the potential disparate outcomes of groups of microcap stocks. Hence, the average microcap manager tends to hold more stocks than does the average large cap manager.

Summary

Microcap equity is the smallest category within the equity market, traditionally composed of companies in the bottom two deciles when ranked by market cap. Since 1926, microcap has outperformed large cap. This is consistent with the "small stock effect," whereby smaller stocks have outperformed larger stocks on a cumulative basis over long time periods. However, over the past 20 years, this trend has flipped, and microcap has underperformed relative to larger stocks. There are many potential reasons for this change in trend, including the rise of mega-cap stocks as well as the growth of private equity markets over the last two decades. This may represent a "new" trend as opposed to being just a prolonged period of cyclical underperformance.

The performance of microcap stocks closely resembles that of large cap stocks, as the major indices exhibit high levels of correlation with each other. As expected with smaller companies, US microcap equity has exhibited higher volatility than US small and large cap equity over short and long term periods.

Historically, microcap manager outperformance has been highly cyclical with periods of out-and underperformance lasting several years. Moreover, US microcap has had a higher interquartile spread than US small and large cap equity. This implies that the US microcap asset class may provide investors with greater scale to outperform than other US equity asset classes if skilled managers can be identified. Though, investors should also take microcap managers' typically higher fees into consideration when evaluating performance. As always, investors should conduct careful due diligence to make sure that investments match their objectives and constraints.

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