

The Case for Microcap

Updated October 2018

Introduction

Despite offering uniquely attractive return opportunities, microcap stocks reside in an often neglected area of U.S. equity markets. The reason microcap stocks get so little attention from institutional investors despite the attractive returns is simple: from a business perspective, creating a product to invest in microcap stocks would require too much effort for too little revenue for most large financial firms. This is the very reason why the opportunities persist – large institutions rarely compete in this area, leaving it inefficient with greater potential for skilled investors. On the other hand, small and nimble firms can dedicate the resources necessary to capture the unique investment opportunities in microcap stocks, making them accessible to individual investors and plan sponsors.

Additionally, microcap stocks are capturing more attention as investors have experienced disappointing results in other portions of their portfolios. Active management in other cap tiers have struggled to produce attractive returns for many years. Additionally, we have seen a surge in demand for liquid, transparent, unlevered strategies from investors that were hurt by illiquid, levered strategies in the global financial crisis. These investors are seeking opportunities for higher returns at lower fees than they have been getting from their alternatives portfolios. Furthermore, private equity funds are sitting on record stockpiles of "dry powder" (according to Preqin, cash levels at private equity funds hit \$1 trillion in 2017), which dramatically increases competition for deals.

Given these challenges, U.S. microcap equity is one asset class that, as a result of the upheavals, has continued to gather positive attention. The reasons for this are numerous. Most important, active managers in microcap typically offer some of the most attractive, prospective, excess returns within U.S. equity. In addition, microcap stocks offer similar benefits to private equity, such as exposure to early growth stocks, with incomparably better liquidity. Lastly, microcap investment managers have more transparent structures without leverage.

In this paper we will explore the definition of microcap stocks and note the value of the asset class in a diversified portfolio. We will also discuss the merits of an allocation to active microcap managers versus a more passive, indexed approach.

Microcap Defined

Prior to 2006, the microcap universe was poorly defined and had little institutional attention. In 2006, Russell Investments created the Russell Microcap® Index to more clearly define the space. The Russell Microcap Index consists of the smallest 1,000 stocks of the Russell 2000 Index as well as the next 1000 smallest stocks by market cap, with an overlay to screen for investability. This represents approximately 3% of the market cap in the U.S. equity market. The Index is capitalization weighted, meaning that the largest stocks in the Index get the largest weight. This methodology results in an index of the stocks ranked 2,001 to 4,000 by market capitalization. The Index excludes over-the-counter stocks, pink sheet stocks, and stocks trading below \$1.00. In addition, the Index is re-constituted annually at the end of June to prevent rising stocks from distorting performance and to allow for new entrants.

In Exhibit 1, we can see some of the characteristics of the Russell Microcap Index as of June 30, 2018. The average market capitalization of a stock in the Index was \$597 million, while the largest stock in the Index was about \$2.9 billion. The Microcap Index is dwarfed by the small and large cap indexes where the average market cap was \$2.3 billion and \$194.2 billion, respectively. While most investors are aware that microcap stocks are much smaller than their small cap and large cap counterparts, there are other critical fundamental differences. For example, microcap stocks are cheaper on a price to book basis. The lower valuation points to the undiscovered nature of microcap stocks that receive less attention from institutional investors. Looking at the price to earnings ratio of companies with positive earnings as a valuation measure, the weighted average of the microcap universe is below that of small and large cap. Of course, earnings for some companies can be sparse in microcap, with more companies having negative earnings. Conversely, sales growth tends to be higher, as the 13.9% sales growth for the Microcap Index clearly stands apart from large cap's 7.3% sales growth. Also, microcap companies tend to finance operations without using as much debt as larger cap firms. In summary, microcap stocks tend to be earlier stage, high-growth companies where investors may pay less for book value and earnings. While the high sales growth has not yet translated to the same degree of earnings as in small or large cap, these characteristics highlight a rich environment for active stock pickers who are willing to do the work.

Exhibit 1. Characteristics of Microcap vs. Small and Large Cap, as of 6/30/2018

	Russell Microcap	Russell 2000	Russell 1000
Avg. Mkt Cap (\$b)	0.60	2.26	194.20
Median Mkt Cap (\$b)	0.26	0.93	10.49
Largest Company (\$b)	2.9	6.7	896.5
P/Bk	1.9	2.2	3.1
Div. Yield	1.0	1.3	1.8
P/E (ex-neg earners)	17.2	17.7	19.9
Sales Growth - (3y)	13.9	13.6	7.3
Est. EPS Growth - (5y)	1.1	1.4	1.5

Source: Acuitas Investments, FTSE Russell, FactSet

Microcap and the Small Cap Effect

In 1992, Eugene Fama and Kenneth French published "The Cross-Section of Expected Stock Returns" in *The Journal of Finance*. The paper, which is now one of the most widely cited in finance, helped popularize investing that exploits small cap and value anomalies. While we do not need to rehash the findings of the paper, an important point that is often overlooked is in the design of the paper's study. Fama and French created bins based on an equal number of stocks as opposed to cap weighting, meaning that there are the same number of small companies in bin 10 as there are large companies in bin 1.

To understand how it relates to the way most people invest, we think it is useful to compare the Fama-French deciles to more commonly used market capitalization weighted benchmarks, such as the Russell Indexes. Exhibit 2 below shows the weight of the more popular Russell Indexes that fit into each of the Fama-French deciles, as of June 30, 2018.

Exhibit 2. Percentage of Fama-French Deciles Within Each Russell Index, as of 6/30/2018

Index's weight in each Fama-French Decile	Russell 1000 Large Cap	Russell Midcap Mid Cap	Russell 2000 Small Cap	Russell Microcap Microcap	Russell 3000 All Cap	Avg. Market Cap <i>\$MM</i>
Fama-French Decile 1	72%	3%	0%	0%	66%	107,529
Fama-French Decile 2	14%	45%	0%	0%	13%	20,012
Fama-French Decile 3	8%	27%	0%	0%	7%	10,679
Fama-French Decile 4	5%	18%	3%	0%	5%	6,081
Fama-French Decile 5	2%	5%	19%	0%	3%	3,987
Fama-French Decile 6	0%	1%	26%	0%	2%	2,699
Fama-French Decile 7	0%	0%	20%	1%	2%	1,807
Fama-French Decile 8	0%	0%	17%	23%	1%	1,140
Fama-French Decile 9	0%	0%	10%	45%	1%	611
Fama-French Decile 10	0%	0%	4%	32%	0%	267

Source: Kenneth French data library, FTSE Russell, Factset, Acuitas. Data is as of June 30, 2018.

Most investors use market cap weighted benchmarks such as the Russell 3000® Index or the S&P 500 Index. These Indexes have significant gaps in the lower deciles of the Fama-French data. The primary takeaway from this data is that investors who pursue a cap-weighted strategy using traditional benchmarks are under-allocated to microcap, as a passive Russell 3000 all-cap strategy would have little exposure to what Fama-French considered small cap. Even the Russell 2000® Index, the most prominent small cap benchmark, has less than 1/3 exposure to the smallest three deciles that are commonly cited as "small cap", while 99% of the Russell Microcap Index falls into these deciles. Importantly, according to the Fama-French work, it is these lowest three deciles that historically have delivered superior returns. While the academic research highlights the return benefits of small stocks, we believe that the "small cap premium" is, in practice, more of a microcap premium.

Risk and Returns

The long-term Fama-French data shows a clear advantage for microcap stocks from a return perspective. Additionally, microcap exposure can also have risk mitigating benefits. When comparing the long-term performance of the respective deciles, the microcap advantage is clear. As shown below in Exhibit 3, decile 10 has outperformed decile 1 by an annualized 1.99% over the past 25 years, 0.43% over the past 50, and 2.65% over the past 75 years. Additionally, when looking at rolling 30-year periods since 1927 (first full year that Fama-French data is currently available), decile 10 has outperformed decile 1 in 53 out of 62 periods, or 85% of the time.

Exhibit 3. Annualized Monthly Returns of Value Weighted Portfolios ending 6/30/2018

	Decile 10	Decile 9	Decile 1	Decile 10 -	
25 Years	11.35%	11.38%	9.35%	1.99%	
50 Years	10.08%	10.31%	9.65%	0.43%	
75 Years	13.30%	12.81%	10.65%	2.65%	

Source: Acuitas Investments, Kenneth French

Although investors have noted the higher historical returns in microcap stocks, microcaps have traditionally been perceived as higher risk investments than small and large cap stocks. Exhibit 4 below shows the volatility of returns over the past 25, 50, and 75 years. From a risk standpoint, the variability of microcap returns has understandably been above large cap stocks, with an annualized standard deviation of 20.97% vs. 13.90% over the past 75 years. However, investors have been more than rewarded for this additional risk with an annualized 2.65% performance premium. When comparing the additional risk of microcaps vs. small caps, the difference is not nearly as significant as many investors might think. The volatility of returns over the past 25, 50, and 75 years increases by just 1.30%, 1.48%, and 2.24% on an absolute basis, respectively, between deciles 10 (microcap) and 7 (the "cutoff" point for small cap).

Exhibit 4. Annualized Monthly Risk of Value Weighted Portfolios ending 6/30/2018

	Decile 10	Decile 7	Decile 1	Decile 10 - Decile 7
25 Years	20.62%	19.32%	14.23%	1.30%
50 Years	21.58%	20.10%	14.80%	1.48%
75 Years	20.97%	18.73%	13.90%	2.24%

Source: Acuitas Investments, Kenneth French. Data represents annualized monthly standard deviation of returns.

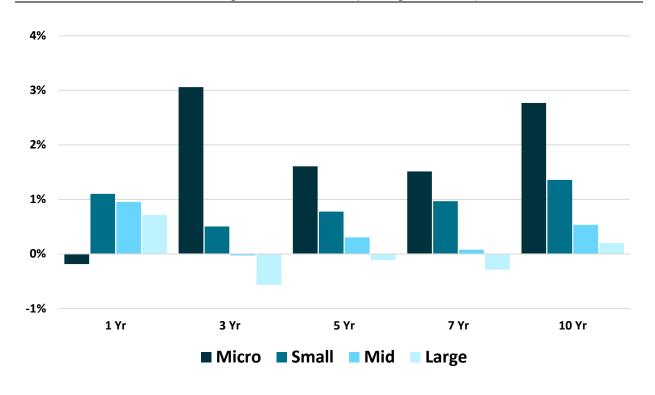
While we find the analysis of index and historical data helpful, it is important to emphasize that we believe the most compelling case for microcap investing is the opportunity for active managers to outperform the Index. We address this topic in the next section.

Active Opportunity in Microcap

With millions of investors and dozens of Wall Street analysts covering every move of large companies, it is very difficult to win at stock picking and to properly time stock investments. Conversely, there are few professional investors looking at microcap stocks and a much larger proportion of these stocks are held by relatively unsophisticated, part-time investors or company management. This is the core reason why skilled investors are able to deliver excess returns in microcap. Simply put, the microcap space is less efficient than other capitalization tiers. Information is not disseminated as efficiently, news is not recognized as quickly, and fewer Wall Street analysts cover the stocks. Good companies with improving fundamentals selling at attractive prices are easier to identify and these companies tend to perform well, benefitting investors.

Highlighted below in Exhibit 5 are some of the benefits of investing with active strategies in microcap. Despite struggling over the last year, active microcap managers have consistently outperformed the Microcap Index over the trailing three-, five-, seven- and ten-year time periods. Most important is the magnitude of the outperformance relative to other market cap tiers. Over the last ten years, microcap managers have averaged 277 basis points of annualized outperformance (these returns represent the average return of all investment managers in eVestment's database, and are gross of management fees). Active returns for other cap tiers decline meaningfully as investors move up the cap spectrum. Over that same time period, small cap managers averaged 136 bps of excess returns, mid cap managers averaged 53 bps, and large cap managers averaged 20 bps of excess returns, gross of fee. The data shows the clear advantage institutional investors possess in microcap: they are operating in a space with significantly less competition and more opportunity for skilled participants to add value.

Exhibit 5. Annualized Active Manager Excess Returns (Through 6/30/2018)



Source: Acuitas Investments, eVestment, as of 6/30/2018

Analyst Coverage

The inefficiency we have written about in the microcap universe is highlighted by the level of sell side analyst coverage on individual microcap stocks. Institutional sell-side analysts generally place buy/sell/hold recommendations on stocks that they cover, and many institutional investors rely on these analysts for the data they provide. Prior to investing in a stock, this data can support investors' theses and provide key information that determines whether they invest. Information provided by these analysts can include a detailed financial model, a price target and perhaps most significantly a professional resource to act as a sounding board for institutional investors. These reports help generate trading and investment banking revenue for the banks. Because there is less opportunity to generate trading and investment banking revenue on microcap stocks, they have significantly less coverage than small and large cap stocks. Exhibit 6 shows the relative comparison of analyst coverage for different sizes of stocks. As is shown, the average microcap stock has less than three analysts covering it, with 23% of microcap stocks having no analyst coverage at all. For small cap stocks, the average number of analysts covering a stock nearly doubles to 5.4 and the percent of names with no coverage drops dramatically to 8%. For large cap, virtually every company is covered, with an average of 15.8 per stock.

This disparity results in a "discovery effect" for microcap stocks. As sell side analysts initiate coverage on high quality microcap stocks, other investors start to pay attention to the stock, and the stock prices rise in response to the additional capital flows. Skilled investors benefit by identifying these stocks before others. This means that there is more room for institutional investors to add value by doing their own analysis on the fundamentals of a company and purchasing the stock before it is widely covered.

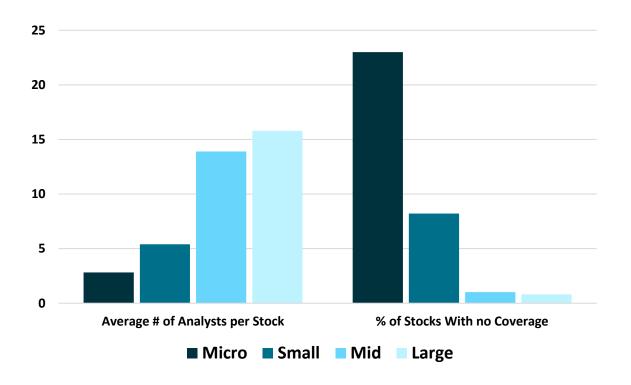


Exhibit 6. Microcap Analyst Coverage (As of 6/30/2018)

Source: Acuitas Investments, FTSE Russell, FactSet.

Capacity Constraints

So why don't more professional investors target the microcap space? The simple answer is capacity. Microcap stock are less liquid and consequently, products are more capacity constrained than small and large cap products. Investors can only invest small amounts of capital in microcap stocks before they own an uncomfortably large percentage of the company. Moving too much money into these smaller stocks can lead to negative price impacts and further challenges from liquidity constraints. Additionally, this can quickly become onerous as investors must file with the SEC as owners of more than 5% of a company's shares. Put simply, it is not possible to efficiently manage the same amount of money in a microcap product as it is for small or large cap products. Given the vast majority of managers are paid based on the amount of assets they manage, the incentives are low to run a capacity constrained product such as microcap. Several managers that

we research have specifically stated that they can't manage enough money in microcap to make it worthwhile from a business perspective.

To give a sense of how much investors can manage in microcap, a typical microcap manager with 60-120 stocks in their portfolio may set product capacity at \$400-600 million. This pales in comparison to the couple billion managers target for small cap and the tens of billions managers are able to invest in large cap products. As a result, fewer microcap products exist in the market. With fewer professional investors in microcap, it is easier for skilled investors to gain a competitive advantage when analyzing and trading the stocks.

Microcap Stocks ≠ Penny Stocks

Although many investors confuse microcap stocks with penny stocks, the two are not synonymous. In fact, the Russell Microcap Index explicitly excludes stocks that are generally thought of as penny stocks. References to penny stocks can conjure up images of securities that are illiquid, don't trade on a recognized exchange and are susceptible to market manipulation. Most of the literature related to penny stocks focuses on the fraudulent activities that market participants have engaged in to manipulate these securities.

The Russell Microcap Index excludes stocks that trade under \$1. Stocks that trade on the pink sheets and bulletin board stocks are also excluded from consideration for the Index. As a result, virtually all penny stocks are excluded from the Microcap Index and are not part of most active managers' portfolios. The stocks that remain in the Index vary widely, but a number of household names are microcap companies.

Well-Known Microcap Stocks

Investors are often surprised by the large number of household names that are microcap companies. In fact, a large number of popular restaurant chains are currently in the consumer discretionary sector of the Microcap Index, such as Denny's. Many other microcap companies aren't as recognizable, but own or distribute brand names that are well known, such as Nautilus, the maker of the popular Bowflex line of workout equipment. While consumer discretionary may contain many recognizable names, as of 06/30/2018 it is only the third largest sector in the Index. Financial services is the largest sector (28.9%), and many of those companies are local/regional banks that are household names in their respective geographies.

In some cases, household names can enter the space as "fallen angels". The term refers to stocks that have declined significantly in value despite a past history as a market darling. While these are microcap companies, they can still have significant assets and revenues but might have depressed earnings, such as Barnes and Noble. For the 12 months ended June 30, 2018, over 108 stocks in the Microcap Index generated more than \$1 billion in revenues.

Of course, along with fallen angels, there are many stocks with emerging growth stories. These can be "story stocks", where future expectations are high, but current profitability is low. Lastly, many microcap stocks are perennial small companies. They may have moderate growth prospects, but a long history of delivering stable earnings. Because there is relatively little attention paid to microcap stocks, each of these buckets of microcap stocks has the potential to provide opportunity for astute investors to identify attractive characteristics ahead of the market and profit from that information.

Diversification Benefits

In addition to the attractive return prospects for being invested with active microcap managers, exposure to the space also provides structural and diversification benefits. Many investors' approach to the U.S. equity market focuses on a blend of large cap and small cap allocations. These approaches ignore the smallest stocks, leaving investors underexposed to microcaps. In fact, most small cap managers are heavily tilted toward the larger end of the small cap and the mid cap areas, leaving an even larger gap in their portfolios at the smaller end of the market. Based on eVestment's databases, as of 6/30/2018 the average actively managed small cap product has 11.8% of their portfolio invested in stocks below \$750 million in market cap, while the average microcap manager has 63.5% invested below \$750 million. For a passive small cap allocation, the sub-\$750 million cap exposure dips to 10.3%. Investors that have a dedicated allocation to small cap are most likely underexposed to the lowest market cap deciles and the associated microcap premium we discussed above. Adding a dedicated microcap exposure fills a common gap in most portfolios and also improves diversification in the U.S. equity segment.

Filling this gap is important because many larger companies have reached a mature growth stage, where company specific growth prospects have slowed, and the companies' successes are dependent on general economic and sector dynamics. Meanwhile, being smaller and more nimble, microcap companies have more opportunity to differentiate themselves through superior growth strategies, product innovation, strong leadership and disciplined financial management. Due to a greater proportion of the returns in the microcap space being driven by company specific success rather than external variables such as economic and industry cycles, microcap stocks can provide strong diversification benefits at the overall portfolio level, despite being more volatile. As shown in Exhibit 7 below, over the past 91 years the returns of small and midcaps have behaved quite similarly to large caps, with correlations of Fama-French decile 1 vs. deciles 2-7 ranging between 0.82 and 0.94. This correlation drops significantly for microcaps, as returns for decile 10 have exhibited a correlation of 0.69 vs decile 1. While small caps do provide diversification benefits at the overall portfolio level, it is clear that microcaps provide a level of diversification that is unrivaled in the U.S. equity space.

Exhibit 7. Correlations of Yearly Returns Between Fama French Deciles

Correlations Microcap		Small Cap			Mid Cap				
Decile 10	Decile 9	Decile 8	Decile 7	Decile 6	Decile 5	Decile 4	Decile 3	Decile 2	
Decile 1	0.00	0.70	0.04	0.00	0.05	0.07	0.00	0.00	0.04
(Large Cap)	0.69	0.76	0.81	0.82	0.85	0.87	0.89	0.89	0.94

Source: Kenneth French Data Library, Acuitas Investments. Represents correlations of yearly returns from 1927 – 2017.

Summary

Simply put, the microcap universe offers the most attractive long-term return potential and the greatest opportunity for active management within the U.S. equity markets. The average institutional microcap product has delivered returns that exceed its index by a much wider margin than in any other group within U.S. equity. This opportunity is driven by a lack of competition and inattention to microcap stocks by Wall Street and institutional investors. Additionally, due to most investors' bias away from microcap stocks and a unique return pattern that hasn't historically moved in lockstep with the broad market, an investment in microcap is a diversifying addition to a broader equity portfolio. While there has historically been more volatility in the returns of microcap stocks, that volatility has come with higher total return. Lastly, investors looking for a liquid and transparent surrogate to alternatives allocations, at lower fee levels, will likely find the microcap universe an attractive investment option.

Disclosures

Performance

Past performance is not a guarantee of future returns. Investing in securities involves risk of loss that investors should be prepared to bear. Investments in small and microcap companies may be less liquid and prices may fluctuate more than those of larger, more established companies.

Investment Strategy

This material contains the current opinions of Acuitas and is presented solely for informational purposes. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation or solicitation to buy, sell or hold a security. No recommendation or advice is being given as to whether any investment or strategy is suitable for a particular investor. It should not be assumed that any investments in securities, companies, sectors or markets identified and described were or will be profitable.

General

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Index Descriptions

<u>Russell Microcap Index</u> is the stocks ranked from 2,001-4,000 in the Russell indexing universe, consisting of capitalizations ranging from about \$50 million to \$2.5 billion.

<u>Russell 2000 Index</u> is a small-cap benchmark index of the bottom 2,000 stocks in the Russell 3000 Index.

Russell 1000 Index is a large-cap index of the top 1,000 stocks in the Russell 3000 Index. Russell Midcap Index is the bottom 800 stocks in the Russell 1000 Index.

<u>Russell 3000 Index</u> is an unmanaged index that consists of 3,000 of the largest U.S. companies based on total market capitalization.

<u>Russell 3000E Index</u> measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market.

<u>S&P 500 Index</u> is a market index based on the market capitalizations of 500 large companies having common stock listed on the NYSE or NASDAQ.

Index returns do not reflect any fees or expenses and are not directly available for investment.

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