

Matarin's Winning Formula Applied to MicroCap Stocks

At Matarin, we believe that the ability to generate excellent performance for clients comes down to three key things at the end of the day: 1) how often can we be right about buying and holding winners which outperform the benchmark, and avoiding or (in the Matarin Market Neutral Fund) shorting losers which underperform the benchmark, 2) how substantial is the reward for being right, and 3) how many investment opportunities are available in which to express this skill.

Investing in the microcap space takes advantage of all of these opportunities: the reward for being right is higher because microcap stocks are more volatile, Matarin's stock selection model has greater expected predictive ability among microcap stocks, and there is an abundance of microcap stocks in the market. In fact, our opportunity for adding value relative to the benchmark over time in microcap may be the largest among all of the market cap segments.

There are several reasons why we believe that Matarin, in particular, is well equipped to manage microcap portfolios. The investment process which supports all of the firm's strategies begins by systematically applying fundamental reasoning to predict the returns of over 3,200 stocks. Because the process is systematized, Matarin can evaluate and develop a fresh return forecast for every stock, every day. This means that we can evaluate more microcap stocks, more regularly, than many other investment firms, by design, and that we can find attractive stocks which others may not. Secondly, while the relatively low level of sell-side analyst coverage among microcap stocks may be a limitation for some investors seeking to find opportunities in this space, it is not much of a concern for us. Matarin's proprietary return forecasting methodology can identify companies completely independently of outside assistance. Therefore limited sell-side analyst coverage is not a hindrance, but a benefit, as many other asset managers cannot compete in a space where so many names are unfollowed. Finally, because microcap stocks tend to be highly volatile and expensive to trade, portfolio construction and trading may pose additional hurdles. The keen focus which Matarin places on risk control and transaction costs when constructing portfolios has the potential to add great value.

How Often Can We Be Right about Winners and Losers?

It is clear that there are significant mispricing opportunities in the microcap space. This is due in part to the fact that the small market caps of microcap stocks precludes managing large pools of capital in the style, making the strategy less lucrative and therefore less attractive. The data in the table on the right reveals that the median microcap stock has a market cap of only \$220 million. Therefore, in order to build a \$1 billion portfolio holding 50 stocks a manager would own position sizes of \$20 million, on average, which represents about 9% of each company's shares outstanding. This math keeps many professional managers away from microcap, which then makes the microcap market less efficient overall, and the space more ripe for active managers to express their skill.

Russell Small Cap vs. Russell MicroCap Index Comparison		
	Russell <u>Small Cap 2000</u>	Russell <u>MicroCap</u>
Weighted Avg. Market Cap (\$M)	2,145	532
Median Market Cap (\$M)	787	224
Number of Holdings	1969	1509
Price/Book	2.3	2.0
Dividend Yield	1.4	1.2
P/E (excluding negative earnings)	28.7	28.8
Top 2 Sectors	Financials Technology	Financials Health Care

Building from a Better Benchmark

At Matarin we start our process by building a custom benchmark which eliminates likely chronic underperformers, including: 1) low priced and illiquid stocks, both of which tend to underperform and are excessively expensive to trade, and 2) stocks of companies' with no revenues, which tend to be highly speculative, lottery ticket-like names. The resulting investible universe remains broad, including over 1200 stocks, but we have eliminated the most likely underperformers before we've even started to build a portfolio so the odds of picking winners and avoiding losers are better from the start.

Sources: Acuitas, S&P, Russell, FactSet; Data as of January 31, 2017

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Painting A Unique Picture for MicroCap Stocks

At Matarin, we understand that not all stocks should be analyzed in the same way. Just as we treat momentum stocks differently than value stocks, and large stocks differently than small, so does our work treat microcaps uniquely. A microcap stock should not be considered in the same way as a large cap stock, for example, and there are several ways in which Matarin’s forecasting methodology is subtly different for these stocks. In some cases, we have developed some specific forecasting indicators which we apply for microcap stocks but do not use anywhere else. And in other cases, we just put more or less emphasis on certain indicators as stocks become larger or smaller.

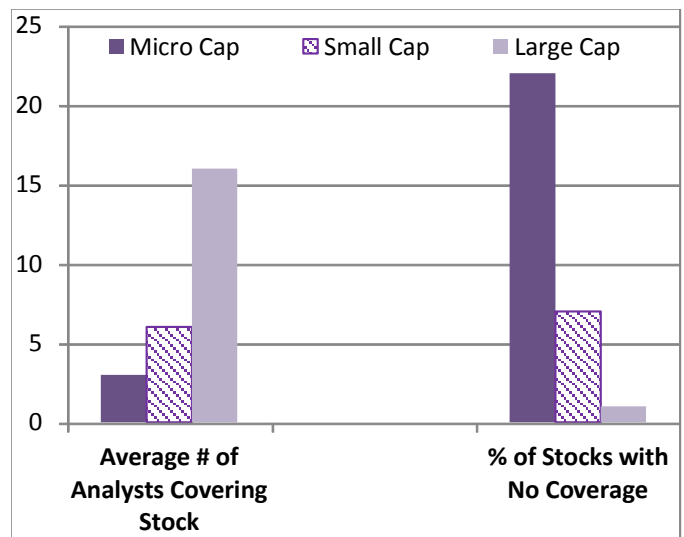
How substantial is the reward for being right?

If we could choose between being right about a stock that is forecasted to go up 10% or being right about a stock forecasted to go up 5%, all else being equal, we will take the 10% every time. Microcap stocks tend to have higher ‘stock specific risk,’ which is to say risk that cannot be explained away by a common risk factor that’s shared by many other stocks. This effectively increases the magnitude of returns in the space -- both positive and negative, and also leads to a wider dispersion of returns among microcap stocks. As you can see in the table at the right, return dispersion — the spread between the highest and

	Large Cap S&P 500	Mid Cap S&P 400	Small Cap S&P 600	Russell MicroCap
2007	39	42	42	50
2008	36	38	47	50
2009	48	63	63	101
2010	32	36	39	61
2011	31	32	37	47
2012	24	29	39	55
2013	33	35	48	66
2014	25	32	32	42
2015	31	29	39	53
2016	25	36	42	67
Average	32	37	43	59

lowest returning stocks — increases as stocks’ average market cap decreases, so that the biggest return differences exist among microcap stocks and the smallest differences exist among large cap stocks.

Microcap also offers a "discovery effect," as Wall Street analysts begin to initiate coverage on previously undiscovered microcap stocks. A study completed by Acuitas Investments of analyst coverage by market cap, shown on the right, reveals that the average microcap stock has only 3 analysts covering it, and that nearly 25% of microcap stocks are not covered at all. When analysts initiate coverage of these previously undiscovered stocks, the stock prices rise in response to capital flows from new investors who rely on sell-side research in their investment processes. Similarly, when microcap stocks grow large enough to move into small cap benchmarks, these stocks see a boost in return as they are bought by small-cap focused investors — a much greater population than that of microcap investors by many orders of magnitude.



The Fundamental Law of Active Management

In Grinold and Kahn’s popular 1994 book, *Active Portfolio Management*, the authors defined a “Fundamental Law of Active Management,” which describes three basic ingredients of alpha generation, all of which have been explored above from a microcap perspective:

$$\text{Alpha} = \text{Skill} * \text{Volatility} * \text{Number of Bets}^{1/2}$$

Matarin MicroCap offers a unique opportunity to take advantage of each of these three core building blocks: a broad universe of auspiciously volatile stocks and a customized expression of skill.