

Applied Equity Advisors

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

Style: US Large Cap
Sub-Style: Blend
Firm AUM: \$501.8 billion
Firm Strategy AUM: \$1.3 billion

Year Founded: 1975
GIMA Status: Approved
Firm Ownership: Morgan Stanley Investment Management
Professional-Staff: 2043

PRODUCT OVERVIEW

Seeks to achieve Russell 1000 index like returns net of fees. Portfolios hold only a representative basket, selected from the Russell 1000 Index, typically 200-300 securities, normally with an overall tracking error of less than 2% to the underlying index. Holdings are aligned closely with industry, sector, style, capitalization and other factors of the target Russell 1000 index.

TARGET PORTFOLIO CHARACTERISTICS

Number of stock holdings:	200 to 300
P/E ratio:	Similar to the S&P 500
Cash level over market cycle:	0 to 5%
Risk (standard deviation):	Similar to the S&P 500
Average turnover rate:	15 to 25%
Use ADRs:	Yes. We specifically seek international equity exposure.
Capitalization:	Mega, Large and Medium companies

PORTFOLIO'S EQUITY SECTOR WEIGHTINGS *

	-----06/19-----		12/18
Sector	AEA	Index***	AEA
Energy	4.56	4.75	4.71
Materials	2.11	2.89	2.49
Industrials	8.78	9.75	8.61
Consumer Discretionary	10.60	10.36	9.72
Consumer Staples	3.59	6.69	5.49
Health Care	13.65	13.82	15.09
Financials	13.17	13.18	13.90
Information Technology	24.70	21.87	23.88
Communication Services	9.45	9.73	8.08
Utilities	5.32	3.21	4.83
Miscellaneous	0.00	0.00	0.58
Real Estate/REITs	3.40	3.74	2.63
Cash/Cash Equivalents	0.69	0.00	0.00

PORTFOLIO STATISTICS

	-----06/19-----	12/18	
	AEA	Index***	AEA
Number of stock holdings	268	1,002	268
Dividend Yield	1.9%	1.9%	2.2%
Distribution Rate	—	—	—
Wtd avg P/E ratio ¹	20.18x	20.10x	15.51x
Wtd avg portfolio beta	—	—	—
Mega capitalization ⁺	0.0%	48.3%	0.0%
Large capitalization ⁺	0.0%	40.1%	0.0%
Medium capitalization ⁺	0.0%	11.4%	0.0%
Small capitalization ⁺	0.0%	0.2%	0.0%
Micro capitalization ⁺	0.0%	0.0%	0.0%

PORTFOLIO'S TOP FIVE EQUITY HOLDINGS

	%
Microsoft Corporation	6.9
Automatic Data Processing, Inc.	4.5
NextEra Energy, Inc.	3.8
Apple Inc.	3.6
Amazon.com, Inc.	2.6

% PROCESS BASED ON

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

MANAGER'S INVESTMENT STRATEGY

- ☒ Top-down / portfolio structures based on economic trends
☐ Bottom-up / portfolio structure based on individual securities

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

⁺Total may not equal 100% due to rounding.

^{***}Index : Rus 1000

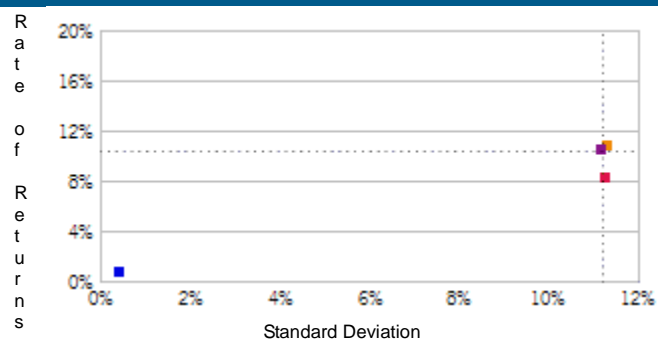
MANAGER'S INVESTMENT PROCESS	RISK CONSIDERATIONS	PORTFOLIO'S ALLOCATION HISTORY (%) +			
<ul style="list-style-type: none">• The team approaches portfolio management from a top-down, statistical, macro point of view. According to statistical regression, approximately 70% of portfolio manager's returns are defined by how the portfolio is positioned from a value, growth, quality, and risk standpoint.• The team uses its proprietary factor momentum models to determine factor tilting (growth versus value, mega versus mid-cap, high quality versus cyclical names, etc.) Sector weighting also adds value, but is largely driven by factor tilting.• The team also uses factor valuation spread models to identify factors that may be working but expensive relative to history. Or conversely it may identify factors that are not working but heavily discounted relative to history.• The team conducts a top-down equity market analysis by monitoring and analyzing factor momentum return trends. Rolling time series analysis is performed weekly, and recent data is more heavily weighted. The factor model focuses on factors with historical outperformance persistence. All stock selections are determined by quantitative factor work. Every decision at the core must be consistent with fulfilling the objectives of our quantitative work from a factor exposure basis. Once we narrow the universe to those stocks that meet these criteria, we base final stock selection upon the desired tracking error to determine the final portfolio. Although stock selection is driven by the output of the quantitative optimization process, Andrew Slimmon and Phillip Kim along with his quantitative team make the final decisions with regards to portfolio holdings.	<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. Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. If a strategy expects to hold a concentrated portfolio of a limited number of securities, it should be noted that a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than that of a less concentrated portfolio.</p>	06/19	03/19	12/18	09/18

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

⁴Total may not equal 100% due to rounding.

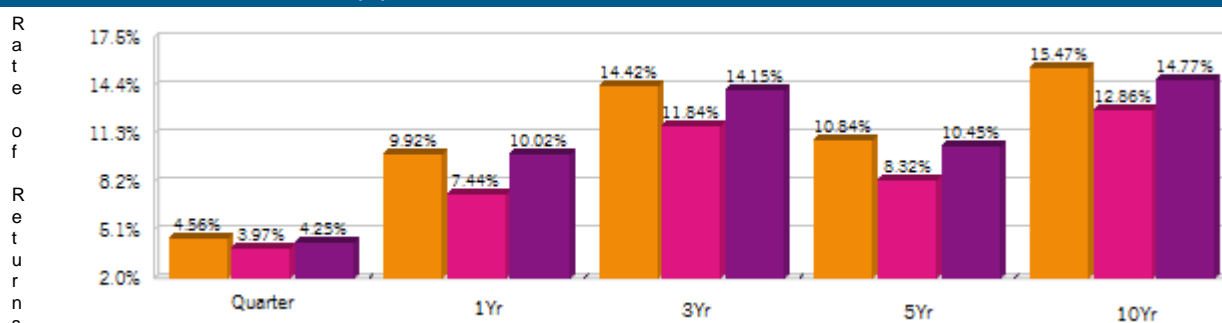
^{***}Index : Rus 1000

RISK/RETURN ANALYSIS - 5 YEARS ENDING 06/30/19



	STD	ROR
AEA (Gross)	11.31	10.84
AEA (Net)	11.28	8.32
Russell 1000	11.19	10.45
90-Day T-Bills	0.44	0.84

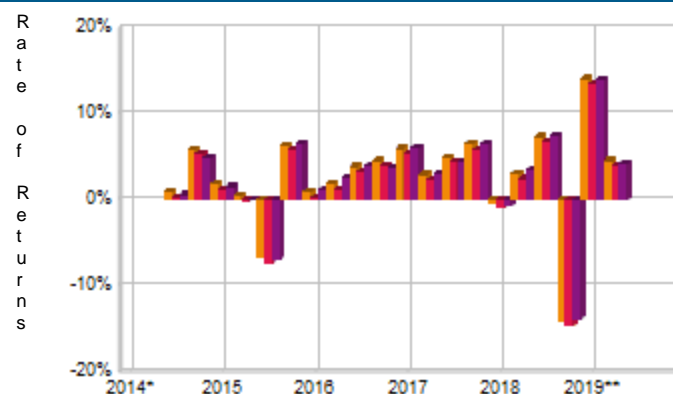
AVERAGE ANNUAL TOTAL RETURN (%) - PERIODS ENDING 06/30/19



INVESTMENT RESULTS

	Annual Rates of Return (%)										10 Year - Ending 06/30/19	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Annual	Std. Dev.
AEA (Gross)	28.00	16.63	4.02	15.96	35.23	14.52	1.60	11.72	22.01	-5.27	15.47	13.65
AEA (Net)	25.09	14.01	1.70	13.32	32.24	11.87	-0.70	9.12	19.26	-7.44	12.86	13.60
Russell 1000	28.43	16.10	1.50	16.42	33.11	13.24	0.91	12.05	21.69	-4.78	14.77	13.61

RISK VOLATILITY (%)



*07/01/14-12/31/14

**01/01/19-06/30/19

	Number Of	Up Qtrs.	Down Qtrs.
AEA (Gross)	17	3	3
AEA (Net)	16	4	4
Russell 1000	17	3	3

PORTFOLIO'S QUARTERLY RETURNS (%)

	Quarter1		Quarter2		Quarter3		Quarter4	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
2009	-11.89	-12.45	17.56	16.94	16.54	15.92	6.04	5.41
2010	5.72	5.08	-11.21	-11.71	11.92	11.31	11.02	10.40
2011	6.95	6.34	0.52	-0.04	-13.89	-14.40	12.37	11.78
2012	12.83	12.20	-2.75	-3.32	6.05	5.44	-0.34	-0.93
2013	11.35	10.73	3.08	2.49	5.93	5.35	11.22	10.60
2014	2.37	1.76	4.64	4.04	0.93	0.33	5.92	5.32
2015	1.84	1.24	0.54	-0.04	-6.73	-7.26	6.38	5.81
2016	0.94	0.32	1.85	1.26	3.90	3.32	4.60	3.98
2017	5.99	5.38	2.94	2.35	4.99	4.39	6.52	5.92
2018	-0.30	-0.85	3.10	2.51	7.33	6.73	-14.13	-14.67
2019	14.08	13.47	4.56	3.97				

Related

Select UMA

PORTFOLIO'S RISK STATISTICS -€" PERIODS ENDING 06/30/19 ^{1 2}

	3 Year	5 Year
Standard Deviation	13.11%	11.31%
Standard Deviation of Primary Benchmark	12.95%	11.19%
Sharpe Ratio	1.00	0.88
Sharpe Ratio of Primary Benchmark	0.99	0.86
Alpha	0.13%	0.29%
Beta	1.01	1.01
Downside Risk	0.36%	0.44%
R-Squared	1.00	0.99
Tracking Error	0.71%	0.83%
Information Ratio	0.39	0.47

PORTFOLIO DIVERSIFICATION - R²(INCEPTION THROUGH 12/14)+

	R ²
AEA vs. Russell 1000	1.00

+Statistics are calculated using gross of fee performance only.

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

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.

Past performance is no guarantee of future results. This profile is not complete without the pages, which contain important notes, including disclosures about the composite, index descriptions and a glossary of terms. Information shown is as of June 30, 2019, unless otherwise noted. All data are subject to change.

IMPORTANT NOTES AND DISCLOSURES

COMPOSITE DISCLOSURES

The disclosures provided below apply to performance information in this profile, if any. Past performance is not a guarantee of future results. Actual individual account results may differ from the performance shown in this profile. There is no guarantee that this investment strategy will achieve its intended results under all market conditions. Do not rely upon this profile as the sole basis for your investment decisions.

Performance results in this profile are calculated assuming reinvestment of dividends and income. Returns for more than one calendar year are annualized and based on quarterly data. Returns for periods of less than a calendar year show the total return for the period and are not annualized. No representation is being made that any portfolio will or is likely to achieve profits or losses similar to those shown. Returns will fluctuate and an investment upon redemption may be worth more or less than its original value. Performance shown does not reflect the impact of fees and expenses of the underlying mutual fund and ETFs, as applicable.

Sources of Performance Results and Other Data: The performance data and certain other information for this strategy (including the data on page 1 of this profile) may include one or more of the following: (i) the performance results of a composite of Morgan Stanley accounts managed by the third party investment manager, (ii) the performance results for accounts and investment products managed by the third party investment manager, in the same or a substantially similar investment strategy outside of the applicable Morgan Stanley program, and/or (iii) in the case of Model Portfolio Strategies, the Model Portfolio Provider's results in managing institutional accounts outside of the Morgan Stanley Select UMA program prior to Model Portfolio Strategy's inception in the Morgan Stanley Select UMA program. For periods through June 2012, the Fiduciary Services program operated through two channels – the Morgan Stanley channel and the Smith Barney channel and any performance and other data relating to Fiduciary Services accounts shown here for these periods is calculated using accounts in only one of the these channels.) Please note that the Fiduciary Services program was closed on January 2, 2018. Although the Fiduciary Services and Select UMA programs are both Morgan Stanley managed account programs, the performance results and other features of similar investment strategies in the two programs may differ due to investment and operational differences. Performance in one program is not indicative of potential performance in the other. For example, the individual investment strategies in Select UMA program accounts may contain fewer securities, which would lead to a more concentrated portfolio. The automatic rebalancing, wash sale loss and tax harvesting features of the Select UMA program, which are not available in Fiduciary Services, also could cause differences in performance. In addition, any performance results included in this profile that are based on a third party investment manager's accounts that are not part of the Morgan Stanley program accounts or institutional accounts that are part of the Model Portfolio strategy may differ due to investment and operational differences as well. As such, performance results of the third party investment manager's composites and the third party Model Portfolio Strategies may differ from those of Select UMA accounts managed in the same or a substantially similar investment strategy. For example, in the case of Model Portfolio Strategies, Morgan Stanley, as the investment manager, may deviate from the Third Party Model Portfolios.

Related Performance:

The Enhanced Index Russell 1000 Wrap Composite was created on October 1, 2015 and its inception date is November 30, 2007. Prior to October 1, 2015, assets managed in the Enhanced Index Russell 1000 strategy were part of Morgan Stanley Smith Barney LLC ("MSSB"), which did not claim compliance with GIPS. As of October 1, 2015, all assets as well as the investment decision makers have transferred to MSIM and the decision making process remains unchanged. However, the composite performance data is the record of MSSB.

After October 1, 2015, performance results of MSIM are linked to the historical performance of the MSSB Enhanced Index Russell 1000. MSIM has reviewed the documented information supporting the performance track record. The composite includes all wrap accounts managed on a fully discretionary basis according to the Enhanced Index Russell 1000 strategy. The strategy seeks to achieve Russell 1000 index like returns net of fees. Portfolios hold a representative basket selected from the Russell 1000 Index, typically ranging between 200-300 securities. Holdings are aligned closely with industry, sector, style, capitalization and other factors of the target Russell 1000 index.

The Russell 1000 Index is used as a benchmark. The Russell 1000 Index measures the performance of the large-cap segment of the U.S. equity universe. The benchmark is calculated with dividends reinvested and is used for comparative purposes only. The index is unmanaged and does not include any expenses, fees or sales charges, which would lower performance. It is not possible to invest directly in an index.

Morgan Stanley Performance:

The composite consists of 13 account(s) with a market value of **\$3.4 million** as of **06/30/2019**. In this profile, the performance from May 01, 2018 consists of the performance of all single style Select UMA accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. Performance composites calculated by Morgan Stanley include all fee-paying portfolios with no investment restrictions. New accounts are included beginning with the second full calendar month of performance. Terminated accounts are removed in the month in which they terminate (but prior performance of terminated accounts is retained). Performance is calculated on a total return basis and by asset weighting the individual portfolio returns using the beginning of period values.

Gross Performance: AEA's gross results do not reflect a deduction of any investment advisory fees or program fees, charged by AEA or Morgan Stanley, but are net of commissions charged on securities transactions.

Net Performance for all Periods: Net performance results reflect a deduction of 0.58% quarterly. This consists of three components: 0.5% maximum quarterly MS Advisory Fee and 0.0175% maximum quarterly Program Overlay Fee (which, together cover the services provided by Morgan Stanley), plus 0.0625% quarterly SMA Manager Fees (being the fee currently charged by AEA to new clients for managing their assets in the Select UMA program). The SMA Manager Fees may differ from manager to manager, and managers may change their fee to new clients from time to time. If you select this manager for your account, check the SMA Manager Fees specified in the written client agreement, in case these have changed since you received this profile. Historical net fees reflect the Advisory Fee Schedule as of October 1, 2018. Morgan Stanley program fees are usually deducted quarterly, and have a compounding effect on performance. The Morgan Stanley program fee, which differs among programs and clients, is described in the applicable Morgan Stanley ADV brochure, which is available at www.morganstanley.com/ADV or on request from your Financial Advisor or Private Wealth Advisor. CRC# 1725534 (03/2017)

Focus List, Approved List, and Watch Status:

Global Investment Manager Analysis ("GIMA") uses two methods to evaluate investment products in applicable advisory programs. In general, strategies that have passed a more thorough evaluation may be placed on the "Focus List", while strategies that have passed through a different and less comprehensive evaluation process may be placed on the "Approved List". Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either evaluation process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved". The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" on the cover page.

For more information on the Focus List, Approved List, and Watch processes, please see the applicable Morgan Stanley ADV brochure (www.ms.com/adv). Your Financial Advisor or Private Wealth Advisor can provide on request a copy of a paper entitled "GIMA: At A Glance".

ADDITIONAL DISCLOSURES

The information about a representative account is for illustrative purposes only. Actual account holdings, performance and other data will vary depending on the size of an account, cash flows within an account, and restrictions on an account. Holdings are subject to change daily. The information in this profile is not a recommendation to buy, hold or sell securities.

Actual portfolio statistics may vary from target portfolio characteristics.

The Model Portfolio Provider or Investment Manager may use the same or substantially similar investment strategies, and may hold similar portfolios of investments, in other portfolios or products it manages (including mutual funds). These may be available at Morgan Stanley or elsewhere, and may cost an investor more or less than this strategy in Morgan Stanley's Select UMA program.

The portfolio may, at times, invest in exchange-traded funds (ETFs), which are a form of equity security in seeking to maintain continued full exposure to the broad equity market.

Morgan Stanley investment advisory programs may require a minimum asset level and, depending on your specific investment objectives and financial position, may not be suitable for you. Investment advisory program accounts are opened pursuant to a written client agreement.

The investment manager acts independently of, and is not an affiliate of, Morgan Stanley Smith Barney LLC.

Diversification does not guarantee a profit or protect against a loss.

No obligation to notify

Morgan Stanley has no obligation to notify you when information in this profile changes.

Sources of information

Material in this profile has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

No tax advice

Morgan Stanley and its affiliates do not render advice on legal, tax and/or tax accounting matters to clients. Each client should consult his/her personal tax and/or legal advisor to learn about any potential tax or other implications that may result from acting on a particular recommendation.

Not an ERISA fiduciary

Morgan Stanley is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended, or under section 4975 of the Internal Revenue Code of 1986, as amended, in providing the information in this profile.

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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 Depositary 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).

Distribution Rate is defined as the most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and /or returns of capital.

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

Dividend Yield annual dividend per share divided by price per share. Dividend Yield for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

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's 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.