Small Cap Core Growth Product

At a Glance

Product Assets: \$457 Million Minimum Investment: \$10 Million Status: Open Inception Date: April 30, 1993 Benchmark: Russell 2000 Growth Capitalization: Typically, \$200 Mil - \$2 Bil at purchase Portfolio Managers: Healthcare: Gary Hatton, CFA Technology: Jennifer Pawloski Generalist: Andrew Beja, CFA, David Rose, CFA, Jeff Harrison, CFA

Philosophy Granahan Investment Management (GIM) believes that small dynamic companies provide the greatest potential for superior long-term performance. Because the smallcap market is an inefficient sector of the overall market, we believe that active management is critical to success. Using a disciplined, fundamental, bottom-up approach to research, we invest in well-managed, rapidly growing companies that are undercovered and/or out of favor with the investment community.

At GIM, every company in the portfolio is placed into one of three investment categories: Core Growth, Pioneer and Special Situation. These LifeCycle categories each have different drivers so provide true diversification and help mitigate risk in the portfolio. The common theme across the LifeCycle categories is high and/or accelerating earnings growth and an established leadership position within the company's market. We believe that our success lies in our ability to ferret out the best opportunities among emerging growth stocks as well as to identify stocks that may have disappointed investors in the past but have underlying business strengths that will translate to strong earnings growth going forward.

Firm History

Founded in 1985, Granahan Investment Management, Inc. is a 100% employee-owned firm specializing in smaller cap equity investments for large institutions and wealthy individuals. The firm utilizes fundamental, bottom-up research to uncover and invest in fast growing companies. The firm has grown to over \$1.8 billion in assets under management representing several large institutional clients. The founding principals have continuously strengthened the investment team which now totals seven professionals.

Granahan's differentiating factors

--The experience of the investment team and the fact that the founders have worked together in this firm for over 30 years, creating a solid long-term performance record.

--Mitigation of risk through diversification: industry, portfolio manager, and life cycle. The diversification by life cycle (pioneer, core growth, and special situation) provides a means to both capture performance in rising markets and to protect capital in volatile markets.

--An investment process that pushes accountability directly to the analyst and manager, and aligns the professionals' interests with those of the client.

Annualized Performance: Net of Fees



Performance is net of fees; Inception Date: 04/30/1993



Life Cycle Diversification: Adds stability



Graphs and Statistics are Supplemental Information. Please reference fully compliant GIPS Presentation on reverse side.

September 30, 2019

Small Cap Core Growth

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As of 9/30/19	Composite Gross Return	Russell 2000 Growth Return	Composite Assets \$ Mil	Composite # Accts	Composite 3-Yr. Std. Dev.	Composite Russell 2000 Growth 3-Yr. Std. Dev.	Composite Dispersion	Composite Net Return	Firm Asset \$ Mil
YTD 2019	21.91%	15.34%	\$457.1	<5	17.76	17.23	NA	21.47%	\$1,866
2018	0.80%	-9.31%	\$486.8	<5	17.57	16.46	NA	0.27%	\$1,481
2017	32.30%	22.17%	\$485.1	<5	15.36	14.59	NA	31.63%	\$1,350
2016	15.93%	11.32%	\$831.3	<5	16.97	16.67	NA	15.49%	\$2,996
2015	-5.06%	-1.38%	\$712.8	<5	14.50	14.95	NA	-5.33%	\$3,045
2014	1.74%	5.60%	\$1,238.3	<5	13.11	13.82	NA	1.44%	\$3,516
2013	47.55%	43.30%	\$1,296.2	<5	15.77	17.27	NA	47.18%	\$4,056
2012	13.18%	14.59%	\$845.0	<5	19.21	20.72	NA	12.93%	\$3,04
2011	1.68%	-2.91%	\$571.1	<5	22.64	24.31	NA	1.48%	\$2,74
2010	34.03%	29.09%	\$509.4	<5	26.13	27.70	NA	33.83%	\$3,15
2009	43.91%	34.47%	\$385.0	<5	23.25	24.85	NA	43.66%	\$2,57
2008	-38.00%	-38.54%	\$326.5	<5	19.94	21.26	NA	-38.20%	\$2,08
2007	5.16%	7.05%	\$807.1	14	13.91	14.23	0.55	4.77%	\$3,87
2006	11.33%	13.35%	\$922.6	17	15.57	15.57	0.33	10.83%	\$3,90
2005	2.97%	4.15%	\$991.8	19	15.23	16.51	0.67	2.45%	\$3,50
2004	16.75%	14.31%	\$1,214.9	21	18.12	21.40	0.74	16.21%	\$3,32
2003	39.54%	48.54%	\$1,098.9	22	20.60	27.00	0.97	38.85%	\$2,88
2002	-24.07%	-30.26%	\$724.7	20	29.85	33.33	0.74	-24.27%	\$2,01
2001	6.55%	-9.23%	\$527.2	5	32.05	33.58	3.68	6.34%	\$2,20
2000	16.19%	-22.43%	\$479.2	<5	32.76	33.28	NA	15.96%	\$2.092

years' data.

Composite Footnotes

Granahan Investment Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Granahan Investment Management has been independently verified for the periods January 1, 1993 through December 31, 2017. 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. The Small Cap Core Growth composite has been examined for the periods December 31, 1998 through December 31, 2017. The verification and performance examination reports are available upon request. GIM is an independent, SEC- registered investment firm that oversees small and mid-cap equity portfolios for large institutions and wealthy individuals. The Small Cap Core Growth product utilizes fundamental, bottom-up research and analysis to invest in companies in the small cap sector of the market that exhibit high and/or accelerating earnings growth. Composite consists of time-weighted total returns for all accounts managed by GIM in the Small Cap Core Growth style. The benchmark for the Small Cap Core Growth product is the Russell 2000 Growth. The composite, created in May 2000, is calculated by asset-weighting the performance of each account on a monthly basis. Accounts are included beginning with the first full month under management and terminated accounts are included in the composite. Performance calculations, expressed in U.S. dollars, produce a total return including cash and the reinvestment of dividends and interest. The dispersion is a standard deviation using equal-weighted total returns for accounts in the composite the entire year. The three-year annualized standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period. Leverage is not utilized. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. Gross returns are total returns gross of investment management fees, which when included, reduce investment returns. Net returns are total returns reduced by actual investment management fees. The fee for accounts managed in the Small Cap Core Growth style is payable quarterly in arrears and the standard fee is calculated by applying the following ANNUAL percentages to the average value of the assets in an account on the last day of each month in the quarter: First \$15 million 1.00%, next \$35 million 0.80%, next \$50 million 0.60%, above \$100 million 0.73%. Fees are collected quarterly, which produces a compounding effect on the total rate of return net of management fees. Market value is based on trade date and security pricing is supplied by Telemet. A complete list and description of all of the firm's composites is available upon request. Past performance is no guarantee of future results.

Top Ten Holdings

Security	Life Cycle Category	Percent of Portfolio	Characteristic	Portfolio
MEDICINES CO	Pioneer	2.6%	Median Market Cap	\$1,985.3 mil
ACT SCIENCES	Core Growth	2.3%	Weighted Avg. Market Cap	\$3,622.0 mil
PHASE ENERGY	Core Growth	2.2%	Active Share	87.02%
C BEARINGS	Core Growth	2.0%	Est 3-5 Yr EPS Growth	23.1%
RNIT DIGITAL	Core Growth	1.9%	Forward P/E Ratio	22.2x
OOKS AUTOMATION	Special Situation	1.7%	Annual Portfolio Turnover	61.5%
PLIGEN	Core Growth	1.7%	Dividend Yield	0.34%
MC GLOBAL INC	Special Situation	1.6%	Price to Book	3.33x
TSY INC	Core Growth	1.6%	Source: FactSet	
EURONET	Core Growth	1.6%		

Holdings and Characteristics are Supplemental Information. Please reference fully compliant GIPS Presentation above.

