

## Applied Equity Advisors

440 S. LaSalle Street, 38th Floor  
Chicago, Illinois 60605

Style: US Large Cap  
Sub-Style: Blend  
Firm AUM: \$447.4 billion  
Firm Strategy AUM: \$167.5 million

Year Founded: 1975  
GIMA Status: Focus  
Firm Ownership: Morgan Stanley Investment Management  
Professional-Staff: 594

## PRODUCT OVERVIEW

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## TARGET PORTFOLIO CHARACTERISTICS

Number of stock holdings:	—
Average dividend yield:	—
P/E ratio:	—
Cash level over market cycle:	—
Risk (standard deviation):	—
Average turnover rate:	41.00
Use ADRs:	No
Capitalization:	—

## PORTFOLIO STATISTICS

	-----09/17-----	03/17	
	AEA	Index***	AEA
Number of stock holdings	—	982	—
Wtd avg dividend yield	2.0%	1.9%	—
Wtd avg P/E ratio <sup>1</sup>	20.08x	21.50x	—
Wtd avg portfolio beta	—	—	—
Mega capitalization +	0.0%	42.8%	0.0%
Large capitalization +	0.0%	43.8%	0.0%
Medium capitalization +	0.0%	13.2%	0.0%
Small capitalization +	0.0%	0.2%	0.0%
Micro capitalization +	0.0%	0.0%	0.0%

## PORTFOLIO'S EQUITY SECTOR WEIGHTINGS +

Sector	-----09/17-----	03/17	
	AEA	Index***	AEA
Energy	5.55	5.92	0.00
Materials	2.75	3.34	0.00
Industrials	10.61	10.50	0.00
Consumer Discretionary	11.64	12.22	0.00
Consumer Staples	4.71	7.72	0.00
Health Care	12.76	13.83	0.00
Financials	17.42	14.77	0.00
Information Technology	25.20	22.80	0.00
Telecomm Services	1.90	2.09	0.00
Utilities	4.19	3.10	0.00
REIT'S	1.90	3.71	0.00
Cash/Cash Equivalents	1.37	0.00	0.00

## PORTFOLIO'S TOP FIVE EQUITY HOLDINGS

	%
Automatic Data Processing, Inc.	5.1
Microsoft Corporation	4.5
Apple Inc.	3.4
Exxon Mobil Corporation	3.2
NextEra Energy, Inc.	3.1

## % PROCESS BASED ON

- 0 Asset allocation - cash vs. stock
- 0 Industry or sector weighting
- 0 Stock Selection

<sup>1</sup>The P/E used here is calculated by the harmonic mean.

<sup>\*</sup>Total may not equal 100% due to rounding.

<sup>\*\*\*</sup>Index : Rus 1000

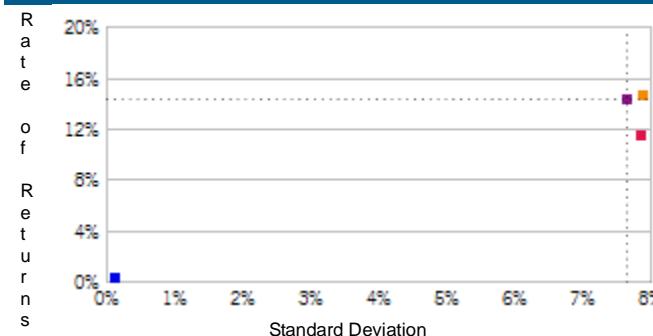
MANAGER'S INVESTMENT PROCESS	RISK CONSIDERATIONS	PORTFOLIO'S ALLOCATION HISTORY (%) <sup>+</sup>				
		09/17	06/17	03/17	12/16	
	<p>Investing in securities entails risks, including: Equity portfolios are subject to the basic stock market risk that a particular security, or securities in general, may decrease in value. Equity securities' prices may fluctuate in response to specific situations for each company, industry, market conditions and general economic environment. Companies paying dividends can reduce or cut payouts at any time. Strategies that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than portfolios that diversify among a broad range of sectors. Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.</p>	U.S. Stocks	98	99	0	0
		Non-U.S. Stocks	0	0	0	0
		Unassigned	0	0	0	0
		Cash/Cash Equivalents	1	1	0	0

<sup>1</sup>The P/E used here is calculated by the harmonic mean.

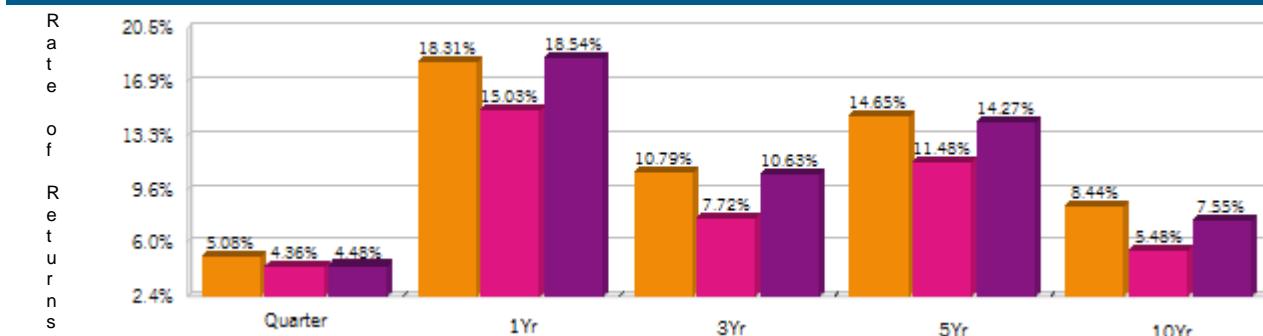
<sup>2</sup>Total may not equal 100% due to rounding.

<sup>3</sup>Index : Rus 1000

## RISK/RETURN ANALYSIS - 5 YEARS ENDING 09/30/17



## AVERAGE ANNUAL TOTAL RETURN (%) - PERIODS ENDING 09/30/17



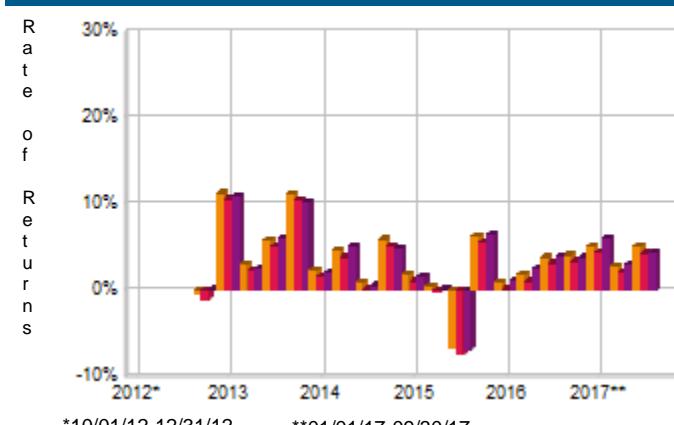
	STD	ROR
AEA (Gross)	7.91	14.65
AEA (Net)	7.88	11.48
Russell 1000	7.67	14.27
90-Day T-Bills	0.14	0.19

## INVESTMENT RESULTS

	Annual Rates of Return (%)										10 Year - Ending 09/30/17		
	2007*	2008	2009	2010	2011	2012	2013	2014	2015	2016	Annual	Std. Dev.	
AEA (Gross)	-0.39	-36.93	28.00	16.63	4.04	15.96	35.19	14.51	1.59	11.21	8.44	16.75	
AEA (Net)	-0.63	-38.80	24.47	13.45	1.22	12.75	31.57	11.30	-1.20	8.08	5.48	16.68	
Russell 1000	-3.23	-37.60	28.43	16.10	1.50	16.42	33.11	13.24	0.91	12.05	7.55	16.74	

\*12/01/2007-12/31/2007

## RISK VOLATILITY (%)



\*10/01/12-12/31/12

\*\*01/01/17-09/30/17

	Number Of	Up Qtrs.	Down Qtrs.
AEA (Gross)	18	2	
AEA (Net)	17	3	
Russell 1000	19	1	

## PORTFOLIO'S QUARTERLY RETURNS (%)

	Quarter1		Quarter2		Quarter3		Quarter4	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
2007							-0.39	-0.63
2008	-9.01	-9.70	-2.56	-3.22	-9.73	-10.38	-21.19	-21.85
2009	-11.89	-12.57	17.55	16.81	16.55	15.78	6.03	5.27
2010	5.72	4.95	-11.21	-11.82	11.92	11.18	11.01	10.26
2011	6.95	6.22	0.52	-0.16	-13.90	-14.52	12.38	11.67
2012	12.82	12.06	-2.75	-3.44	6.06	5.32	-0.34	-1.06
2013	11.34	10.59	3.07	2.36	5.92	5.21	11.22	10.47
2014	2.37	1.63	4.64	3.90	0.92	0.19	5.93	5.20
2015	1.84	1.11	0.55	-0.16	-6.74	-7.38	6.37	5.68
2016	0.94	0.18	1.84	1.12	3.91	3.20	4.12	3.37
2017	5.17	4.44	2.82	2.10	5.08	4.36		

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## PORTFOLIO'S RISK STATISTICS - PERIODS ENDING 09/30/17<sup>1,2</sup>

	3 Year	5 Year
Standard Deviation	7.07%	7.91%
Standard Deviation of Primary Benchmark	7.07%	7.67%
Sharpe Ratio	1.49	1.83
Sharpe Ratio of Primary Benchmark	1.46	1.84
Alpha	0.27%	0.04%
Beta	0.99	1.02
Downside Risk	0.70%	0.62%
R-Squared	0.98	0.98
Tracking Error	1.07%	1.02%
Information Ratio	0.15	0.37

1. Statistics are calculated using gross of fee performance only.
2. Russell 1000 was used as the primary benchmark and the 90-Day T-Bills Index as the risk-free benchmark.

+Statistics are calculated using gross of fee performance only.

See important notes and disclosures pages for a discussion of the sources of the performance data used to calculate the performance results and related analyses shown above.

## IMPORTANT NOTES AND DISCLOSURES

### INDEX DESCRIPTIONS

#### 90-Day T-Bills

The 90-Day Treasury Bill is a short-term obligation issued by the United States government. T-bills are purchased at a discount to the full face value, and the investor receives the full value when they mature. The difference of discount is the interest earned. T-bills are issued in denominations of \$10,000 auction and \$1,000 increments thereafter.

#### Russell 1000

The Russell 1000 Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 89% of the total market capitalization of the Russell 3000 Index.

#### S&P 500

The S&P 500 Total Return has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over \$5.58 trillion benchmarked, with index assets comprising approximately \$1.31 trillion of this total. The index includes 500 leading companies in leading industries of the U.S. economy, capturing 75% coverage of U.S. equities. This index includes dividend reinvestment.

**Indices are unmanaged and have no expenses. You cannot invest directly in an index.**

### GLOSSARY OF TERMS

**Alpha** is a mathematical estimate of risk-adjusted return expected from a portfolio above and beyond the benchmark return at any point in time.

**American Depository Receipts (ADRs)** are receipts for shares of a foreign-based corporation held in the vault of a U.S. bank.

**Average Portfolio Beta** is a measure of the sensitivity of a benchmark or portfolio's rates of return to changes against a market return. The market return is the S&P 500 Index. It is the coefficient measuring a stock or a portfolio's relative volatility.

**Beta** is a measure of the sensitivity of a portfolio's rates of return to changes in the market return. It is the coefficient measuring a stock or a portfolio's relative volatility.

**Bottom-Up Stock Selection** Emphasis primarily on individual stock selection. Considerations of economic and industry factors are of secondary importance in the investment decision-making process.

**Capitalization** is defined as the following: Mega (Above \$100 billion), Large (\$12 to \$100 billion), Medium (\$2.5 - \$12 billion), Small (\$.50 - \$2.5 billion) and Micro (below \$.50 billion).

**Dividend** a portion of a company's profit paid to common and preferred shareholders.

**Downside Risk** is a measure of the risk associated with achieving a specific target return. This statistic separates portfolio volatility into downside risk and upside uncertainty. The downside considers all returns below the target return, while the upside considers all returns equal to or above the target return.

**Duration** is a measure of price sensitivity expressed in years.

**High Grade Corporate Bonds** corporate bonds from issuers with credit ratings of AA or AAA.

**Information Ratio** is a measure of the investment manager's skill to add active value against a given benchmark relative to how stable that active return has been. Essentially, the information ratio explains how significant a manager's alpha is. Therefore, the higher the information ratio, the more significant the alpha.

**Investment Grade Bonds** are those rated by Standard & Poor's AAA (highest rated), AA, A or BBB (or equivalent rating by other rating agencies or, in the case of securities not rated, by the investment manager).

**Price/Book Ratio (P/B)** weighted average of the stocks' price divided by book value per share. Book value per share is defined as common equity, including intangibles, divided by shares outstanding times the adjustment factor.

**Price/Cash Flow Ratio** a ratio used to compare a company's market value to its cash flow. It is calculated by dividing the company's market cap by the company' operating cash flow in the most recent fiscal year (or the most recent four fiscal quarters); or, equivalently, divide the per-share stock price by the per-share operating cash flow.

**Price/Earnings Ratio (P/E Ratio)** shows the multiple of earnings at which a stock sells. Determined by dividing current stock price by current earnings per share (adjusted for stock splits). Earnings per share for the P/E ratio are determined by dividing earnings for past 12 months by the number of common shares outstanding. The P/E ratio shown here is calculated by the harmonic mean.

**Price/Sales Ratio** determined by dividing current stock price by revenue per share (adjusted for stock splits). Revenue per share for the P/S ratio is determined by dividing revenue for past 12 months by number of shares outstanding.

**R2 (R-Squared)/Portfolio Diversification** indicates the proportion of a security's total variance that is benchmark-related or is explained by variations in the benchmark.

**Sharpe Ratio** measures the efficiency, or excess return per unit of volatility, of a manager's returns. It evaluates managers' performance on a volatility-adjusted basis.

**Standard Deviation** is a statistical measure of historical variability or spread of returns around a mathematical average return that was produced by the investment manager over a given measurement period. The higher the standard deviation, the greater the variability in the investment manager's returns relative to its average return.

**Top-Down/Economic Analysis** Emphasis primarily on macroeconomic trends as opposed to bottom-up stock selection.

**Tracking Error** represents the standard deviation of the difference between the performance of the investment strategy and the benchmark. This provides a historical measure of the variability of the investment strategy's returns relative to its benchmark.

**U.S. Treasury Bonds** a marketable, fixed interest U.S. government debt security with a maturity of more than 10 years. Treasury bonds make interest payments semi-annually and the income that holders receive is only taxed at the federal level.

**Volatility** a measure of risk based on the standard deviation of the asset return. Volatility is a variable that appears in option pricing formulas, where it denotes the volatility of the underlying asset return from now to the expiration of the option. There are volatility indexes. Such as a scale of 1-9; a higher rating means higher risk.