RBC Global Asset Management

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OPPORTUNITIES FOR ALPHA: EXPLORING MICROCAP EQUITY

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Executive Summary

The U.S. microcap equity market is comprised of the smallest publicly traded and investable companies in the United States. These companies, often young businesses with small and motivated management teams, simple business models and concentrated product lines, are inherently biased toward aggressive growth and the advantages of active investment management. In this paper, we provide an overview of microcap equity, discuss the benefits of the asset class, and explore this compelling opportunity for institutional investors seeking an active investment solution to meet their alpha and diversification objectives.

Microcap Equity

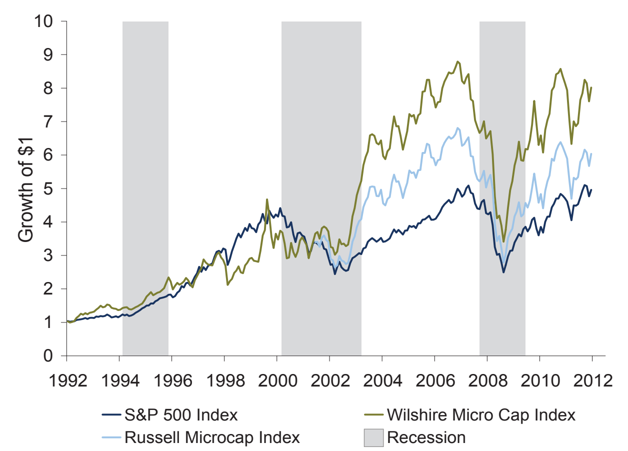
Investment Universe
The U.S. microcap equity market is comprised of the smallest publicly traded and investable companies in the United States. While market capitalization ranges vary over time, we generally categorize companies with a total market capitalization of $500 million or less as "microcap." Using the Russell Microcap Index as a proxy, the microcap equity universe is comprised of nearly 1,500 companies but accounts for less than 3% of the investable U.S. equity universe by market cap (in comparison, the Russell 1000 Index—a common proxy for the large cap equity universe—is comprised of 986 companies and accounts for approximately 90% of investable U.S. equities by market cap).

Fundamental Characteristics
Microcap companies often begin as start-up entities that turn to public equity markets to raise capital. Senior management consists of small teams, including founders, who retain significant equity stakes in the business. Having been intimately involved in the earliest stages of development, microcap management teams tend to be passionate about their firms and highly knowledgeable about their product, industry and market. Moreover, being significant equity owners themselves, their objectives are likely to coincide with those of external equity owners. These hallmarks of microcap companies distinguish them from larger corporations that tend to hire external business strategists and employ multifaceted incentive structures.

Microcap firms also have a degree of focus and flexibility that cannot be matched by large conglomerates. The smallest public companies often specialize in a single industry and usually offer one or at most a few products or services; making them more nimble and quicker to react to changes in their business climate. The management teams of large corporations, meanwhile, move slowly as they must make decisions that benefit diverse and often competing interests.

Long Term Trends
The smallest names within the U.S. equity universe have tended to outperform the largest over time.[1] Since 1926, the average relative return of the smallest two market cap deciles has been 10% higher than the largest two deciles. This trend is consistent with more recent data as well: over the past 20 years, the Wilshire Micro Cap Index has outperformed the S&P 500 Index by over 260 basis points on an annualized basis; and since returns became available in August 2000, the Russell Microcap Index has outperformed the S&P 500 Index by more than 450 basis points on an annualized basis (Exhibit 1).

Exhibit 1: U.S. Equity Performance by Market Capitalization



Source: Russell, RBC GAM-US, Wilshire, Federal Reserve of St. Louis; as of 6.30.12

Microcap equity also offers short term cyclical advantages. Historically these stocks have led the charge emerging from recessionary periods, outperforming from the mid-point of a recession through the early recovery stage. The tendency of microcaps to advance sharply following more moderate periods of lagging performance has added meaningful excess returns on a long term basis.

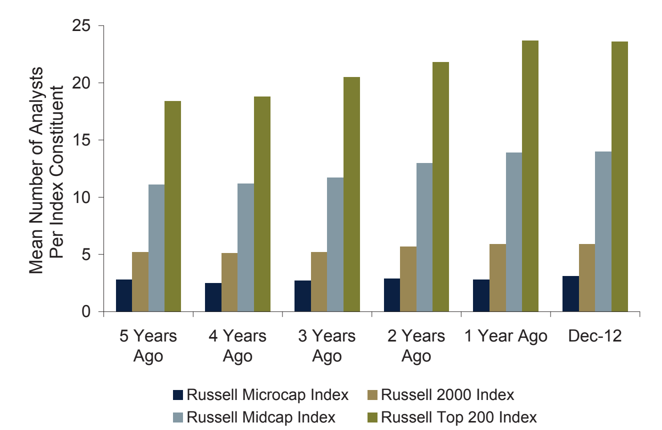
[1]*Studies using Center for Research in Security Prices (CRSP) market capitalization deciles information indicate that the smallest two deciles have substantially outperformed the top deciles over the period 1926-2011.*

Benefits of the Asset Class

Informational Inefficiency

Because of the small size of the microcap market, it receives less attention from large institutional investors, and consequently, less research coverage from Wall Street broker-dealers (Exhibit 2). The lack of research in the microcap space creates a greater likelihood of unexploited informational inefficiencies, implying more opportunities to find exceptional, undiscovered companies within the universe.

Exhibit 2: Mean Analyst Coverage Across Market Capitalization Ranges



Not only is there greater opportunity to find alpha through bottom-up fundamental analysis in the microcap universe, but the lack of growth in analyst coverage implies that this opportunity will continue.

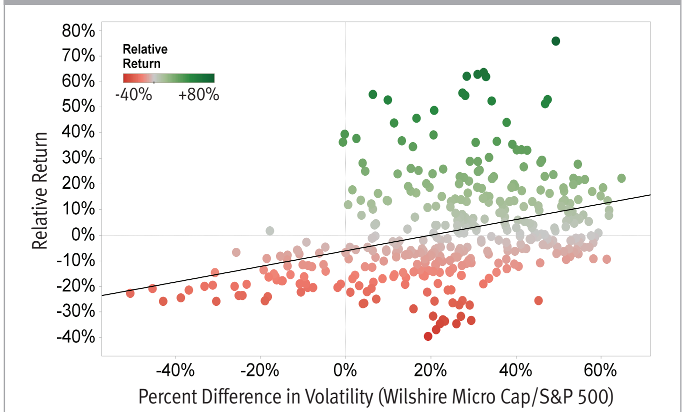
Source: FactSet. Represents average number of analysts covering each holding in its respective index. As of December 2012.

Alpha Potential

Microcap companies are inherently biased toward more aggressive earnings and returns growth because of their small relative size. The large cap universe, for instance, would require an aggregate increase in earnings of nearly $4 trillion (roughly 25% of U.S. GDP) to achieve a 5-year annualized growth rate of 40%. The microcap universe, however, could achieve that same 40% growth rate with an earnings increase of $35 billion. This level of growth is not typical, of course, but the example illustrates the economic realities of growth rates and capitalization ranges. The smallest companies are simply less constrained (and their return trajectories, therefore, much steeper) compared to their large cap counterparts.[2]

Market capitalization also has distinct implications for the likelihood of experiencing certain returns. While volatility in itself is rarely viewed as a favorable investment characteristic, in the case of microcap equity, it is actually quite positively correlated with outperformance. Exhibit 3 depicts more than thirty years of relative return and volatility observations for microcap and large cap equities.[3] Defining relative volatility as the ratio of 1-year microcap volatility to 1-year large cap volatility, we see that in nearly all observations in which the ratio falls below one—that is, when large cap equities are more volatile than microcap equities—large cap equities outperform. In aggregate, we can infer that the greater the volatility in the microcap space, the greater the relative return of the asset class.

Exhibit 3: Relative Volatility and Outperformance



The higher the relative volatility, the greater the outperformance of microcap equities.

Source: Russell, RBC GAM-US, Wilshire, Federal Reserve of St. Louis; as of 6.30.12

[2]The S&P 500 Index and Russell Microcap Index constituents are proxies for large and microcap universes, respectively. Assumes price/earnings levels are held constant.
[3]Represented by the Wilshire Micro Cap Index and the S&P 500 Index, respectively.

Uncorrelated Assets

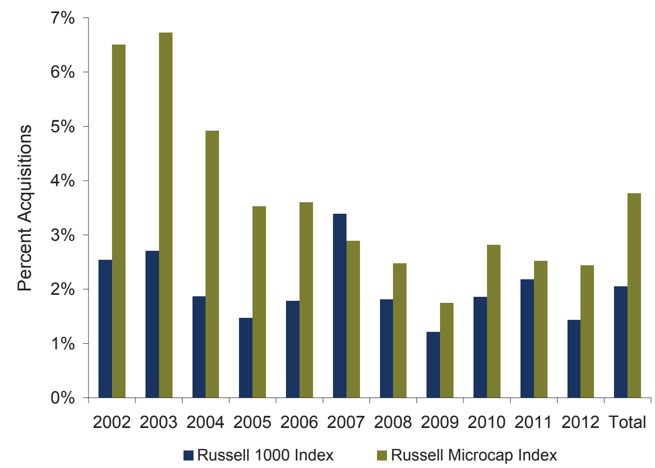
The price movements of microcap stocks are directionally similar but do not move in lock-step with large cap stocks. The scale of correlation relationships necessarily changes over time, and despite the convergence of assets in recent years, microcaps have persistently exhibited a lower correlation with large U.S. equities: using annual data since 1926, the smallest names in the U.S. equity universe have exhibited a correlation coefficient of 0.67[4] relative to the largest names.

Acquisition Candidates

U.S. microcap companies typically establish themselves by operating within an industry niche, competing through product innovation, or developing a unique product or service—activities which, at the outset, present significant challenges to long term success. Within larger corporations, the pursuit of such innovation may not meet business risk appetites and could distract from existing profitable efforts. Instead of assuming this risk (albeit a necessary byproduct of organic growth) large corporations often wait for the smaller, more innovative organizations to prove the efficacy of a new product and establish a customer base. Once successful in these endeavors, business risk declines and larger firms with more substantial resources can seek to make an acquisition. In many cases, large organizations will pay a substantial acquisition premium if they seek to augment their product line or offer a complimentary service.

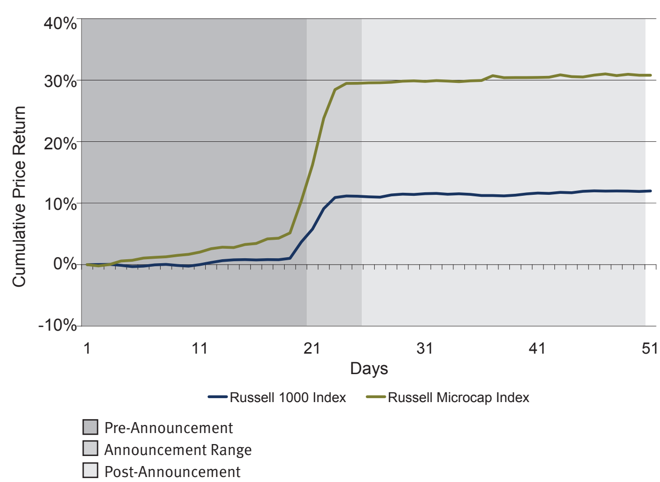
Over the past decade, the acquisition rate in the microcap universe was 84% higher than in the large cap universe[5] (Exhibit 4a), and the acquisition premium paid for microcap companies was more than double that paid for large cap companies (Exhibit 4b). While large firms tend to be equipped with the resources and motivation to make acquisitions, they are rarely suitable acquisition candidates themselves. First and foremost, the economics make such an acquisition challenging. Secondly, acquiring a fellow conglomerate often requires a merger of two or more complex entities with diverse and competing interests—a much more expensive and complicated transaction that is rarely beneficial to a company's bottom line.

Exhibit 4a: Acquisitions by Market Capitalization



Source: Russell, RBC GAM-US; as of 9.30.12

Exhibit 4b: Acquisition-Driven Stock Price Appreciation



Source: Russell, RBC GAM-US; Aggregation of data from 1.1.02-9.30.12

[4] The correlation coefficient measures the degree to which two variables' movements are associated. It will vary from -1 to +1, with a correlation coefficient of -1 indicating a perfect negative relationship, and a correlation coefficient of +1 indicating a perfect positive relationship.
[5] Using the Russell Microcap and Russell 1000 Indices as proxies for the microcap and large cap universes, respectively. Data prior to the 2005 launch of the Russell Microcap Index is representative of acquisitions among the smallest 50% of the Russell 2000 Index by market capitalization.

Liquid Alternative to Private Equity

Across the spectrum of assets available to institutional investors, microcap equity exhibits many similarities to private equity: both are usually representative of small, emerging companies with a narrow product focus, strong organizational control by founders and a need for capital to grow the business. The constituents of the microcap equity universe have sought capital from public markets, whereas the constituents of the private equity universe have opted to generate capital through structured private ownership. Over the past three years (a period we believe to be most representative of forward expected returns) private equity and microcap performance has been similar, with return correlation between the two asset classes of over 0.85.[6]

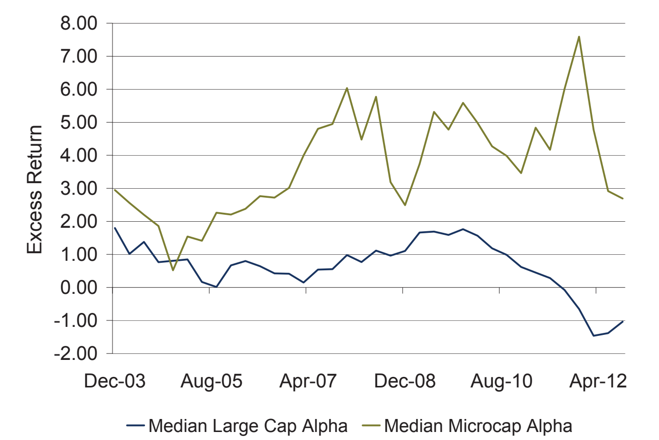
Private ownership structures, however, present several challenges to investors that public equities do not: 1) private equity deals can take five to seven years to see capital fully invested; 2) long term commitments to provide capital and capital lockups are characteristic of the private equity space; 3) portfolio valuation, which is based on manager estimates rather than market pricing, is substantially less transparent; and 4) private equity fees can be more than double those associated with microcap investing (and that excludes the costs associated with the legal and operational due diligence required to invest in private equity deals). These challenges, when considered in the context of documented legal issues involving placement agents,[7] indicate that the modestly higher expected return of private equity investments may not be compensatory given their associated operational and regulatory risks.

[6]*Using the Cambridge Private Equity Index.*
[7]*In 2009 a number of state prosecutors and federal regulators began significant investigations involving private equity firms and their use of placement agents to arrange deals with public pension funds. Chris V. Nicholson, "Calpers Report Takes Aim at Private Equity Middlemen," New York Times, March 15, 2011.*

Adding Value with Active Management

Exploiting Inefficiencies and Generating Alpha
The informational inefficiencies and inherent fundamental characteristics of microcap stocks create substantial opportunities for active managers to generate alpha through bottom-up fundamental research. Empirical evidence supports this notion: in comparing 3-year median relative returns over the past 36 quarters, active microcap managers have achieved a persistent alpha advantage (Exhibit 5).

Exhibit 5: Persistent Alpha Advantages for Active Managers



Source: Russell, eVestment, RBC GAM-US as of 9.30.12

Data represents rolling 3-year median excess return of the eVestment Large Cap Core and the eVestment Microcap Core peer universes relative to the Russell 1000 and Russell Microcap Indices, respectively.

The opportunities for skilled active managers to add value in the microcap space are likely to persist well into the future as information inefficiencies abound and return growth is in their favor. The microcap universe may be small in terms of asset capacity, but it is quite vast in terms of constituents—the economics simply do not allow resource-constrained Wall Street analysts to spend much time here. Coverage of microcap companies has been stagnant, and should continue to be so should the research revenue remain too small and the capacity too constrained for most institutional analysts and investors to take interest. As long as this dynamic persists (and we expect that it will), microcap equities offer a substantial value opportunity for those market participants that are willing and able to diligently research this space.

Accessibility of Information
The accessibility of information in the microcap universe also plays a vital role in the alpha generation process. In the microcap space, fundamental analysts simply have better access to more accurate, higher quality information. This allows for a more thorough understanding of microcap companies, their management teams, and industry trends. For example, microcap companies tend to offer straightforward and digestible regulatory filings and reporting; microcap management teams often consist of company founders in need of capital and eager to discuss their business with potential institutional investors; and the smallest public companies are more likely to be geographically concentrated, making it easier to conduct research onsite as well as at manufacturing and operational facilities.

Implications for Institutional Investors
Historical market capitalization statistics indicate that volatility declines as market cap increases. For each incremental step lower in market capitalization, equity investors have generally experienced a corresponding increase in expected volatility. Interestingly, the volatility of the smallest ten percent of U.S. equities is more than twice that of the largest ten percent—in other words, microcap investors have experienced a disproportionate increase in expected volatility relative to large cap investors (recall from our discussion on *Alpha Potential*, page 4, that the volatility of microcap equities is also positively correlated with outperformance).

The relationship between microcap stocks, volatility and performance becomes particularly significant for institutional investors considering the implementation of core-satellite investment strategies. These strategies, which combine a substantial allocation to a broadly diversified, lower volatility passive investment strategy with smaller, targeted allocations to alpha generating, higher volatility actively managed strategies, are becoming more prevalent among institutional investors. Indeed, in the post-financial crisis environment, asset classes have converged and alpha opportunities have declined—microcap equity offers the highest expected return and the lowest correlation relative to other investable U.S. equities in this capacity.

Conclusion

The fundamental characteristics unique to microcap equities provide added diversification and attractive risk-return characteristics relative to a portfolio of large cap stocks. Microcap equity lends itself particularly well to active management, as those managers who are willing and able to invest the necessary resources can capitalize on the research advantages of the asset class. Microcaps also offer a compelling alternative to institutional investors seeking to gain private-equity-like exposure without the requisite long term capital commitments or relative illiquidity. U.S. microcap equities offer ample opportunity to add alpha despite higher volatility, and given the inherent information inefficiency, we expect to find value in the microcap space well into the future.

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