

Lord, Abnett & Co. LLC

90 Hudson Street  
Jersey City , New Jersey 07302

Style: US Equities Other  
Sub-Style: Convertible Securities  
Firm AUM: \$129.3 billion  
Firm Strategy AUM: \$1.5 billion

Year Founded: 1929  
GIMA Status: Approved  
Firm Ownership: Privately-Owned  
Professional-Staff: 133^

## PRODUCT OVERVIEW

Lord Abnett's convertible philosophy is that successful investment in undervalued convertible securities will enhance total return and reduce downside risk. The investment team's disciplined process seeks to identify valuation and pricing inefficiencies driven by macroeconomic factors and company specific events and applies this to convertible securities across all market capitalizations. They believe that the returns generated should be competitive with equities – with reduced volatility - over a full market cycle. Convertibles are also expected to have superior performance relative to straight debt instruments. Lord Abnett implements this investment philosophy in its convertible portfolios through an iterative process incorporating equity analysis, fixed income analysis, and quantitative analysis.

## TARGET PORTFOLIO CHARACTERISTICS

Number of bond holdings:	40 to 60
Average credit quality:	—
Average maturity:	8.0 to 16.0 years
Average duration:	—
Average yield:	2.0 to 4.0%
Number of stock holdings:	56
Cash level over market cycle:	0 to 10%
Risk (standard deviation):	Below the ML All Conv Ex 144a -VXN0
Average turnover rate:	40 to 60%
Capitalization:	Mega, Large, Medium, Small and Micro companies

## PORTFOLIO'S EQUITY SECTOR WEIGHTINGS \* \*

Sector	-----09/15----- Lord Abnett	Index***	03/15 Lord Abnett
Energy	2.30	0.00	0.00
Materials	5.49	0.00	0.00
Industrials	6.53	0.00	0.00
Consumer Discretionary	12.03	0.00	0.00
Consumer Staples	3.92	0.00	0.00
Health Care	19.85	0.00	0.00
Financials	12.27	0.00	0.00
Information Technology	32.33	0.00	0.00
Telecomm Services	5.37	0.00	0.00
Utilities	1.08	0.00	0.00
Cash/Cash Equivalents	-3.50	0.00	0.00

## PORTFOLIO STATISTICS \*

	-----09/15----- Lord Abnett	Index***	03/15 Lord Abnett
Number of stock holdings	56	—	—
Wtd avg dividend yield	2.5%	—	—
Wtd avg portfolio beta	1.01	—	—
Mega capitalization +	0.0%	0.0%	0.0%
Large capitalization +	0.0%	0.0%	0.0%
Medium capitalization +	0.0%	0.0%	0.0%
Small capitalization +	0.0%	0.0%	0.0%
Micro capitalization +	0.0%	0.0%	0.0%
Number of bond holdings	—	—	52
Avg credit quality	—	—	—
Avg maturity	—	—	8.79 yrs.
Avg duration	—	—	—

## PORTFOLIO'S TOP FIVE EQUITY HOLDINGS \*

	%
Newmont Mining Corp.	3.8
Yahoo!, Inc.	3.7
Actavis plc	3.4
Wells Fargo & Co.	3.2
Intel Corp.	2.9

## % PROCESS BASED ON

0	Asset allocation
0	Industry or sector weighting
0	Stock Selection
0	Duration Management
0	Yield Curve Management
30	Sector Selection
70	Bond Selection

## MANAGER'S INVESTMENT STRATEGY

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

^As of 03/31/2014. Information as of 09/30/2015 is not yet available.

\*Total may not equal 100% due to rounding.

\*As represented by Lord, Abnett & Co., LLC.

\*\*\*Index : ML All Conv Ex 144a -VXN0

## MANAGER'S INVESTMENT PROCESS

- Iterative process incorporating equity analysis, fixed income analysis, and quantitative analysis
- Fundamental equity analysis is conducted to evaluate the management, business model and operating environment of candidates
- Fixed income analysis is conducted to assess balance sheet strength and confirm bond valuation
- The ultimate portfolio will consist of approximately 40-60 securities, which are "stress tested" as to their sensitivity to interest rates, equity markets, credit markets, and volatility

## RISK CONSIDERATIONS

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.

## PORTFOLIO'S ALLOCATION HISTORY (%) + \*

	09/15	06/15	03/15	12/14

## MATURITY STRUCTURE(%) + \*

	03/15	09/15
0 to 2 Years	29.00	0.00
2 to 4 Years	29.00	0.00
4 to 6 Years	12.00	0.00
6 to 8 Years	3.00	0.00
8 to 12 Years	3.00	0.00
12 to 17 Years	7.00	0.00
Over 17 Years	17.00	0.00
Cash/Cash Equivalents	0.00	0.00
	0.00	0.00

## CREDIT QUALITY STRUCTURE(%) + \*

	03/15	09/15
AAA	0.00	0.00
AA	0.00	0.00
A	12.00	0.00
BBB	33.00	0.00
BB	27.00	0.00
B	15.00	0.00
Below B	3.00	0.00
Not Rated	6.00	0.00
Dollar-Weighted Average Quality	0.00	0.00

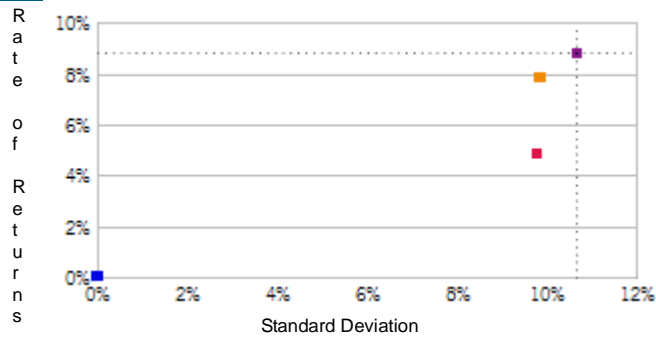
<sup>1</sup>As of 03/31/2014. Information as of 09/30/2015 is not yet available.

\*\*\*Index : ML All Conv Ex 144a -VXN0

\*Total may not equal 100% due to rounding.

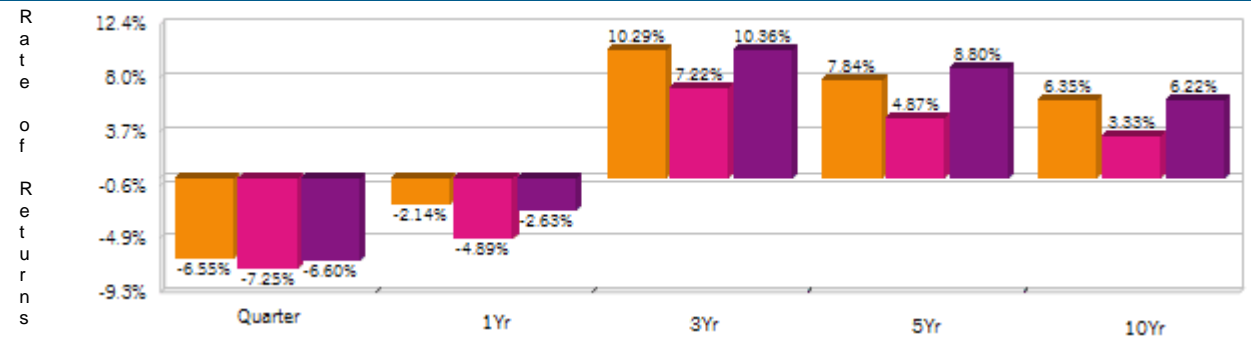
\*As represented by Lord, Abbett & Co., LLC.

**RISK/RETURN ANALYSIS - 5 YEARS ENDING 09/30/15**



	STD	ROR
Lord Abbett (Gross)	9.86	7.84
Lord Abbett (Net)	9.80	4.87
ML All Conv Ex 144a -VXN0	10.67	8.80
90-Day T-Bills	0.02	0.06

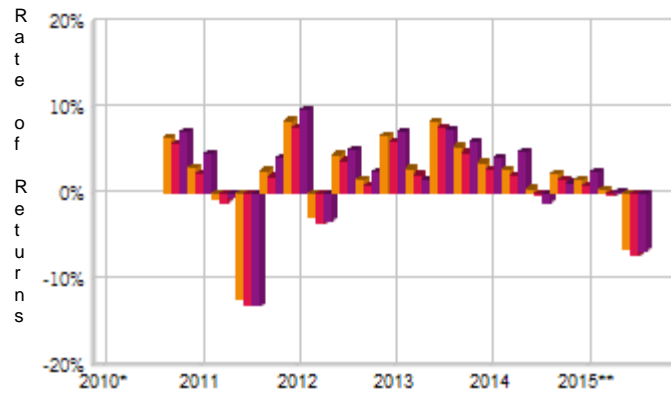
**AVERAGE ANNUAL TOTAL RETURN (%) - PERIODS ENDING 09/30/15**



**INVESTMENT RESULTS**

	Annual Rates of Return (%)										10 Year - Ending 09/30/15	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual	Std. Dev.
Lord Abbett (Gross)	3.17	8.73	9.13	-21.57	29.72	11.68	-7.63	12.26	25.78	9.80	6.35	10.27
Lord Abbett (Net)	0.13	5.57	5.96	-24.04	26.11	8.45	-9.99	9.06	22.33	6.75	3.33	10.25
ML All Conv Ex 144a -VXN0	0.92	12.63	5.53	-37.10	48.22	15.81	-5.53	14.88	24.26	9.67	6.22	14.61

**RISK VOLATILITY (%)**



	Number Of	Up Qtrs.	Down Qtrs.
Lord Abbett (Gross)	16	4	4
Lord Abbett (Net)	14	6	6
ML All Conv Ex 144a -VXN0	15	5	5

**PORTFOLIO'S QUARTERLY RETURNS (%)**

	Quarter1		Quarter2		Quarter3		Quarter4	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
2005	-1.68	-2.43	1.48	0.73	3.07	2.32	0.32	-0.43
2006	3.09	2.34	0.46	-0.29	1.90	1.15	3.03	2.28
2007	2.19	1.44	3.86	3.11	3.31	2.56	-0.47	-1.22
2008	-5.73	-6.48	1.64	0.89	-10.94	-11.69	-8.09	-8.84
2009	2.71	1.96	7.49	6.74	11.46	10.71	5.41	4.66
2010	3.12	2.37	-5.64	-6.39	7.70	6.95	6.57	5.82
2011	3.12	2.37	-0.67	-1.02	-12.23	-12.90	2.74	2.00
2012	8.50	7.72	-2.69	-3.42	4.60	3.87	1.66	0.94
2013	6.84	6.07	2.93	2.22	8.40	7.68	5.51	4.78
2014	3.62	2.90	2.81	2.08	0.64	-0.07	2.41	1.70
2015	1.69	0.97	0.56	-0.14	-6.55	-7.25		

**PORTFOLIO'S RISK STATISTICS - ENDING 09/30/15 <sup>1 2</sup>**

	PERIODS	
	3 Year	5 Year
Standard Deviation	7.50%	9.86%
Standard Deviation of Primary Benchmark	7.88%	10.67%
Sharpe Ratio	1.37	0.79
Sharpe Ratio of Primary Benchmark	1.31	0.82
Alpha	0.80%	-0.15%
Beta	0.91	0.91
Downside Risk	1.61%	1.73%
R-Squared	0.92	0.97
Tracking Error	2.23%	2.07%
Information Ratio	-0.03	-0.46

**PORTFOLIO DIVERSIFICATION - R<sup>2</sup>(INCEPTION THROUGH 12/14)+**

	R <sup>2</sup>
Lord Abbett vs. ML All Conv Ex 144a -VXN0	0.91

1. Statistics are calculated using gross of fee performance only.  
2. ML All Conv Ex 144a -VXN0 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

## COMPOSITE DISCLOSURES

**Past performance is no 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 work under all market conditions. Do not use 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 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.

**Related Performance (Manager's Composite):**

For periods before the date on which Morgan Stanley begins to calculate an applicable performance composite for actual Morgan Stanley program accounts, the performance composite and certain other information for this strategy (including the data on page 1 of this profile) are based on the investment manager's own composite and data. This composite includes accounts managed by the investment manager according to the same or a substantially similar investment strategy. To provide maximum information to you, the investment manager's own composite is linked to the Morgan Stanley composite to create a simulated continuous track record of performance information for the investment strategy. The investment manager's composite may include separately managed accounts, institutional accounts and/or mutual funds. Performance and other data for the investment managers composite may vary from that of Morgan Stanley accounts due to differences such as the availability and weighting of securities, trading implementation or client objectives. Morgan Stanley does not verify composite and other data provided by the investment manager and therefore does not guarantee its accuracy. Some of the accounts in the investment managers composite may have invested in the initial public offering ("IPO") market, whereas accounts held in Morgan Stanley programs do not do so. Since investment managers may use different methods of selecting accounts to be included in their composites and for calculating performance, returns of different investment managers may not be comparable.

**Related Performance:**

Lord, Abbett & Co., LLC (Lord Abbett) started managing actual separately managed convertibles accounts during December 2002. Information for periods prior to 12/31/2002 is based on the average holdings, portfolio characteristics and performance of separately managed institutional accounts in Lord Abbett's Convertibles Institutional Composite (the Institutional Composite). Information for periods after 12/31/2002 is based on separately managed non-institutional accounts in Lord Abbett's Separately Managed Accounts Convertibles Composite (the SMA Composite). The SMA Composite includes all fully invested portfolios managed in a separately managed account program investing primarily in convertible bonds, including preferred stock, with approximately 50% of the securities rated or equivalent to investment grade. The investment performance record for Lord, Abbett & Co., LLC's Convertibles Institutional Composite (the "Institutional Composite"), is shown as supplemental information to the performance of Lord, Abbett & Co., LLC's Managed Accounts Convertibles Composite. The Institutional Composite includes all fully invested Institutional portfolios investing in convertible bonds, including preferred stock, a significant percentage of which are rated or equivalent to investment grade. The Managed Accounts Convertibles Composite includes all unconstrained, fully discretionary, accounts managed in a separately managed account program investing in convertible bonds (excluding 144A securities), including preferred stock, a significant portion of which are rated or equivalent to investment grade. Because of significant changes to the convertibles securities market that have significantly reduced the supply of investment-grade issues, Lord Abbett reduced the percentage of investment grade securities held in the portfolios during the first quarter of 2012. The non-institutional separately managed accounts employ substantially the same investment style, strategies and characteristics as those of their counterpart accounts in the Institutional Composite, except that the separately managed accounts are managed somewhat differently than the Institutional Composite accounts. The performance of the non-institutional separately managed accounts may differ significantly from that of the institutional accounts as a result of such management differences as well as inherent differences between the management of separately managed accounts that have a \$100,000 minimum size and the larger institutional accounts. Differences may include the types, availability, number and diversity of securities, as well as cash flows, taxes, fees and other factors. Unlike the institutional accounts, separately managed accounts cannot invest in Rule 144A securities, which have historically had a positive effect on performance. The separately managed accounts will generally invest in fewer securities and be more concentrated and therefore potentially more volatile than the institutional accounts. In addition, as a result of management differences, separately managed accounts may have significantly different (typically higher) average credit quality distribution than the institutional accounts. The separately managed accounts also may not invest in certain securities deemed appropriate for institutional accounts based on liquidity considerations and the inability to hold positions below 10 bonds in individual portfolios. Information for periods after 12/31/2012 is based on non-institutional separately managed accounts in Lord Abbett's Separately Managed Accounts Convertibles Composite. The non-institutional separately managed account composite included 2,168 wrap-fee accounts with a market value of \$620.0 million as of 09/30/15.

**Fiduciary Services Performance:**

In this profile, the performance from 1/1/2011 through June 2012 consists of accounts in either the Morgan Stanley or the Smith Barney form of the Fiduciary Services program. From July 2012, performance consists of all Fiduciary Services accounts managed by the investment manager in the 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 upon the first full quarter of performance. Terminated accounts are removed in the quarter in which they terminate. Performance is calculated on a total return basis and by asset weighting the individual portfolio returns using the beginning of period values.

**Equity Account (Gross):** Lord Abbett's gross results do not reflect a deduction of the investment advisory fees charged by Lord Abbett, or program fees, if any, but are net of commissions charged on securities transactions.

**Net Performance for all Periods:** To demonstrate the effect of Morgan Stanley's fees that would have applied if you had invested in the investment manager strategy's through the Fiduciary Services program, the net results for all periods are calculated by deducting a quarterly fee of 0.75% (equivalent to an annual fee of 3%).

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](http://www.morganstanley.com/ADV) or on request from your Financial Advisor or Private Wealth Advisor.

Document approval date February 2013.

Fiduciary Services is a separately managed account program sponsored by Morgan Stanley. For periods for which sufficient data is available, the profile shows a composite of client accounts managed by the investment manager in the Fiduciary Services program. Through June 2012, Morgan Stanley offered the Fiduciary Services program through two channels - the Morgan Stanley channel and the Smith Barney channel. For periods through June 2012, any composite based on Fiduciary Services accounts consists of Fiduciary Services accounts managed by the manager in the strategy in either the Morgan Stanley channel or the Smith Barney channel. If the strategy or similar strategies were available in both the Morgan Stanley and Smith Barney forms of the program, through June 2012 this profile presents the composite for the strategy that is closest to the strategy currently offered in the Fiduciary Series program. If both strategies were equally close, this profile shows through June 2012 the longer of the two composites. From July 2012, any composite based on Fiduciary Services accounts consists of all Fiduciary Services accounts managed by the manager in the strategy, subject to any other limitations stated in this profile. Performance and other data for Fiduciary Services composites may differ from composites in other Morgan Stanley programs, and performance and data for composites in one channel may differ from composites in the other channel, due to differences such as the availability and weighting of securities, trading implementation or client objectives.

#### **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](http://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 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 the Morgan Stanley Fiduciary Services 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.

©2015 Morgan Stanley Smith Barney LLC Member SIPC.

## 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.

### ML All Convt Ex 144a -VXN0

Sold into the U.S. market and publicly traded in the U.S. Convertible into U.S. dollar denominated common stock, ADR's or cash equivalent. Not a synthetic (defined as an exchangeable or equity-linked security issued by a broker-dealer with proceeds going directly to the broker-dealer). SEC registered.

### S&P 500

The S&P 500 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).

**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'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.