



September 2018

The Current Rationale for Micro Cap Securities in an Equity Portfolio

By: Eric Kuby, Chief Investment Officer

The Smallest Stocks for Long-Term Investors

Microcap stocks are largely absent in most asset allocation models yet they may offer investors a unique opportunity for potential long-term gain. Most investors overlook this misunderstood segment due to the perceived lack of liquidity, dismissing microcaps as being under researched, small domestic businesses. At North Star Investment Management, we believe that these areas of concern offer investors an opportunity to achieve superior risk-adjusted returns.

The North Star Micro Cap Fund (NSMVX) has invested in companies that show several characteristics. Consistent features that we look for in a company are:

Statistically Undervalued

- Company is traded lower than our fair-value estimate at the time of purchase

Defendable Business Model

- Long track record of operation and strong operating margins
- Business units are specific and simple to understand

Improving Prospects

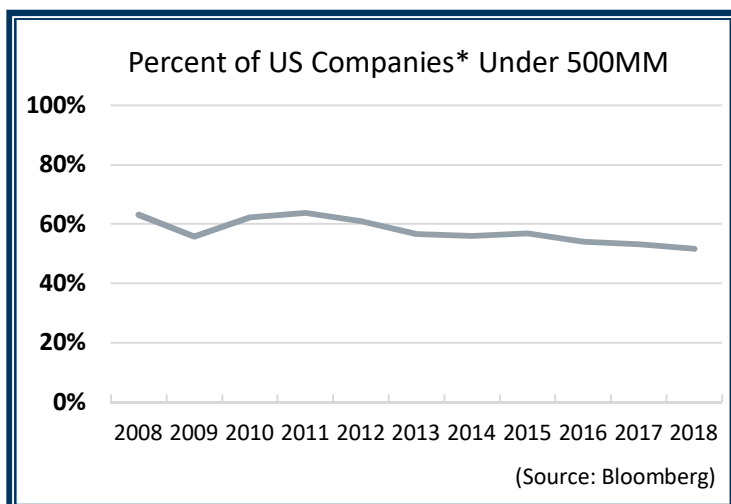
- Business has grown organically and we believe will maintain revenue growth

High Quality Balance Sheet

- Low debt levels, which imply more manageable operations during economic downturns
- High return on assets

On top of these qualities, we look for senior management teams that have incentives aligned with that of the shareholder's. Companies with high insider ownership indicate that management teams care about sustainable growth of their companies. Our long-term investment philosophy of identifying companies that meet these criteria has remained consistent for 21 years, taking advantage of a unique asset class that has historically provided high reward for lower levels of risk.

Opportunity Set



We define microcap as a company with market capitalization under \$500 million (although this definition varies between sources and over time).

As of July 31, 2018, 51.6% of all US companies had a market capitalization under \$500 million. Yet because the value of each individual company is small, the total value of companies with market values of less than \$500 million is approximately \$314 billion, or about 1% of the total market capitalization of US equity markets. Albeit a substantial opportunity set, many microcap companies are under researched due to a variety of reasons, one of which is the cost for firms to cover smaller stocks. Even common small cap indices like the

Russell 2000 only captures about 57% of microcaps' value¹.

*US Companies includes any company headquartered in the US that is also publicly listed on a US Stock exchange, excluding ETFs.

Overcoming Concerns of Liquidity

Many investors eliminate the microcap sector from their portfolios simply because the shares are illiquid; the stocks can be difficult to trade and for many institutions there is limited capacity for investment. Additionally, some believe that less liquid shares and smaller trading volumes imply more volatile stocks.

Recent research has demonstrated that illiquid stocks can potentially provide superior returns. In *Liquidity as an Investment Style*ⁱⁱ, Roger G. Ibbotson states that “Investors clearly want more liquidity and are willing to pay for it in all asset classes, including stocks. Less liquidity comes with costs: it takes longer to trade less liquid stocks and the transaction costs tend to be higher. In equilibrium, this cost has to be compensated by less liquid stocks earning higher gross returns. The liquidity style rewards the investor who has longer horizons and is willing to trade less frequently. However, less liquid does not necessarily equate to higher risk. The less liquid portfolios were in all cases substantially less volatile than the more liquid portfolios.” These results were obtained from analyzing 134,000+ companies from 1972 to 2016, and shows that low liquidity stocks almost always outperform more liquid stocks over long investment horizons.

Liquidity does not ensure profit or prevent losses and there is no guarantee that any investment strategy will achieve its objectives, generate profits or avoid losses.

Under Researched

The Efficient Market Hypothesis asserts that one cannot consistently achieve returns in excess of average market returns on a risk-adjusted basis. The foundation of that theory is that sufficient research analysis is being performed on the available information in order to determine the security price. That premise is not valid in the microcap sector since most companies are ignored by analysts and, therefore, most investors exclude these underfollowed securities from their selection process. This lack of research coverage, rather than being viewed as a negative, could be viewed as a potential opportunity to generate returns. It is highly likely that the price of a company is wrong—the only question is whether it is too high or too low. The data may suggest that those prices are often too low. The “small firm effect,” as first measured in 1978 by University of Chicago doctoral student Rolf Banz, identified that common stocks of small firms have a statistically significant tendency to outperform the common stocks of large firms with the same level of risk.ⁱⁱⁱ

Data from August 2018 shows that smaller companies are in fact under researched. Bloomberg holds onto submitted estimates from analysts and researchers for 100 days, after which they are discarded or removed earlier by the submitter. One thing is clear: 35% of companies in the Russell Microcap have no coverage or only have one analyst covering the stock.

	Russell Microcap Index	Dow Jones Industrial Average	S&P 500	Russell 2000
% of companies with 0 analyst coverage	21.53	0	0	7.477
% of companies with 1 or less	35.08	0	0	13.55
Average # of Analyst Coverage	3.053	29.8	21.41	5.9
Average Market Cap	0.352 B	236 B	52.1 B	1.33 B

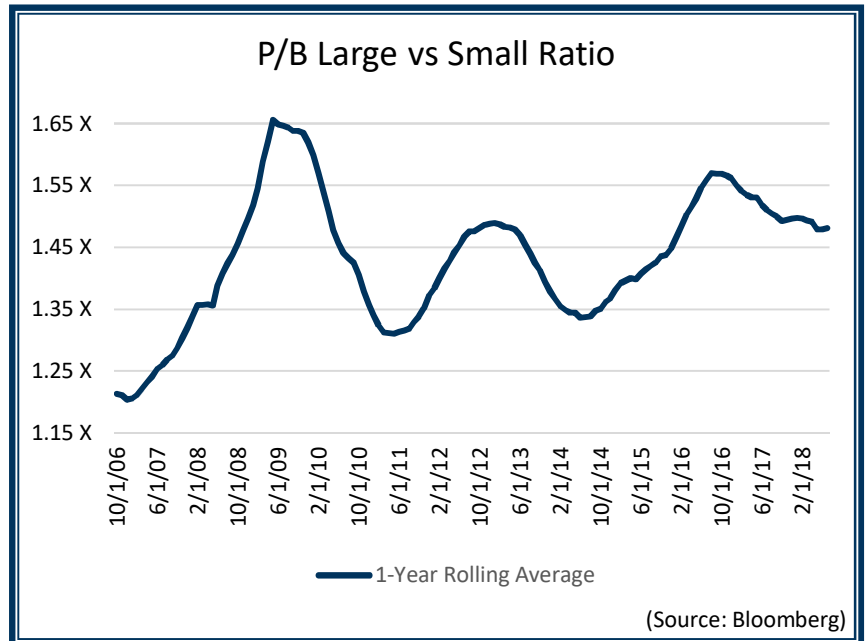
(Source: Bloomberg as of 8/13/2018)

Another fact to consider is the timing of the last updated estimate submitted by analysts. As of 08/14/2018, all of the companies in the Dow Jones and S&P 500 were updated in August—the average being updated on 11th. For the Russell Microcap, almost 30% of companies have not received an update in August, with the oldest estimate being February 2, 2018. Not only are many microcap companies simply not covered, but also the ongoing coverage is perhaps not up to date as many factors change a company’s outlook on a weekly basis. We believe that an active approach of conducting research into these companies, talking to the management teams, and visiting the companies, allows us to take advantage of the inefficiency and find solid businesses that are under covered and that we think are underpriced.

Valuation Cycles

The Price-to-Book value (P/B) is a commonly used metric that tracks the valuation of a company’s market value to book value of equity. The Russell 1000 index tracks the largest 1000 US companies, while the Russell Microcap tracks the smallest US companies by market capitalization.

As of 07/31/2018, large cap stocks traded at a 1.48X premium to small cap stocks, which is slightly higher than the historical average and implies microcaps are traded cheaper than large companies.

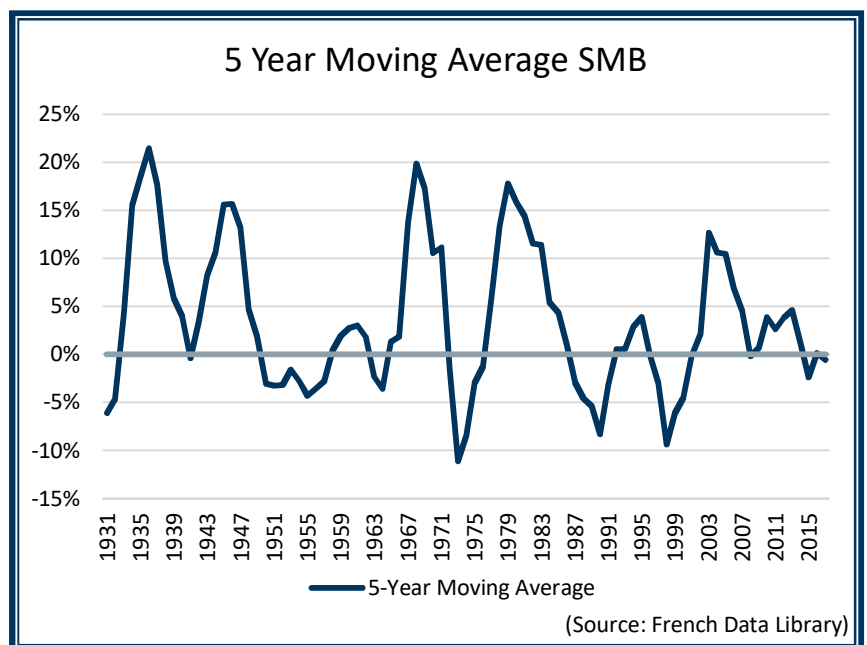


Historical Evidence of Outperformance

The Efficient Market Hypothesis was first introduced by Eugene Fama, a professor at University of Chicago and a Nobel Memorial Prize winner in Economics. Professor Kenneth French and Fama designed the *Fama-French three factor model* to describe stock market returns. Recently updated empirical evidence^{iv} demonstrates that historically small cap stocks and stocks with a low Price-to-Book ratio have outperformed the broader market.^v

One of the three factors is called Small Minus Big (SMB), which is the monthly average performance of small minus average performance of big. If SMB is positive, then in that year small cap outperformed large caps. The Fama-French dataset starts from 1926.

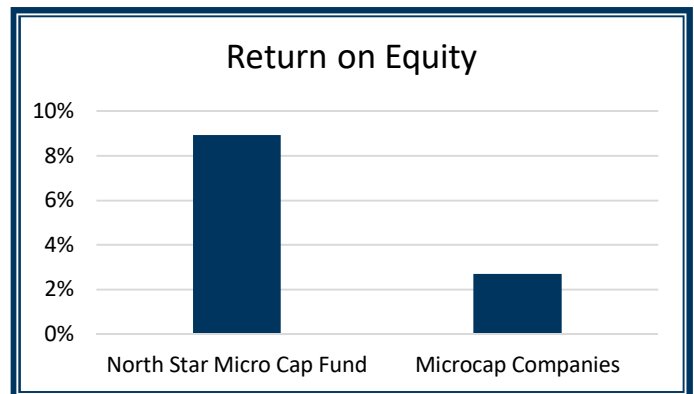
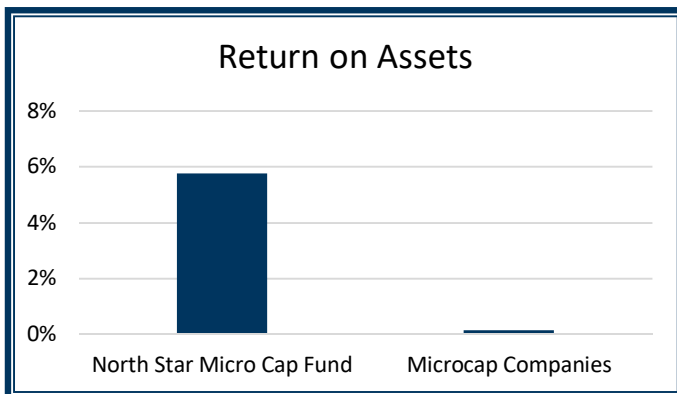
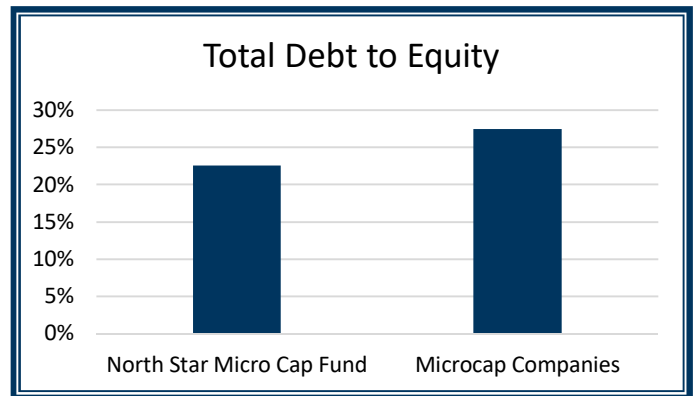
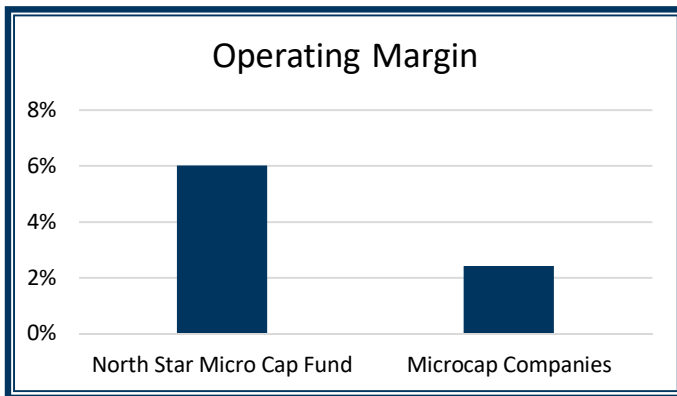
The chart to the right reveals the long-term trend with the average annual Small outperformance being 3.2%.



The SMB trend over the past year reveals performance on par with the larger market, which is lower than the long-term trend of outperformance. The theme here is that microcap stocks go through various valuation cycles, and the data shows that microcap companies are currently undervalued relative to large cap, as well as underperforming by SMB's average. Combine these two factors suggests that it could be timely to consider investing in microcap companies.

Limited Business Units

Most microcap companies have simple businesses; they generally have a single business unit rather than multiple divisions. To many investors this lack of diversification is viewed as a negative. Quite to the contrary, we believe that it is preferable to create a portfolio of focused companies rather than invest in a company with multiple divisions. Companies that are focused on a couple of divisions are more specific, typically have some economic moat, and generally return more on the assets and equity they hold. The North Star Micro Cap Fund (NSMVX) searches through the significant opportunity set of microcap companies to find those which are strong in these characteristics.



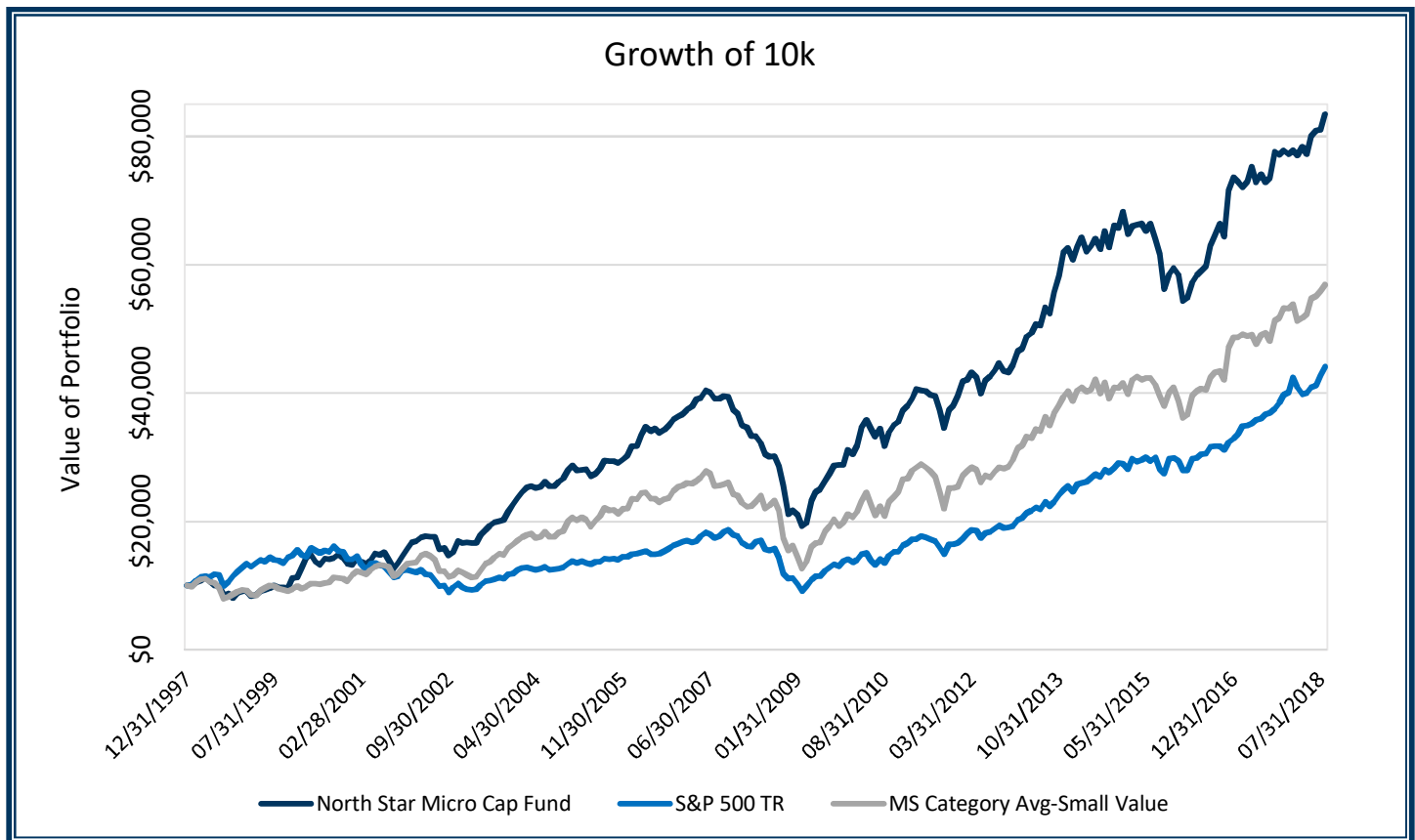
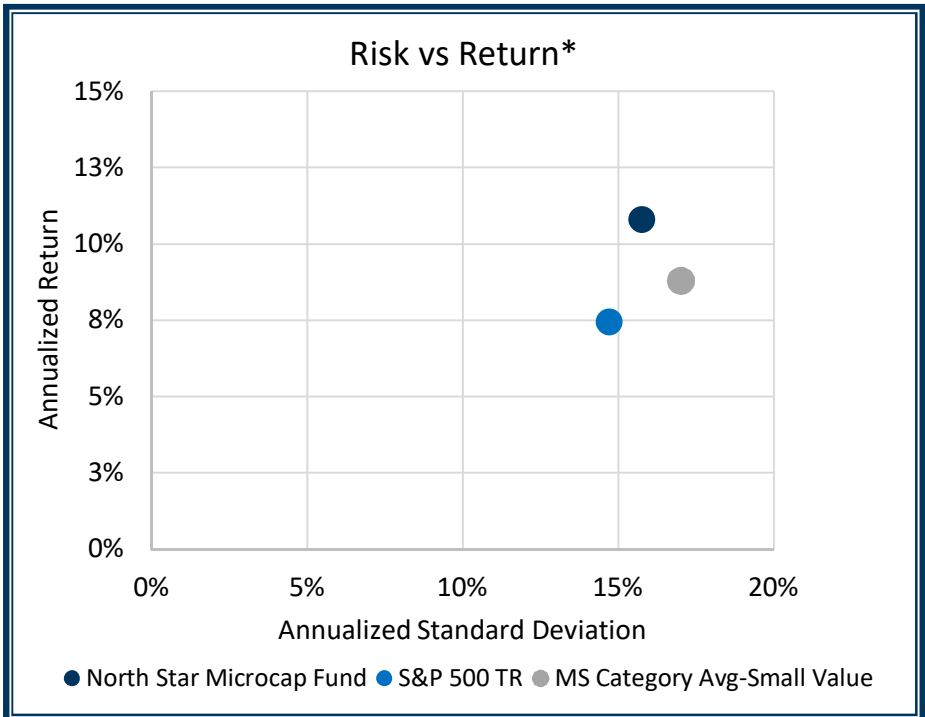
Values above are median of holdings as of 08/31/2018. Microcap companies defined as companies with market cap between 50 MM and 500 MM excluding ETFs. Data is from Bloomberg.

Furthermore, one of the drivers of microcap performance has been the acquisition by these large companies to enhance the size of one of their subsidiaries. We have found that many microcap companies have significant insider ownership. Management's interests become more aligned with public shareholders when it comes to a potential corporate transaction. Finally, a potential advantage with a simplified business structure is that financial statements become more transparent and easier to read.

North Star Micro Cap Fund (NSMVX)

Historically, our investment philosophy has achieved superior returns for risk levels similar to the broader market, like the S&P 500 Total Return, as well as compared to the Morningstar Small Value Index.

North Star Micro Cap Fund returns are Net-of-Fees. One cannot directly invest in an index. Index performance is provided as a benchmark but is not illustrative of any particular investment. Index price returns do not reflect fees, brokerage commissions, withholding taxes or other expenses of investing.



*Data for risk-reward and Growth of 10k provided by Gemini. Annualized returns and standard deviation are since inception, as of August 31, 2018.

Why Invest in Microcaps?

Most investors ignore microcap companies due to their lack of size, liquidity, research coverage or intrigue. As a result, there is a robust opportunity set of publicly traded, inefficiently priced businesses with motivated management teams and relatively easy to understand financial statements. Over time, we believe a diversified, actively managed portfolio of these securities has the potential to provide superior risk adjusted returns.

As of 08/14/2018, there are only 72 mutual funds that focus on microcap stocks, defined as funds that typically invest in companies under 500MM.^{vi}

ANNUALIZED RETURNS OF FUND unaudited (net of fees) 08/31/18

	1-Year	3-Year	5-Year	10-Year	Since Inception
North Star Micro Cap Fund	13.40%	10.62%	9.75%	10.68%	10.81%
S&P 500 TR	19.66%	16.11%	14.52%	10.86%	7.45%
MS Category Avg-Small Value	18.24%	12.92%	10.22%	9.33%	8.78%

Past performance or ranking is not indicative of future results. There is no assurance dividends will be paid. Current performance may be lower or higher than the performance data quoted above. Total annual operating expenses for the Funds' Class I shares are 1.41% (NSMVX). Please review the fund's prospectus for more information regarding the fund's fees and expenses. For performance information current to the most recent month-end please call toll-free 855-580-0900.

Important Risk Information:

Mutual Funds have investment risks including loss of principal. There is no guarantee the fund will meet its objective. In general, the price of a fixed income security falls when interest rates rise. There is a risk that issuers and counterparties will not make payments on securities and other investments held by the Fund, resulting in losses to the Fund. The Fund may invest in high yield securities, also known as "junk bonds". High yield securities provide greater income and opportunity for gain, but entail greater risk of loss of principal. Foreign common stocks and currency strategies will subject the Fund to currency trading risks that include market risk, credit risk and country risk. Municipal securities are subject to credit risk where a municipal security might not make interest and principal payments as they come due. The Advisor follows an investing style that favors value investments. At times when the value investing style is out of favor, the Fund may underperform other funds that use different investing styles. Investments in lesser known, small and medium capitalization companies may be more vulnerable than larger, more established organizations. As with any investment, there are risks associated with REITs. Investments in lesser-known, small and medium capitalization companies may be more vulnerable than larger, more established organizations. The Advisor does not attempt to keep the portfolio structure or fund performance consistent with any market index. Increased portfolio turnover may result in higher brokerage commissions, and other transaction costs may result in taxable capital gains.

Investors should carefully consider the investment objectives, risks, charges and expenses of the North Star Funds. No-Load Mutual funds are sold without sales charge; however, they have ongoing expenses, such as management fees. This and other important information about each of the Funds are contained in the prospectus, which can be obtained at www.nsinvestfunds.com or by calling (855)580-0900. The prospectus should be read carefully before investing. The North Star Funds are distributed by Northern Lights Distributors, LLC member FINRA/SIPC. 8100-NLD-9/13/2018

ⁱ Source: Bloomberg. Calculated on 07/31/2018 by summing market cap of companies under 500MM in Russell 2000 divided by total market cap of companies under 500MM.

ⁱⁱ Ibbotson RG, Kim DY. Liquidity as an Investment Style: 2017 Update. Working Paper, Zebra Capital; 2014.

ⁱⁱⁱ Banz, Rolf W. "The relationship between return and market value of common stocks." *Journal of Financial Economics* 9: 3-18.

^{iv} http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

^v Fama, Eugene F., and Kenneth R. French. "Common risk factors in the returns on stocks and bonds." *Journal of financial economics* 33.1 (1993): 3-56.

^{vi} http://mutualfunds.com/themes/micro-cap-equity-funds/#complete-list&sort_name=ytd_return&sort_order=desc&page=1