

# Dynamic Large Cap Value Equity

## Strategy Profile

### OBJECTIVE

We seek to outperform the Russell 1000® Value Index by investing quantitatively in undervalued large-cap stocks, as identified by a low price-to-earnings (P/E) or price-to-book (P/B) ratio, while avoiding significant downside relative to the index.

### INVESTMENT PROCESS SUMMARY

We invest in undervalued large-cap stocks with an attractive ranking in our quantitative multi-factor model. Our process uses a dynamic shifting tool that determines the appropriate mix of our quantitative factors based on market conditions, including valuations spread across the broad stock universe.

From the universe of U.S. equities, we identify stocks with:

- Market capitalizations among the largest 1,000 U.S. stocks by market capitalization
- Low P/E or P/B ratios with specific valuation limits determined by our dynamic shifting tool

Within this large-cap value universe, we apply our quantitative-ranking model.

### QUANTITATIVE FOCUS

We select stocks from our large-cap value universe based on three major factor categories, each grounded in persistent investor behavioral biases:

- Valuation: Traditional measures of worth, such as P/E and P/B, to capture the value anomaly
- Sentiment: Key signals, such as stock price momentum, to validate purchase timing
- Quality: Indicators of financial health that reduce performance volatility associated with valuation and sentiment factors alone

Each fundamental category separately offers the potential for outperformance. By including multiple factors from these three groups, weighted according to our dynamic shifting tool, the portfolio seeks to generate more consistent excess returns.

We test our factors and models in numerous historical market cycles over the last 50 years to limit underperformance in unfavorable markets and improve performance consistency.

### PORTFOLIO MANAGEMENT

We combine a stock's ranking on our valuation, sentiment, and quality factors to create a single quantitative multifactor score for each stock. We purchase the stocks with the highest rankings on a capitalization-weighted basis. The portfolio sells a stock when either 1) both its P/E and P/B ratio no longer meet our value criteria, or 2) its multifactor score falls below our sell limit.

### PORTFOLIO RESULTS

Our disciplined strategy has produced not only strong excess return versus the Russell 1000® Value Index, but also a high information ratio and outperformance on average in both up and down markets.

### OUR COMPETITIVE ADVANTAGE

*The strategy employs a disciplined quantitative investment approach designed to achieve strong, consistent performance in varying market environments. Our Dynamic shifting tool selects between our deep-value and our broad-value quantitative models to emphasize the quantitative factors that perform best under current market conditions.*



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## AT A GLANCE

- Primary Benchmark: Russell 1000® Value Index
- Universe: Large-capitalization U.S. common stocks
- We purchase stocks with attractive valuations as indicated by either a low P/E or P/B and with high rankings based on our quantitative multifactor score.
- The factor weights in our multifactor score vary depending on market conditions as determined by our dynamic shifting tool.
- Our portfolios generally purchase all stocks on a capitalization-weighted basis.
- Cash is residual of the investment process. We manage portfolios with the goal of remaining fully invested at all times.

## TYPICAL INVESTMENT GUIDELINES

Factor	Guideline
Number of Holdings	75-150
Maximum Stock Weighting at Purchase	5%
Industry Weight Limit at Purchase	15% above or below the index
Sector Weight Limit at Purchase	15% above or below the index

## EQUITY CHARACTERISTICS<sup>1, 2</sup>

	Dynamic Large Cap Value Equity	R1000V
Price-to-Earnings <sup>3</sup>	12.9	14.6
Price-to-Book	2.3	1.9
Dividend Yield (%)	2.7	2.9
Average Market Cap (\$B)	120.9	117.4
Current Number of Securities	109	725
Turnover (% LTM)	84.6	-

## TOP TEN HOLDINGS<sup>1, 2</sup> (%)

Intel Corp	5.1
Cisco Systems Inc	4.9
Amgen Inc	4.5
Apple Inc	4.1
Union Pacific Corp	3.8
Home Depot Inc/the	3.6
Oracle Corp	3.5
Starbucks Corp	3.1
Bank Of America Corp	3.1
Morgan Stanley	2.8

Past performance is no guarantee of future results.

## ASSETS UNDER MANAGEMENT (M) (Shown in USD)

Brandywine Global, Firmwide	70,070
Diversified Value Equity Product Group	9,185
Dynamic Large Cap Value Equity	742

## ANNUALIZED RETURNS<sup>2</sup> (%) (Results shown in USD)

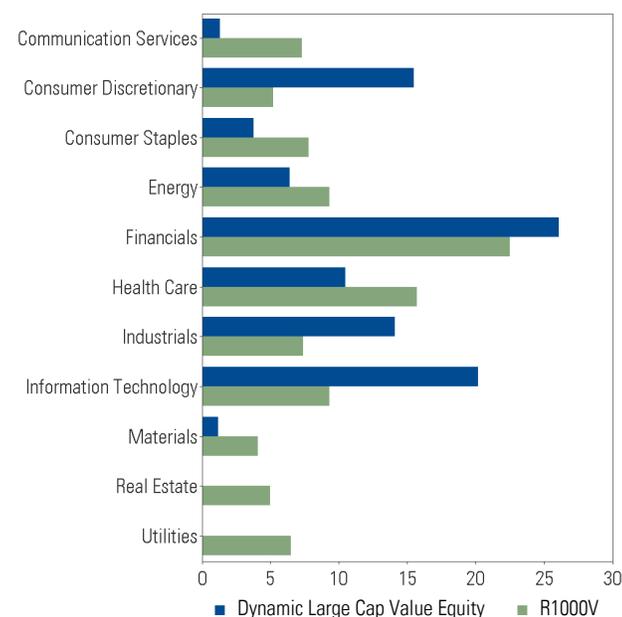
	Gross	Net	R1000V	SP500
QTD	- 13.63	- 13.77	- 11.72	- 13.52
YTD	- 8.48	- 9.08	- 8.27	- 4.38
1 Year	- 8.48	- 9.08	- 8.27	- 4.38
3 Year	7.61	6.89	6.95	9.25
5 Year	6.22	5.48	5.94	8.49
7 Year	12.94	12.15	11.01	12.69
10 Year	14.14	13.32	11.17	13.11
Since Inception	9.04	8.25	5.11	7.10

Inception Date: 1/1/2007

## CALENDAR YEAR RETURNS<sup>2</sup> (%) (Results shown in USD)

	Gross	Net	R1000V	SP500
2018	- 8.48	- 9.08	- 8.27	- 4.38
2017	22.73	21.95	13.66	21.83
2016	10.95	10.16	17.34	11.96
2015	- 2.93	- 3.66	- 3.83	1.38
2014	11.80	10.98	13.45	13.69
2013	47.50	46.44	32.53	32.39
2012	17.58	16.72	17.51	16.00
2011	8.84	8.03	0.39	2.11
2010	13.36	12.53	15.51	15.06
2009	29.73	28.78	19.69	26.46
2008	- 30.67	- 31.21	- 36.85	- 37.00

## SECTOR WEIGHTS<sup>1, 2</sup> (%)



## LEAD PORTFOLIO MANAGERS

## MICHAEL J. FLEISHER PORTFOLIO MANAGER

Mike is a portfolio manager on the Diversified Value Equity team with lead oversight of the Dynamic Large Cap Value Equity, Quantitative Global Equity, and Quantitative International Equity strategies. In addition, Mike oversees the quantitative development and analysis function for Brandywine Global's Diversified Value Equity strategies and contributes to the Firm's ongoing research into value investing. Before joining the Firm in 1997, Mike was a senior fund accountant for Merrill Lynch (1995-1997), and a mutual fund analyst for SEI Corporation (1993-1995). Mike earned a B.S. in Accounting from the University of Delaware.

## HENRY F. OTTO MANAGING DIRECTOR &amp; PORTFOLIO MANAGER

Henry is the founder and co-lead portfolio manager of the Diversified Value Equity strategies. Prior to joining Brandywine Global in 1988, he was with Dimensional Fund Advisors, Inc., where he managed and traded small cap portfolios and developed computer systems to structure portfolios and analyze performance (1984-1987), and the Chicago Board of Trade as a financial economist developing financial-based futures and options (1982-1984). He earned both an M.B.A. in Finance and Economics and a B.A. in Economics from the University of Chicago. Henry is a member of the Firm's Executive Board.

## STEVEN M. TONKOVICH MANAGING DIRECTOR &amp; PORTFOLIO MANAGER

Steve is co-lead portfolio manager of the Diversified Value Equity strategies. He plays an integral role in the team's continual refinement of the Diversified Value Equity investment process and the Firm's ongoing research into value investing. Prior to joining the Firm in 1989, he was with the Wharton School of the University of Pennsylvania as a research analyst in the Finance Department (1987-1989) and the Moore School of Electrical Engineering of the University of Pennsylvania as a research assistant (1986-1987). Steve earned a B.S.E in Finance and Regional Science from the Wharton School. He is a member of the Firm's Executive Board.

## INVESTMENT TEAM

## MICHELLE K. BEVAN, CFA PORTFOLIO MANAGER

Michelle is a portfolio manager and securities analyst on the Diversified Value Equity team. She contributes to the quantitative and fundamental analysis of securities for the Diversified Value Equity portfolios by consistently applying Brandywine Global's disciplined exclusionary process. She is the lead portfolio manager for the Diversified Mid Cap Value strategies. Michelle joined the Firm in 1995. She is a CFA® charterholder and earned an M.B.A. in Finance and a B.S. in Finance from the University of Delaware, graduating cum laude.

## NICK (YANG) CAI, FRM, CAIA SENIOR QUANTITATIVE EQUITY ANALYST

Nick is a senior quantitative analyst for the Diversified Equity team. He contributes to quantitative analysis of the team's investment strategies and to the design and development of the team's quantitative research and investment platform. Prior to joining Brandywine Global in February 2011, Nick earned a Master in Mathematics Finance from Rutgers University and graduated summa cum laude with a Bachelor of Science in Applied Mathematics from Western Michigan University. Nick holds the Financial Risk Manager (FRM) certification and is a Chartered Alternative Investment Analyst (CAIA).

## NEO (ZURONG) CAO QUANTITATIVE EQUITY ANALYST

Neo Cao is a quantitative equity analyst on our Diversified Equity team, responsible for supporting all aspects of the team's quantitative research. Prior to joining the Firm on a full-time basis in 2015, Neo was an intern with Brandywine Global on the Diversified Equity team in 2014. Neo also completed internships at the Standard Chartered Bank and Huatai Securities Co, Ltd, both in Nanjing, China. Neo earned a B.S. in Biological Engineering from Nanjing Forestry University and just recently completed an M.S. in Financial Engineering at Stevens Institute of Technology.

## DAVID CLIPPER PORTFOLIO MANAGER

Dave is portfolio manager and research analyst on the Diversified Value Equity team. He contributes to the quantitative and fundamental analysis of securities and management of the Diversified Value Equity portfolios by consistently applying Brandywine Global's disciplined exclusionary process. He is also involved in continual refinement of the Diversified Value Equity investment process and the Firm's ongoing research into value investing. He joined the Firm in 2004 and has been a member of the Diversified Value Equity team since 2006. Prior to joining Brandywine Global, Dave was a trader for Orion Financial (2003-2004) and had spent 13 years in the field of psychology before making the career shift toward finance. He earned an M.B.A. in Finance from the University of Pittsburgh, holds a Master's degree from the University of California at Berkeley, and a B.A. from Penn State University.

## JOSEPH J. KIRBY PORTFOLIO MANAGER

Joe is the lead portfolio manager for the Diversified Large Cap Value Equity strategy. He serves as a portfolio manager and securities analyst on the Diversified Value Equity team. Joe contributes to the quantitative and fundamental analysis of securities for the Diversified Value Equity portfolios by consistently applying Brandywine Global's disciplined management exclusionary process. Since joining the Firm and Diversified Team in 1994, Joe has been involved in each aspect of the portfolio process, including leading the trading efforts for all Diversified portfolios from 1997 through 2000. Prior to joining Brandywine Global, he was with CoreStates Financial Corporation as an auditor (1992-1994). Joe earned a B.S. in Finance from DeSales University.

**TRADERS****JOHN R. EDELMAN** EQUITY TRADER

John is the lead trader for the Firm's micro-, small- and small/mid-cap portfolios and a primary trader for the Wealth Management Group channel. He is also responsible for providing support to the Diversified Value Equity portfolios. John joined the Firm in 1999. Previously, he was with Southcoast Capital as an institutional equity trader (1996-1999), and PNC Bank as a financial analyst (1989-1996). John earned an M.B.A. in Finance from St. Joseph's University and a B.A. in Finance and Accounting from Lehigh University.

**KEVIN MCCLAFFERTY** EQUITY TRADER

Kevin is the primary trader for the Fundamental Equity team's Wealth Management Group channel. He also supports the U.S. equity trading desk in performing functions for all equity investment strategies at Brandywine Global. Prior to becoming an equity trader in August 2009, Kevin supported the trading desk as a trading assistant and has been with the Firm since 1999. Kevin earned a B.S. in Finance from Wilmington University.

**DAVID A. TATTERSALL** HEAD EQUITY TRADER

Dave is the head trader for Brandywine Global's equity portfolios. Prior to being appointed to this position in March 2007, he served as lead equity trader for the Firm's Diversified Value Equity portfolios in addition to providing support to the Fundamental Equity team. He joined the Firm in 2000. Previously, Dave was with OTA Limited Partnership, a full-service institutional broker/dealer, as a financial analyst/trader (1989-2000); First Federal Savings Bank as a senior accountant (1987-1989), and Beneficial Mortgage Corporation as the loan accounting manager (1985-1987). Dave earned a B.S. in Accounting from Pennsylvania State University.

**DONNA VAN VLACK** VICE PRESIDENT, EQUITY TRADER

Donna is the lead trader for the Firm's large-cap portfolios. Donna joined the Firm in 1996. Previously, she was a trader with Caxton Corporation (1995); vice president and head trader with Chesapeake Partners Management Company (1993-1995); vice president with UBS Securities, Inc. (1991-1993); vice president with Dillon, Read & Co. (1986-1991); vice president and head of trading with Avatar Associates (1982-1985), and a trader with Soros Fund Management (1978-1981). Donna earned a B.A. in History and Political Science from Wellesley College.

## ANNUALIZED RETURNS (%) (Results shown in USD)

	Gross	Net	R1000V	SP500
QTD	- 13.63	- 13.77	- 11.72	- 13.52
YTD	- 8.48	- 9.08	- 8.27	- 4.38
1 Year	- 8.48	- 9.08	- 8.27	- 4.38
3 Year	7.61	6.89	6.95	9.25
5 Year	6.22	5.48	5.94	8.49
7 Year	12.94	12.15	11.01	12.69
10 Year	14.14	13.32	11.17	13.11
Since Inception	9.04	8.25	5.11	7.10

Inception Date: 1/1/2007

## GIPS INFORMATION (% , Unless Otherwise Noted) (Results shown in USD)

	Gross	Net	R1000V	SP500	# of Accounts	Market Value (M)	Total Firm Assets (M)	Composite Dispersion	Composite Rolling 3Y SD	R1000V Rolling 3Y SD	SP500 Rolling 3Y SD
2018	- 8.48	- 9.08	- 8.27	- 4.38	16	724	70,070	0.20	12.28	10.82	10.80
2017	22.73	21.95	13.66	21.83	17	908	74,382	0.26	11.93	10.20	9.92
2016	10.95	10.16	17.34	11.96	14	721	65,498	0.21	12.42	10.77	10.59
2015	- 2.93	- 3.66	- 3.83	1.38	9	461	68,819	0.11	12.59	10.68	10.47
2014	11.80	10.98	13.45	13.69	8	295	63,375	-	10.49	9.20	8.97
2013	47.50	46.44	32.53	32.39	3	35	50,050	-	13.57	12.70	11.94
2012	17.58	16.72	17.51	16.00	2	9	42,894	-	15.60	15.51	15.09
2011	8.84	8.03	0.39	2.11	2	4	33,122	-	19.27	20.69	18.71
2010	13.36	12.53	15.51	15.06	3	5	31,996	-	21.58	23.18	21.85
2009	29.73	28.78	19.69	26.46	2	3	29,199	-	19.72	21.10	19.63
2008	- 30.67	- 31.21	- 36.85	- 37.00	2	2	32,755	-	-	-	-

R1000V = Russell 1000 Value SP500 = S&amp;P 500

Organization: Brandywine Global Investment Management, LLC (the "Firm") is a wholly owned, independently operated, subsidiary of Legg Mason, Inc. Brandywine Global Investment Management, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Brandywine Global Investment Management, LLC has been independently verified for the periods July 1, 2000 through June 30, 2017. The verification report(s) is/are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Dynamic Large Cap Value Composite has been examined for the periods January 1, 2007 through June 30, 2017. The verification and performance examination reports are available upon request. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. Disclosed total firm assets represent the total market value of all discretionary and nondiscretionary, fee-paying and non-fee-paying assets under the Firm's management. ?1 Composite Description: Dynamic Large Cap Value Equity Composite (the "Composite") Inception date: January 1, 2007. Creation date: January 1, 2007. The Composite includes all discretionary accounts invested in a portfolio of large capitalization U.S. common stocks. The strategy employs a pure quantitative strategy. Securities are screened from the universe of U.S. companies based on their trailing P/E, P/B (companies must fall in the value segment of the universe using P/E, P/B). The combined quantitative multi factor selection process results in holdings of 100 - 250 company's stocks. Sector weights are a result of bottom-up stock selection and may deviate from the weightings in the benchmark index. This composite includes two non-fee paying portfolios which represents 100% of the composite assets from 2007 to 2009, 73.02% in 2010 and 72.96% in 2011, 15% in 2012, 5% in 2013, 2% in 2014 and 1% in 2015, 2016, and 2017. Benchmark: The Russell 1000 Value Index measures companies from the Russell 1000 Index that exhibit lower price to book and price to earnings ratios and lower forecasted growth values. The S&P 500 is a broad measure of U.S. domestic large cap stocks. The 500 stocks in this capitalization-weighted index are chosen based on industry representation, liquidity, and stability. Performance Calculation: Preliminary data, if so noted, reflects unreconciled data for the most recent reporting period. Portfolios are valued daily on a trade date basis and include dividends and interest as well as all realized and unrealized capital gains and losses. Return calculations at the portfolio level are time-weighted to account for periodic contributions and withdrawals. Performance results are calculated on a before tax, total return basis. Prior to July 1, 2007, portfolios were included in the Composite beginning with the first full quarter of performance through the last full quarter of performance. After July 1, 2007, portfolios are included in the Composite beginning with the first full month of performance through the last full month of performance. Composite returns are reported on quarterly basis. The Composite returns consist of size-weighted portfolio returns using beginning of period values to weight the portfolio returns. Monthly linking of interim performance results is used to calculate quarterly and annual returns. Composite's valuations and returns are computed in U.S. Dollars ("USD"). The results are presented in USD or in other currencies (to accommodate overseas investors), the latter by converting monthly USD returns into other currency returns using the appropriate currency exchange rate returns. Gross returns reflect the deduction of trading expenses. Net of fee returns reflect the deduction of trading expenses and the highest investment management fees charged within the composite membership as stated in the fee schedule below. Composite dispersion is calculated using the asset-weighted standard deviation method for all portfolios that were in the Composite for the entire year. Composite dispersion is not presented for periods with five or fewer portfolios. The number of accounts and market values are as of the end of the period. The three-year annualized standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period. Past performance is no guarantee of future results. A complete list describing the Firm's composites as well as any additional information regarding the Firm's policies for calculating and reporting performance results is available upon request. Fee Schedule: Institutional Client Separate Account Management Fee Schedule (minimum initial investment: \$1 million): 0.650% on the first \$10 million; 0.450% on the next \$40 million; 0.400% on the next \$50 million; 0.300% on the next \$100 million, and 0.250% on any portion of assets in excess of \$200 million. Additional information on the Firm's fee schedule can be found in Form ADV Part 2A which is available upon request.

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## FOOTNOTES & DISCLOSURES

R1000V = Russell 1000® Value Index    SP500 = S&P 500® Index

1. The data represent the aggregate characteristics of all securities held in the respective Representative Portfolio, an actual commission account not subject to taxation, and are included for informational purposes only. The Portfolio Characteristics of any particular account may vary based on any investment restrictions applicable to that account.
2. Supplemental to attached Dynamic Large Cap Value Composite GIPS presentation
3. Portfolio characteristics calculation uses weighted harmonic average methodology.

Source: Bloomberg. Investing involves certain risks, including possible loss of principal. You should understand and carefully consider a strategy's objectives, risks, fees, expenses and other information before investing. In rendering portfolio management services, Brandywine Global Investment Management, LLC may use the portfolio management services, research and other resources of its affiliates. The views expressed in this document are not intended to be a recommendation or investment advice and do not take into account the individual financial circumstances or objectives of the investor who receives it. The securities described herein may not be suitable for all investors. There is no guarantee that Brandywine Global will meet any of its investment objectives. Individual securities mentioned are intended as examples of portfolio holdings and are not intended as buy or sell recommendations. Characteristics, holdings and sector weightings are subject to change and should not be considered as investment recommendations. There is no guarantee that holding securities with relatively high (or low) price-to-earnings, price-to-book or price-to-cash flow ratios will cause the portfolio to outperform its benchmark or index. All indices are unmanaged and are not available for direct investment. Indices do not incur costs including the payment of transaction costs, fees and other expenses. This information should not be considered a solicitation or an offer to provide any Brandywine Global Investment Management, LLC service in any jurisdiction where it would be unlawful to do so under the laws of that jurisdiction. Stated assets under management may include some portfolios that are not contained in the strategy's composite. Some portfolios may fall into multiple strategies as the portfolio(s) meet the definition of multiple composites. Returns are presented gross and net of management fees and include the reinvestment of all income. Gross returns will be reduced by the investment advisory fee and other expenses incurred in the management of the account. Net of fee performance was calculated using the highest management fee as described in Brandywine Global's Form ADV Part 2A, which is available upon request. Please refer to our GIPS® presentations, which include performance footnotes, fee schedules, detailed index descriptions, and disclosures.

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