



The Case for Microcap

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Introduction

Despite offering uniquely attractive return opportunities, Microcap stocks reside in an often neglected area of the 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 don't 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, for many investors, Microcap stocks are capturing more attention as investors have experienced disappointing results in the alternatives portion of their portfolios. We have seen a surge in demand for transparent, unlevered strategies that offer an opportunity for higher returns at lower fees. Investors with significant alternatives exposure in the form of hedge funds, private equity and real estate found the value of their assets severely impaired during the heart of the credit crisis, and have generally lagged equity markets since. During the late 2000's, illiquid strategies became more illiquid and the use of leverage in alternative strategies exacerbated the decline in value for many products, leading to a backlash against less transparent strategies. U.S. Equity Microcap is one asset class that, as a result of the upheavals, gathered positive attention. The reasons for this are numerous. Most important, active managers in Microcap offer some of the most attractive prospective excess returns within U.S. equity. In addition, stocks within the Microcap index offer similar benefits of 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 these assets 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 liquidity and 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. The index 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 allow for new entrants.

In Exhibit 1, we can see some of the characteristics of the Russell Microcap® Index as of March 31, 2015. The average market capitalization of a stock in the index was \$670 million, while the largest stock in the index was about \$5.19 billion. It is important to note that this is a snapshot taken just one quarter before reconstitution. As such, these numbers are inflated by the recent biotech surge and are expected to come down during June's reconstitution. Despite this, the Microcap Index is dwarfed by the small and large cap indexes where the average market cap was \$2.13 billion and \$120.62 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 institutional investors. Also, Microcap companies tend to finance operations without using as much debt as larger cap firms. Looking at the price to earnings ratio of companies with positive earnings as a valuation measure, the weighted average of the Microcap universe lands between small cap and large cap. Of course, in the Microcap universe, earnings for some companies can be sparse, with more companies having negative earnings or low earnings. Conversely, sales growth tends to be higher, as the 23.9% sales growth for the Microcap index clearly stands apart from small cap's 16.6% sales growth and large cap's 8.1% sales growth. Microcap stocks also tend to have lower dividend yields than their larger counterparts. 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.



Exhibit 1. Characteristics of Microcap vs. Small and Large Cap, as of 3/31/15

	Micro	R2000	R1000
Average Mkt Cap (\$bn)	0.67	2.13	120.62
Median Mkt Cap	0.22	0.75	8.46
Largest Company	5.19	11.42	750.27
P/Bk	2.1	2.4	2.9
DY	1.1	1.3	1.9
P/E (ex-neg earnings)	20.9	23.3	19.3
Sales Growth - (3yr)	23.9	16.6	8.1
EPS Growth - (5yr)	12.4	13.7	13.6

Source: Acuitas Investments, Russell Investments, 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. 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. This means 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 December 31, 2014.



Exhibit 2. Percentage of Fama French Deciles Within Each Russell Index, as of 12/31/14

<i>Index's weight in each Fama-French decile</i>	Russell 1000	Russell Mid Cap	Russell 2000	Russell Microcap	Russell 3000	Decile's Average Market Cap \$m
	Large Cap	Mid Cap	Small Cap	Microcap	All Cap	
Fama-French Decile 1	68%	4%			63%	85,161
Fama-French Decile 2	16%	45%			15%	18,272
Fama-French Decile 3	8%	25%	0%		7%	9,280
Fama-French Decile 4	5%	17%	3%		5%	5,279
Fama-French Decile 5	2%	6%	18%	2%	3%	3,593
Fama-French Decile 6	1%	2%	21%	1%	2%	2,467
Fama-French Decile 7	0%	0%	25%	3%	2%	1,636
Fama-French Decile 8		0%	18%	24%	1%	970
Fama-French Decile 9			9%	36%	1%	529
Fama-French Decile 10			5%	33%	0%	139

Source: Kenneth French data library, Russell, Factset, Acuitas. Data is as of December 31, 2014.

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 are generally under allocated to Microcap, as a passive Russell 3000 all-cap strategy has less than 2.5% allocated to deciles 8, 9 and 10. As Microcap investors, the most interesting takeaway from this data is that less than 1/3rd of the Russell 2000® small cap benchmark actually resides in the smallest three deciles that are commonly cited as “Small Cap”. Instead, 94% of the Russell Microcap® benchmark is in deciles 8, 9 and 10. 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

In this section we examine the relationship between the risk and returns of the available historical performance data for Microcap equities. The long-term Fama-French data shows a clear advantage for Microcap stocks from a return perspective. As noted above, 69% of the Russell Microcap® Index lies within Fama-French deciles 9 and 10,



while 63% of the Russell 3000 index lies solely in decile 1. When comparing the long-term performance of these deciles, the microcap advantage is clear. As shown below in Exhibit 3, decile 10 has outperformed decile 1 by an annualized 2.57% over the past 25 years, 2.75% over the past 50, and 4.01% 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 51 out of 58 periods, or 88% of the time. Interestingly, Decile 1 has outperformed Decile 10 for the four most recent 30 year periods ending in 2011, 2012, 2013, and 2014.

Exhibit 3. Annualized Monthly Returns of Value Weighted Portfolios ending 3/31/15

	Decile 10	Decile 9	Decile 1	Decile 10 - Decile 1
25 Years	11.98%	11.02%	9.41%	2.57%
50 Years	12.03%	11.52%	9.28%	2.75%
75 Years	14.36%	13.30%	10.35%	4.01%

Source: Acuitas Investments, Kenneth French

Although investors have noted the higher historical returns in Microcap stocks, they 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 22.68% vs. 14.04% over the past 75 years. However, investors have been more than rewarded for this additional risk with an annualized 4.01% 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 1.72%, 1.86%, and 3.61%, respectively, between Deciles 10 (Microcap) and 7 (Small Cap). 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.



Exhibit 4. Annualized Monthly Risk of Value Weighted Portfolios ending 3/31/15

	Decile 10	Decile 7	Decile 1	Decile 10 - Decile 7
25 Years	21.20%	19.48%	14.53%	1.72%
50 Years	22.32%	20.46%	14.97%	1.86%
75 Years	22.68%	19.07%	14.04%	3.61%

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

Active vs. Passive

Critical to grasping the opportunity in Microcap stocks is first understanding the difference between active and passive investing. Passive investors build portfolios intended to track the performance of an index. This has become popular as investment categories have become more narrowly defined and low-cost vehicles have emerged to target these areas. Passive investors make no effort to “beat the market”. They are content with an index-like return. Within U.S. Equity, indexing has become very popular in more efficient asset classes such as large cap U.S. Equity. This has occurred at both the retail and institutional levels as investors recognize it is difficult to add value net of fees and passive alternatives in areas where information is widely disseminated and a large number of sophisticated investors are competing against one another.

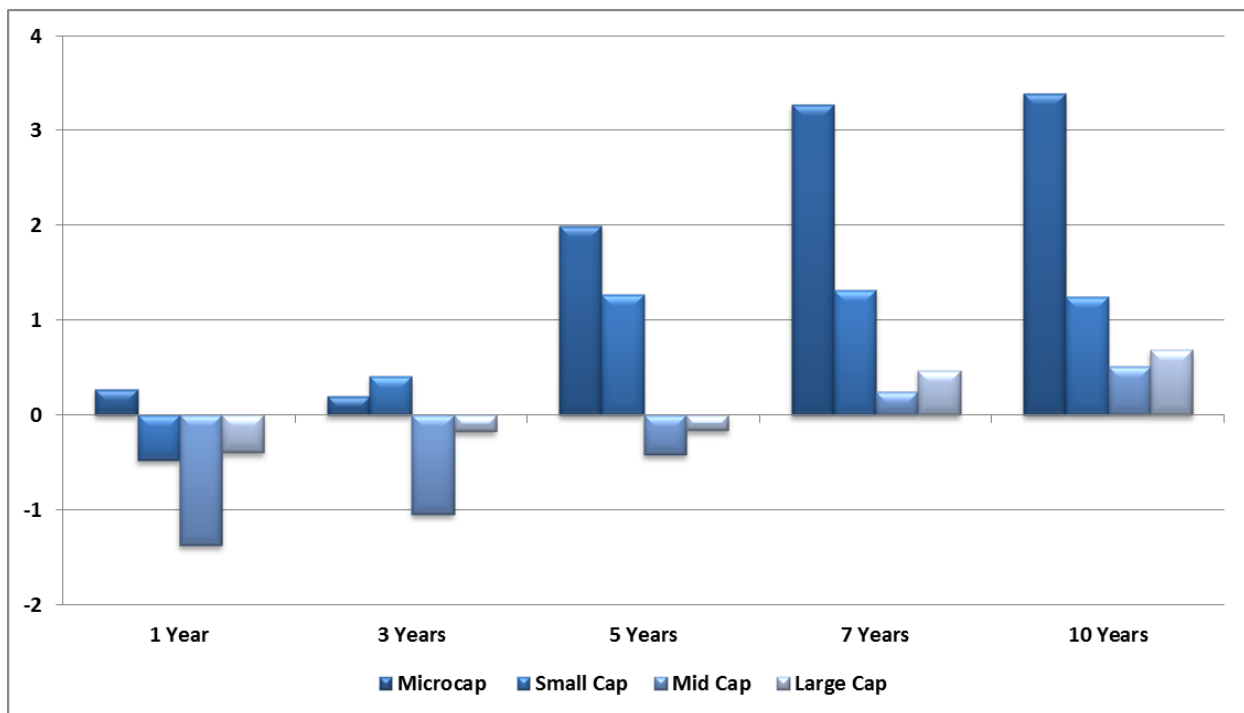
In essence, it is very difficult to win at stock picking and to properly time stock investments when millions of investors and dozens of Wall Street analysts cover a company’s every move. Conversely, there are few professional investors looking at Microcap stocks, and a much larger proportion of these stocks are held by relatively unsophisticated, part-time investors or company management. This is the core reason sophisticated investors are drawn to Microcap investing and why they are able to have considerable success in the space. 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. Over the five years ending 3/31/2015, the average active manager has outperformed the Microcap Index by an annualized 2.0%. In contrast, small cap



managers have outperformed their index by 1.3%, while large cap investment managers have actually underperformed by -0.2%. During a shorter look-back period, the average Microcap manager has outperformed by 0.3% over the past year, while small and large cap managers have underperformed by -0.47% and -0.40%, respectively. These returns represent the average return of all investment managers in eVestment Alliance's respective databases, and are gross of management fees. While this database contains more than 1,150 large cap and 650 small cap managers, there are less than 70 managers in the Microcap universe. Again, the data points to the 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 3/31/15)



Source: Acuitas Investments, eVestment, as of 3/31/15

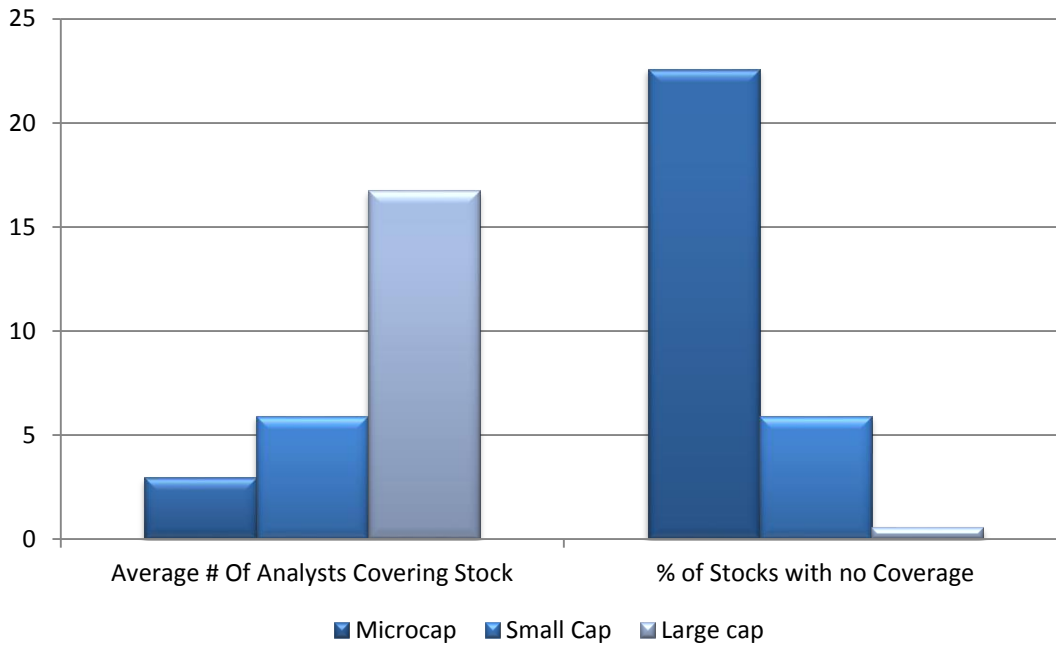


Analyst Coverage

The inefficiency we have written about in the Microcap universe is highlighted by the level of Wall Street analyst coverage on individual Microcap stocks. Institutional sell-side analysts generally place Buy/Sell/Hold recommendations on stocks that they cover, and a large number of 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 their small and large cap counterparts. 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 over 22% of the Microcap stocks having no analyst coverage at all. For small cap stocks, the average number of analysts covering a stock doubles to just shy of six, and the percent of names with no coverage drops dramatically to under 6%. For large caps, virtually every company is covered by an average of 17 analysts.

This disparity results in a "discovery effect" for Microcap stocks. As Wall Street 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



Source: Acuitas Investments, Russell Investments, 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 will 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 \neq 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 actually Microcap companies. Many of these names reside in the consumer discretionary sector. In fact, a large number of restaurant chains currently fall into the Microcap Index. Some examples include Denny's, Red Robin, Potbelly Sandwich Shop, and Del Frisco's. Many other Microcap companies aren't recognizable, but own or distribute brand names that are well known, such as Hawaiian Holdings, which owns Hawaiian Airlines and generated over \$2.3 billion in revenue during 2014. Other consumer products with wide brand recognition associated with Microcap stocks include Swingline (staplers), Callaway Golf, Comet, Pep Boys, and Crocs footwear. We have highlighted a number of these companies and brands in Exhibit 7. While consumer discretionary may contain a number of recognizable names, as of 3/31/2015 it is only the fourth largest sector in the index. The largest sector is health care (26.1%), followed by financials (25.8%) and



technology (13.7%). The lowest sector weights in the index include energy (2.3%) and consumer staples (1.9%).

Exhibit 7. Microcap Companies and Brands



Source: Acuitas Investments.

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. For the 12 months ended March 31, 2015, over 75 stocks in the Microcap index generated more than \$1 billion in revenues. Of course, along with fallen angels, there are many stocks with future 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 can 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, or can be exclusively oriented toward large cap markets. These approaches ignore thousands of smaller 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 midcap areas, leaving an even larger gap in their portfolios at the smaller end of the market. Based on eVestment Alliance's databases, the average actively managed small cap product has 18.5% of their portfolio invested in stocks below \$750 million in market cap, while the average microcap manager has 71.8% invested below \$750 million. For a passive small cap allocation, the sub \$750 million cap exposure dips below 18%. Investors that have a dedicated allocation to small cap are most likely underexposed to the lowest deciles and the 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.

The importance of 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' success is 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, 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 8 below, over the past 88 years the returns of Small and Mid Caps 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 8. 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	0.69	0.76	0.81	0.82	0.85	0.88	0.89	0.89	0.94

Source: Kenneth French Data Library, Acuitas Investments, as of 12/31/14. Represents correlations between yearly returns from 1927 – 2014.

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 micro cap 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.

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