BROWN CAPITAL MANAGEMENT

# Presentation for:

## Howard County Retirement Plans

October 26, 2017

1201 North Calvert Street
Baltimore, Maryland 21202
telephone 410-837-3234
facsimile 410-837-6525
www.browncapital.com

*BROWN CAPITAL MANAGEMENT*

# MISSION STATEMENT

## *WHO WE ARE AND WHAT WE STAND FOR*

Brown Capital Management will remain a small/medium sized, highly focused firm providing equity and balanced account investment management services to its clients. By attracting and maintaining an experienced, highly motivated and stable professional and administrative staff, we offer our clients high quality services to meet their investment needs.

## *GUIDING PRINCIPALS*

### Clients

- Deliver superior investment returns consistent with the investment objective
- Provide high quality service

### Employees

- Brown Capital Management requires every employee to strive for excellence in both internal and external dealings and all relationships. The firm will provide a working environment and incentives that attract and retain talented people. All employees' efforts will be focused on our reason for being -- superior investment results and service to our clients.

### Community

- The firm believes that those who are blessed to earn and achieve a great deal in a community should give something back. Employees are encouraged to be active in their respective communities.

### Integrity

- We observe the highest ethical and professional standards in the conduct of our business.
- Integrity is key to the firm in its relations with clients and employees.

*BROWN CAPITAL MANAGEMENT*

# PROFILE

*As of September 30, 2017*

- Pioneers in Growth at a Reasonable Price (GARP) Investing Since 1983
  - Exceptional companies
  - Benchmark agnostic
  - Valuation legacy

- $9.5 Billion in Assets Under Management

- Independent Corporation - 100% employee owned

- State of the Art Technology
  - Entrepreneurial spirit
  - Growth through relationships – not constrained by number of assets*

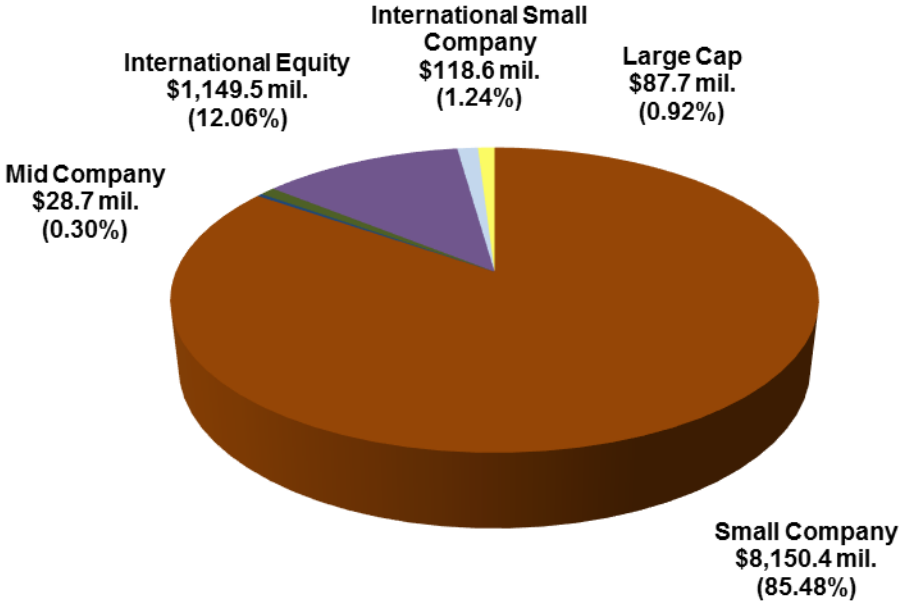
*Exception is the Small Company Service

*BROWN CAPITAL MANAGEMENT*

# ASSETS BY STRATEGY

*As of September 30, 2017*

**Total Assets @ $9,534.9 Million**

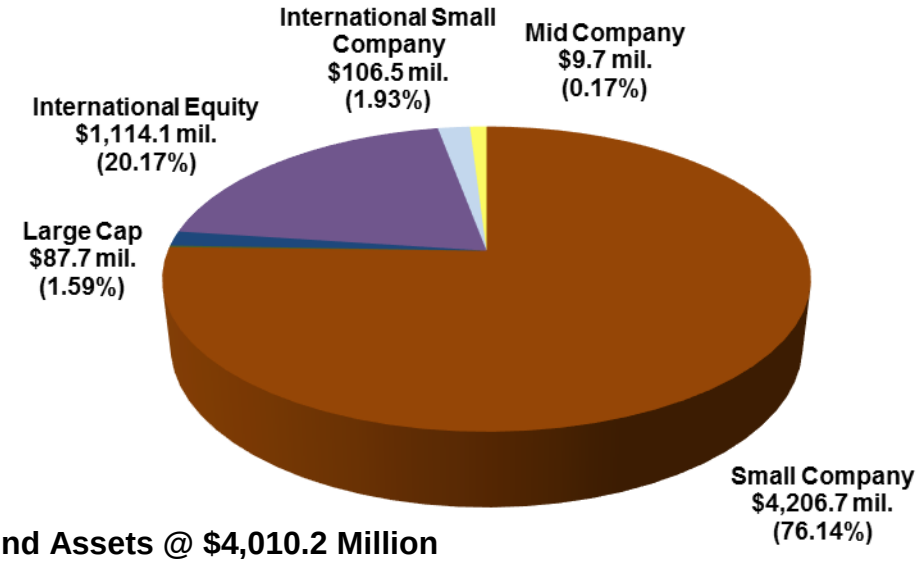


*BROWN CAPITAL MANAGEMENT*

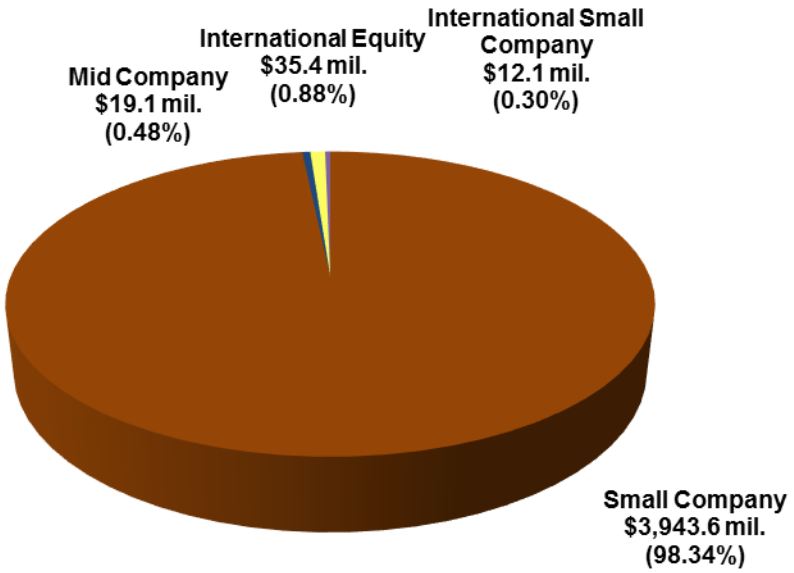
# ASSETS BY PRODUCT TYPE

*As of September 30, 2017*

## Separate Accounts @ $5,524.7 Million




## Mutual Fund Assets @ $4,010.2 Million



*BROWN CAPITAL MANAGEMENT*

# FIVE LARGEST RELATIONSHIPS BY PRODUCT TYPE

*As of September 30, 2017*

| **Separate Accounts** | **Service/Product** | **Assets ($mm)** |
|---|---|---|
| New York State Common Retirement Fund | Small Company Service | $1,266.4 |
| Sovereign Wealth Fund (unable to disclose name) | Small Company Service | $721.1 |
| New York City Teachers', Police, and Fire Retirement Funds | Small Company Service | $632.8 |
| Maryland State Retirement and Pension System | International Equity Service | $525.3 |
| Wespath Investment Management | Small Company Service | $487.9 |
| **Mutual Funds** | | |
| Charles Schwab & Co. Inc. | Small Co/Mid Co/International Equity Funds | $1,351.2 |
| NFS LLC FEBO | Small Co/Mid Co/International Equity/International Small Funds | $796.9 |
| Pershing LLC | Small Company Fund | $349.6 |
| Edward Jones & Co. | Small Company Fund | $320.9 |
| TD Ameritrade Inc. | Small Company/Mid Company Funds | $216.2 |

*Representative Clients Disclosure*

1. BCM does not use performance-based criteria in determining which clients to include in the representative client list.
2. It is not known whether the listed clients approve or disapprove of BCM or the advisory services provided.
3. Only institutional clients who have given permission to use their names are identified in the representative list.

*BROWN CAPITAL MANAGEMENT*

# INVESTMENT PROFESSIONALS

*As of September 30, 2017*

| | *Graduate Education* | *Industry* | *Experience BCM* | *Non-Industry* |
|---|---|---|---|---|
| **Large/Mid Company Team** | | | | |
| Kayode O. Aje, CFA<br>Director/Senior Analyst | Yale School of Management | 12 | 1 | 3 |
| Eddie C. Brown, CFA, CIC<br>Portfolio Manager/Analyst | Indiana University Graduate School of Business | 47 | 34 | 5 |
| Walton D. Pearson<br>Portfolio Manager/Analyst | Harvard Graduate School of Business Administration | 34 | 12 | 0 |
| Kwame C. Webb, CFA<br>Director/Senior Analyst | The Wharton School, University of Pennsylvania | 13 | 0 | 0 |
| **Small Company Team** | | | | |
| Daman C. Blakeney<br>Portfolio Manager/Analyst | Fuqua School of Business, Duke University | 18 | 9 | 6 |
| Damien L. Davis, CFA<br>Portfolio Manager/Analyst | Columbia Business School | 14 | 14 | 0 |
| Andrew J. Fones<br>Portfolio Manager/Analyst | Tulane University AB Freeman School of Business | 17 | 3 | 3 |
| Robert E. Hall<br>Portfolio Manager/Analyst | Harvard Graduate School of Business Administration | 53 | 24 | 8 |
| Kempton M. Ingersol<br>Portfolio Manager/Analyst | The University of Michigan Graduate School of Business | 28 | 18 | 0 |
| Keith A. Lee<br>Portfolio Manager/Analyst | The University of Virginia Darden Graduate School of Business Administration | 33 | 26 | 3 |
| **International Team** | | | | |
| Duncan J. Evered<br>Portfolio Manager/Analyst | Stanford Graduate School of Business | 33 | 6 | 1 |
| Maurice L. Haywood, CFA<br>Portfolio Manager/Analyst | J.L. Kellogg Graduate School of Management, Northwestern University | 30 | 17 | 0 |

*BROWN CAPITAL MANAGEMENT*

# PHILOSOPHY/IDENTITY STATEMENT

*Small Company Service*

- Exceptional Small Growth Companies
  - Revenue of $250 million or less at the time of initial investment
  - Early identification of companies that save time, lives, money or headaches or provide exceptional value to consumers.
  - Sustain transactions of mutual benefit
  - Earnings growth hinges on four specific ownership criteria

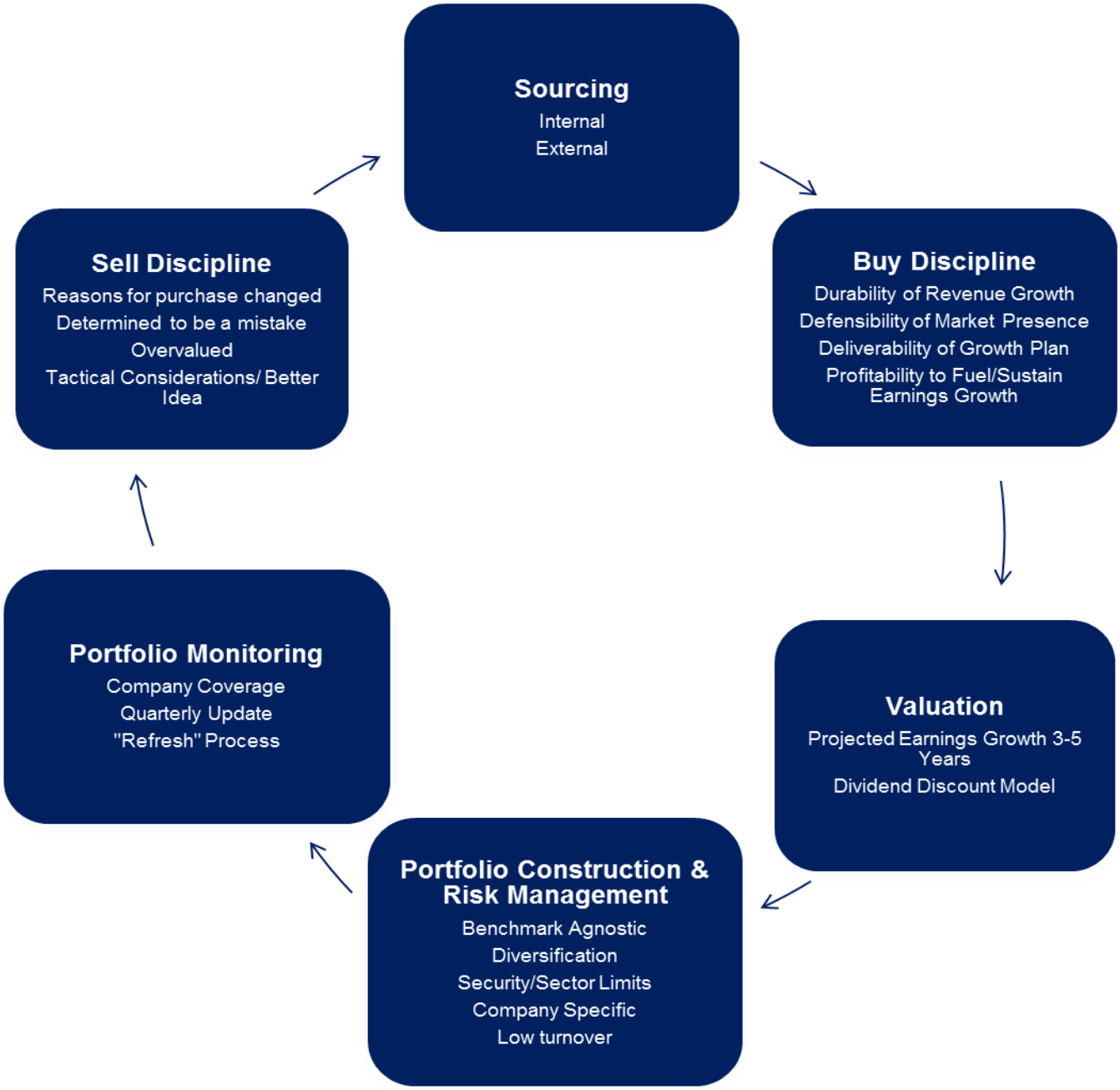
- Benchmark Agnostic
  - Benchmark awareness is a potential distraction
  - Managing to a benchmark can drive mediocrity in returns

- Valuation Predicated on Legacy of GARP Investing
  - Growth prospects drive attractiveness

*BROWN CAPITAL MANAGEMENT*

# INVESTMENT PROCESS

*Small Company Service*



*BROWN CAPITAL MANAGEMENT*

# PORTFOLIO CONSTRUCTION & RISK MANAGEMENT

*Small Company Service*

- Benchmark Agnostic

- Diversification - 40-65 holdings

- Security Limits – no more than 5% at cost, 6% at market

- Sector Limits – no more than one-third in any proprietary category
  - Business Services
  - Information/Knowledge Management
  - Consumer Related
  - Industrial Products & Systems
  - Medical/Health Care
  - Miscellaneous

- Company Specific – in depth analysis of individual holdings

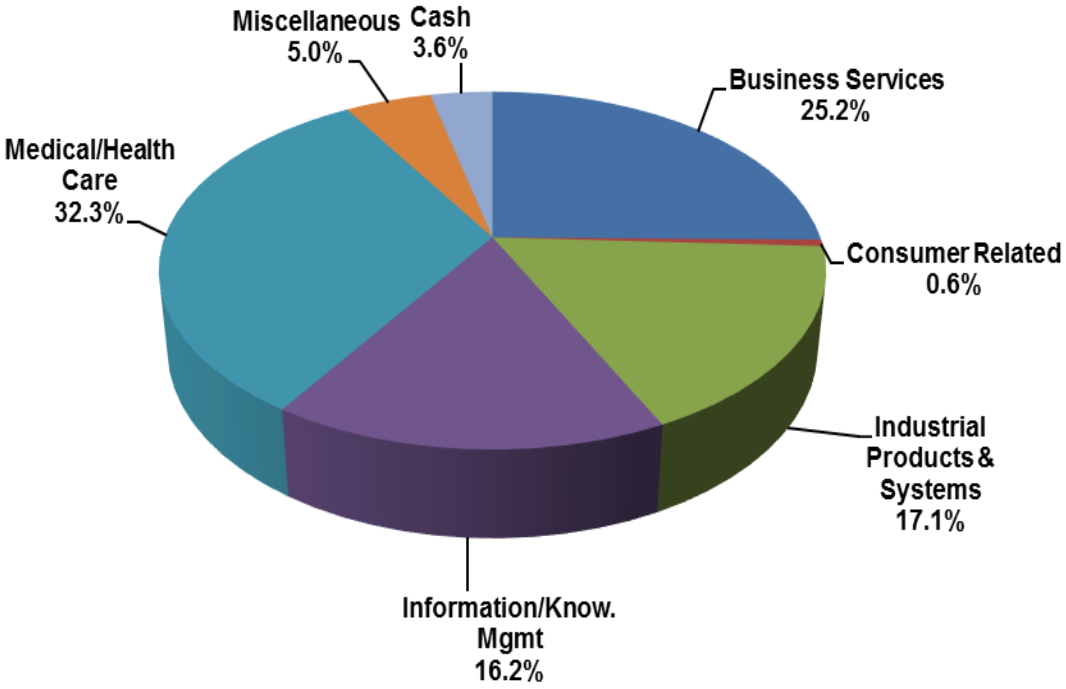
- Low Turnover / Long-Term Oriented
  - 3-5 year evaluation horizon
  - Insistence on a focused, disciplined, quality-oriented selection framework
  - Distinct mindset: patience and tolerance

*BROWN CAPITAL MANAGEMENT*

# SECTOR DIVERSIFICATION

*Howard County Retirement Plans*

*As of September 30, 2017*



BROWN CAPITAL MANAGEMENT

# PERFORMANCE SUMMARY
# GROSS OF FEES

## *Howard County Retirement Plans*

*September 30, 2017*

**PORTFOLIO COMPOSITION**

| | Market Value | Pct. Assets | Cur. Yield |
|---|---|---|---|
| EQUITIES | 13,168,286.10 | 96.4 | 0.2 |
| FIXED INCOME | 0.00 | 0.0 | - |
| CASH AND EQUIVALENTS | 491,741.77 | 3.6 | 0.8 |
| OTHER | 0.00 | 0.0 | - |
| TOTAL PORTFOLIO | 0.00 | 0.0 | - |
| WARRANTS | 0.00 | 0.0 | - |
| Total | 13,660,027.87 | 100.0 | 0.3 |

**CHANGE IN PORTFOLIO**

| | |
|---|---|
| Portfolio Value on 08-01-11 | 5,000,000.00 |
| Net Additions/Withdrawals | -1,233,318.20 |
| Realized Gains | 4,096,997.98 |
| Unrealized Gains | 5,494,642.21 |
| Income Received | 301,705.88 |
| Portfolio Value on 09-30-17 | 13,660,027.87 |

**TIME WEIGHTED RETURN**

| | Quarter To Date | Year To Date | Last 12 Months | Annualized Last 3 Years | Annualized Last 5 Years | Annualized Inception To Date |
|---|---|---|---|---|---|---|
| Account | 5.00 | 23.59 | 22.90 | 17.98 | 19.97 | 18.96 |
| Russell 2000 Growth | 6.22 | 16.81 | 20.98 | 12.17 | 14.28 | 12.63 |

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs. The performance figures do not reflect the deduction of investment advisory fees. This return will be reduced by the advisory fees and any other expenses that may incur in the management of the investment advisory account.

*BROWN CAPITAL MANAGEMENT*

# CONTRIBUTION TO RETURN*

*Howard County Retirement Plans*

*June 30, 2017 through September 30, 2017*

| Company Name | % Contribution To Return |
|---|---|
| **10 Best Performers** | |
| Cognex Corporation | 1.57 |
| Quidel Corporation | 1.42 |
| Cantel Medical Corp. | 1.00 |
| Proto Labs, Inc. | 0.70 |
| Sun Hydraulics Corporation | 0.61 |
| Neogen Corporation | 0.57 |
| Guidewire Software, Inc. | 0.52 |
| Vocera Communications, Inc. | 0.41 |
| Paycom Software, Inc. | 0.39 |
| ABIOMED, Inc. | 0.39 |
| **10 Worst Performers** | |
| Ellie Mae, Inc. | -0.82 |
| Manhattan Associates, Inc. | -0.55 |
| Veeva Systems Inc Class A | -0.43 |
| PROS Holdings, Inc. | -0.32 |
| Ironwood Pharmaceuticals, Inc. Class A | -0.28 |
| Abaxis, Inc. | -0.21 |
| Quality Systems, Inc. | -0.20 |
| NetScout Systems, Inc. | -0.19 |
| NIC Inc. | -0.13 |
| Cardiovascular Systems, Inc. | -0.13 |

* *Source: FactSet Research Systems*

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs. The performance figures do not reflect the deduction of investment advisory fees. This return will be reduced by the advisory fees and any other expenses that may incur in the management of the investment advisory account.

*BROWN CAPITAL MANAGEMENT*

# CONTRIBUTION TO RETURN*

*Howard County Retirement Plans*

*December 31, 2016 through September 30, 2017*

| Company Name | % Contribution To Return |
|---|---|
| **10 Best Performers** | |
| Cognex Corporation | 3.54 |
| Medidata Solutions, Inc. | 2.47 |
| Quidel Corporation | 1.91 |
| Veeva Systems Inc Class A | 1.83 |
| Blackbaud, Inc. | 1.71 |
| Proto Labs, Inc. | 1.65 |
| Guidewire Software, Inc. | 1.62 |
| Paycom Software, Inc. | 1.37 |
| ANSYS, Inc. | 1.31 |
| Incyte Corporation | 1.21 |
| **10 Worst Performers** | |
| Manhattan Associates, Inc. | -1.02 |
| NIC Inc. | -0.74 |
| Zoe's Kitchen, Inc. | -0.60 |
| Meridian Bioscience, Inc. | -0.34 |
| Abaxis, Inc. | -0.34 |
| Balchem Corporation | -0.26 |
| Endologix, Inc. | -0.21 |
| Geospace Technologies Corporation | -0.08 |
| Ironwood Pharmaceuticals, Inc. Class A | -0.08 |
| Cardiovascular Systems, Inc. | -0.04 |

* *Source: FactSet Research Systems*

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs. The performance figures do not reflect the deduction of investment advisory fees. This return will be reduced by the advisory fees and any other expenses that may incur in the management of the investment advisory account.

*BROWN CAPITAL MANAGEMENT*

# CONTRIBUTION TO RETURN*

*Howard County Retirement Plans*

*September 30, 2016 through September 30, 2017*

| Company Name | % Contribution To Return |
|---|---|
| **10 Best Performers** | |
| Cognex Corporation | 4.80 |
| Medidata Solutions, Inc. | 1.84 |
| Quidel Corporation | 1.83 |
| Veeva Systems Inc Class A | 1.75 |
| Neogen Corporation | 1.72 |
| Incyte Corporation | 1.58 |
| Blackbaud, Inc. | 1.51 |
| Sun Hydraulics Corporation | 1.37 |
| Vocera Communications, Inc. | 1.30 |
| Paycom Software, Inc. | 1.26 |
| **10 Worst Performers** | |
| Manhattan Associates, Inc. | -1.47 |
| Endologix, Inc. | -0.86 |
| Ellie Mae, Inc. | -0.63 |
| NIC Inc. | -0.57 |
| Zoe's Kitchen, Inc. | -0.51 |
| Meridian Bioscience, Inc. | -0.50 |
| Abaxis, Inc. | -0.26 |
| Ironwood Pharmaceuticals, Inc. Class A | -0.08 |
| Tyler Technologies, Inc. | -0.06 |
| Geospace Technologies Corporation | -0.04 |

* *Source: FactSet Research Systems*

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs. The performance figures do not reflect the deduction of investment advisory fees. This return will be reduced by the advisory fees and any other expenses that may incur in the management of the investment advisory account.

*BROWN CAPITAL MANAGEMENT*

# CONTRIBUTION TO RETURN*

*Howard County Retirement Plans*

*September 30, 2014 through September 30, 2017*

| Company Name | % Contribution To Return |
|---|---|
| **10 Best Performers** | |
| Cognex Corporation | 7.27 |
| Cantel Medical Corp. | 6.55 |
| Incyte Corporation | 6.37 |
| Blackbaud, Inc. | 5.22 |
| Tyler Technologies, Inc. | 5.03 |
| Veeva Systems Inc Class A | 4.05 |
| Neogen Corporation | 3.64 |
| Medidata Solutions, Inc. | 3.09 |
| Manhattan Associates, Inc. | 2.95 |
| FEI Company | 2.71 |
| **10 Worst Performers** | |
| NetScout Systems, Inc. | -1.86 |
| CARBO Ceramics Inc. | -1.06 |
| Geospace Technologies Corporation | -0.86 |
| Endologix, Inc. | -0.78 |
| PROS Holdings, Inc. | -0.64 |
| Zoe's Kitchen, Inc. | -0.51 |
| EnerNOC, Inc. | -0.45 |
| Abaxis, Inc. | -0.34 |
| DMC Global Inc. | -0.26 |
| Rovi Corp. | -0.25 |

* *Source: FactSet Research Systems*

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs. The performance figures do not reflect the deduction of investment advisory fees. This return will be reduced by the advisory fees and any other expenses that may incur in the management of the investment advisory account.

*BROWN CAPITAL MANAGEMENT*

# CONTRIBUTION TO RETURN*

*Howard County Retirement Plans*

*September 30, 2012 through September 30, 2017*

| Company Name | % Contribution To Return |
|---|---|
| **10 Best Performers** | |
| Cognex Corporation | 13.61 |
| Tyler Technologies, Inc. | 12.10 |
| Medidata Solutions, Inc. | 11.93 |
| Cantel Medical Corp. | 10.84 |
| Manhattan Associates, Inc. | 10.57 |
| Incyte Corporation | 10.36 |
| Blackbaud, Inc. | 8.70 |
| FEI Company | 6.93 |
| Neogen Corporation | 6.48 |
| Measurement Specialties, Inc. | 6.27 |
| **10 Worst Performers** | |
| Geospace Technologies Corporation | -1.43 |
| Endologix, Inc. | -0.78 |
| Zoe's Kitchen, Inc. | -0.51 |
| Vocera Communications, Inc. | -0.51 |
| Ironwood Pharmaceuticals, Inc. Class A | -0.08 |
| Cardiovascular Systems, Inc. | -0.04 |
| IRIS International Inc. | 0.01 |
| Peet's Coffee & Tea Inc. | 0.01 |
| EnerNOC, Inc. | 0.02 |
| Medicis Pharmaceutical Corp. | 0.09 |

* *Source: FactSet Research Systems*

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs. The performance figures do not reflect the deduction of investment advisory fees. This return will be reduced by the advisory fees and any other expenses that may incur in the management of the investment advisory account.

# APPENDIX

BROWN CAPITAL MANAGEMENT

# PORTFOLIO APPRAISAL

## *Howard County Retirement Plans*

*September 30, 2017*

| Quantity | Security | Price | Market Value | % of Market | Unit Income | Annual Income | Cur. Yield |
|---|---|---|---|---|---|---|---|
| **EQUITIES** | | | | | | | |
| Business Services | | | | | | | |
| 19,770.000 | ACI Worldwide Inc. | 22.78 | 450,360.60 | 3.3 | 0.00 | 0.00 | 0.0 |
| 3,872.000 | ANSYS Inc. | 122.73 | 475,210.56 | 3.5 | 0.00 | 0.00 | 0.0 |
| 4,117.000 | Ellie Mae Inc | 82.13 | 338,129.21 | 2.5 | 0.00 | 0.00 | 0.0 |
| 6,369.000 | Guidewire Software Inc | 77.86 | 495,890.34 | 3.6 | 0.00 | 0.00 | 0.0 |
| 9,687.000 | NIC Inc. | 17.15 | 166,132.05 | 1.2 | 0.32 | 3,099.84 | 1.9 |
| 7,409.000 | Paycom Software Inc. | 74.96 | 555,378.64 | 4.1 | 0.00 | 0.00 | 0.0 |
| 12,523.000 | PROS Holdings | 24.13 | 302,179.99 | 2.2 | 0.00 | 0.00 | 0.0 |
| 3,788.000 | Tyler Technologies Inc. | 174.32 | 660,324.16 | 4.8 | 0.00 | 0.00 | 0.0 |
| | | | 3,443,605.55 | 25.2 | | 3,099.84 | 0.1 |
| Consumer Related | | | | | | | |
| 6,254.000 | Zoe's Kitchen Inc | 12.63 | 78,988.02 | 0.6 | 0.00 | 0.00 | 0.0 |
| Industrial Products & Systems | | | | | | | |
| 5,367.000 | Balchem Corp. | 81.29 | 436,283.43 | 3.2 | 0.38 | 2,039.46 | 0.5 |
| 6,692.000 | Cognex Corp. | 110.28 | 737,993.76 | 5.4 | 0.34 | 2,275.28 | 0.3 |
| 2,539.000 | Diodes Inc. | 29.93 | 75,992.27 | 0.6 | 0.00 | 0.00 | 0.0 |
| 5,008.000 | DMC Global Inc. | 16.90 | 84,635.20 | 0.6 | 0.08 | 400.64 | 0.5 |
| 3,340.000 | Geospace Technologies Corp | 17.82 | 59,518.80 | 0.4 | 0.00 | 0.00 | 0.0 |
| 7,056.000 | Proto Labs Inc. | 80.30 | 566,596.80 | 4.1 | 0.00 | 0.00 | 0.0 |
| 6,832.000 | Sun Hydraulics Corp | 54.00 | 368,928.00 | 2.7 | 0.36 | 2,459.52 | 0.7 |
| | | | 2,329,948.26 | 17.1 | | 7,174.90 | 0.3 |
| Information/Knowledge Management | | | | | | | |
| 10,800.000 | American Software Inc. (Cl A) | 11.36 | 122,688.00 | 0.9 | 0.44 | 4,752.00 | 3.9 |
| 7,658.000 | Blackbaud Inc. | 87.80 | 672,372.40 | 4.9 | 0.48 | 3,675.84 | 0.5 |
| 10,734.000 | Manhattan Associates Inc. | 41.57 | 446,212.38 | 3.3 | 0.00 | 0.00 | 0.0 |
| 11,257.000 | Netscout Systems Inc. | 32.35 | 364,163.95 | 2.7 | 0.00 | 0.00 | 0.0 |
| 16,913.000 | Quality Systems Inc. | 15.73 | 266,041.49 | 1.9 | 0.00 | 0.00 | 0.0 |
| 10,910.000 | Vocera Communications Inc. | 31.37 | 342,246.70 | 2.5 | 0.00 | 0.00 | 0.0 |
| | | | 2,213,724.92 | 16.2 | | 8,427.84 | 0.4 |
| Medical/Health Care | | | | | | | |
| 3,112.000 | Abaxis Inc. | 44.65 | 138,950.80 | 1.0 | 0.56 | 1,742.72 | 1.3 |
| 2,000.000 | Abiomed Inc | 168.60 | 337,200.00 | 2.5 | 0.00 | 0.00 | 0.0 |
| 3,491.000 | Bio-Techne Corp | 120.89 | 422,026.99 | 3.1 | 1.28 | 4,468.48 | 1.1 |
| 7,999.000 | Cantel Medical Corp. | 94.17 | 753,265.83 | 5.5 | 0.14 | 1,119.86 | 0.1 |
| 3,890.000 | Cardiovascular Systems Inc | 28.15 | 109,503.50 | 0.8 | 0.00 | 0.00 | 0.0 |

BROWN CAPITAL MANAGEMENT

# PORTFOLIO APPRAISAL

## *Howard County Retirement Plans*

*September 30, 2017*

| Quantity | Security | Price | Market Value | % of Market | Unit Income | Annual Income | Cur. Yield |
|---|---|---|---|---|---|---|---|
| 14,135.000 | Endologix Inc | 4.46 | 63,042.10 | 0.5 | 0.00 | 0.00 | 0.0 |
| 1,461.000 | Incyte Corp. | 116.74 | 170,557.14 | 1.2 | 0.00 | 0.00 | 0.0 |
| 3,428.000 | Inogen Inc | 95.10 | 326,002.80 | 2.4 | 0.00 | 0.00 | 0.0 |
| 11,544.000 | Ironwood Pharmaceuticals Inc | 15.77 | 182,048.88 | 1.3 | 0.00 | 0.00 | 0.0 |
| 8,997.000 | Medidata Solutions | 78.06 | 702,305.82 | 5.1 | 0.00 | 0.00 | 0.0 |
| 8,656.000 | Meridian Bioscience Inc. | 14.30 | 123,780.80 | 0.9 | 0.50 | 4,328.00 | 3.5 |
| 10,951.000 | Quidel Corporation | 43.86 | 480,310.86 | 3.5 | 0.00 | 0.00 | 0.0 |
| 10,801.000 | Veeva Systems Inc | 56.41 | 609,284.41 | 4.5 | 0.00 | 0.00 | 0.0 |
| | | | 4,418,279.93 | 32.3 | | 11,659.06 | 0.3 |
| Miscellaneous | | | | | | | |
| 8,827.000 | Neogen Corp. | 77.46 | 683,739.42 | 5.0 | 0.00 | 0.00 | 0.0 |
| | | | 13,168,286.10 | 96.4 | | 30,361.64 | 0.2 |
| **CASH AND EQUIVALENTS** | | | | | | | |
| | Accrued Income - USD | | 100.16 | 0.0 | 0.00 | 0.00 | 0.0 |
| | GSTIF 25 BPS | | 491,641.61 | 3.6 | 0.79 | 3,896.14 | 0.8 |
| | | | 491,741.77 | 3.6 | | 3,896.14 | 0.8 |
| | | | 491,741.77 | 3.6 | | 3,896.14 | 0.8 |
| TOTAL PORTFOLIO | | | 13,660,027.87 | 100.0 | | 34,257.78 | 0.3 |

BROWN CAPITAL MANAGEMENT

# PURCHASE AND SALE

## *Howard County Retirement Plans*

*From 07-01-2017 To 09-30-2017*

| Trade Date | Settle Date | Quantity | Security | Unit Price | Amount |
|---|---|---|---|---|---|
| **PURCHASES** | | | | | |
| 08-02-2017 | 08-07-2017 | 46.000 | Ellie Mae Inc | 88.28 | 4,060.89 |
| 08-03-2017 | 08-08-2017 | 75.000 | Ellie Mae Inc | 89.47 | 6,710.49 |
| 08-11-2017 | 08-16-2017 | 112.000 | Ellie Mae Inc | 84.01 | 9,409.42 |
| 08-14-2017 | 08-17-2017 | 144.000 | Ellie Mae Inc | 85.86 | 12,363.98 |
| 08-15-2017 | 08-18-2017 | 72.000 | Ellie Mae Inc | 85.61 | 6,163.78 |
| 08-02-2017 | 08-07-2017 | 175.000 | Paycom Software Inc. | 68.06 | 11,911.32 |
| 08-03-2017 | 08-08-2017 | 145.000 | Paycom Software Inc. | 69.26 | 10,043.27 |
| 08-04-2017 | 08-09-2017 | 69.000 | Paycom Software Inc. | 69.87 | 4,821.31 |
| | | | | | 65,484.46 |
| **SALES** | | | | | |
| 07-06-2017 | 07-11-2017 | 52.000 | Abaxis Inc. | 52.36 | 2,722.86 |
| 07-07-2017 | 07-12-2017 | 139.000 | Abaxis Inc. | 52.32 | 7,272.74 |
| 07-10-2017 | 07-13-2017 | 46.000 | Abaxis Inc. | 52.22 | 2,402.18 |
| 07-11-2017 | 07-14-2017 | 165.000 | Abaxis Inc. | 52.30 | 8,629.09 |
| 07-12-2017 | 07-17-2017 | 69.000 | Abaxis Inc. | 52.57 | 3,627.27 |
| 07-13-2017 | 07-18-2017 | 40.000 | Abaxis Inc. | 51.41 | 2,056.44 |
| 07-14-2017 | 07-19-2017 | 63.000 | Abaxis Inc. | 51.77 | 3,261.42 |
| 07-17-2017 | 07-20-2017 | 34.000 | Abaxis Inc. | 51.90 | 1,764.48 |
| 08-01-2017 | 08-04-2017 | 190.000 | Cognex Corp. | 106.73 | 20,278.23 |
| 08-01-2017 | 08-04-2017 | 92.000 | Cognex Corp. | 105.17 | 9,675.85 |
| 08-02-2017 | 08-07-2017 | 176.000 | Cognex Corp. | 102.22 | 17,991.23 |
| 08-02-2017 | 08-07-2017 | 179.000 | Cognex Corp. | 102.19 | 18,291.13 |
| 08-03-2017 | 08-08-2017 | 137.000 | Cognex Corp. | 102.07 | 13,983.31 |
| 08-04-2017 | 08-09-2017 | 77.000 | Cognex Corp. | 100.55 | 7,742.14 |
| 08-07-2017 | 08-10-2017 | 25.000 | Cognex Corp. | 100.56 | 2,514.05 |
| 08-31-2017 | 09-06-2017 | 130.000 | Cognex Corp. | 108.87 | 14,152.71 |
| 09-01-2017 | 09-07-2017 | 50.000 | Cognex Corp. | 108.54 | 5,426.84 |
| 09-19-2017 | 09-21-2017 | 64.000 | Cognex Corp. | 114.39 | 7,320.80 |
| 09-20-2017 | 09-22-2017 | 76.000 | Cognex Corp. | 113.43 | 8,620.66 |
| 09-21-2017 | 09-25-2017 | 94.000 | Cognex Corp. | 113.32 | 10,652.42 |
| 09-14-2017 | 09-18-2017 | 28.000 | Guidewire Software Inc | 78.12 | 2,187.48 |
| 09-15-2017 | 09-19-2017 | 28.000 | Guidewire Software Inc | 77.48 | 2,169.57 |
| 09-18-2017 | 09-20-2017 | 69.000 | Guidewire Software Inc | 78.42 | 5,410.89 |
| 09-19-2017 | 09-21-2017 | 51.000 | Guidewire Software Inc | 77.76 | 3,965.82 |
| 09-20-2017 | 09-22-2017 | 47.000 | Guidewire Software Inc | 77.28 | 3,632.30 |
| 09-21-2017 | 09-25-2017 | 50.000 | Guidewire Software Inc | 77.15 | 3,857.46 |
| 09-22-2017 | 09-26-2017 | 84.000 | Guidewire Software Inc | 78.34 | 6,580.16 |
| 09-25-2017 | 09-27-2017 | 28.000 | Guidewire Software Inc | 77.32 | 2,165.07 |
| 09-26-2017 | 09-28-2017 | 44.000 | Guidewire Software Inc | 76.79 | 3,378.61 |
| 09-27-2017 | 09-29-2017 | 85.000 | Guidewire Software Inc | 76.84 | 6,531.53 |
| 09-28-2017 | 10-02-2017 | 85.000 | Guidewire Software Inc | 76.98 | 6,543.70 |
| 09-29-2017 | 10-03-2017 | 68.000 | Guidewire Software Inc | 77.55 | 5,273.38 |
| 07-06-2017 | 07-11-2017 | 139.000 | Medidata Solutions | 77.68 | 10,797.98 |

BROWN CAPITAL MANAGEMENT

# PURCHASE AND SALE

## *Howard County Retirement Plans*

*From 07-01-2017 To 09-30-2017*

| Trade Date | Settle Date | Quantity | Security | Unit Price | Amount |
|---|---|---|---|---|---|
| 07-07-2017 | 07-12-2017 | 278.000 | Medidata Solutions | 79.02 | 21,968.11 |
| | | | | | 252,847.91 |

*BROWN CAPITAL MANAGEMENT*
**BIOGRAPHICAL SKETCH**

**Daman C. Blakeney – Small Company Team**
**Managing Director and Senior Portfolio Manager Daman C. Blakeney joined Brown** Capital Management in 2008. Prior to joining the firm, he served as senior equity research analyst at Voyageur Asset Management. Preceding that, he was an equity research analyst at Victory Capital Management. Daman received an MBA from the Fuqua School of Business at Duke University and a BA in economics from the University of North Carolina. He is a member of the CFA Institute.

**Damien L. Davis, CFA – Small Company Team**
**Managing Director and Portfolio Manager Damien L. Davis** was originally hired at Brown Capital Management in 2003 as a research associate. While on an educational leave from the firm beginning in 2008, he attended Columbia Business School, where he earned his MBA in finance. He resumed employment at the firm in 2010. Damien holds a BA in psychology from Princeton University and is a CFA charterholder.

**Andrew J. Fones – Small Company Team**
**Director and Portfolio Manager Andrew J. Fones** joined Brown Capital Management in 2014. Prior to joining the firm, Andrew was an analyst at T. Rowe Price and an analyst at UBS. Andrew earned an MBA in finance and accounting from Tulane University and a BEng in civil engineering from the University of Nottingham in the U.K.

**Robert E. Hall – Small Company Team**
Managing Director and Senior Portfolio Manager Robert E. Hall joined Brown Capital Management in 1993. Prior to this, Bob was a partner at Emerging Growth Partners, Inc. and a portfolio manager at T. Rowe Price Associates, Inc. He earned an MBA from Harvard Graduate School of Business Administration and a BS in engineering from Johns Hopkins University.

**Kempton M. Ingersol – Small Company Team**
**Managing Director and Senior Portfolio Manager Kempton M. Ingersol** joined Brown Capital Management in 1999. Prior to this, Kempton was an analyst in investment banking at Lehman Brothers, a VP at Dain Rauscher Inc., and a VP at Grigsby Brandford & Co. Kempton holds an MBA in finance from the University of Michigan and a BA in political science from Amherst College.

**Keith A. Lee – Small Company Team**
President and Chief Operating Officer Keith A. Lee joined Brown Capital Management in 1991 to launch the Small Company Strategy. Keith is a member of the firm's board of directors and is also chairman of the management committee, the governing body of the firm. He holds an MBA from the University of Virginia's Darden Graduate School of Business Administration and a BA in psychology from the University of Virginia.

*BROWN CAPITAL MANAGEMENT*

# IMPORTANT INFORMATION ABOUT BROWN CAPITAL MANAGEMENT, LLC AND YOUR ACCOUNT:

This information is for one-on-one client use in response to a specific request. This material is not financial advice. BCM is a registered investment advisor. More information about the advisor, including its investment strategies and objectives, can be obtained by visiting www.browncapital.com. A copy of BCM's disclosure statement (Part 2 of Form ADV) is available, without charge, upon request. Our Form ADV contains information regarding our Firm's business practices and the backgrounds of our key personnel. Please contact BCM at (800) 809-3863 if you would like to receive this information. We also encourage you to contact us at your convenience if you would like to schedule an appointment to review your investment performance or if you would like to update your investment goals and objectives.

Past performance is not indicative of future results. It should not be assumed that any of the recommendations or characteristics discussed here will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable. BCM reserves the right to modify its current investment strategies and techniques based on changing market dynamics or client needs.