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## PASSIVE/INDEX INVESTORS IN MICRO-CAP: WHAT DO YOU OWN?

“The bigger, the better” was the storyline in 2014. The trend for equity investors throughout last year was the wholesale shift toward large-cap U.S. companies. This sentiment was a reversal of 2013, which was a great year for small company returns (45.62% for the Russell Microcap Index). In 2014, small/micro-cap stocks as measured by the Russell Microcap index gave back much 2013’s relative gains<sup>1</sup>, returning 3.66% as compared to 13.69% for the S&P 500 Index. As seen in the table below, the “bigger is better” performance trend existed within the small company universe as well.

### SMALL COMPANY UNIVERSE\* RETURNS BY MARKET CAP 1/1/14 - 12/31/14



\*Small/Micro-Cap Universe Includes All Equities Listed In The Russell 2000 & Russell Microcap Indexes Plus An Approximate 1,000 U.S. Listed Micro-Cap Equities Not Listed In The Indexes.

Past performance does not guarantee future results.

Last year’s move toward larger companies doesn’t change our outlook for micro-and small-cap companies. As seen in the valuations breakdown by market capitalization, the smaller companies are more attractively priced relative to larger market cap companies. Not represented in the table, however, is the fact that there are several companies within the universe, particularly within the Russell MicroCap Index, that have no earnings or revenue. This prompted us to provide an in-depth look at the index to help investors understand: if you invest passively in the micro-cap universe, what do you own?

### SMALL COMPANY UNIVERSE\* VALUATIONS BY MARKET CAP

	<\$150MM	\$150MM-500MM	\$500MM-2.Bil.	\$2 Bil.+
P/E	16.1	18.6	21.4	23.8
P/B	1.2	1.6	2.3	2.7
P/S	1.7	1.6	2.0	2.1

As of 12/31/14

Source: Capital IQ



The Russell Microcap Index is severely impacted by its holdings in Biotechnology and Pharmaceutical companies. In 2014, fourteen of the twenty best-performing stocks in the Russell MicroCap Index were Biotechnology or Pharmaceutical companies. Equally alarming, nearly 50 percent of the total return for the Russell Microcap Index came from just four Biotech/Pharmaceutical stocks. Those four names contributed 1.74 percent to the Index's total 3.66 percent return. A bright spot in an otherwise disappointing year, the Perritt Funds owned three of the six non-Biotech names that made up the remainder of Russell Microcap Index's top-20 returns.

What does the significant overweight to Biotech companies mean for passive investors in the Microcap space? Because the Russell Microcap Index is market-cap weighted, the big Biotech winners of 2014 now represent some of the largest holdings in the Index. As a result, the composition of the Russell Microcap Index has changed dramatically since 2010. As seen on next page, there has been a 50 percent increase in the Healthcare weight of the Index, offset by a 50 percent decrease in Energy, 40 percent decrease in Materials, and 20 percent decreases in Industrials and Technology. Digging deeper, we find the subindustries within the Healthcare sector of Biotech/Pharma account for 15.53 percent of Index, as compared to 8.3 percent in 2010. The Microcap Index now looks like a large bet on a group of Biotech companies, most with no revenue, no earnings, and lofty valuations.

"...the Biotech companies that may succeed are priced for perfection, the rest are priced for disaster."

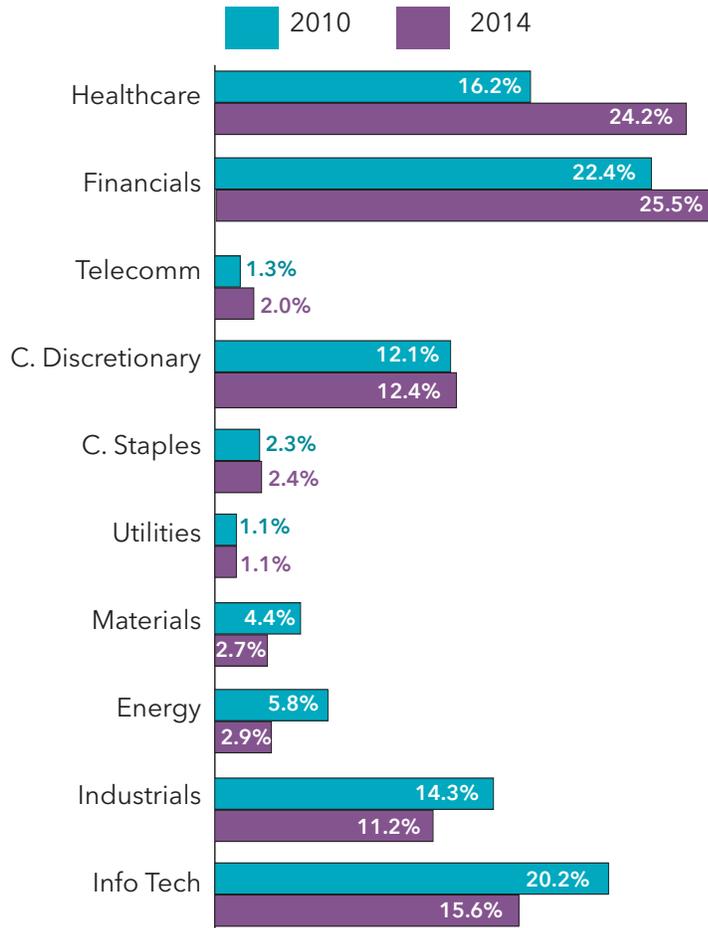
Due to our strict discipline investment process, biotech companies rarely pass our quality tests. We admit our in-depth knowledge of companies within the biotech space is limited. However, the excitement and euphoria that is in place today sounds like a story we have heard before, and it doesn't have a good ending. Let's use some of our quality measurements and give some insight into the biotech companies within the Russell MicroCap Index.

Of the few companies with revenues, biotech companies in the Russell Microcap Index are trading at a median price to revenue multiple of 31.9 as of 12/31/14. Current revenue multiples only tell a small part of the Biotech valuation story, however. Market expectations are based on the far-away future prospects of these companies. In fact, nearly 80 percent of Biotech companies in the Russell Microcap Index have a published analyst revenue forecast for 2018 (their median P/S ratio based on 2018 estimates is 2.7). That so many analysts are providing 2018 forecasts is astounding. To put it into perspective, less than 8 percent of companies held in the Perritt MicroCap Opportunities Fund (PRCGX) have a 2018 revenue estimate, and several of those were put on our watch list or sold for various reasons as gains after a 2018 revenue number was published. Tellingly, the 2018 analysts' estimate was typically provided by the same firm that had bankers who helped to leverage a company to the detriment of its balance sheet.

"...fourteen of the twenty best-performing stocks in the Russell MicroCap Index were Biotechnology or Pharmaceutical companies."



## RUSSELL MICROCAP INDEX SECTOR WEIGHTS 2010 AND 2014



Past performance does not guarantee future results.

It is difficult to forecast results for the next year, or even next quarter. We question how analysts can predict revenue for these Biotech companies **four years** into the future. There are so many if/then hurdles that need to be passed for these 2018 forecasts to come to fruition: if the Federal Drug Administration (FDA) approves a drug; then, if the company is able to market it; then, if consumers will buy it; then, if company management will prove to act in shareholders' interest. Perhaps a select few companies will manage to accomplish all of these milestones and meet their lofty expectations. However, given the lofty valuations of the sector, the Biotech companies that may succeed are priced for perfection, the rest are priced for disaster. Even if a select few biotech companies survive and thrive, the lofty valuations of the group and "bubble-like" appearance of the space tells us this story will not have a happy ending.

"...the composition of the Russell Microcap Index has changed dramatically since 2010."

## UNDISCOVERED, UNDERFOLLOWED, UNDER-RESEARCHED

We remind our shareholders and prospective investors that the stock market is not a market of indexes, but that it is a market of companies. While certain small/micro-cap industries or individual companies are very expensive (in our view), there are definite pockets of opportunity to be found. An offshoot of the current market trends is the fact that the correlation for our actively managed small company portfolios has continued to decline. As seen on the next page, the r-squared of the Perritt Ultra MicroCap Fund is now 0.41 vs. the S&P 500 Index as of 12/31/14 (versus the Russell 2000 Index, the r-squared is 0.55).



**ULTRA MICROCAP R-Squared vs. S&P 500**  
**36-month timeframe**  
**8/31/07-12/31/14**



Source: Perritt Capital Management

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Low correlation is one of the key reasons why we believe so passionately that investors should allocate to actively managed micro-cap equity. Companies that are far off the radar of traditional Wall Street analysts are often inefficiently priced and uncorrelated to the market. The effect of lower correlation on investor portfolios can be significant. As we outlined in our research paper *Adding Micro-cap to Small-cap*, our research shows that complimenting your small-cap allocation with an investment in micro-cap has lowered correlation and can actually help reduce volatility. Part of the reason that this benefit has proved possible is the lower correlation historically delivered by an investment in micro-cap.

The information provided herein represents the opinion of Perritt Capital Management and is not intended to be a forecast of future events, a guarantee of future results, nor investment advice.

*The Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectus contain this and other important information about the investment company and may be obtained by calling 1-800-331-8936 or by visiting [www.perrittcap.com](http://www.perrittcap.com). Read carefully before investing.*

The Russell Microcap index is a capitalization weighted index of 2,000 small cap and micro cap stocks that captures the smallest 1,000 companies in the Russell 2000, plus 1,000 smaller U.S.-based listed stocks. It is not possible to invest directly in an index. Correlation is a statistical measure of how two securities move in relation to each other. A correlations of 1.00 equals perfect correlation, 0.00 equals no correlation, -1.00 equals perfect negative correlation. Price-To-Sales Ratio is a tool for calculating a stock's valuation relative to other companies, calculated by dividing a stock's current price by its revenue per share.

<sup>1</sup> Small Companies are represented by the Russell Microcap Index. Large Companies and the Broad Market are represented by the S&P 500 Index.

Price-To-Book Ratio (P/B) is a ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share.

Price-Earnings Ratio (P/E) is a valuation ratio of a company's current share price compared to its per-share earnings. It is calculated as the market value per share divided by earnings per share.

Russell 2000 Index is an index measure the performance approximately 2,000 small-cap companies in the Russell 3000 Index, which is made up of 3,000 of the biggest U.S. stocks.

S&P 500 Index is an index of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The S&P 500 is designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe.

R-Squared is defined as a statistical measure that represents the percentage of a fund or security's movements that can be explained by movements in a benchmark index. Active investing has higher management fees because of the manager's increased level of involvement while passive investing has lower management and operating fees. Investing in both actively and passively managed mutual funds involves risk and principal loss is possible. Both actively and passively managed mutual funds generally have daily liquidity. There are no guarantees regarding the performance of actively and passively managed mutual funds. Actively managed mutual funds may have higher portfolio turnover than passively managed funds. Excessive turnover can limit returns and can incur capital gains.

**Mutual fund investing involves risk. Principal loss is possible. The Funds invest in smaller companies, which involve additional risks such as limited liquidity and greater volatility than larger companies. The Funds invest in micro cap companies which tend to perform poorly during times of economic stress. The Ultra MicroCap Fund and Low Priced Stock Fund may invest in early stage companies which tend to be more volatile and somewhat more speculative than investments in more established companies. Low Priced stocks are generally more volatile than higher priced securities.**

**Perritt**  
 CAPITAL MANAGEMENT

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