

## About Us

**Founded:** 1982

**Headquarters:** Boston, MA

**AUM:** \$2.74B

**Investment Team:** 22 members

**Average PM Industry Tenure:** 21 years

## Investment Capabilities

We offer multi-asset investment capabilities with a strong quantitative discipline, specifically:

- U.S. large cap core, growth, and value
- U.S. small cap core, growth, and value
- International equity and ADR
- Global tactical asset allocation
- Blended/custom strategies
- Socially responsible/faith based

## Large Cap Value Equity

Inception: June 30, 2006

Composite Assets: \$238m

Account Minimum: SMA \$5m

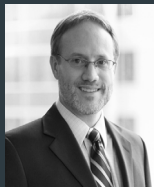
Minimum Fee: \$32,500

## Portfolio Management Team



**Michael J. Vogelzang, CFA**

CIO, President  
Industry start: 1984  
Firm start: 1997  
Calvin College - BA



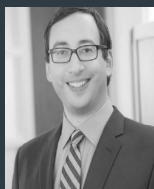
**David Hanna**

Sr. VP & Director of Institutional  
Portfolio Management  
Industry start: 1987  
Firm start: 2006  
Pennsylvania State University - BS



**James Gaul, CFA**

VP & Portfolio Manager  
Industry start: 1998  
Firm start: 2005  
Babson College - BS  
Boston University - MS



**Eric Eaton, CFA**

Portfolio Manager & Equity Analyst  
Industry start: 2007  
Firm start: 2011  
Gordon College - BA  
Bentley University - MS  
Harvard University - MBA

## Investment Strategy & Process

### Investment Strategy

- The Large Cap Value Equity Strategy is designed to capitalize on the inefficiencies in the equity market by using robust, quantitative stock selection models to identify undervalued companies that have attractive risk/return profiles.
- These market inefficiencies arise for a number of reasons, such as irrational investor behavior, over-extrapolation of trends and the different methodologies used by investors to value stocks, including different time horizons and risk tolerance levels.
- We believe one of the best ways to capture pricing anomalies is through the complementary disciplines of quantitative and fundamental analysis. Robust quantitative models provide a consistent and systematic means to capture inefficiencies, while a fundamental overlay approach empowers the data by providing context and perspective.

### Investment Process

- The investment process begins with proprietary, quantitative research and modeling that helps us define the market environment, analyze the investment universe, and rank stocks from most to least attractive.
- Our proprietary, multi-factor model emphasizes key company characteristics, including valuation, growth and profitability, earnings quality, and investor sentiment.
- Fundamental research complements this data-focused analysis. The portfolio team contributes a qualitative overlay to the process by reviewing buy/sell candidates and industry rankings to contextualize and interpret model rankings and validate key recommendations.
- The combination of the two disciplines results in a portfolio in which managers have high conviction in holdings, turnover is typically 75 - 100 percent, and there is a deeper understanding of the portfolio's overall dynamics and composition.
- Sophisticated risk modeling is used to analyze and monitor portfolio risk on an ongoing basis.

Performance	Quarter to Date	Year to Date	1 Year	3 Years*	5 Years*	10 Years*	Since Inception (6/30/06)*
Total Returns							
Large Cap Value Equity - Gross	5.75%	7.15%	14.62%	15.21%	11.53%	10.42%	9.91%
Large Cap Value Equity - Net	5.58%	6.62%	13.88%	14.46%	10.81%	9.70%	9.18%
Russell 1000 Value	5.70%	3.92%	9.45%	13.55%	10.72%	9.79%	8.88%

\*Annualized returns

Risk Statistics (Since Inception June 30, 2006)	Large Cap Value Equity (Gross)	Russell 1000 Value
Sharpe Ratio	0.61	0.51
Standard Deviation	14.16%	14.99%
Beta vs. Russell 1000 Value	0.92	1.00
Up Capture vs. Russell 1000 Value	98.14%	100.00%
Down Capture vs. Russell 1000 Value	86.05%	100.00%
Batting Average vs. Russell 1000 Value	0.61%	-----

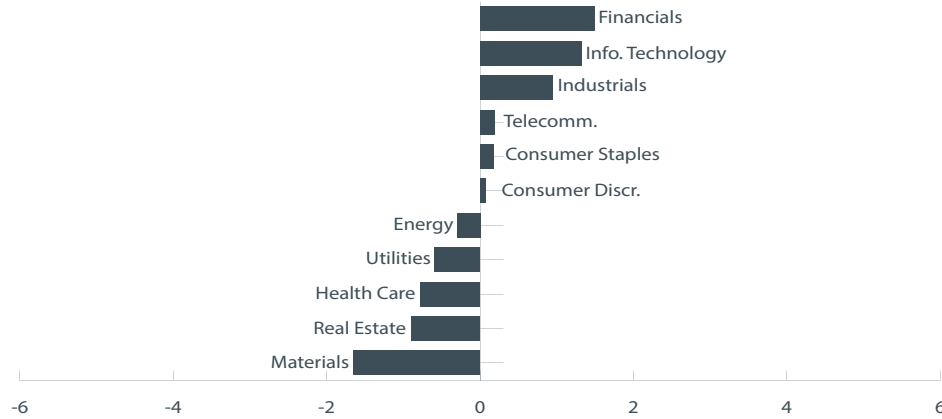
Source: eVestment Analytics, quarterly data

Sharpe ratio, standard deviation, beta, up capture, down capture and batting average statistics are calculated using quarter end composite return values. The above data is intended to supplement the composite presentation located at the end of this presentation.

Portfolio Characteristics	Large Cap Value Equity	Russell 1000 Value	Difference
P/E Trailing*	15.0	16.3	(1.3)
P/E Forward*	13.8	15.2	(1.4)
Price to Book*	2.3	2.1	0.2
Price to Cashflow*	9.4	10.6	(1.3)
Earnings Growth (Past 3 Yrs)	10.7	6.0	4.8
Market Cap - Mean (\$Bil)	\$143.1	\$125.9	\$17.2
Market Cap - Median (\$Bil)	\$26.9	\$10.1	\$16.8
Market Cap - Weighted Median (\$Bil)	\$47.1	\$69.4	(\$22.3)

\*Weighted harmonic average

Sector Over/Under Weights vs. Russell 1000 Value



	Top 10 Holdings (excluding cash)	%
1	JPMorgan Chase & Co.	4.42
2	Bank of America Corp	3.39
3	Chevron Corporation	3.06
4	Verizon Communications Inc.	3.00
5	ConocoPhillips	2.81
6	Intel Corporation	2.60
7	Berkshire Hathaway Inc. Class B	2.22
8	UnitedHealth Group Incorporated	2.18
9	Merck & Co., Inc.	2.18
10	Walmart Inc.	1.98
	Total	27.85

Source: Factset. Fundamental characteristics, top 10 holdings and sector allocations are for a representative account and are shown for illustrative purposes only. Each account is managed individually. Accordingly account characteristics may vary. The above data is intended to supplement the composite presentation located at the end of this presentation.

BOSTON ADVISORS, LLC LARGE CAP VALUE EQUITY COMPOSITE ANNUAL DISCLOSURE PRESENTATION										
	Firm Assets		Composite Assets		Annual Performance Results				3 Year Standard Deviation	
Year End	USD (billions)	USD (millions)	Number of Accounts	Carve Out%	Composite Gross	Composite Net	Russell 1000 Value	Composite Dispersion	Composite	Russell 1000v
2008	\$1.4	\$647.7	<6	3.89%	-31.20%	-31.69%	-36.85%	*		
2009	\$1.6	\$779.9	<6	-	12.76%	12.00%	19.69%	*		
2010	\$1.6	\$750.9	<6	-	17.09%	16.33%	15.51%	*		
2011	\$1.9	\$849.5	<6	-	0.59%	-0.06%	0.39%	*	19.84%	20.69%
2012	\$2.2	\$1,080.7	<6	-	19.19%	18.42%	17.51%	*	14.91%	15.51%
2013	\$2.5	\$1,009.9	<6	-	33.38%	32.51%	32.53%	*	12.49%	12.70%
2014	\$2.7	\$1,034.1	<6	-	9.70%	8.99%	13.45%	*	9.77%	9.20%
2015	\$4.7	\$877.5	<6	-	-0.90%	-1.54%	-3.83%	*	10.30%	10.68%
2016	\$4.7	\$852.9	<6	-	14.08%	13.34%	17.34%	*	10.41%	10.77%
2017	\$5.0	\$840.9	<6	-	17.08%	16.32%	13.66%	*	10.02%	10.20%

\* Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire period

**Boston Advisors, LLC Large Cap Value Equity Composite** contains all discretionary, fee paying, institutional accounts with a minimum portfolio size of \$2 million that invest in large capitalization value equity securities and for comparison purposes is measured against the Russell 1000 Value Index. The Large Cap Value Equity Composite was created June 30, 2003. Boston Advisors, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Boston Advisors, LLC has been independently verified for the periods April 1, 2006 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 Large Cap Value Equity composite has been examined for the periods April 1, 2006 through December 31, 2017. The verification and performance examination reports are available upon request. Boston Advisors, LLC is an independent registered investment advisor located in Boston, Massachusetts. The firm maintains a complete list and description of composites, which is available upon request. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. Past performance is not indicative of future results. The U.S. Dollar is the currency used to express performance. Returns are presented gross and net of management fees and include the reinvestment of all income. 2008 returns include carve out portfolios. Carve out segments are managed as separate portfolios with their own cash balances. Net of fee performance was calculated using the highest applicable stated management fee of 0.65% on total assets, applied quarterly. Prior to September 30, 2009 the net returns were reduced by 0.70% on total assets, applied quarterly. Actual investment advisory fees incurred by clients may vary. The annual composite dispersion presented is an asset-weighted standard deviation calculated for the 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. The standard deviation is not required for periods prior to 2011. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. The Large Cap Value Equity Composite fee schedule is as follows: First \$25 million 0.65%, Next \$25 million 0.60%, Next \$50 million 0.55%, Balance 0.50%.

To learn more about Boston Advisors' investment capabilities, please contact:

Peter Anderson, Executive Vice President  
(617) 348-3127  
peter.anderson@bostonadvisors.com