

## **City of Boston**

# Large Cap Value Equity Manager Search – Finalists Book

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# Table Of Contents

	<u>Tab</u>
Introduction and Disclosures	1
Firm and Product Summary	2
Performance	3
Profiles	4
Appendix	5



# **Introduction and Disclosures**



### Introduction to Asset Class

Large cap value strategies emphasize stocks of U.S. companies with relatively large market capitalizations. In most cases, a value stock tends to trade at a lower price relative to its fundamentals (i.e. dividends, earnings, sales, etc.). Common characteristics of value stocks include a low price-to-book ratio, low price-to-earnings ratio, and/or high dividend yield. Generally a large cap stock has a market capitalization of \$10 billion or greater.

The recommended benchmark for large cap value equities is the Russell 1000 Value Index. The index is capitalization-weighted and includes U.S. common stocks as determined by Russell's country assignment rule. This rule relies on three key indicators: incorporation, headquarters, and trading. Companies that are incorporated, headquartered, and trade in the U.S. become a member of that country. In the case of a company whose 3 key indicators do not match, the primary location of assets or revenue is used to determine eligibility. When location of assets or revenue is not reported, country assignment will default to location of headquarters.

The Russell indices are reconstituted once a year effective July 1. The Russell 1000 Index represents the largest 1,000 U.S. common stocks at the time of reconstitution (May 31). The Russell 1000 Value Index represents a subset of the Russell 1000 Index determined to exhibit value characteristics based on two variables: Price-to-book ratio and I/B/E/S forecast long-term growth mean.



#### Research Process

NEPC's investment manager research process identifies a Focused Placement List of preferred strategies representing the strategies that we expect will provide superior investment performance over time. Our four step process used for identifying our Focused Placement List includes:

- 1. Universe Screening Minimum inclusion criteria and screening are used to focus our analysis;
- 2. Quantitative Scoring Proprietary quantitative analysis measuring the consistency and quality of alpha-only, net of fees returns;
- 3. Qualitative Research Rigorous qualitative analysis of a strategy's key characteristics, focusing on identification of a clear and differentiating investment thesis to develop forward-looking conviction in future performance; and
- 4. Peer Review Confirmation through careful peer review of each strategy by senior investment professionals to challenge each investment thesis and raise critical business issues.

We believe that this exhaustive process leads to identification of strategies with a reasonable probability of delivering consistent, high quality investment results.



### Search Candidates

# The following is a list of managers under consideration for this search. The table below summarizes the products proposed for each manager.

Firm	Product	Comments
Large Cap Value Equity		
Bridgeway Capital Management, Inc	Bridgeway Large Cap Value	Composite Track Record Shown
Coho Partners, Ltd.	Coho Relative Value Equity	Composite Track Record Shown
Diamond Hill Capital Management, Inc.	Diamond Hill Large Cap	Composite Track Record Shown
The Boston Company Asset Management, LLC	US Large Cap Value Equity	Incumbent Client Track Record Shown

Details regarding securities lending are available from the manager upon request.



#### **Disclosures**

#### **Data Disclosure:**

- The results profiled herein reflect the deduction of management fees and other expenses, except where specifically noted.
- Investment fees can have a significant effect on total returns.

#### **Footnotes:**

- Coho: The proposed Coho mutual fund has a 2% redemption fee for withdrawals made within 60 days of investment.
- Firm Ownership:
  - Bridgeway: The firm is a privately held S-Corp. As of 12/31/2014, John Montgomery, founder and Chief Investment Officer (CIO), owns a majority interest (67%) of Bridgeway shares, other family members own 22%, and 11% is owned by the "Partner" stock ownership plan ("Partners" include all permanent staff). Additionally, Partners participate in a phantom stock ownership program that is equivalent to 8% of Bridgeway shares so the economic interest of the Partners other than John Montgomery is equivalent to almost 20% of the firm.
- Team Overview:
  - At Coho Partners, portfolio managers are responsible for performing research. As such, there are no independently identified research analysts on the Relative Value strategy.
- Total Firm and Product Assets:
  - Coho: Product assets by vehicle type do not combine to equal the total product assets. This is because Coho's private client group utilizes the strategy for their clients, but GIPS does not endorse carving out equity assets from balanced accounts. As a result, the assets are included in calculations of "total" product assets, but not in the composite.



# Firm and Product Summary



# Firm and Product Summary

Firm/Product	t Firm/Team Comments Investment Style/Strategy		Performance Expectations	Portfolio Positioning	Other Comments
Large Cap Valu	e Equity				
Bridgeway Capital Management - Bridgeway Lg Value	Majority employee- owned firm. Team focuses on quantitative research to improve their proprietary models.	Utilize eight proprietary and distinct models that are 70% Value, 25% Company Financial Health and 5% Price Momentum. Portfolio managers review model recommendations against existing portfolio to determine trades.	Targets 1%-2% outperformance. Should do well when fundamentals are recognized by market. Will struggle when single factors dominate the market.	70-100 stocks from constituents of the Russell 1000 Value benchmark. Maximum position at market is 5%. Sectors are managed to with +/-10% versus the benchmark.	Firm allocates half their profits to charity every year.
Coho - Coho Relative Value	Founded in 1999. 100% employee-owned.Four PMs are responsible for research and decision- making via majority vote.	Strategy seeks to invest in mature companies with superior sustainable business models. They use 5-year DDM to value opportunities. Two types of investments: Demand Defensive and Economically Sensitive.	Stated objective of at least 2%-3% excess return; they also have total return bias. Demand Defensive holdings provide down market protection, while Economically Sensitive holdings provide up market capture.	25-30 stocks. No formal sector limits, but generally significant assets are allocated to consumer staples, healthcare, and integrated oil names, which are all Demand Defensive.	Next generation of professionals are integrated into the team and process.
Diamond Hill - Diamond Hill Lg Cap	Publicly traded company.  Lead PM decision-making. Team was gradually built out since 2005 to strengthen research capability.	Intrinsic value approach seeking a discount of at least 10%. Fundamental analysis seeks sustainable competitive advantages, strong financials, and shareholder-oriented management.	Strong focus on fundamentals. Absolute return focus. Should outperform in markets driven by fundamentals.	40-60 stocks. \$2.5B minimum market cap at purchase. Maximum sector weight is 30% and maximum industry weight is 20%.  Maximum cash is 20%, typically 5%-10%.	



# NEPC Investment Thesis

Firm/Product	NEPC Investment Thesis
Large Cap Value Equity	
Bridgeway Capital Management - Bridgeway Lg Value	Bridgeway Large Cap Value's value-added is attributable to their quantitative approach to stock selection using eight proprietary factor models. Each factor model is applied to the Russell 1000 Value universe to select the best 5-20 stocks to represent the factor. Overall, the portfolio is weighted 70% to Value (determined by four factor models), 25% to Quality (determined by three factor models) and 5% to Momentum.
Coho - Coho Relative Value	Coho's value-added is attributable to the collaborative four-member team supporting the strategy and their intensive financial modeling process focused on sustainable business models. They follow a disciplined process that narrows the universe to what they qualify to be approximately 250 "advantaged" companies with high-quality sustainable businesses. This universe is based on mature companies that have demonstrated sustainability in their businesses over multiple economic cycles. This long look back has two main benefits: it keeps the ideas list relatively static, and it provides them with increased confidence in their models and assumptions. They use a 5-year DDM framework to quantify and compare the attractiveness all the ideas. Normalized assumptions about revenues, margins, capital allocation, and relative valuations are thoroughly researched and regularly updated to ensure stronger conviction in the model output in order to lead to better decision-making.
Diamond Hill - Diamond Hill Lg Cap	Diamond Hill's value-added comes from their experienced investment professionals, their commitment to proprietary fundamental research, and a consistent, disciplined intrinsic value strategy. The team comprises over 30 professionals who conduct bottom-up research the portfolio managers are generalists and the research analysts and associates are industry specialists. Everyone uses an intrinsic value framework based on DCF modeling. Holdings and ideas are followed closely and estimates are reviewed at least quarterly to update their model with new data and updated information. This discipline leads to better decisions for the portfolio. Finally, interests are aligned with clients, as an element of their bonus compensation is tied to performance of the strategies.



# Firm Comparison Summary

Firm Name	Location	Year Firm Founded	Total Assets Under Mgmt (\$MM)	% Employee Owned	% Parent Owned		% Publicly Held	% Other Ownership
Large Cap Value Equity								
Bridgeway Capital Management, Inc	Houston, Texas	1993	6,798	78	0	NA	0	22
Coho Partners, Ltd.	Berwyn, Pennsylvania	1999	3,102	100	0	NA	0	0
Diamond Hill Capital Management, Inc.	Columbus, Ohio	2000	18,056	21	0	NA	76	3

Firm Name	Registered Investment Advisor	GIPS Compliant	Past or Pending Litigation	Firm uses Placement Agent
Large Cap Value Equity				
Bridgeway Capital Management, Inc	Yes	Yes	No	No
Coho Partners, Ltd.	Yes	Yes	No	Yes
Diamond Hill Capital Management, Inc.	Yes	Yes	Yes	Yes



# **Product Comparison**

Firm/Product	Inception Date	AUM (\$MM)	# of Portfolio Managers	# of Research Analysts	# of Traders
Large Cap Value Equity					
Bridgeway Capital Management - Bridgeway Lg Value	2003	3,538	3	5	3
Coho - Coho Relative Value	2000	3,102	6	0	1
Diamond Hill - Diamond Hill Lg Cap	2000	7,318	3	32	7

Firm/Product	Vehicle Proposed	Liquidity In	Liquidity Out	Reported Fee for \$6.00 mm	Reported Fee in (bps)
Large Cap Value Equity					
Bridgeway Capital Management - Bridgeway Lg Value	Mutual Fund	Daily	Daily	47,400.00	79
Coho - Coho Relative Value	Separate Account Mutual Fund	Daily Daily	Daily Daily	36,000.00 47,400.00	60 79
Diamond Hill - Diamond Hill Lg Cap	Mutual Fund	Daily	Daily	36,000.00	60



# **Product Comparison**

Firm/Product	Internal ESG Research Utilized (Y/N)	Third Party ESG Research Utilized (Y/N)	Manager Explanation of Research Methodologies Used
Large Cap Value Equity			
Bridgeway Capital Management - Bridgeway Lg Value	No	No	NA
Coho - Coho Relative Value	Yes	No	Socially responsible portfolios are exclusively client-driven which will result in a variety of social guidelines and restrictions per account. The typical account restrictions will exclude those companies which operate in industries that are involved with tobacco products, alcoholic beverages, gambling/casinos and energy. Since we are bottom-up stock pickers, we will replace the restricted stocks with other qualifying stocks while doing our best to maintain overall portfolio construction.
Diamond Hill - Diamond Hill Lg Cap	No	No	NA



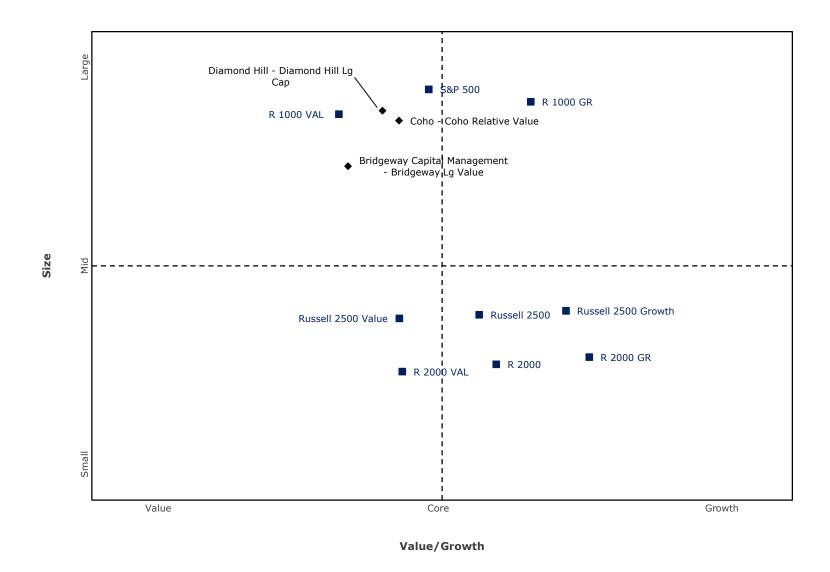
# **Equity Product Comparison**

Firm/Product	Primary Equity Capitalization	Current Number of Holdings	Holdings	Wgtd. Avg. Mkt. Cap (\$MM)	Median Mkt. Cap (\$MM)	Annual Turnover (%)	Max Cash Position (%)	Typical Cash (%)
Large Cap Value Equity								
Bridgeway Capital Management - Bridgeway Lg Value	Large Cap	100	90	48,607	21,021	52	5	3
Coho - Coho Relative Value	Large Cap	29	27	72,764	42,538	12	5	3
Diamond Hill - Diamond Hill Lg Cap	Large Cap	54	50	113,535	43,587	24	20	5

	% Portfolio in Market Cap Range:								
Firm/Product	> \$50 Billion (%)	\$15-50 Billion (%)	\$7.5-15 Billion (%)	\$1.5- 7.5 Billion (%)	\$750- 1.5 Billion (%)	\$400-750 Million (%)	< \$400 Million (%)		
Large Cap Value Equity									
Bridgeway Capital Management - Bridgeway Lg Value	18	48	28	6	0	0	0		
Coho - Coho Relative Value	46	43	8	2	0	0	0		
Diamond Hill - Diamond Hill Lg Cap	51	32	13	4	0	0	0		



# **Equity Spectrum Analysis**





# Equity Style Characteristics

Firm/Product	Earnings Yield	Dividend Yield	EPS Growth	Fundamental Beta	Book/Price	Return on Equity
False						
Bridgeway Capital Management - Bridgeway Lg Value	8.03	2.15	8.41	0.91	0.53	13.19
Coho - Coho Relative Value	5.58	2.36	(0.23)	0.92	0.27	20.98
Diamond Hill - Diamond Hill Lg Cap	7.15	1.92	8.63	1.10	0.45	15.15

Benchmark						
Russell 1000 Value	6.66	2.49	4.02	0.94	0.52	10.75

# **Equity Sector Allocations**

Firm/Product	Consumer Discretion ary (%)	Consumer Staples (%)	Energy (%)	Financials (%)	Health Care (%)	Industrials (%)	Info. Tech. (%)	Materials (%)	Real Estate (%)	Tele. Serv. (%)	Utilities (%)	Other (%)
Large Cap Value Equity												
Bridgeway Capital Management - Bridgeway Lg Value	10.4	11.3	8.2	21.0	8.3	13.0	11.9	3.2	2.0	3.7	7.2	0.0
Coho - Coho Relative Value	10.5	21.1	7.9	13.0	26.8	12.6	8.2	0.0	0.0	0.0	0.0	0.0
Diamond Hill - Diamond Hill Lg Cap	19.9	8.5	3.6	27.6	14.5	8.6	13.5	3.8	0.0	0.0	0.0	0.0

Benchmark												
Russell 1000 Value	4.6	8.7	13.5	23.4	11.5	9.8	10.0	2.9	5.1	3.9	6.5	0.0







## Trailing Period Returns - (Net of Fees)

	Benchmark	Qtr	YTD	1 Year	3 Year	5 Year	7 Year	10 Year
Large Cap Value Equity								
Bridgeway Capital Management - Bridgeway Lg Value	1	6.8%	16.7%	16.7%	9.7%	16.8%	14.4%	7.9%
Coho - Coho Relative Value	1	1.9%	9.5%	9.5%	7.7%	13.1%	13.0%	9.1%
Diamond Hill - Diamond Hill Lg Cap	1	5.9%	14.6%	14.6%	8.0%	14.3%	12.0%	7.2%
TBC - US Large Value	1	11.1%	19.3%	19.3%	9.4%	16.8%	13.2%	6.2%

#### **Actual Return** 1 Russell 1000 Value 6.7% 17.3% 17.3% 8.6% 14.8% 12.7% 5.7% 2 Russell 1000 Growth 1.0% 7.1% 7.1% 8.6% 14.5% 13.0% 8.3% 3.8% 3 Russell 1000 12.1% 12.1% 8.6% 14.7% 12.9% 7.1%

# Calendar Year Returns - (Net of Fees)

	Bench mark	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Large Cap Value Equity											
Bridgeway Capital Management - Bridgeway Lg Value	1	16.7%	-1.5%	15.0%	38.9%	18.4%	2.7%	14.9%	25.3%	-36.6%	4.8%
Coho - Coho Relative Value	1	9.5%	-0.3%	14.3%	31.1%	12.9%	10.2%	15.3%	17.7%	-17.5%	4.7%
Diamond Hill - Diamond Hill Lg Cap	1	14.6%	-0.8%	10.9%	37.0%	12.7%	3.0%	10.0%	30.7%	-34.3%	6.3%
TBC - US Large Value	1	19.3%	-1.6%	11.6%	38.7%	19.8%	-4.7%	14.9%	18.5%	-36.8%	2.1%

#### **Actual Index Return**

1	Russell 1000 Value	17.3%	-3.8%	13.5%	32.5%	17.5%	0.4%	15.5%	19.7%	-36.8%	-0.2%
2	Russell 1000 Growth	7.1%	5.7%	13.1%	33.5%	15.3%	2.6%	16.7%	37.2%	-38.4%	11.8%
3	Russell 1000	12.1%	0.9%	13.2%	33.1%	16.4%	1.5%	16.1%	28.4%	-37.6%	5.8%

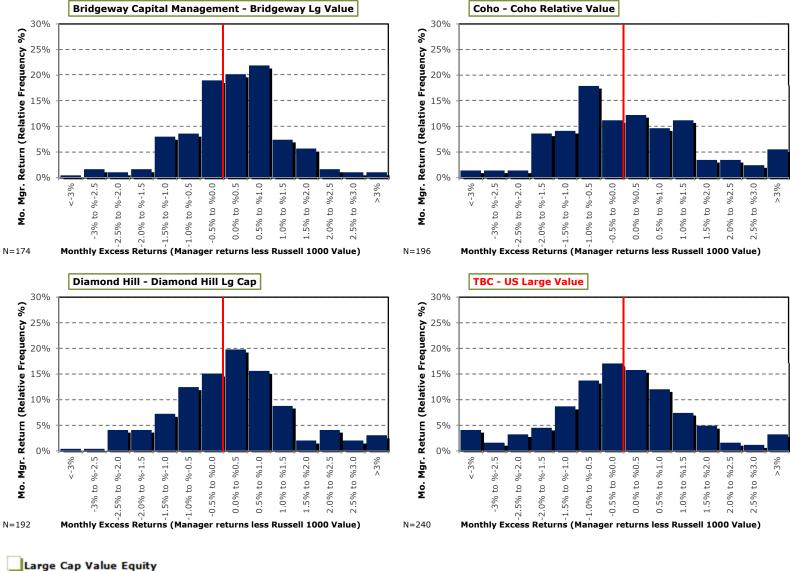
# Excess Returns Performance Summary - (Net of Fees)

	Primary	# of Months	% Positive (Mo.)	High (Mo.)	Low	Average (Mo.)	% > 0.5%	Rolling 1 Yr. Rtr.		Rolling 3 Yr. Rtr.	
	Benchmark	(Track Record)			(Mo.)			> 0%	> 3%	> 0%	> 3%
Large Cap Value Equity											
Bridgeway Capital Management - Bridgeway Lg Value	Russell 1000 Value	174	59%	5.6%	(4.2%)	0.2%	39%	76%	37%	96%	21%
Coho - Coho Relative Value	Russell 1000 Value	196	48%	5.5%	(4.7%)	0.1%	36%	47%	37%	60%	27%
Diamond Hill - Diamond Hill Lg Cap	Russell 1000 Value	192	56%	9.5%	(3.0%)	0.2%	36%	62%	44%	77%	36%
TBC - US Large Value	Russell 1000 Value	240	47%	8.6%	(5.2%)	(0.1%)	31%	47%	24%	44%	16%

# Excess Returns Performance Summary - (Net of Fees)

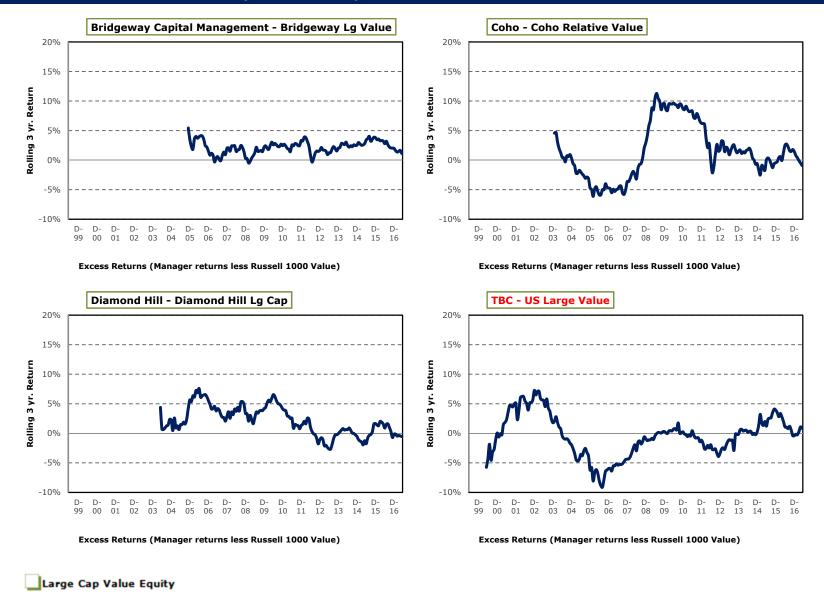
	# of Months (Track Record)	Excess Return				Tracking Error				Information Ratio				Beta vs.	
		1 Yr.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	Primary Benchmark
Large Cap Value Equity															
Bridgeway Capital Management - Bridgeway Lg Value	174	(0.7%)	1.1%	2.0%	1.7%	2.2%	2.5%	2.3%	2.3%	3.1%	0.46	0.87	0.72	0.69	0.92
Coho - Coho Relative Value	196	(7.8%)	(0.9%)	(1.7%)	0.3%	3.4%	3.5%	3.5%	4.0%	5.7%	(0.26)	(0.49)	0.06	0.59	0.77
Diamond Hill - Diamond Hill Lg Cap	192	(2.8%)	(0.5%)	(0.5%)	(0.8%)	1.5%	3.0%	3.0%	3.2%	3.7%	(0.18)	(0.18)	(0.24)	0.41	0.95
TBC - US Large Value	240	1.9%	0.8%	2.0%	0.5%	0.5%	4.0%	3.7%	4.6%	4.2%	0.21	0.56	0.11	0.11	0.85

### Excess Monthly Returns Histogram - (Net of Fees)



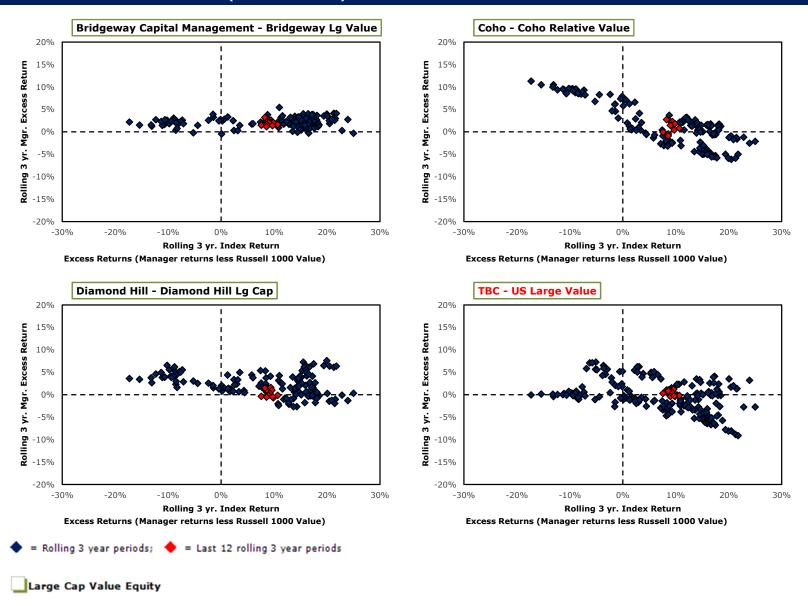


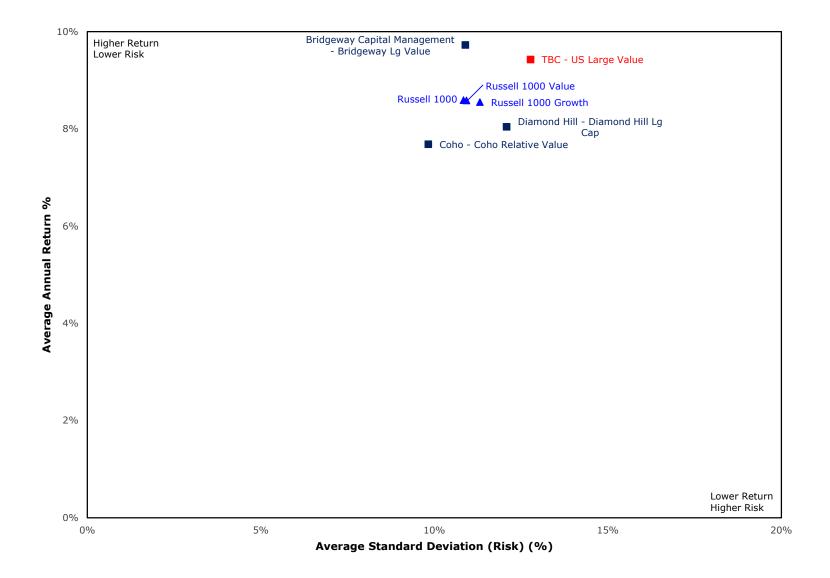
### Rolling 3 Year Excess Returns - (Net of Fees)

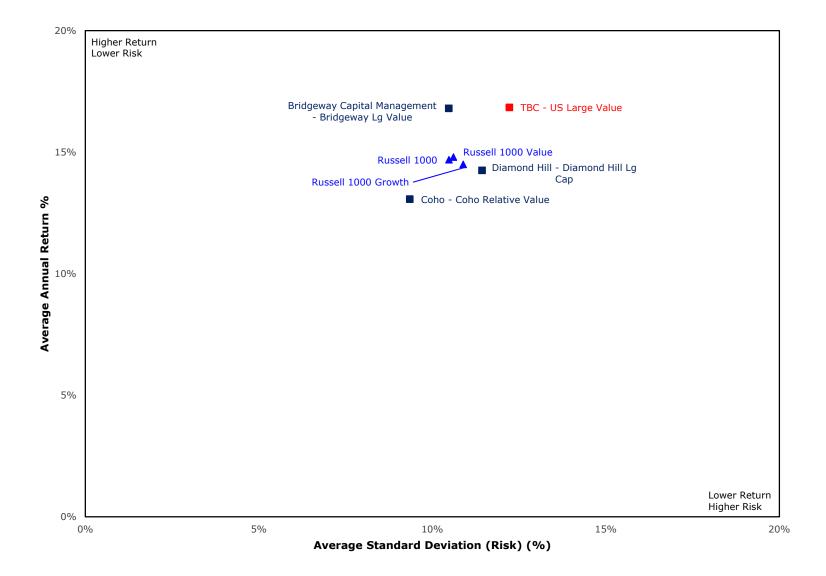


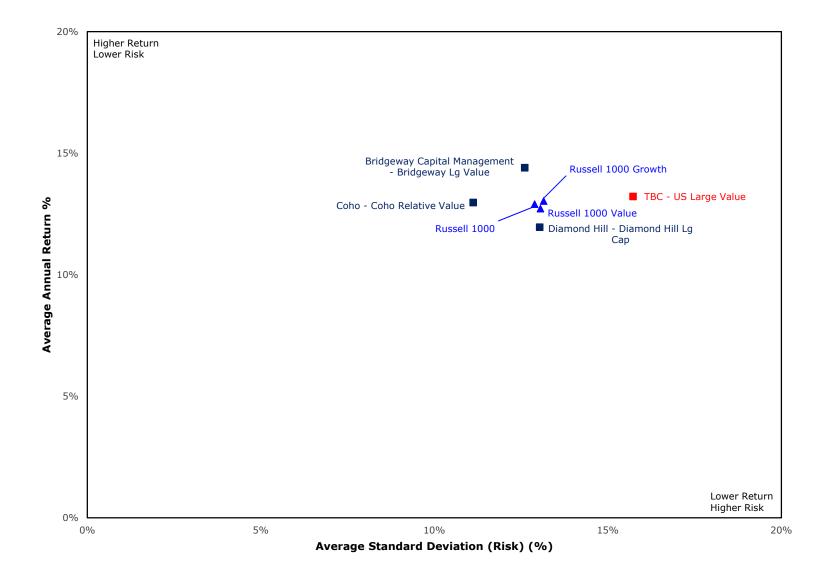


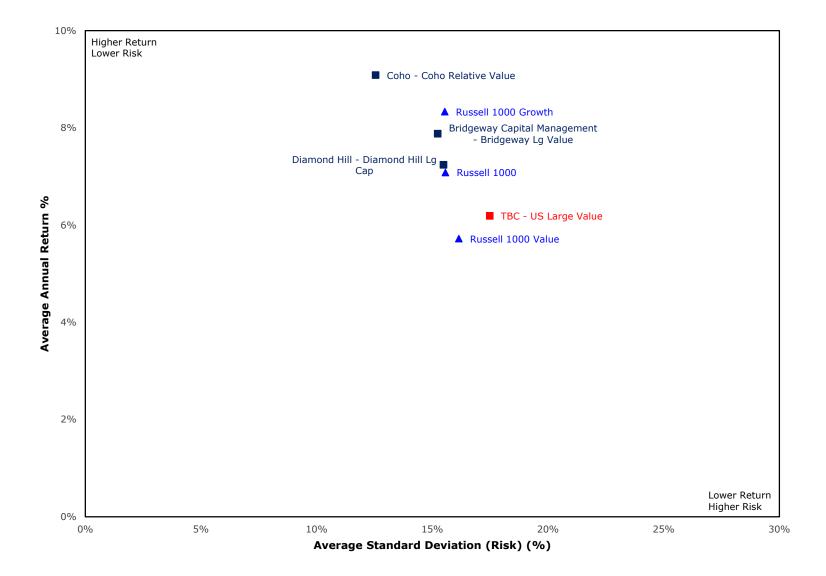
### Rolling 3 Year Excess Returns - (Net of Fees)













### Bridgeway Capital Management, Inc Bridgeway Large Cap Value

Donna Szeto, CFA, Sr. Research Consultant Source: NEPC and eVestment January 2016

#### **Firm Description**

Bridgeway Capital Management, Inc. was founded in 1993 in Houston, Texas by John Montgomery, who is the firm's Chief Investment Officer. The firm is set up as an S-corporation. Mr. Montgomery has 67% ownership of the firm, his family and friends own 22%, and the remaining 11% of equity is distributed among 23 other employees. Partners also have phantom stock equivalent to 8% of ownership. There are no intentions to reduce Mr. Montgomery's ownership stake in the near future. The transition of his ownership in case of death goes to his spouse, then a charitable entity after her. The long term plan is to transition his equity to a charitable entity with votes controlled by the partners. The firm allocates half of their after-tax profits to charitable and non-profit organizations through the Bridgeway Foundation, whose core values are human life, love and compassion, integrity, and selfless sacrifice.

#### **NEPC Investment Thesis**

Bridgeway Large Cap Value's value-added is attributable to their quantitative approach to stock selection using eight proprietary factor models. Each factor model is applied to the Russell 1000 Value universe to select the best 5-20 stocks to represent the factor. Overall, the portfolio is weighted 70% to Value (determined by four factor models), 25% to Quality (determined by three factor models) and 5% to Momentum.

#### **People**

The Bridgeway investment and portfolio management team is led by John Montgomery, CIO. The team includes portfolio management professionals who consider the practical and theoretical applications of modeling data in an investment framework, as well as dedicated research professionals who focuses 100% on theoretical applications. They have also added professionals to help improve process efficiency. Portfolio managers work as a team with an individual assigned day-to-day responsibilities on a strategy and backed up by the other PMs.

#### **Philosophy**

Bridgeway Capital Management believes that a disciplined, statistical process grounded in academic theory and fundamental data over long periods of time drives success in long-term investing.



### Bridgeway Capital Management, Inc Bridgeway Large Cap Value

#### **Investment Strategy**

Bridgeway employs a quantitative approach to equity investing. With their investment philosophy rooted in academic theory, Bridgeway uses long-term data to determine investment decisions based on historical factors that drive returns according to empirical evidence. Research efforts focus on studying and validating fundamental data in explaining returns, and determining appropriate variables to provide factor exposures.

The Bridgeway Large Cap Value strategy starts by applying internally developed quantitative models to the Russell 1000 Value universe. For the Large Cap Value strategy, Bridgeway uses 8 distinct stock selection models 4 Value models drive 70% of the portfolio's investments by total assets, 3 Quality models drive 25% of the portfolio's investments by total assets, and 1 Momentum model drives 5% of the portfolio's investments by total assets. Model weights are determined using an optimization to construct a portfolio with targeted risk-adjusted returns and characteristics. Except for the Momentum model which has a designed holding period of three months, all other models have a designed holding period of one year. Inclusion of several models ensures a multi-factor selection process; however, unlike many quantitative strategies which select stocks based on an aggregate ranking across multiple factors, Bridgeway aims to own the best standalone stocks according to each factor model. Generally each of the eight factor models recommends 5-20 names out of the 650+ eligible stock universe. The number of names recommended depends on a model decay test where the marginal contribution of a factor drops off. While they have rules in place to handle overlap in stock selection between models, historically the overlap has been minimal.

After application of the quantitative models, the portfolio managers review the recommendations. Stocks involved in mergers and acquisitions and takeouts will be removed from the universe and the models will be re-run. After this scrub, portfolio managers select stocks based on existing holdings and overall portfolio risk management, with a goal of controlling turnover.



### Bridgeway Capital Management, Inc Bridgeway Large Cap Value

Generally, the portfolio is rebalanced monthly. During this process, the portfolio managers view model recommendations and trade when there is a need. The need is driven by considerations such as bringing the portfolio back toward target model weights, or managing sector-relative weights. The sell discipline of the Large Cap Value strategy can be triggered by the following factors: the expiration of the model-designed holding period, a desire for rebalancing to target weights, the relative value of the optimal model recommendations versus current portfolio holdings, a deterioration of financial strength or other model variables, portfolio risk considerations, or an event affecting the company's future stock price. Importantly, the sell discipline of the Large Cap Value investment process does not consider a stock's target price, or stop losses.

#### **Portfolio**

The Bridgeway Large Cap Value portfolio holds between 70-100 positions. From a portfolio of cash, generally, positions from each model are equal-weighted, with overall position weights typically ranging between 0.5% and 2.5%. Over time, positions sizes will vary based on market action for existing hodings and available funds to deploy to new Buys per model. Maximum position at market is generally 5%. Sector weights are constrained to +/- 10% versus the Russell 1000 Value Index. Annual turnover is typically 30%-40%.

#### **Performance Expectations**

The strategy targets 1%-2% outperformance over 3-5 years. Being a diversified value strategy using multiple factors, Bridgeway should outperform when fundamentals matter. Conversely, when one factor dominates the market, they will struggle. Generally, they will do well when growth beats value and also when the smaller names in the index do better than the larger names.



### Biographies of Key Professionals

### Bridgeway Capital Management, Inc Bridgeway Large Cap Value

#### John Montgomery, Founder and Chief Investment Officer

Mr. Montgomery founded Bridgeway in 1993 and is the Chief Investment Officer. He worked with computer modeling and quantitative methods as a research engineer at MIT in the late 1970s. Later, as a student at Harvard, he investigated methods to apply modeling to portfolio management. Mr. Montgomery began applying these methods to his own investments in 1985. Over the next six years, this investment style proved more successful than even he had expected. He left his full-time position in the transportation industry at the end of 1991 to perform full-time research on his investment models, study the mutual fund industry, and write a business plan for Bridgeway. Mr. Montgomery earned his BS in Engineering and his BA in Philosophy from Swarthmore College and he earned his graduate degrees from MIT and Harvard Business School.

#### Michael Whipple, CFA, FRM, Portfolio Manager

Mr. Whipple joined Bridgeway in 2002. His responsibilities include portfolio management, investment research, and statistical modeling. Previously, he was a Financial Risk Manager and worked in auditing. Mr. Whipple earned his BS in Accountancy and Finance from Miami University in Ohio and his MBA from The University of Chicago Booth School of Business. He is a CFA charterholder.

#### Elena Khoziaeva, CFA, Portfolio Manager

Ms. Khoziaeva joined Bridgeway in 1998. Her responsibilities include portfolio management, investment research, and statistical modeling. Ms. Khoziaeva earned her Bachelor of Economic Sciences from Belarussian State Economic University in Minsk and her MBA in Accounting from the University of Houston, graduating with highest honors. She is a CFA charterholder.



### Coho Partners, Ltd. Coho Relative Value Equity

Donna Szeto, CFA, Sr. Research Consultant Source: NEPC and eVestment November 2016

#### **Firm Description**

Coho Partners, Ltd. (Coho) was founded in 1999 by Peter Thompson, CIO. In 2000, Jay Sherrerd, who was a personal friend of Mr. Thompson, made an investment in the firm in return for 35% ownership as a silent partner. At the end of 2009, the firm bought back the equity stake from Mr. Sherrerd's estate. Organized as an S Corporation, Coho is owned by eight active employees. Mr. Thompson is the largest equity owner, with a 48% stake, then the next three largest owners each have 15% interests. As the partnership broadens to other active employees, Mr. Thompson will sell his ownership at a discounted price and new owners will pay him over multiple years.

#### **NEPC Investment Thesis**

Coho's value-added is attributable to the collaborative four-member team supporting the strategy and their intensive financial modeling process focused on sustainable business models. They follow a disciplined process that narrows the universe to what they qualify to be approximately 250 "advantaged" companies with high-quality sustainable businesses. This universe is based on mature companies that have demonstrated sustainability in their businesses over multiple economic cycles. This long look back has two main benefits: it keeps the ideas list relatively static, and it provides them with increased confidence in their models and assumptions. They use a 5-year DDM framework to quantify and compare the attractiveness all the ideas. Normalized assumptions about revenues, margins, capital allocation, and relative valuations are thoroughly researched and regularly updated to ensure stronger conviction in the model output in order to lead to better decision-making.

#### **People**

The investment team is responsible for researching ideas as generalists and maintaining the models on the names. Peter Thompson (CIO) and Brian Kramp (PM) supported the strategy together since 2006. In 2012, Chris Leonard (PM) joined the team and in 2014, Ruairi O'Neill (PM) joined the team. Both hires accomplished the goals of broadening and deepening research coverage, as well as representing the next generation for the firm. They discuss ideas in weekly investment committee meetings, which also include Rick Wayne (PM for HNW clients with no research responsibility). While investment decision require a majority vote, all four generally agree unanimously. All portfolio managers have trading responsibilities for the portfolios they oversee.



### Coho Partners, Ltd. Coho Relative Value Equity

#### **Philosophy**

Coho believes that wealth creation reflects an asymmetric pattern of returns that emphasize downside protection while having some upside participation. Furthermore, they believe that investing in high-quality companies with sustainable and transparent business models is a viable strategy to achieve wealth creation.

#### **Investment Strategy**

Coho employs a fundamental, bottom-up approach to equity investing. Their style reflects a buy-the-business, "win by not losing" mentality. The strategy is benchmark-agnostic and delivers a concentrated portfolio of high-quality, advantaged companies with superior business models exhibiting defensible financial metrics over various economic cycles and a high probability for long-term predictable growth in revenues, earnings, and dividends. The team follows a disciplined and highly selective process to invest in such opportunities when their valuations are attractive, which should produce an asymmetric pattern of returns over time.

The process starts with a universe of 1, 300 to 1, 400 companies with market capitalizations greater than \$3 billion, including ADRs. Idea generation starts with a yearly screen for: 1) strong relative earnings stability and predictability over at least two economic cycles; 2) sustainable absolute and relative growth in earnings, revenues, and dividends; 3) above-average profitability with low capital intensiveness, large recurring revenue streams, strong ROE, and high free cash flow-to-enterprise value; 4) high-quality balance sheets with low debt-to-capital, high S&P ratings, and strong EBITDA-to-debt ratios; 5) shareholder focus with respect to dividend growth, payout ratio, and net stock repurchases. The quantitative process is augmented by the team's experience, qualitative judgment, and common sense to narrow the universe to approximately 250 investment candidates, representing mature, "advantaged" companies. Given their focus on companies with long-term consistency of results, this candidate list is relatively static, 10% name turnover per year, primarily driven by corporate restructuring activities and companies that cut their dividends.



## Coho Partners, Ltd. Coho Relative Value Equity

Financial models are maintained for every investment candidate. They use a 5-year Dividend Discount Model framework based on normalized assumptions for revenues, margins, capital allocation, and relative valuations. They scrutinize the long-term operational and financial metrics driving the assumptions in the DDM. The risk-free rate, which is also normalized, is based on 5-10 year Treasury notes. Relative valuation, based on historical data adjusted for changes in business model, balance sheet, volatility of results, etc., is expressed as P/E relative to the S&P 500. The values generally range between 0.9-1.1. DDMs, based on sector, are updated at least quarterly with new earnings data and any modifications to assumptions. Outputs of the model are: expected 5-year IRR based on current price; range in IRRs at various price points; implied annual growth in revenues, operating income, net income, and EPS; and proportion of expected IRR due to changes in earnings, dividends, and valuation. These results determine their qualitative research priorities; typically 40% of the names appear expensive.

In-depth fundamental research focuses on testing their assumptions used in the financial model. The team analyzes the philosophy, vision, and overall competence of company management through direct discussions and meetings with them, listening to earnings conference calls, and watching conference presentations. They also review financial reports and SEC filings, as well as select Street research. Relevant competitors, industry dynamics, and impact to critical portfolio metrics are also studied. The DDM is then updated and reworked based on applicable information uncovered during the fundamental work. Finally, a position paper is produced outlining various financial and operating metrics which will be monitored prospectively to validate the assumptions in the valuation model and the investment thesis.

The team discusses ideas together. For a stock to be purchased, the dividend discount model must show an expected rate of return of at least 6% over the risk-free alternative. The CIO and PMs each have a vote on buys and sells for the portfolio, with the CIO having ultimate responsibility.

The sell discipline is triggered by any of the following: 1) valuation sale (generally reducing position size) - stock appreciates and expected return falls bellows 2% over the risk-free rate; 2) fundamental sale fundamentals deteriorate from the expectations embedded in the position paper; 3) displacement sale higher conviction in a new idea.



## Coho Partners, Ltd. Coho Relative Value Equity

#### **Portfolio**

The portfolio holds 25-30 companies, which meet their requirement of having an expected rate of return of at least 6% annual premium versus the risk-free rate. Positions are generally initiated at 2% of assets. If the holding maintains attractiveness or the expected rate of return improves, an additional purchase tends to be made to get the position to a full size of 3.5%-4.5% at purchase. Maximum position size at market is 6%. While there are no formal sector or industry limits, the portfolio comprises two types of companies. The first type is what they call Demand Defensive companies, which include consumer staples, healthcare, and integrated oil names. These companies, which make up 60% (+/- 20%) of the portfolio, are most predictable in earnings, dividends, and cash flow. The second type is Economically Sensitive companies, which include capital goods, consumer discretionary, technology, financials, industrials, and materials names. These companies, which make up 40% (+/- 20%) of the portfolio, exhibit stable growth with modest economic cyclicality. Non-US holdings are limited to ADRs of global businesses and will not comprise more than 15% of the portfolio. Typical annual turnover is between 15%-20%.

#### **Performance Expectations**

The performance objective is to outperform the Russell 1000 Value by at least 2%-3% over a full market cycle. However, given their return hurdle for selecting stocks, the strategy also has an absolute return bias. Their Demand Defensive positions should outperform in down markets, while their Economically Sensitive positions should participate in fundamentally-driven up markets. They will struggle in extreme markets led by momentum or low quality cyclical stocks, i.e., periods most often following the close of a recession or the end of a bull market rally.



## Biographies of Key Professionals

### Coho Partners, Ltd. Coho Relative Value Equity

#### **Peter Thompson, Partner, CIO and Portfolio Manager**

Mr. Thompson formed Coho Partners in 1999. He serves as the Chief Investment Officer and is responsible for maintaining the firm's investment philosophy and process. His responsibilities include portfolio management and company research. He is a partner of the firm and a member of the Investment Committee and the Board of Directors. Prior to forming Coho Partners, he spent 10 years with Cooke & Bieler managing stand-alone portfolios and aiding in development of the firm's mutual funds for which he was also the portfolio manager. Mr. Thompson earned his AB in Economics from Princeton University and his MBA from the Colgate Darden School at the University of Virginia. He is an active community leader and serves on several non-profit boards.

#### Brian Kramp, CFA, Partner and Portfolio Manager

Mr. Kramp joined Coho Partners in 2006 and serves as Partner, Portfolio Manager and is a member of the Board of Directors. Prior to joining Coho, Mr. Kramp was a research analyst and portfolio manager at Morgan Stanley / Miller, Anderson, and Sherrerd. When he left Morgan Stanley, he was serving as Executive Director and had responsibilities for portfolio management, equity research and client service on the large cap core and value equity teams. Mr. Kramp earned his BA in Business Administration and Accounting from Muhlenberg College. He is a CFA charterholder.

### Christopher Leonard, CFA, Partner and Portfolio Manager

Mr. Leonard joined Coho Partners in 2012 and serves as Portfolio Manager on the Relative Value strategy. Prior to joining Coho, Mr. Leonard was at Santa Barbara Asset Management where he had primary research coverage for Healthcare and Consumer Staples and served as lead portfolio manager for their Mid-Cap Growth strategy. He previously served as an analyst at T. Rowe Price and Chesapeake Partners with experience covering multiple sectors. Mr. Leonard earned his BS in Commerce with a concentration in Finance from the University of Virginia. He is a CFA charterholder.



## Biographies of Key Professionals

### Coho Partners, Ltd. Coho Relative Value Equity

#### Ruairi O'Neill, CFA, Partner and Portfolio Manager

Mr. O'Neill joined Coho Partners in 2014 and serves as Portfolio Manager on the Relative Value strategy. Prior to joining Coho, Mr. O'Neill was at PNC where he founded the Large Cap Dividend Focus strategy and served as the lead portfolio manager. He was also a senior portfolio manager on the Core, Value and Growth strategies. While at PNC, Mr. O'Neill managed a team of analysts to ensure adherence to the investment process. Before assuming the leadership roles, he was a senior equity research analyst responsible for covering Healthcare, Consumer Staples, Information Technology and Industrial sectors. Mr. O'Neill earned his BCom in Accounting/Finance from the National University of Ireland and his MBA in Marketing from Saint Joseph's University. He is a CFA charterholder.



# Diamond Hill Capital Management, Inc. Diamond Hill Large Cap

Donna Szeto, CFA, Sr. Research Consultant Source: NEPC and eVestment January 2016

#### **Firm Description**

Diamond Hill Capital Management, Inc. (Diamond Hill) originated as the money management division of The Heartland Group of Companies, Inc., which was founded in 1976 and organized as a broker/dealer and investment adviser focused on small community bank stocks. In 1988, the money management division registered with the SEC as an investment adviser as Heartland Advisory Group, Inc. In 1993, the parent company went public under the name The Banc Stock Group. In 2000, the parent company changed their name to Diamond Hill Investment Group, Inc. (DHIL) and reorganized the business to focus on broader investment management services, as well as fund administration and related support services; Heartland Advisory became Diamond Hill. The employees and directors in aggregate own approximately 30% of DHIL common stock. In addition, all Diamond Hill employees have ownership in DHIL stock and invest in Diamond Hill funds.

#### **NEPC Investment Thesis**

Diamond Hill's value-added comes from their experienced investment professionals, their commitment to proprietary fundamental research, and a consistent, disciplined intrinsic value strategy. The team comprises over 30 professionals who conduct bottom-up research the portfolio managers are generalists and the research analysts and associates are industry specialists. Everyone uses an intrinsic value framework based on DCF modeling. Holdings and ideas are followed closely and estimates are reviewed at least quarterly to update their model with new data and updated information. This discipline leads to better decisions for the portfolio. Finally, interests are aligned with clients, as an element of their bonus compensation is tied to performance of the strategies.

#### **People**

There are over 30 investment professionals at Diamond Hill, organized into five broad sector teams and one credit team. Everyone conducts research -- portfolio managers as generalists and analysts and associates as industry specialists. In addition to direct communication with portfolio managers, the analysts manage a research portfolio, which also conveys their thinking and conviction about investments. Lead Portfolio Manager Chuck Bath has sole decision-making authority and accountability for the Large Cap strategy. He has two assistant portfolio managers, Chris Welch and Austin Hawley, who serve as his back-up.



# Diamond Hill Capital Management, Inc. Diamond Hill Large Cap

#### **Philosophy**

Diamond Hill's investment philosophy is rooted in the teachings of Benjamin Graham, to invest as an owner in a company, seek a margin of safety, and employ a long-term horizon.

#### **Investment Strategy**

Diamond Hill employs a bottom-up approach to investing equity assets. They follow a disciplined investment process that emphasizes discount to intrinsic value based on 5-year discounted cash flow modeling. Research is organized into five broad sector teams. In addition to direct communication with portfolio managers, the analysts manage a research portfolio, which also conveys their thinking and conviction about investments. The lead portfolio manager has full decision-making authority; the assistant portfolio managers serve as back-up.

Diamond Hill's investment process is iterative and fluid. The initial universe comprises stocks with market capitalizations \$2.5 billion and above. Fundamental valuation screens are run periodically using varying metrics such as enterprise value/EBITDA, price/free cash flow, trailing & forward P/E, ROE, and price/sales. The universe of stocks is narrowed further and ideas are generated through the investment team's experiences and insights, gained over long periods of time through several market cycles.

Analysts seek to understand the fundamental economic drivers of the business and management's strategy. They consider any knowable and material information that may aid in forecasting future cash flows. This includes an assessment of the level of industry competition, regulatory factors, the threat of technological obsolescence, and a variety of other factors. Fundamental factors used to estimate the intrinsic value include assumptions for: current normalized earnings, growth of normalized earnings, growth in dividend yield, terminal P/E multiple, and required rate of return.



# Diamond Hill Capital Management, Inc. Diamond Hill Large Cap

Valuation analysis focuses on discounted cash flow analysis as the primary methodology used to determine intrinsic value. Private market values, based on prices that presumably informed buyers have paid for control positions, are also considered when appropriate. In every case, a cash flow analysis is done on a going-concern basis, which necessitates a terminal value assumption at the end of Year 5.

Once a potential investment is identified, an analyst will create a financial model. The model contains historical information, as well as projections for at least five years. Analysts update their models and estimates of intrinsic value on at least a quarterly basis, including when earnings are released or new information becomes known. The analyst maintains his/her own model; in addition the assumptions become inputs to Diamond Hill's proprietary investment model. If the analyst has a good understanding of the economics of the business and the value drivers, he/she will build a financial model to determine an estimate of the business's intrinsic value based on normalized earnings power, cash flow, and/or asset values. If the estimate of intrinsic value is sufficiently different than the current market price, the idea becomes a buy candidate.

Ideas are extensively developed at the sector team levels and then recommended to portfolio managers for inclusion in their respective strategies. Each portfolio manager reviews with the relevant analyst the assumptions that go into growth rates, margins and multiples. The analyst and portfolio manager will discuss the analyst's thesis, model assumptions, risk to assumptions and potential upside and downside given possible scenarios for the business. If the portfolio manager disagrees with the analyst's assumptions or thesis, no action is taken. If the portfolio manager agrees with the assumptions and believes that the current stock price is at a sufficient discount from the analyst's estimate of intrinsic value, then the portfolio manager initiates the position. In addition, portfolio managers have the latitude to disagree, in which case they take over maintenance coverage for the holdings. The discount to intrinsic value varies depending on the markets; generally, the minimum discount is 10%.



# Diamond Hill Capital Management, Inc. Diamond Hill Large Cap

The sell discipline is triggered by any of the following events: 1) the stock price and their estimate of intrinsic value converge, where fundamentals do not justify a higher intrinsic value estimate; 2) the holding appreciates beyond the maximum position size; 3) a holding is displaced by a more attractive opportunity; or 4) their intrinsic value estimate is refined such that there is no longer a discount to intrinsic value.

#### **Portfolio**

The portfolio holds 40-60 stocks. Positions are held at weights that reflect the portfolio manager's conviction. The largest positions typically are invested in companies that they believe have the ability to sustain some competitive advantage, have conservative balance sheets, and have shareholder-oriented management. Maximum individual position size at market is 7%. Industries are limited to 20% maximum and sectors are limited to 30% maximum. Cash is typically less than 10%, but in adverse markets can increase to 20%. Historical turnover is 20%-50%.

#### **Performance Expectations**

The strategy targets three different performance goals, all of which are over rolling 5-year periods. The most important is 1.65% net outperformance versus both the Russell 1000 and Russell 1000 Value. The second is to achieve top quartile rank versus peers, using the eVestment Alliance US Large Cap Value equity universe. Lastly, they seek an absolute return goal of CPI plus 5%.



## Biographies of Key Professionals

# Diamond Hill Capital Management, Inc. Diamond Hill Large Cap

#### Chuck Bath, CFA, Managing Director - Investments and Portfolio Manager

Mr. Bath serves as Managing Director Investments and Portfolio Manager for Diamond Hill Capital Management, Inc. He joined Diamond Hill in 2002. Previously, he was a Portfolio Manager and an Analyst with Nationwide Insurance and affiliates from 1982 to 2002, where he managed the Nationwide Fund. From 1979 to 1980, he was an Internal Auditor at USAA. From 1977 to 1979, he was an Auditor at Ernst & Whinney. Mr. Bath earned his BS in Accounting from Miami University and his MBA from The Ohio State University. He is a CFA charterholder.

#### Chris Welch, CFA, Co-Chief Investment Officer and Portfolio Manager

Mr. Welch serves as Co-Chief Investment Officer and Portfolio Manager for Diamond Hill Capital Management, Inc. He joined Diamond Hill in 2005. From 2004 to 2005, he was a Portfolio Manager with Fiduciary Trust Company International. From 2002 to 2004, he was a private investor. From 1995 to 2002, he was a Portfolio Manager and Senior Equity Analyst for Nationwide Insurance and affiliates. Mr. Welch earned his BA in Economics, summa cum laude, from Yale University. He is a CFA charterholder.

#### Austin Hawley, CFA, Co-Chief Investment Officer and Portfolio Manager

Mr. Hawley serves as Co-Chief Investment Officer, Portfolio Manager, and Research Analyst for Diamond Hill Capital Management, Inc. He joined Diamond Hill in 2008. From 2004 to 2008, he was an Equity Analyst at Putnam Investments. From 1999 to 2002, he was an Investment Associate at Putnam Investments. Mr. Hawley earned his BA in History, cum laude, and his MBA from Dartmouth College. He is a CFA charterholder.







## Total Firm Assets

	YTD		2015		2014		2013	
Firm	\$MM	# of accounts						
Large Cap Value Equity								
Bridgeway Capital Management, Inc	6,798	39	5,454	42	4,449	39	3,337	44
Coho Partners, Ltd.	3,102	868	2,497	777	1,973	683	1,387	636
Diamond Hill Capital Management, Inc.	18,056	480	16,834	554	15,651	280	12,180	243



## Total Product Assets and Product Assets by Vehicle Type

	YTD		2015		2014		2013	
Firm/Product	\$MM	# of accounts						
Large Cap Value Equity								
Bridgeway Capital Management - Bridgeway Lg Value	3,538	6	2,358	5	1,215	1	392	1
Coho - Coho Relative Value	3,102	868	2,497	777	1,973	683	1,387	636
Diamond Hill - Diamond Hill Lg Cap	7,318	398	7,105	411	7,494	207	5,862	172

Firm/Product	Separate	te Account Commingled Fund		led Fund	Inst. Mutual Fund	Retail Mutual Fund		
	\$MM	# of accounts	\$MM	# of accounts	\$MM	\$MM		
Large Cap Value Equity								
Bridgeway Capital Management - Bridgeway Lg Value	245	4	0	0	3,292	0		
Coho - Coho Relative Value	2,523	866	0	0	173	195		
Diamond Hill - Diamond Hill Lg Cap	3,435	396	0	0	43	3,840		



## Account Minimums and Fee Schedules

Firm/Product	Separate Account Min. (\$MM)	Commingled Fund Min. (\$MM)	Mutual Fund Min. (\$MM)	Separate Account Fee Schedule	Commingled Fund Fee Schedule	Mutual Fund Ticker and Fee
Large Cap Value Equity						
Bridgeway Capital Management - Bridgeway Lg Value	10	NA	0	First \$50 million - 0.50% Next \$50 million - 0.45% Balance - 0.40%	Not Available	BRLVX - 0.79%
Coho - Coho Relative Value	10	NA	1	First \$25 million - 0.60% Next \$75 million - 0.50% Balance - 0.40%	Not Available	COHIX - 0.79%
Diamond Hill - Diamond Hill Lg Cap	10	NA	1	First \$20 million - 0.60% Balance - 0.50%	Not Available	DHLYX - 0.60%



## Litigation and Contact Information

Firm	Manager's explanation of Prior or Pending Litigation					
Large Cap Value Equity						
Bridgeway Capital Management, Inc	There is no prior or pending litigation.					
Coho Partners, Ltd.	There is no prior or pending litigation.					
Diamond Hill Capital Management, Inc.	There is no pending litigation against the firm. In February 2010, an arbitration panel unanimously decided in favor of Diamond Hill on all issues presented in a case brought by a former client alleging that his account was not properly managed.					

Manager	Location	Location U.S. Client Contact		Email	
Large Cap Value Equity					
Bridgeway Capital Management, Inc	Houston, Texas	Cindy Griffin	(832) 204-8210	cgriffin@bridgeway.com	
Coho Partners, Ltd.	Berwyn, Pennsylvania	Glenn A. Dever	(484) 318-7575	GDever@CohoPartners.com	
Diamond Hill Capital Management, Inc.	Columbus, Ohio	Faith Stevenson	(614) 255-3976	fstevenson@diamond-hill.com	



## Glossary of Terms

**Beta**: A measure of volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. Beta can be thought of as the tendency of a security's returns to respond to swings in the market. A beta of 1 indicates that the security's price will move with the market. A beta of less than 1 indicates that the security's price will be less volatile than the market.

**Correlation**: A statistical measure of how two securities move in relation to each other. Correlation is computed into a correlation coefficient which ranges between -1 to +1. A perfect positive correlation (+1) implies that as one security moves either up or down, the other security will move in the same direction. Alternatively, a perfect negative correlation (-1) means that if one security moves in either direction the security that is perfectly negatively correlated will move by an equal amount in the opposite direction.

**Information Ratio:** A measure of portfolio management's performance against risk and return relative to a benchmark or alternative measure.

**Kurtosis**: A statistical measure used to describe the distribution of observed data around the mean. Kurtosis describes trends in charts. A high kurtosis portrays a chart with fat tails and a low, even distribution, whereas a low kurtosis portrays a chart with skinny tails and a distribution concentrated toward the mean.

**Skewness**: A statistical term used to describe a situation's asymmetry in relation to a normal distribution. A positive skew describes a distribution favoring the right tail, whereas a negative skew describes a distribution favoring the left tail.

**Tracking Error:** A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark. Tracking errors are reported as a "standard deviation percentage" difference. It tells you the difference between the return you received and that of the benchmark you were trying to copy.



### Disclaimer

- This report contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, policies or portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.
- Past performance is no guarantee of future results.
- Information on market indices was provided by sources external to NEPC, and other data used to prepare this report was obtained directly from the investment manager(s). While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
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