

# O'Shaughnessy Micro Cap

December 31, 2018

## Investment Philosophy

We believe in applying empirical, fundamental research to uncover strong quantitative equity strategies. We have conducted research covering more than 50 years of market data to identify the characteristics that historically have led to strong stock selection. This research forms the basis of each of our strategies. Our process is generally transparent. We select stocks in a logical, unemotional way, appealing to common sense. We do not allow short-term market events to distract us from our discipline.

## Investment Strategy

Seeks to provide long-term appreciation by creating a portfolio of domestic equities with market capitalizations that are approximately between \$50 million and \$200 million. The strategy seeks stocks that meet our quality criteria and have attractive combined valuation and momentum characteristics. Qualifying stocks are conviction weighted and limited by broad sector and industry constraints.

Due to ongoing research, the manager may from time to time adjust the model by changing certain factors or screens which comprise the model without prior notice. OSAM may determine it appropriate to rebalance at times other than the regularly scheduled rebalance without prior notice. Style allocations are approximate. They may change over time and vary by account.

## Characteristics

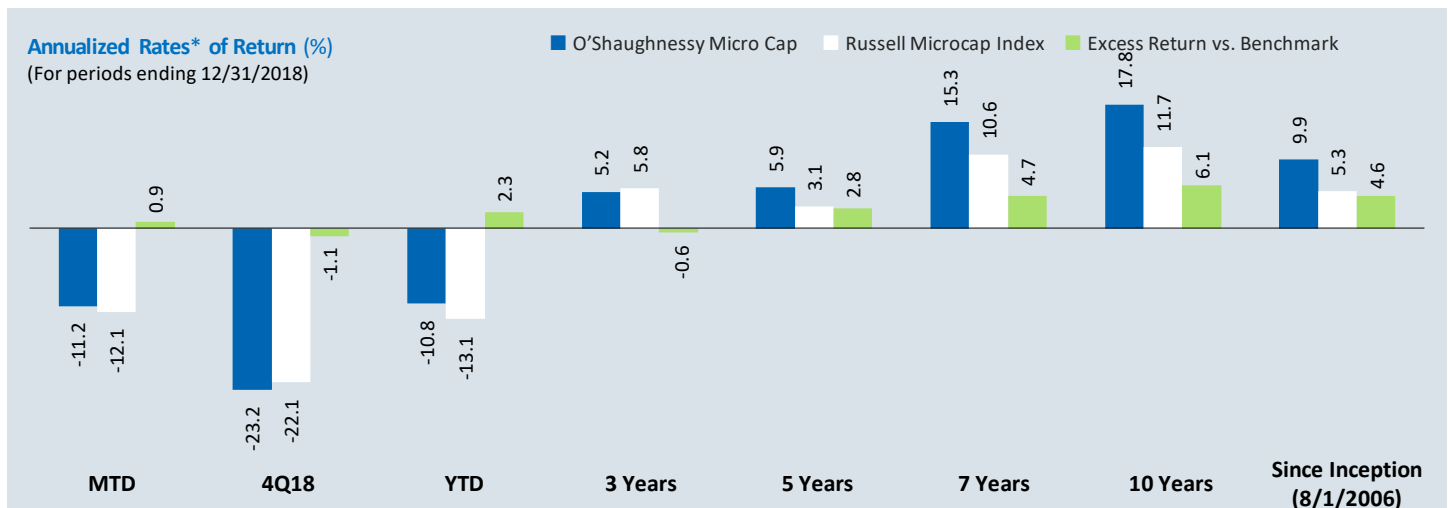
Holdings Based <sup>1</sup>	Portfolio	Russell Microcap Index	Relative Advantage
Price/Earnings Ratio	14.0	16.2	14% Cheaper
Price/Sales Ratio	0.6	1.0	40% Cheaper
Trailing 9-Month Total Return (%)	27.8	9.0	209% Higher
Market Cap (Weighted Average)	237	602	—
Market Cap (Median)	169	222	—
Approximate Number of Holdings	127	1,563	—
Approximate Turnover (% LTM)	99.0	—	—
Active Share (%)	95.2	—	—
Shareholder Yield (%)	-0.6	-7.3	92% Difference
Cash (%)	0.8	—	—

## Returns Based<sup>2</sup>

	Portfolio	Russell Microcap Index
Standard Deviation (%)	22.0	20.1
Sharpe Ratio	0.41	0.22
Beta	1.02	1.00
Information Ratio	0.57	—
5 Year Tracking Error (%)	7.1	—
Downside Capture (%)	89.8	100.0
Upside Capture (%)	104.3	100.0

<sup>1</sup> Based on the O'Shaughnessy Micro Cap Composite.

<sup>2</sup> Since inception: August 1, 2006.



**Past performance is no guarantee of future results.** Please see important information at the end of this presentation. \* Any time period longer than one year is annualized. Stocks with small and mid-sized market capitalizations (those defined by OSAM as less than \$10 billion) may have greater risk and volatility than those with larger market capitalizations.

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## Base Rates (08/01/2006 to 12/31/2018, gross of fees)

Base rates are a batting average for how often a strategy beats the Russell Microcap over certain rolling time periods.

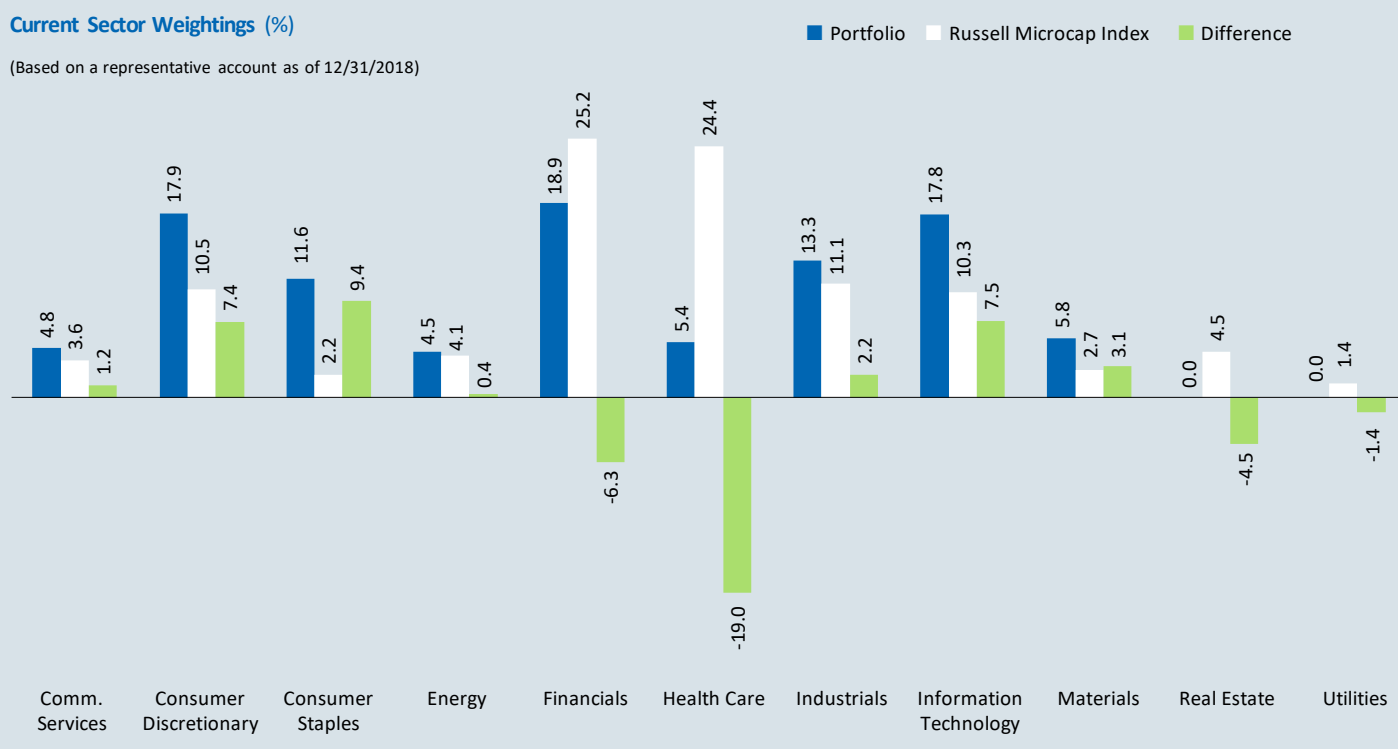
Rolling Periods	Won	Lost	Base Rate	Avg. Excess Return
1-Year	99	39	<b>72%</b>	6.23%
3-Years	112	2	<b>99%</b>	5.88%
5-Years	89	0	<b>100%</b>	6.16%
7-Years	65	0	<b>100%</b>	6.14%
10-Years	29	0	<b>100%</b>	5.19%

## Top 10 Holdings

	Percent of Portfolio	Percent of Russell Microcap
NATURAL GROCERS VITAMIN CTGE	3.7	0.0
LIFEVANTAGE CORP	3.5	0.1
TURNING POINT BRANDS INC	2.9	0.1
R F INDUSTRIES LTD	2.7	0.0
NAPCO SECURITY TECH INC	2.2	0.1
IRADIMED CORP	2.2	0.0
VAALCO ENERGY INC	2.0	0.0
MARINE PRODUCTS CORP	1.9	0.0
ROCKY BRANDS INC	1.8	0.1
ASTRONOVA INC	1.7	0.0
<b>Total</b>	<b>24.6</b>	<b>0.4</b>

## Current Sector Weightings (%)

(Based on a representative account as of 12/31/2018)



## About O'Shaughnessy Asset Management

O'Shaughnessy Asset Management (OSAM) is a Stamford, Connecticut-based quantitative money management firm. We deliver a broad range of equity portfolios, from small cap to large cap and growth to value. Our clients are individual investors, institutional investors, and the high-net-worth clients of financial advisors. The firm's investment strategies are based on the research of James P. O'Shaughnessy, widely regarded as a pioneer in quantitative equity analysis. This research spans more than five decades, and Mr. O'Shaughnessy has been managing money based on its results since 1996.

For more information, please contact O'Shaughnessy Asset Management, LLC  
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Numbers may not add up due to rounding.

It should not be assumed that your account holdings correspond directly to any comparative indices. Individual accounts may experience greater dispersion than the composite level dispersion (which is an asset weighted standard deviation of the accounts in the composite for the full measurement period). This is due a variety of factors, including but not limited to, the fresh start investment approach that OSAM employs and the fact that each account has its own customized re-balance frequency. Over time, dispersion should stabilize and track more closely to the composite level dispersion. Gross of fee performance computations are reflected prior to OSAM's investment advisory fee (as described in OSAM's written disclosure statement), the application of which will have the effect of decreasing the composite performance results (for example: an advisory fee of 1% compounded over a 10 year period would reduce a 10% return to an 8.9% annual return). Portfolios are managed to a target weight of 3% cash. Account information has been compiled by OSAM derived from information provided by the portfolio account systems maintained by the account custodian(s), and has not been independently verified. In calculating historical asset class performance, OSAM has relied upon information provided by the account custodian or other sources which OSAM believes to be reliable. OSAM maintains information supporting the performance results in accordance with regulatory requirements. Please remember that different types of investments involve varying degrees of risk, that past performance is no guarantee of future results, and there can be no assurance that any specific investment or investment strategy (including the investments purchased and/or investment strategies devised and/or implemented by OSAM) will be either suitable or profitable for a prospective client's portfolio. OSAM is a registered investment adviser with the SEC and a copy of our current written disclosure statement discussing our advisory services and fees continues to remain available for your review upon request.

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## Composite Performance Summary

Time Period	"Blended" Gross Rate of Return (%)	Net Rate of Return* (%)	Primary Index Return (%)	Number of Portfolios	Internal Dispersion	Composite Assets (\$ mil)	3-Yr Annual Std Dev	3-Yr Annual Std Dev Primary Index	Composite Assets as a % of Firm's Assets	Wrap Accounts as a % of Composite Accounts
2018	-10.84	-11.77	-13.08	13	0.74	19.5	16.02	17.02	0.38	N/A
2017	9.14	8.02	13.17	10	1.03	19.7	12.90	15.32	0.35	N/A
2016	19.78	18.38	20.37	8	N/A	17.2	13.30	16.84	0.32	N/A
2015	4.38	3.34	-5.16	≤5	N/A	1.2	12.60	14.83	0.02	N/A
2014	9.29	8.21	3.65	≤5	N/A	1.2	13.35	14.31	0.02	N/A
2013	70.03	68.21	45.62	≤5	N/A	1.0	19.52	17.09	0.02	N/A
2012	19.61	18.15	19.75	≤5	N/A	0.5	23.86	21.20	0.01	N/A
2011	-9.31	-10.62	-9.27	≤5	N/A	0.4	31.23	26.09	0.01	N/A
2010	38.00	36.00	28.89	≤5	N/A	0.4	34.57	29.02	0.01	N/A
2009	52.07	49.87	27.48	≤5	N/A	0.3	31.08	25.61	0.01	N/A
2008	-45.92	-46.75	-39.78	≤5	N/A	0.2	N/A	N/A	0.00	N/A
2007	2.49	0.90	-8.00	≤5	N/A	0.4	N/A	N/A	0.00	N/A
8/1/06-12/31/06	13.55	12.63	13.67	≤5	N/A	2.3	N/A	N/A	0.02	N/A

### Basis of Presentation:

O'Shaughnessy Asset Management, LLC ("OSAM"), founded in 2007, is a Stamford, CT based quantitative money management firm and an SEC Registered Investment Advisor. We deliver a broad range of equity strategies, from micro cap to large cap, and growth to value. Our clients are individual investors, institutional investors, and the high-net-worth clients of financial advisors. James O'Shaughnessy and his team left Bear Stearns to form OSAM in July 2007. All the GIPS® rules of portability were met. Jim maintained continuous management of all accounts during the transition from BSAM to OSAM, which was completed in March 2008. The performance of a past firm or affiliation is being attributed to the performance of the current firm for all the periods starting 1996.

OSAM claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. OSAM has been independently verified for the periods of 2007-2017. BSAM was independently verified in compliance with GIPS 2005-2006 and AIMR-PPS for the periods of 2002 - 2004. The verification reports are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

A complete list of OSAM's composite descriptions is available upon request.

The O'Shaughnessy Microcap strategy (the "Composite") generally seeks to provide long-term appreciation through exposure to domestic equities with market capitalizations approximately between \$50 million and \$200 million that the manager believes have better quality, valuation, and momentum.

The Composite was created in August 2006 and represents the performance of our fee paying, non wrap separately managed accounts invested in the Micro Cap strategy, regardless of asset size. The net of fee return data shown in this presentation represents the reduction of the actual OSAM investment management fee charged. Institutional separate accounts are charged an annual investment advisory fee of 1.10%.

Internal dispersion is calculated using the equal weighted standard deviation of annual gross returns of those portfolios that were included in the composite for the entire year. AUM data is presented from December 31, 2007 forward, consistent with the inception of our firm, and N/A is shown for prior periods. N/A is shown in the "3 Yr Ann Std Dev" field where 36 months of composite performance is not available. All investments are in U.S. equities and all returns are stated in U.S. Dollars. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

The Russell Microcap® Index measures the performance of the microcap segment of the U.S. equity market. It makes up less than 3% of the U.S. equity market. It includes 1000 of the smallest securities in the small-cap Russell 2000® Index based on a combination of their market cap and current index membership.