

# PORTFOLIO GAP ANALYSIS

Recommendations for RBC Capital Markets



Investing Analysis

June 08, 2016

 COMPANY NAME

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## Introduction

This Portfolio Gap Analysis is designed to analyze your current portfolio to identify specific deficiencies and potential opportunities for improvement by transitioning to a recommended portfolio. The key areas of analysis include asset allocation, diversification, investment costs, portfolio risk and efficiency.

## Investor Information

Client Name: Tony Leal  
Tony2 Leal2  
Advisor Name: NotDana NotCrosby  
Portfolio Value: \$500,000  
Analysis Date: June 8, 2016

## Data Assumptions

The following holdings were outside the universe of Morningstar investments. The proxies listed were utilized in place of each holding.

Holding	Symbol	Asset Class	Proxy Used	Percent of Portfolio
Foobar Funds Balanced Attack	FOOBX	US Investment Grade	Barclays US Agg Bond TR USD	20.00%
Foobar Funds Balanced Attack	FOOBX	US Stocks	Russell 3000 TR USD	20.00%

## Recommended Portfolio

	Fund Name	Ticker	Weight
Equity	Money Market Fund	AAPL	100%

- **Asset Allocation:** The recommended portfolio provides an equity-to-fixed income ratio determined most suitable based on an assessment of your investment goals and risk tolerance.
- **Portfolio Diversification:** The recommended portfolio is diversified on multiple levels:
  - diversified across a number of distinct equity asset classes
  - globally diversified up to 43 country markets
  - broadly diversified across thousands of individual securities to help minimize company-specific risk
- **Equity Risk:** The recommended portfolio emphasizes value and small capitalization equities in an effort to increase the longer-term return potential of the equity allocation.
- **Fixed Income Risk:** The recommended portfolio emphasizes high-quality, short-term fixed income because the primary role of fixed income in the portfolio is to dampen overall portfolio volatility.
- **Investment Costs:** The recommended portfolio invests in structured asset classes with lower than the industry's average management expenses and lower fund turnover, which incurs lower transaction costs.<sup>1</sup>
- **Portfolio Risk Profile and Efficiency:** The risk profile of the recommended portfolio is suitable based on an assessment of your risk capacity and risk tolerance. The recommended portfolio attempts to maximize the potential benefits of diversification through exposures to select asset classes.

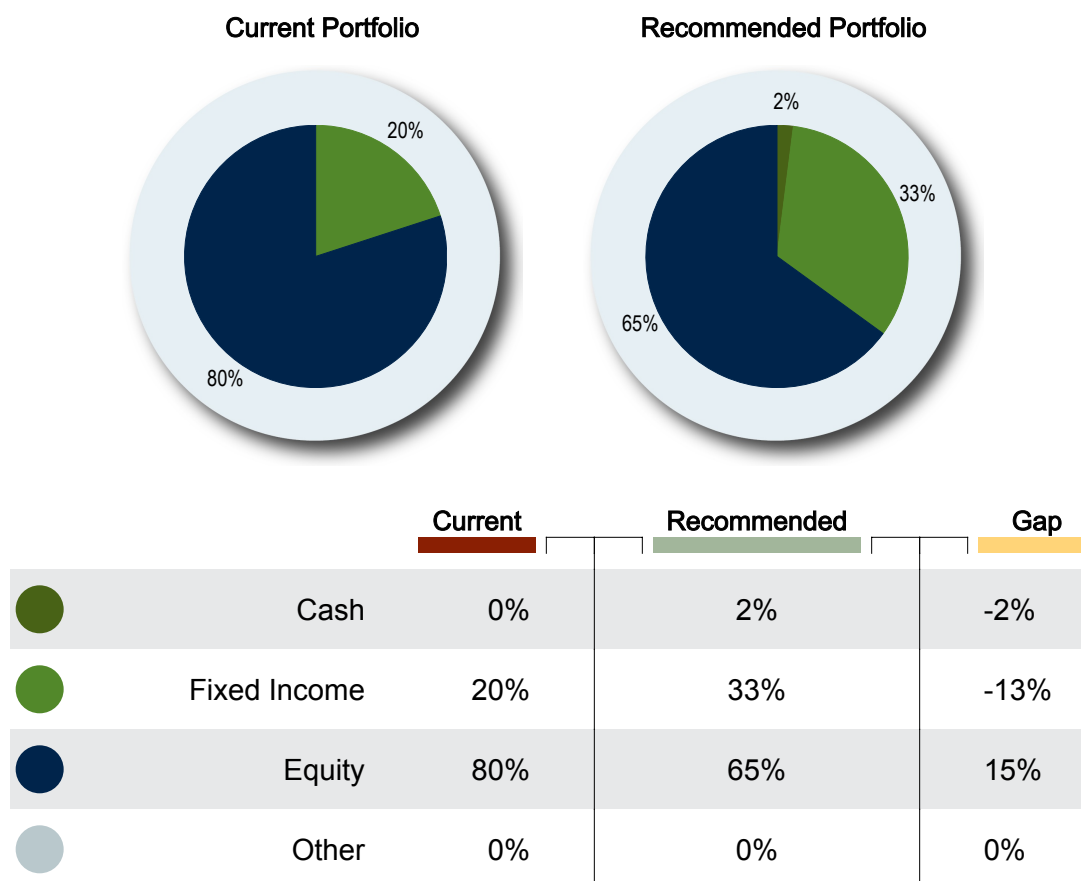
<sup>1</sup>Dimensional Fund Advisors. "Low Fees Add Value." Morningstar Inc., 17 Apr. 2011.

## Asset Allocation

One of the most important steps in efficient portfolio construction is setting the proper asset allocation.

In a study conducted by academics Gary P. Brinson, L. Randolph Hood, and Gilbert L. Beebower, asset allocation was found to account for 93.6%<sup>1</sup> of the variation in portfolio return.

Asset allocation establishes what portion of your portfolio will be exposed to the volatility of the equity markets. The proper allocation must be determined with care and in context with your investment goals and your personal risk tolerance.



Figures may not add up to 100% due to rounding.

<sup>1</sup>Gary P. Brinson, L. Randolph Hood, and Gilbert L. Beebower. "Determinants Of Portfolio Performance." Financial Analysts Journal 42.4 (1986): 39-44. Print.

# Portfolio Diversification

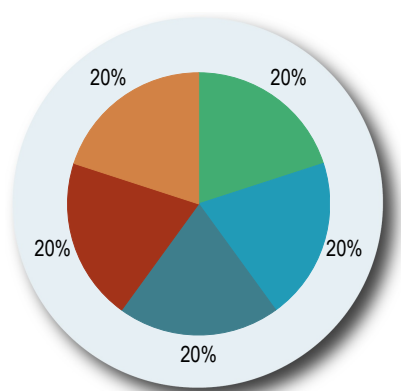


Potential Gap

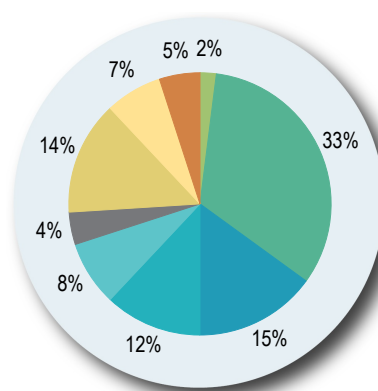
## Asset Class Diversification

It is important that you have a sufficient level of diversification across a number of distinct equity asset classes with dissimilar characteristics to maximize potential diversification benefits<sup>1</sup>. Your recommended portfolio was designed with asset class exposures optimally weighted with the intention of reducing risk or improving returns.

Current Portfolio



Recommended Portfolio



	Current	Recommended	Gap
Cash	0%	2%	-2%
Short-Term Fixed Income	0%	33%	-33%
US Investment Grade	20%	0%	20%
US Stocks	20%	15%	5%
US Large Value	0%	12%	-12%
US Large Growth	20%	0%	20%
US Small Neutral	0%	8%	-8%
US REITs	0%	4%	-4%
World Stocks	20%	0%	20%
International Large Value	0%	14%	-14%
International Small Neutral	0%	7%	-7%
Emerging Markets	20%	5%	15%

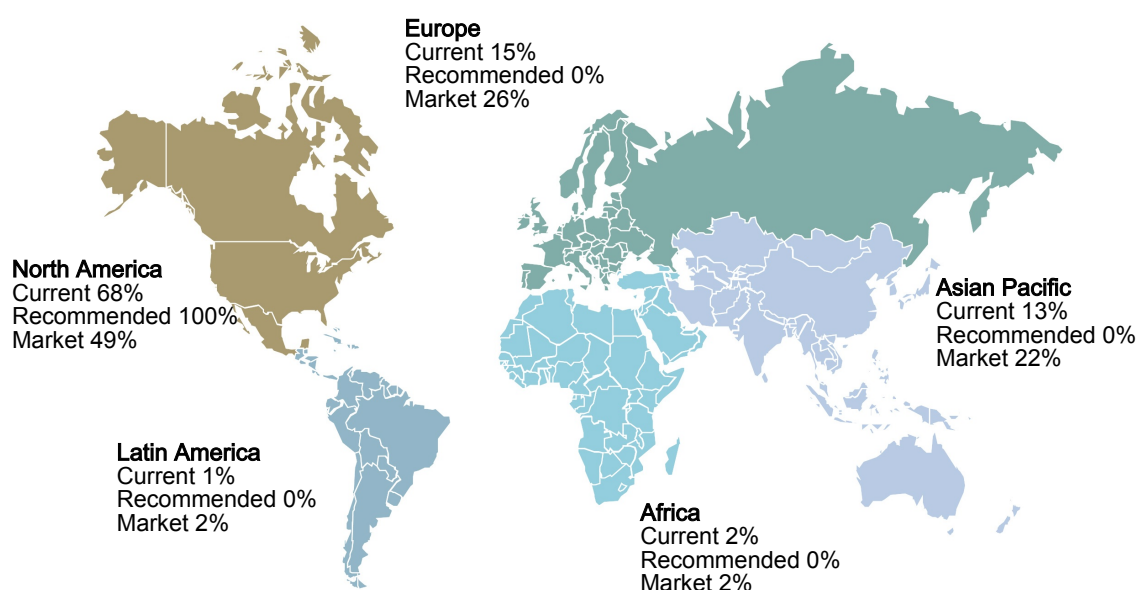
The illustration shows the asset class mix of your current and recommended portfolios. The Gap column highlights the deficiencies and over concentrations of your current portfolio relative to the recommended risk-based portfolio.



## Global Diversification

Historically, international markets have not moved in unison with the U.S. market. Incorporating both international and domestic equities into a portfolio increases diversification and can potentially lower volatility.

While the U.S. stock market is one of the world's largest, the U.S. accounts for less than half of the world's market capitalization, and this percentage continues to shrink. If you invest only in the U.S. markets, you are only utilizing less than half of the global investment opportunities. By 2050, experts predict the United States will account for only 17% of global market capitalization.



For effective global diversification, we recommend investment allocations that are similar to the relative weight of each region within the global markets, with a reasonable variation based on investment preferences and risk tolerances. The map above compares each portfolio's exposure in various regions of the world relative to the distribution of world market capitalization.



## Global Diversification *continued*

International investments include developed markets with well established companies and listing standards similar to the U.S., and also include emerging markets countries with potentially rapid but volatile growth.

International investing can help enhance the diversification of a portfolio as it spreads risk across several economies and financial markets. There is a wide range of returns generated from each individual country market as driven by individual geopolitical or economic factors. Investments across a greater number of individual country markets investments may provide more effective diversification.

The table below compares the weights of the current and recommended portfolios relative to the global market distribution.

	Global Market	Current Portfolio	Recommended Portfolio	Gap
	% Weight	% Weight	% Weight	% Weight
<b>US Core Equity</b>	44	60	100	-40
<b>International Core Equity</b>	43	30	0	30
<b>Emerging Core Equity</b>	13	11	0	11
<b>Not Classified</b>	0	0	0	0

Figures are rounded to the nearest 1%.

The table below presents the number of individual securities holdings within the U.S., Developed International, and Emerging Markets countries. The recommended portfolio may include 10,000 or more distinct individual securities across the global markets.

	Global Market	Current Portfolio	Recommended Portfolio	Gap
	Number of Securities	Number of Securities	Number of Securities	Number of Securities
<b>US Core Equity</b>	6082	272	1	271
<b>International Core Equity</b>	8556	255	0	255
<b>Emerging Core Equity</b>	8585	120	0	120
<b>Not Classified</b>	0	0	0	0
<b>Total</b>	23223	647	1	646

The total number of equities is based on the number of companies listed on the New York Stock Exchange, NYSE Alternext US LLC, Nasdaq Global Market or such other securities exchanges deemed appropriate by Dimensional Fund Advisors.





## Equity Concentration Risk

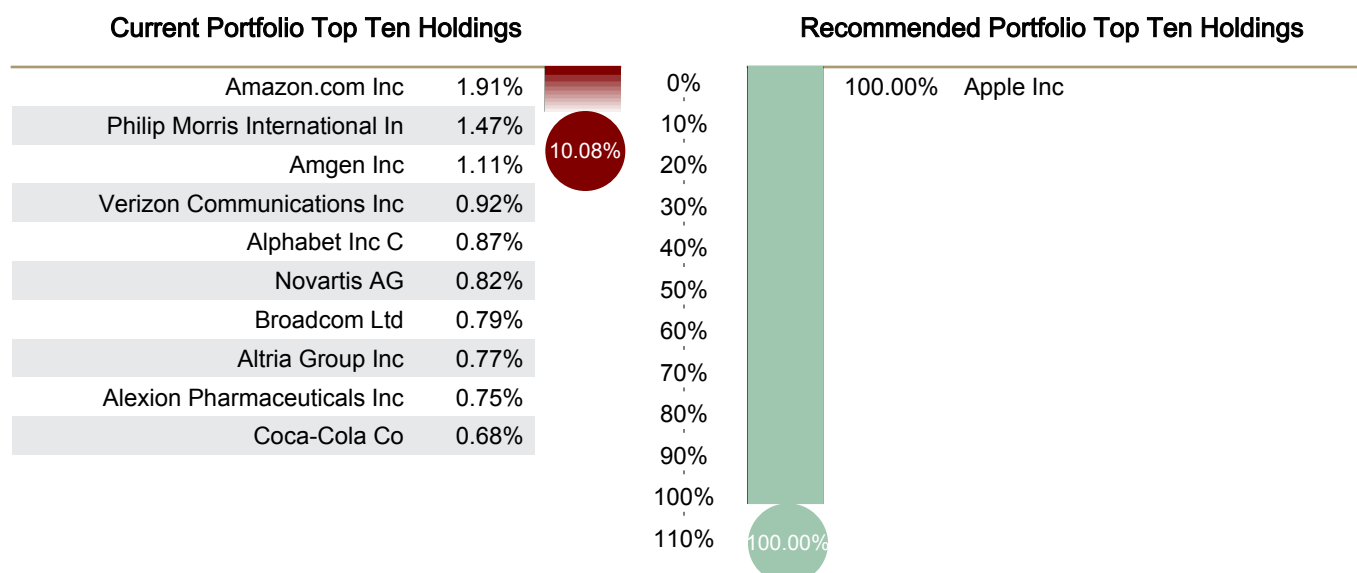
Equity holdings diversification is a means to help eliminate unsystematic or company-specific risk<sup>1</sup>. During periods of high market volatility, the returns for individual stocks may vary substantially. Broad diversification across a large number of individual stocks is intended to minimize the possibility that any single holding will guide the returns of the portfolio.

For effective diversification, we recommend that the top 10 stocks should not represent more than 10% of your portfolio. Too much concentration in your portfolio may subject your portfolio to unnecessary risks.

It is also important to review the amount of cash held within your equity mutual funds and managed investments to ensure that they are efficiently capturing the market rates of returns offered by each asset class. Cash Efficiency of less than 2% will ensure that your investments are being efficiently managed to reduce the diluting effects of cash in an equity fund or managed account.

	Current Portfolio	Recommended Portfolio	Gap
Total Stocks	647	1	646
Top 10 Stocks	10.08%	100.00%	-89.92%
Cash Efficiency	4.50	0.00	4.50

The chart below compares the holding concentration across the various equity investments in your current and recommended portfolios.

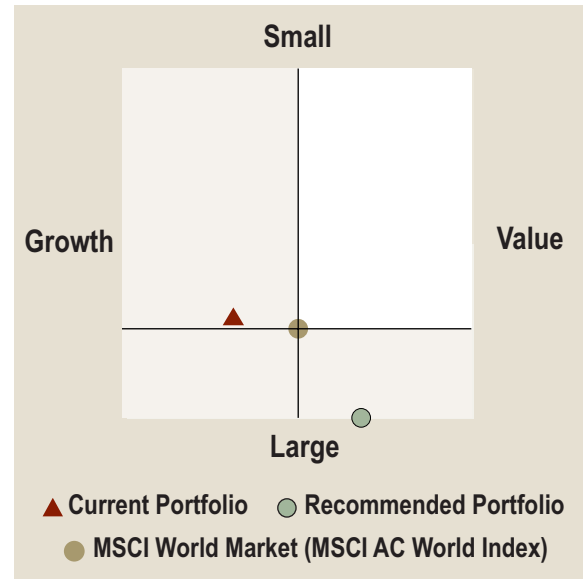


<sup>1</sup>"Unsystematic Risk Definition." Investopedia.com - Your Source For Investing Education. Web. 04 Nov. 2011.  
<http://www.investopedia.com/terms/u/unsystematicrisk.asp>.

## Equity Style & Risk

Over time markets have shown a strong relationship between risk and return. This means that the compensation for taking on increased levels of risk is the potential to earn greater returns. According to noted academic research by Professors Eugene Fama and Ken French<sup>1</sup>, there are three “factors” or sources of potentially higher returns with higher corresponding risks.

1. Equity Market
2. Small Company Stocks
3. Value Company Stocks



Lower-priced “value” stocks have historically generated higher long-term returns and risk than higher-priced “growth” stocks. Small company stocks have historically generated higher long-term returns and risk than large company stocks.

### Small and Value Equity Weightings

	Current	Recommended	Gap
Small	3%	0%	3%
Value	28%	0%	28%

In line with this research, the recommended portfolio emphasizes small capitalization and value stocks in an effort to increase the return potential of the equity allocation.

<sup>1</sup>Fama, Eugene F.; French, Kenneth R. (1992). “The Cross-Section of Expected Stock Returns”. *Journal of Finance* 47 (2): 427–465. doi:10.2307/2329112.

# Fixed Income Risk Analysis

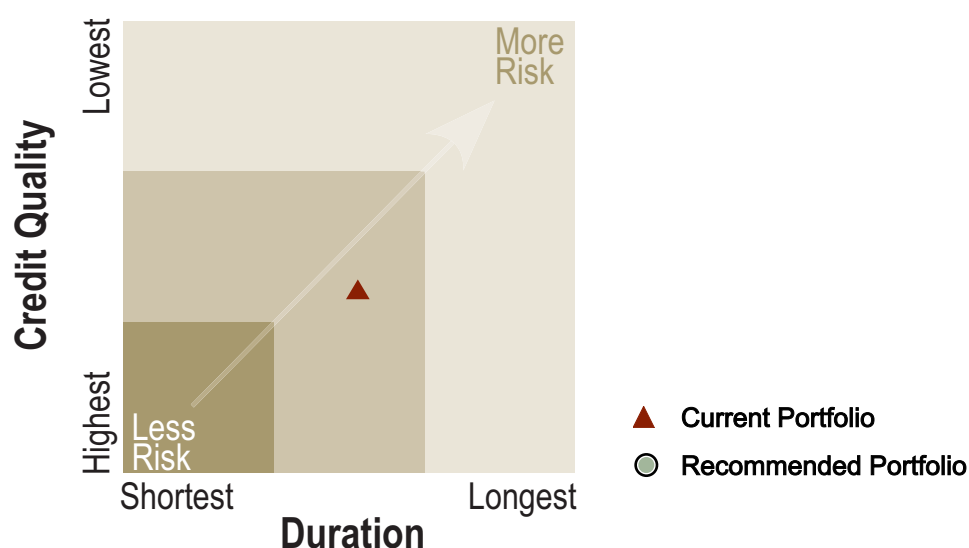
☐ Potential Quality Gap

☐ Potential Maturity Gap

## Fixed Income Risk

The primary role of fixed income in a portfolio is to dampen portfolio volatility. There are two primary risk factors that contribute to the level of volatility in fixed income: term (maturity) and credit quality. Generally as the maturity of a bond increases, interest rate risk increases, and as the credit quality of a bond decreases, default risk increases. Fixed income risk and volatility are therefore minimized with short term and high quality securities.

Longer maturities and lower credit qualities can potentially yield higher returns, however based on historical data from 1964 to 2015, incremental returns have not been commensurate with the additional risk taken.



	Current	Recommended	Gap
High Quality	69%	0%	69%
Short-Term	0%	0%	0%

	Current	Recommended	Gap
Average Maturity	2.06	0.00	2.06
Average Duration	5.19	0.00	5.19

# Fixed Income Risk Analysis

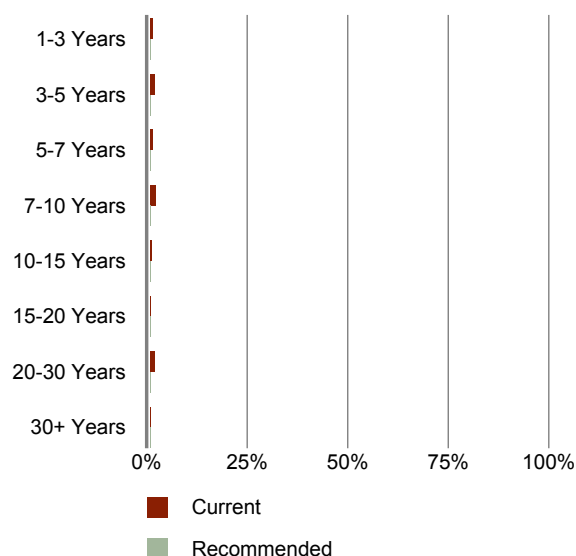
 Potential Gap

## Fixed Income Risk *continued*

### Shorter Maturities

In essence, investing in bonds is simply lending a company your money for a specific period in return for them making periodic interest payments to you, and then returning your principal at some predetermined “maturity date”. For longer maturity dates, investors demand a higher coupon rate because of the increased chance that the company could go bankrupt before it can pay back the principal. Longer maturity securities tend to have increased annual return expectations, however the additional return comes at the steep price of much higher volatility.

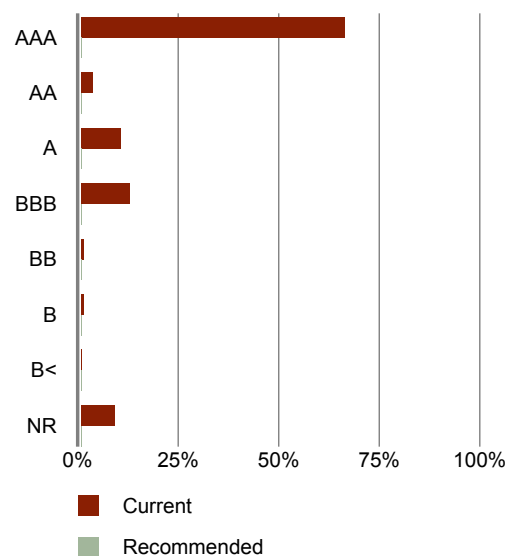
### Maturity



### Higher Quality

Historical evidence shows us that investors have not been adequately compensated for extending the credit quality of their fixed income below investment grade (BBB). While low quality bonds have a higher average yield, during extreme periods of inflation their risk of default and loss of principal is significantly higher than investment grade companies.

### Quality





## Management Expenses

The charts below provide the reported management expense ratio and annual turnover rates for the managed investments in your current and recommended portfolios.

Management expenses can have a negative impact on portfolio returns and growth, so it is important to keep these costs as low as possible.

	Current	Recommended	Gap
Operating Expense Ratio (net) (%)	0.76%	0.00%	0.76%
Annual Expense* (\$)	\$760	\$0	\$760

\*Based on \$100,000 in the utilized managed investments

### Current

Investment	Morningstar Classification	Expense Ratio**	Turnover Ratio
American Funds Capital Income Builder A	Allocation	0.59%	63%
American Funds Growth Fund of America	US Equity Large Cap Growth	0.65%	29%
American Funds New World A	Emerging Markets Equity	1.04%	41%

### Recommended

Investment	Morningstar Classification	Expense Ratio**	Turnover Ratio

## Trading Costs

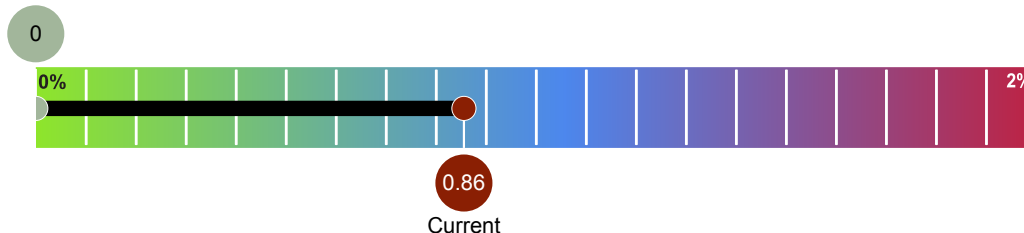
While the expense ratio is a significant indicator in the managed investment cost analysis, it only tells part of the story. There are also costs associated with trading securities not accounted for by the expense ratio. These costs can make a fund even more expensive, and may potentially erode portfolio returns.

A fund's turnover ratio measures the amount of times a fund buys and sells securities it holds in its portfolio. A turnover ratio of 100% indicates that a fund sold all of the securities held in its portfolio and bought different securities over the course of a year. These buy and sell transactions result in increased fund operating expenses that are not disclosed in a fund's expense ratio.

Trading costs are not easy to quantify and thus, often go unreported. Independent research by Loring Ward<sup>1</sup> found that fund turnover costs on average 0.36% for every 100% of turnover within the fund. This means a fund that sold all of the securities within its portfolio and replaced them with new securities would have 0.36% lower return than an identical fund that didn't trade any of its securities during the year.

### Costs

Recommended



The chart above compares the estimated cost of owning the mutual funds in your current and recommended portfolios. The cost includes the published mutual fund expense ratio and Loring Ward's estimated cost of mutual fund turnover, but does not include all fees and expenses that may be included by actual ownership of a mutual fund.

<sup>1</sup>McFarland, Sheldon and Cherry Phan. "Structure Determines Performance, but Costs Matter Too!" LWI Financial Inc. (2011).  
Estimated Average Mutual Fund Costs = weighted average of individual fund net expense ratios + (turnover x 0.36%)/100.





## Portfolio Efficiency

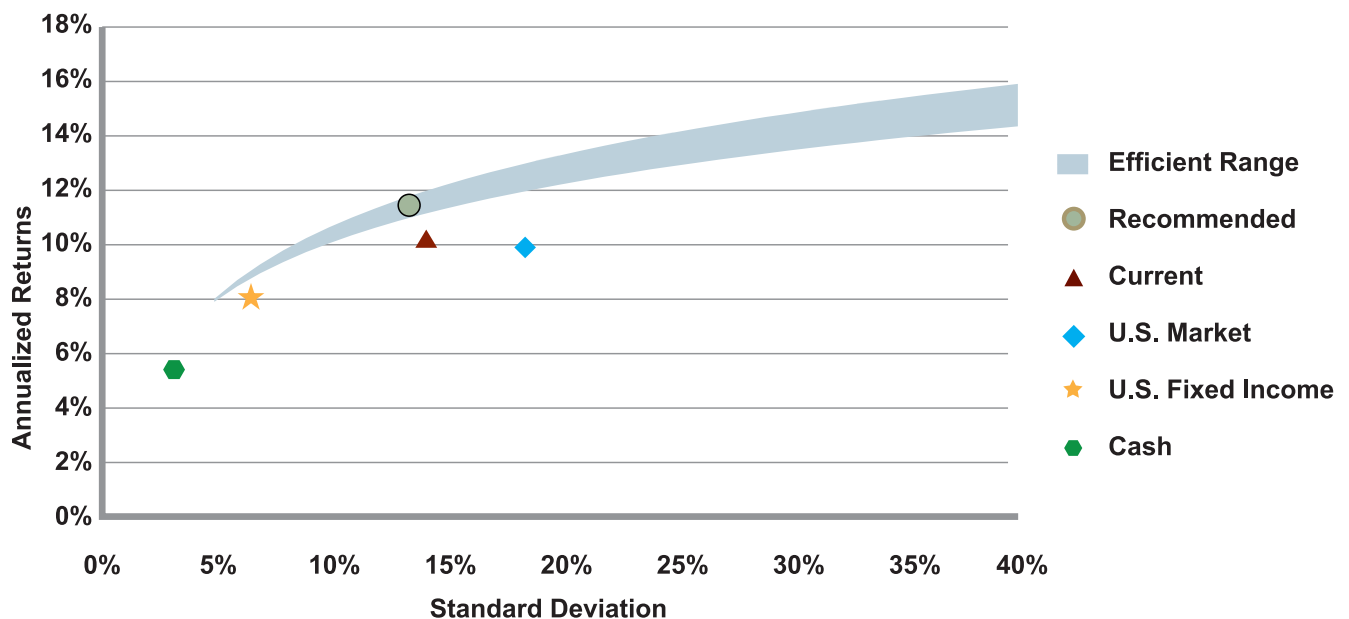
Historically, many investors have relied on a classical portfolio optimization technique to produce an “efficient frontier” of portfolios, or hypothetical asset mixes that offer the maximum return for each given level of risk.

The notion of the efficient frontier is a useful concept but in reality the precise location of the efficient frontier requires knowledge of the precise *future* returns, risk and correlations. We only have historical parameters to use as estimates which are imprecise in nature.

For this reason we know only an “efficient range” that contains effectively diversified portfolios.

### The Efficient Range

Annualized Return & Risk: 1972 - 2010



Benchmark annualized return and standard deviation corresponds to the following indices: U.S. Market = CRSP Deciles 1 – 10 Index (1972 - 2015), U.S. Fixed Income = Five-Year U.S. Treasury Notes (1972 - 1975), Barclays Capital U.S. Aggregate Bond Index (1976 - 2015), and Cash = One-Month U.S. Treasury Bills (1972 - 2015).

The ideal portfolio for each investor exists within the efficient range and is constructed layer by layer with a focus on investor preferences, aversions and other behavioral considerations.

# Portfolio Risk & Efficiency

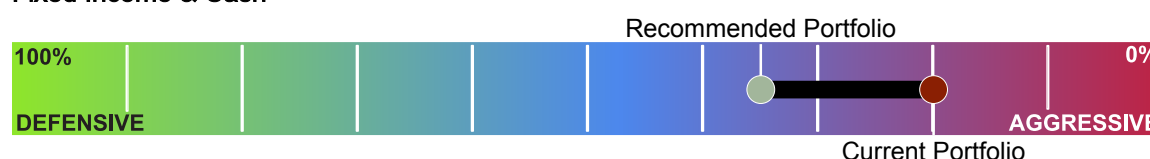


## Portfolio Risk Profile

One's ability to bear investment risk is determined by portfolio goals, investment time horizon, income requirements, liquidity needs, and funding expectations. Once determined, the target risk level can be managed through proper asset allocation and effective diversification. Proper asset allocation is critical — too little risk and you may run out of money, too much risk and you may experience extreme fluctuations in your portfolio's value.

The risk gauge below shows the risk level of your current portfolio compared to the recommended portfolio based on the allocation between equity and fixed income investments. The risk level of the recommended portfolio has been determined based on an assessment of your risk capacity and risk tolerance.

### Fixed Income & Cash



The goal of effective diversification is to provide the greatest return potential for a desired risk level. Below are the historical returns and risk (standard deviation) of your current and recommended asset allocations. Returns and standard deviations for the portfolios are based on historical data from 1972-2015 of the various asset classes held in each portfolio. Although past performance is not an indication of future performance, it does provide perspective on how the portfolio may perform in the future.

		Current	Recommended
Historical Returns and Inflation Rates (1972 - 2010)	Annualized Returns	10.12%	11.46%
	Base Inflation Rate	4.38%	4.38%
	Real Annualized Return	5.74%	7.08%
	Worst One Year Loss (or Lowest Gain)	-30.94%	-26.84%
	Annual Standard Deviation	14.23%	13.49%

The average annual historical returns are calculated using the indices as listed in the disclosures, which serve as proxies for their respective asset classes. The index data are for the period 1972 - 2015. The portfolio returns shown assume reinvestment of interest and dividends at net asset value without taxes, and also assume that the portfolio has been rebalanced to reflect the initial recommendation.

Indexes are unmanaged baskets of securities in which investors cannot directly invest; they do not reflect the payment of advisory fees or other expenses associated with specific investments or the management of an actual portfolio.

# Portfolio Gap Summary

## Portfolio Gap Summary

The check marks in the chart below indicate possible deficiencies and/or potential opportunities for improvement in your current portfolio. Please review these sections carefully with your Advisor to learn more about the potential benefits of transitioning to a recommended portfolio model.

ASSET ALLOCATION	<input checked="" type="checkbox"/>
ASSET CLASS DIVERSIFICATION	<input checked="" type="checkbox"/>
GLOBAL DIVERSIFICATION	<input checked="" type="checkbox"/>
EQUITY CONCENTRATION RISK	<input checked="" type="checkbox"/>
EQUITY RISK ANALYSIS	<input checked="" type="checkbox"/>
FIXED INCOME QUALITY	<input type="checkbox"/>
FIXED INCOME MATURITY	<input type="checkbox"/>
FIXED INCOME HOLDINGS RISK	<input checked="" type="checkbox"/>
MANAGEMENT EXPENSES	<input checked="" type="checkbox"/>
TRADING COSTS	<input checked="" type="checkbox"/>
PORTFOLIO EFFICIENCY	<input checked="" type="checkbox"/>
PORTFOLIO RISK PROFILE	<input checked="" type="checkbox"/>
Total number of Potential Portfolio Gaps	10

## Managed Investment Characteristics

The tables below summarize the characteristics of the managed investment holdings in your current and the recommended portfolios.

### Current Portfolio

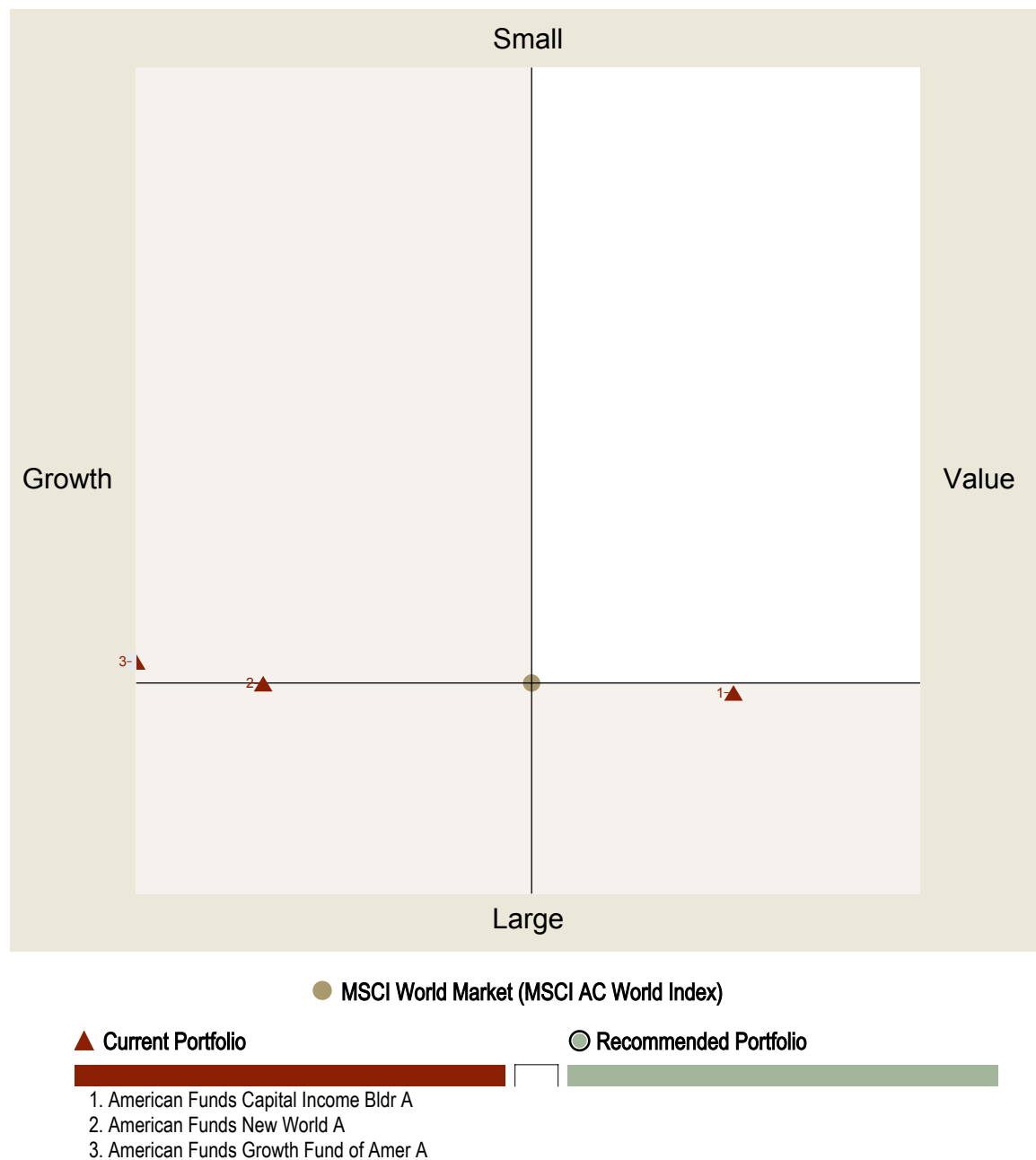
Fund Name	Ticker	Expense Ratio (net)	% Turnover	# of Holdings	% Cash	% US	% Non-US Stocks	% Bonds	% Other
American Funds Capital Income Bldr A	CAIBX	0.59	63	1449	2.46	42.91	36.61	16.27	1.75
American Funds Growth Fund of Amer A	AGTHX	0.65	29	395	8.10	78.61	11.28	1.33	0.67
American Funds New World A	NEWFX	1.04	41	494	2.94	12.85	67.19	7.33	9.70

### Recommended Portfolio

Fund Name	Ticker	Expense Ratio (net)	% Turnover	# of Holdings	% Cash	% US	% Non-US Stocks	% Bonds	% Other

## Managed Equity Investments Style & Risk

The graph below plots the equity style and risk of each of the holdings in your current and recommended portfolios.



## Assumptions

Historical returns are based on the following asset class return assumptions:

Asset Class	Indexes
Cash	IA SBBI US 30 Day TBill TR USD (1972-1977), BofAML US Treasury Bill 3 Mon TR USD (1978-2015)
US Short Government	IA SBBI US 1 Yr Trsy Const Mat TR USD (1972-1977), BofAML US Treasuries 1-3 Yr TR USD (1978-1982), BofAML US Trsy/Agcs AAA 1-3 Yr TR USD (1982-2015)
US Short Investment Grade	IA SBBI US 1 Yr Trsy Const Mat TR USD (1972-1986), BofAML US Corp&Govt 1-3 Yr TR USD (1986-2015)
Short-Term Fixed Income	50% IA SBBI US IT Govt TR USD, 50% IA SBBI US 1 Yr Trsy Const Mat TR USD (1972-1984), 50% Citi WGBI 1-5 Yr Hdg USD, 50% IA SBBI US 1 Yr Trsy Const Mat TR USD (1985-1986), 50% BofAML US Corp&Govt 1-3 Yr TR USD, 50% Citi WGBI 1-5 Yr Hdg USD (1986-2015)
US Government	IA SBBI US IT Govt TR USD (1972-1972), Barclays US Government TR USD (1973-2015)
US Investment Grade	IA SBBI US IT Govt TR USD (1972-1972), Barclays US Govt/Credit TR USD (1973-1975), Barclays US Agg Bond TR USD (1976-2015)
US Long Government	IA SBBI US LT Govt TR USD (1972-1972), Barclays US Government Long TR USD (1973-2015)
US Long Credit	IA SBBI US LT Corp TR USD (1972-1972), Barclays US Long Credit TR USD (1973-2015)
Global Short Bond	IA SBBI US IT Govt TR USD (1972-1984), Citi WGBI 1-5 Yr Hdg USD (1985-2015)
Global Bond	IA SBBI US IT Govt TR USD (1972-1984), Citi WGBI Hdg USD (1985-2015)
Municipal Bonds	IA SBBI US LT Corp TR USD (1972-1980), Barclays Municipal TR USD (1980-2015)
US High Yield	IA Barclays US HY Corporate Bonds (1972-1983), Barclays US Corporate High Yield TR USD (1983-2015)
US Inflation-Protected	IA SBBI US LT Govt TR USD (1972-1997), Barclays US Treasury US TIPS TR USD (1997-2015)
US Stocks	CRSP Deciles 1-10 Index (1972-1978), Russell 3000 TR USD (1979-2015)
US Large Neutral	S&P 500 Index (1972-1978), Russell 1000 TR USD (1979-2015)
US Large Value	Fama/French US Large Value Index (ex utilities) (1972-1978), Russell 1000 Value TR USD (1979-2015)
US Large Growth	Fama/French US Large Growth Index (ex utilities) (1972-1978), Russell 1000 Growth TR USD (1979-2015)
US Small Neutral	CRSP Deciles 6-10 Index (1972-1978), Russell 2000 TR USD (1979-2015)
US Small Value	Fama/French US Small Value Index (ex utilities) (1972-1978), Russell 2000 Value Index (1979-2015)
US Small Growth	Fama/French US Small Growth Index (ex utilities) (1972-1978), Russell 2000 Growth Index (1979-2015)
US Microcap	CRSP Deciles 9-10 Index (1972-2000), Russell Micro Cap TR USD (2000-2015)
US REITs	FTSE NAREIT All Equity REITs TR USD (1972-1986), DJ US Select REIT TR USD (1987-2015)
Global Stocks	MSCI World NR USD (1972-1994), MSCI ACWI IMI Value Weighted NR USD (1994-2015)
World Stocks	MSCI World NR USD (1972-2015)
International Stocks	MSCI World ex USA NR USD (1972-1994), MSCI World ex USA IMI Value Wgthd NR USD (1994-2015)
International Large Neutral	MSCI World ex USA NR USD (1972-2015)
International Large Value	MSCI World ex USA NR USD (1972-1974), MSCI World Ex USA Value NR USD (1975-2015)
International Large Growth	MSCI World ex USA NR USD (1972-1974), MSCI World Ex USA Growth NR USD (1975-2015)
International Small Neutral	Dimensional International Small Cap Index (1972-2000), MSCI World Ex USA Small Cap NR USD (2001-2015)
International Small Value	Dimensional International Small Cap Index (1972-1981), Dimensional International Small Cap Value Index (1981-1994), MSCI World Ex USA Small Value NR USD (1994-2015)
International Small Growth	Dimensional International Small Cap Index (1972-1989), S&P Developed Ex US Small Growth TR (1990-1994), MSCI World Ex USA Small Growth NR USD (1994-2015)
Emerging Markets	MSCI Pacific Ex Japan NR USD (1972-1987), MSCI EM GR USD (1988-1998), MSCI EM NR USD (1999-2015)



Commodities	S&P GSCI TR USD (1972-1990), Bloomberg Commodity TR USD (1991-2015)
Other Assets	S&P 500 Index PR (1972-2015)
Aggressive Allocation	20% IA SBB I US IT Govt TR USD, 80% MSCI World NR USD (1972-1972), 20% Barclays US Govt/Credit TR USD, 80% MSCI World NR USD (1973-1975), 20% Barclays US Agg Bond TR USD, 80% MSCI World NR USD (1976-2015)
Conservative Allocation	80% IA SBB I US IT Govt TR USD, 20% MSCI World NR USD (1972-1972), 80% Barclays US Govt/Credit TR USD, 20% MSCI World NR USD (1973-1975), 80% Barclays US Agg Bond TR USD, 20% MSCI World NR USD (1976-2015)
Moderate Allocation	50% IA SBB I US IT Govt TR USD, 50% MSCI World NR USD (1972-1972), 50% Barclays US Govt/Credit TR USD, 50% MSCI World NR USD (1973-1975), 50% Barclays US Agg Bond TR USD, 50% MSCI World NR USD (1976-2015)

## Disclosures

*The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate, thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. Foreign and small company stocks involve additional risks.*

*For performance data current to the most recent month-end please visit <http://advisor.morningstar.com/index.asp>.*

*The SA Funds are sponsored by LWI Financial Inc. ("Loring Ward") and distributed by Loring Ward Securities Inc., an affiliate, member FINRA/SIPC. Consider the investment objectives, risk, charges and expenses of the SA Funds carefully before investing. For this and other information about SA Funds, please read the prospectus carefully before investing. To request a copy of the SA Fund Prospectus please call 1-800-366-7266.*

*The DFA Funds are sponsored by Dimensional Fund Advisors and distributed by DFA Securities LLC. Consider the investment objectives, risks, charges and expenses of the DFA Funds carefully before investing. For this and other information about the DFA Funds, please read the prospectus carefully before investing. To request a copy of the DFA Fund Prospectus please call 512-306-7400.*

*Standardized Returns assume reinvestment of dividends and capital gains. It depicts performance without adjusting for the effects of taxation. For variable annuities, additional expenses are not reflected in this analysis, including M&E risk charges, fund-level expenses such as management fees and operating fees, and contract-level administration fees, charges such as surrender, contract and sales charges.*

*The Recommended Portfolio was selected based on answers provided on the Investor Profile Questionnaire used in conjunction with the Investment Planning Center. The Recommended Portfolio uses investments we recommend for each asset class. Investments not considered in this presentation may have similar or superior characteristics to those being recommended and analyzed. This analysis does not consider any negative consequences that may result from redeeming your Current Portfolio to invest in the Recommended Portfolio. These consequences may include, but are not limited to, redemption fees and charges, and tax consequences. Please carefully consider these consequences before making changes to your Current Portfolio. Performance results do not reflect advisory fees. Inclusion of advisory fees would result in lower stated performance.*

*Diversification neither assures a profit nor guarantees against loss in a declining market.*

*The risks associated with investing in stocks and overweighting small company and value stocks potentially include increased volatility (up and down movement in the value of your assets) and loss of principal.*

*Small company stocks may be subject to a higher degree of market risk than the securities of more established companies because they may be more volatile and less liquid.*

*Securities of small companies are often less liquid than those of large companies. As a result, small company stocks may fluctuate relatively more in price.*

*International markets involve additional risks, including, but not limited to, currency fluctuation, political instability, foreign taxes, and different methods of accounting and financial reporting. As a result, they may not be suitable investment options for everyone.*

*Changes in currency exchange rates, differences in accounting and taxation policies and political and economical instability can raise or lower returns.*

*Data Source: Center for Research in Security Prices (CRSP), Dimensional Returns 2.0*

## Glossary

<b>Asset Allocation</b>	The weights given to asset classes (fixed income, domestic stocks, international stocks, etc.) across an investor's portfolio which is determined by their willingness and ability to take risk.
<b>Asset Class</b>	An investment category such as fixed income, domestic stocks, or international stocks.
<b>Cash Efficiency</b>	The portion of managed funds that is currently held in cash and cash equivalents.
<b>Coupon</b>	The interest rate stated on a bond when it's issued.
<b>Duration</b>	A measure of sensitivity of the price of a fixed income security to a change in interest rates.
<b>Efficient Range</b>	The boundary at which an investor can maximize their return for a given amount of risk. Return is measured by the total return (interest, dividends, and appreciation) of a portfolio and risk is measured by standard deviation which is a measure of volatility.
<b>Equity</b>	An ownership interest. In the context, a stock or collection of stocks.
<b>Fixed Income</b>	A debt/loan investment that returns a fixed income or interest payment. In the context, a bond or collection of bonds.
<b>Gap</b>	The absolute difference between two figures.
<b>Maturity</b>	The time remaining on the life of bond.
<b>Monte Carlo Simulation</b>	A tool used to approximate the probability of outcomes for a portfolio.
<b>Portfolio</b>	The collection of investments held by an investor oftentimes across multiple investment accounts.
<b>Potential Gap</b>	A signal that the difference between an element of the current portfolio and recommended portfolio are significant and could potentially present a deficiency in the current portfolio.

<b>Quality</b>	Credit quality refers to the reliability of a bond. Higher quality bonds have a low likelihood of defaulting on their debt where low quality bonds are riskier, and have a relatively higher probability of default.
<b>Proxy</b>	An index or alternate holding used in place of an investment to mimic the performance, risk, and other characteristics of the investment for analysis purposes.
<b>Overlap</b>	A situation in which multiple investments hold the some of the same underlying securities.
<b>REIT</b>	Real Estate Investment Trust.
<b>Risk Tolerance</b>	The amount of uncertainty an investor is willing and able to take in their portfolio.
<b>S&amp;P 500</b>	A commonly used benchmark comprising of 500 of some of the largest US companies. It is often used as a gauge of the US stock market.
<b>Security</b>	An individual investment.
<b>Sharpe Ratio</b>	<p>A measurement of the tradeoff between risk and return. The calculation is as follows:</p> $S = \frac{R - RFR}{\sigma}$ <p>R: The return on the asset (or portfolio).</p> <p>RFR: The risk free rate (for the analysis the risk free rate used is the historical return on 3 Month US Treasury Bills).</p> <p><math>\sigma</math>: The standard deviation of the asset.</p> <p>The calculated number can be translated as the amount of return per unit of risk.</p>
<b>Style</b>	The asset class exposure of a stock, bond, or mutual fund. For example, Google's stock style is Large Growth, meaning that it is grouped into the asset class of large companies that experience relatively higher growth.

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<b>Style Drift</b>	The tendency for some actively managed funds to drift from their stated style.
<b>Systematic Risk</b>	The risk inherent in the market which is unable to be reduced by diversification.
<b>Turnover</b>	The amount of change in portfolio holdings in a year. This is primarily due to buying and selling holdings to change fund exposure, or to sell out of positions to meet investor redemptions.
<b>Unsystematic Risk</b>	Portfolio risk that can be reduced through proper diversification.





# Portfolio Comparison Report

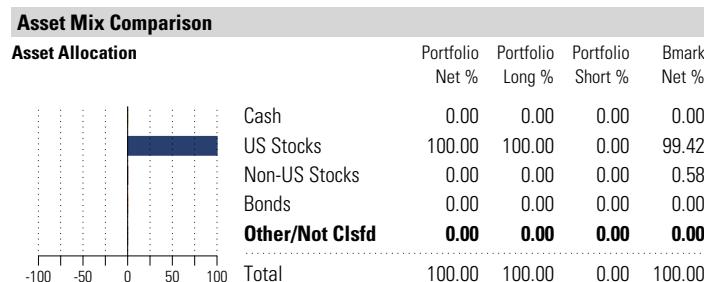
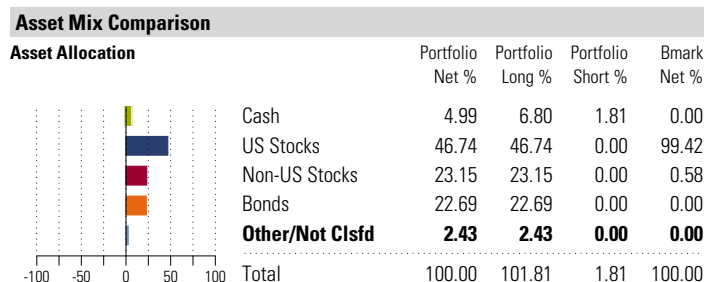
## Current

Benchmark: S&amp;P 500 TR USD (USD)

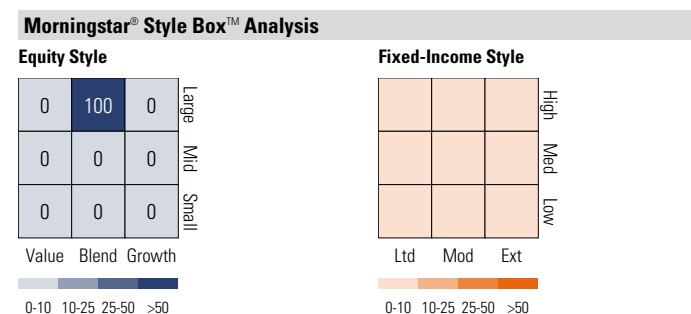
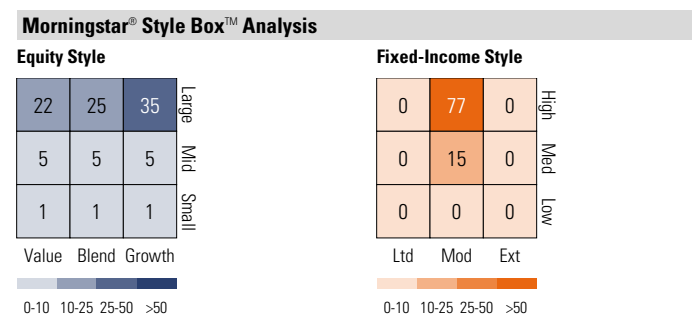
## Recommended

Benchmark: S&amp;P 500 TR USD (USD)

The following pages take a detailed look at the differences in the stock and bond exposures between investments in the selected portfolios. This report uses the benchmark shown as a point of comparison between the portfolios in the Stock Sector Analysis, Regional Exposure, Historical Returns and Portfolio Statistics sections.



The Asset Mix graph and table show how assets in each portfolio are allocated among asset classes.



The Equity Style box shows how the investments are classified in terms of the size of the companies (large, medium, and small) and their style characteristics (value, core, and growth). The Fixed-Income Style box shows how bond holdings are classified in terms of their credit quality (high, medium, and low) and interest rate sensitivity (limited, moderate, and extended). Note the percentages may not add up to 100% as some securities may not be classified.

**Sector Weightings**

	Stock %	Bmark %
<b>Cyclical</b>	<b>30.82</b>	<b>30.97</b>
Basic Materials	3.55	2.72
Consumer Cyclical	12.72	11.14
Financial Services	12.23	14.66
Real Estate	2.32	2.45
<b>Sensitive</b>	<b>38.92</b>	<b>40.36</b>
Communication Services	6.67	4.19
Energy	6.75	7.13
Industrials	9.19	10.93
Technology	16.31	18.11
<b>Defensive</b>	<b>30.26</b>	<b>28.67</b>
Consumer Defensive	11.41	10.14
Healthcare	14.21	15.19
Utilities	4.64	3.34
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

**Sector Weightings**

	Stock %	Bmark %
<b>Cyclical</b>	<b>0.00</b>	<b>30.97</b>
Basic Materials	0.00	2.72
Consumer Cyclical	0.00	11.14
Financial Services	0.00	14.66
Real Estate	0.00	2.45
<b>Sensitive</b>	<b>100.00</b>	<b>40.36</b>
Communication Services	0.00	4.19
Energy	0.00	7.13
Industrials	0.00	10.93
Technology	100.00	18.11
<b>Defensive</b>	<b>0.00</b>	<b>28.67</b>
Consumer Defensive	0.00	10.14
Healthcare	0.00	15.19
Utilities	0.00	3.34
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

Drilling down past the fund level, the Sector Analysis summarizes the stock allocation of the investments across 11 sectors.

# Portfolio Comparison Report

## Current

Benchmark:S&amp;P 500 TR USD (USD)

Regional Exposure		
% of Assets	Stock %	Bmark %
<b>Greater Europe</b>	<b>16.88</b>	<b>0.55</b>
United Kingdom	6.87	0.21
Europe-Developed	7.75	0.34
Europe-Emerging	0.71	0.00
Africa/Middle East	1.55	0.00
<b>Americas</b>	<b>69.63</b>	<b>99.42</b>
North America	68.31	99.42
Latin America	1.32	0.00
<b>Greater Asia</b>	<b>13.49</b>	<b>0.04</b>
Japan	1.73	0.00
Australasia	0.38	0.00
Asia-Developed	3.63	0.04
Asia-Emerging	7.75	0.00
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

## Recommended

Benchmark:S&amp;P 500 TR USD (USD)

Regional Exposure		
% of Assets	Stock %	Bmark %
<b>Greater Europe</b>	<b>0.00</b>	<b>0.55</b>
United Kingdom	0.00	0.21
Europe-Developed	0.00	0.34
Europe-Emerging	0.00	0.00
Africa/Middle East	0.00	0.00
<b>Americas</b>	<b>100.00</b>	<b>99.42</b>
North America	100.00	99.42
Latin America	0.00	0.00
<b>Greater Asia</b>	<b>0.00</b>	<b>0.04</b>
Japan	0.00	0.00
Australasia	0.00	0.00
Asia-Developed	0.00	0.04
Asia-Emerging	0.00	0.00
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

Investing overseas can provide valuable diversification. The Regional Exposure table helps you review the general location of the geographical distribution of stocks in each portfolio.

Trailing Returns* 05-31-2016					
	3 Mo %	1 Yr %	3 Yr %	5 Yr %	10 Yr %
Pre-Tax Port Ret	7.51	-1.19	5.93	6.42	6.23
Benchmark Return	9.12	1.72	11.06	11.67	7.41
+/- Bmark Ret	-1.61	-2.91	-5.13	-5.25	-1.18

Trailing Returns* 05-31-2016					
	3 Mo %	1 Yr %	3 Yr %	5 Yr %	10 Yr %
Pre-Tax Port Ret	3.87	-21.80	18.13	16.84	28.91
Benchmark Return	9.12	1.72	11.06	11.67	7.41
+/- Bmark Ret	-5.25	-23.52	7.07	5.17	21.50

The Trailing Returns table shows the trailing returns of the portfolios over the periods shown. For comparison purposes, the return relative to the benchmark is shown as well.

Risk and Return Statistics*						
	3 Yr		5 Yr		10 Yr	
	Portfolio	Bmark	Portfolio	Bmark	Portfolio	Bmark
Standard Deviation	8.63	11.33	9.32	12.16	11.88	15.24
Mean	5.93	11.06	6.42	11.67	6.23	7.41
Sharpe Ratio	0.72	1.03	0.73	1.02	0.50	0.50

Risk and Return Statistics*						
	3 Yr		5 Yr		10 Yr	
	Portfolio	Bmark	Portfolio	Bmark	Portfolio	Bmark
Standard Deviation	25.92	11.33	26.52	12.16	32.64	15.24
Mean	18.13	11.06	16.84	11.67	28.91	7.41
Sharpe Ratio	0.85	1.03	0.78	1.02	1.06	0.50

The Risk and Return Statistics table shows the pre-tax return, standard deviation, and Sharpe ratio of each portfolio.

Modern Portfolio Theory Statistics*			
	3 Yr	5 Yr	10 Yr
	Portfolio	Portfolio	Portfolio
Alpha	-2.02	-2.05	0.30
Beta	0.73	0.74	0.75
R-Squared	91.60	92.25	91.96

Modern Portfolio Theory Statistics*			
	3 Yr	5 Yr	10 Yr
	Portfolio	Portfolio	Portfolio
Alpha	3.49	7.18	21.30
Beta	1.49	1.01	1.20
R-Squared	42.36	21.43	31.73

The MPT Statistics table shows investment statistics for each portfolio.

### Portfolio-Level Performance Disclosure

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown. The performance data reflects monthly portfolio rebalancing.

\*Full return history is not available for all securities. Please see Return Participation disclosure.

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# Portfolio Comparison Report

## Current

Benchmark:S&amp;P 500 TR USD (USD)

Portfolio Holdings		
Holdings	Type	Allocation %
American Funds Capital Income Bldr A (USD)	MF	20.00
American Funds Growth Fund of Amer A (USD)	MF	20.00
American Funds New World A (USD)	MF	20.00
Barclays US Agg Bond TR USD (USD)	IDX	20.00
Russell 3000 TR USD (USD)	IDX	20.00
		<b>100.00</b>

## Recommended

Benchmark:S&amp;P 500 TR USD (USD)

Portfolio Holdings		
Holdings	Type	Allocation %
Apple Inc (USD)	ST	100.00
		<b>100.00</b>

The Holdings table shows the current holdings in each portfolio.

## Illustration Returns

### Current

Total 6 holdings as of 05-31-2016	Symbol	Type	Holdings Date	% of Assets	Holding Value \$	7-day Yield	1 Yr Ret %	3 Yr Ret %	5 Yr Ret %	10 Yr Ret %
American Funds Capital Income Bldr A (USD)	CAIBX	MF	03-2016	20.00	100,000	—	-1.04	5.39	6.06	5.37
American Funds Growth Fund of Amer A (USD)	AGTHX	MF	03-2016	20.00	100,000	—	0.05	11.13	10.94	7.06
American Funds New World A (USD)	NEWFX	MF	03-2016	20.00	100,000	—	-8.77	-0.62	0.05	4.95
Barclays US Agg Bond TR USD (USD)	XIUSA000MC	IDX	06-2016	20.00	100,000	—	2.99	2.91	3.33	4.97
Russell 3000 TR USD (USD)	XIUSA00006	IDX	05-2016	20.00	100,000	—	0.22	10.57	11.15	7.39

### Recommended

Apple Inc (USD)	AAPL	ST	—	100.00	1,000,000	—	-21.80	18.13	16.84	28.91
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## Return Participation 06-08-2016

This portfolio report includes securities for which return data is not available for the entire history represented. When return is not available for a security, the remaining securities returns are reweighted to maintain consistent proportions for the securities that do have returns. The reweighting impacts trailing return data, as well as statistics that are

calculated using return, including standard deviation, mean, Sharpe ratio, alpha, beta and R-squared. The following securities do not have 120 months of return data reflected in the report.

### Current

### Security

American Funds New World A (USD, NEWFX)

### Start Date

07-31-1999

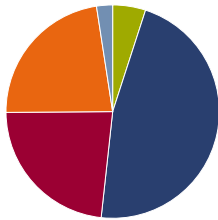
# Portfolio Snapshot

## Current

**Portfolio Value**  
\$500,000.00

**Benchmark**  
S&P 500 TR USD (USD)

**Analysis** 06-08-2016



### Asset Allocation

- Cash
- US Stocks
- Non-US Stocks
- Bonds
- Other/Not Clsfd

Portfolio Net %	Bmark Net %
4.99	0.00
46.74	99.42
23.15	0.58
22.69	0.00
<b>2.43</b>	<b>0.00</b>

### Morningstar Equity Style Box %

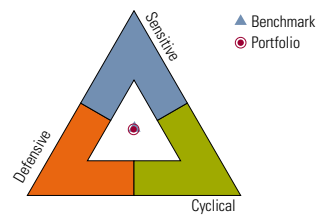
22	25	35	Large
5	5	5	Mid
1	1	1	Small
Value Blend Growth			
0-10	10-25	25-50	>50

### Morningstar Fixed Income Style Box %

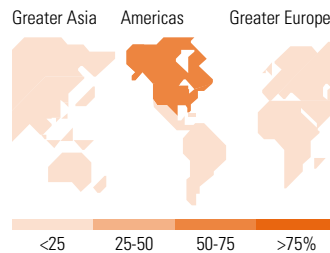
0	77	0	High
0	15	0	Med
0	0	0	Low
Ltd Mod Ext			
0-10	10-25	25-50	>50

**Stock Analysis** 06-08-2016

### Stock Sectors

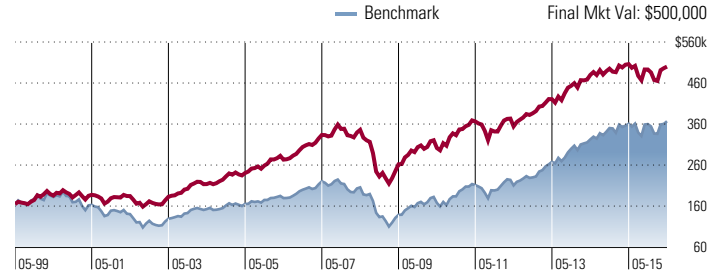


### World Regions



**Performance** 05-31-2016

### Investment Activity Graph



% of Stocks	Portfolio %	Bmark %
<b>Cyclical</b>	<b>30.82</b>	<b>30.97</b>
Basic Matls	3.55	2.72
Consumer Cycl	12.72	11.14
Financial Svcs	12.23	14.66
Real Estate	2.32	2.45
<b>Sensitive</b>	<b>38.92</b>	<b>40.36</b>
Commun Svcs	6.67	4.19
Energy	6.75	7.13
Industrials	9.19	10.93
Technology	16.31	18.11
<b>Defensive</b>	<b>30.26</b>	<b>28.67</b>
Consumer Def	11.41	10.14
Healthcare	14.21	15.19
Utilities	4.64	3.34
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

% of Stocks	Portfolio %	Bmark %
<b>Americas</b>	<b>69.63</b>	<b>99.42</b>
North America	68.31	99.42
Latin America	1.32	0.00
<b>Greater Europe</b>	<b>16.88</b>	<b>0.55</b>
United Kingdom	6.87	0.21
Europe-Developed	7.75	0.34
Europe-Emerging	0.71	0.00
Africa/Middle East	1.55	0.00
<b>Greater Asia</b>	<b>13.49</b>	<b>0.04</b>
Japan	1.73	0.00
Australasia	0.38	0.00
Asia-Developed	3.63	0.04
Asia-Emerging	7.75	0.00
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

Trailing Returns*	3 Mo	1 Yr	3 Yr	5 Yr	10 Yr
Portfolio Return	7.51	-1.19	5.93	6.42	6.23
Benchmark Return	9.12	1.72	11.06	11.67	7.41
+/- Benchmark Return	-1.61	-2.91	-5.13	-5.25	-1.18

Best/Worst Time Periods	Best %	Worst %
3 Months	21.79 ( Mar 2009-May 2009 )	-26.66 ( Sep 2008-Nov 2008 )
1 Year	41.53 ( Mar 2009-Feb 2010 )	-35.06 ( Mar 2008-Feb 2009 )
3 Years	19.70 ( Mar 2009-Feb 2012 )	-7.73 ( Mar 2006-Feb 2009 )

<b>Portfolio Yield</b> ( 06-08-2016 )	Yield %
12-Month Yield	1.56

### Portfolio-Level Performance Disclosure

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown. The performance data reflects monthly portfolio rebalancing.

**Holdings** 06-08-2016

### Top 5 holdings out of 5

American Funds Capital Income Bldr A (USD)  
American Funds Growth Fund of Amer A (USD)  
American Funds New World A (USD)  
Barclays US Agg Bond TR USD (USD)  
Russell 3000 TR USD (USD)

Symbol	Type	Holding Value \$	% Assets
CAIBX	MF	100,000	20.00
AGTHX	MF	100,000	20.00
NEWFX	MF	100,000	20.00
XIUSA000MC	IDX	100,000	20.00
XIUSA000O6	IDX	100,000	20.00

\*Full return history is not available for all securities. Please see Return Participation disclosure.

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# Portfolio Snapshot

## Current

**Portfolio Value**

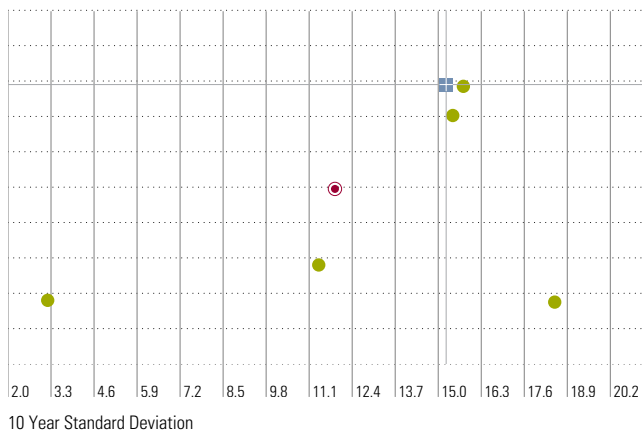
\$500,000.00

**Benchmark**

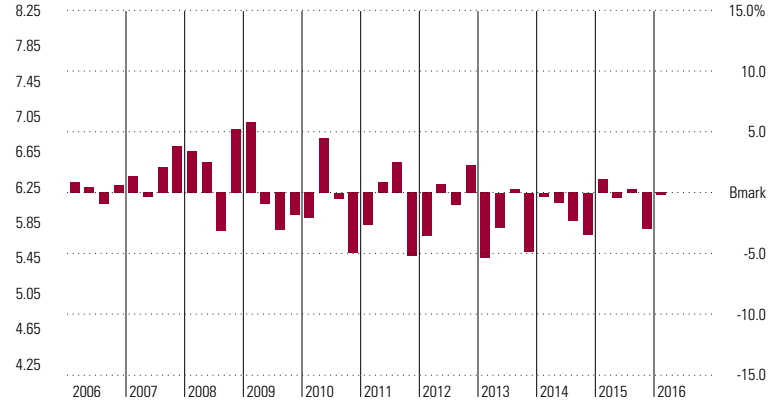
S&amp;P 500 TR USD (USD)

**Risk Analysis 05-31-2016****Risk/Reward Scatterplot**

● Portfolio ● Holdings ■ Bmark 10 Year Mean

**Performance History Graph**

■ Portfolio Quarterly returns +/- Benchmark in %

**Risk and Return Statistics\***

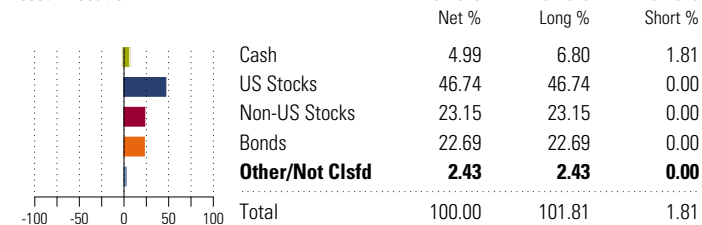
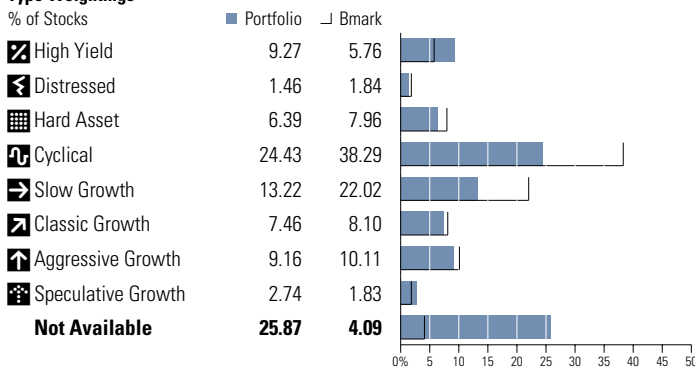
	3 Yr		5 Yr		10 Yr	
	Portfolio	Bmark	Portfolio	Bmark	Portfolio	Bmark
Standard Deviation	8.63	11.33	9.32	12.16	11.88	15.24
Mean	5.93	11.06	6.42	11.67	6.23	7.41
Sharpe Ratio	0.72	1.03	0.73	1.02	0.50	0.50

**MPT Statistics\***

	3 Yr Portfolio	5 Yr Portfolio	10 Yr Portfolio
Alpha	-2.02	-2.05	0.30
Beta	0.73	0.74	0.75
R-Squared	91.60	92.25	91.96

**Portfolio-Level Performance Disclosure**

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown. The performance data reflects monthly portfolio rebalancing.

**Fundamental Analysis 06-08-2016****Asset Allocation****Type Weightings****Market Maturity**

% of Stocks	Portfolio	Bmark
Developed Markets	89.10	100.00
Emerging Markets	10.90	0.00
Not Available	0.00	0.00

**Valuation Multiples**

	Portfolio	Bmark
Price/Earnings	19.78	19.45
Price/Book	2.70	2.73
Price/Sales	1.83	1.88
Price/Cash Flow	11.58	12.01

**Profitability**

% of Stocks	Portfolio	Bmark
2016-06	2016-06	2016-06
Net Margin	13.89	13.20
ROE	20.33	21.36
ROA	7.13	6.93
Debt/Capital	40.89	41.85

**Fund Statistics**

Potential Cap Gains Exposure	17.67
Avg Net Expense Ratio	0.76
Avg Gross Expense Ratio	0.76

**Geometric Avg Capitalization (\$Mil)**

Portfolio	40,576.26
Benchmark	73,768.66

**Credit Quality Breakdown**

% of Bonds	
AAA	65.54
AA	2.97
A	9.89
BBB	11.95
BB	0.55
B	0.61
Below B	0.08
NR/NA	8.41

**Interest Rate Risk**

Bonds	% Not Available
Avg Eff Maturity	2.06
Avg Eff Duration	5.19
Avg Credit Quality	A
Avg Wtd Coupon	3.57

\*Full return history is not available for all securities. Please see Return Participation disclosure.

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# Portfolio Snapshot

## Current

**Portfolio Value**  
\$500,000.00

**Benchmark**  
S&P 500 TR USD (USD)

### Non-Load Adjusted Returns

Total 5 holdings as of 05-31-2016	Symbol	Type	Holdings Date	% of Assets	Holding Value \$	7-day Yield	1 Yr Ret %	3 Yr Ret %	5 Yr Ret %	10 Yr Ret %
American Funds Capital Income Bldr A (USD)	CAIBX	MF	03-2016	20.00	100,000	—	-1.04	5.39	6.06	5.37
American Funds Growth Fund of Amer A (USD)	AGTHX	MF	03-2016	20.00	100,000	—	0.05	11.13	10.94	7.06
American Funds New World A (USD)	NEWFX	MF	03-2016	20.00	100,000	—	-8.77	-0.62	0.05	4.95
Barclays US Agg Bond TR USD (USD)	XIUSA000MC	IDX	06-2016	20.00	100,000	—	2.99	2.91	3.33	4.97
Russell 3000 TR USD (USD)	XIUSA00006	IDX	05-2016	20.00	100,000	—	0.22	10.57	11.15	7.39

### Return Participation 06-08-2016

This portfolio report includes securities for which return data is not available for the entire history represented. When return is not available for a security, the remaining securities returns are reweighted to maintain consistent proportions for the securities that do have returns. The reweighting impacts trailing return data, as well as statistics that are

calculated using return, including standard deviation, mean, Sharpe ratio, alpha, beta and R-squared. The following securities do not have 120 months of return data reflected in the report.

### Security

American Funds New World A (USD, NEWFX)

### Start Date

07-31-1999

### Performance Disclosure

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please visit <http://advisor.morningstar.com/familyinfo.asp>.

**See Disclosure Page for Standardized Returns.**



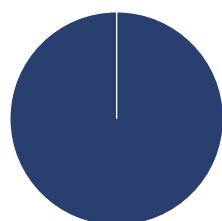
# Portfolio Snapshot

## Recommended

**Portfolio Value**  
\$1,000,000.00

**Benchmark**  
S&P 500 TR USD (USD)

**Analysis** 06-08-2016



### Asset Allocation

- Cash
- US Stocks
- Non-US Stocks
- Bonds
- Other/Not Clsfd

	Portfolio Net %	Bmark Net %
Cash	0.00	0.00
US Stocks	100.00	99.42
Non-US Stocks	0.00	0.58
Bonds	0.00	0.00
Other/Not Clsfd	0.00	0.00

### Morningstar Equity Style Box %

	Value	Blend	Growth
Large	0	100	0
Mid	0	0	0
Small	0	0	0

Total Stock Holdings  
1  
% Not Classified  
0

Value Blend Growth  
0-10 10-25 25-50 >50

### Morningstar Fixed Income Style Box %

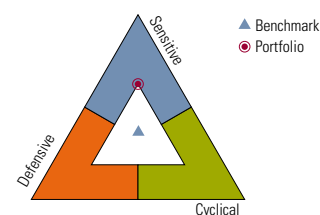
	Ltd	Mod	Ext
High			
Med			
Low			

Total Bond Holdings  
—  
% Not Classified  
—

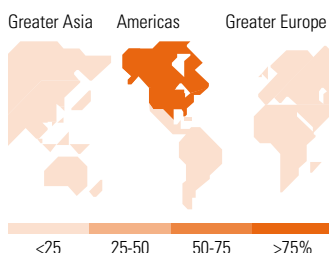
Ltd Mod Ext  
0-10 10-25 25-50 >50

**Stock Analysis** 06-08-2016

### Stock Sectors



### World Regions



**Performance** 05-31-2016

### Investment Activity Graph



% of Stocks	Portfolio %	Bmark %
<b>Cyclical</b>	<b>0.00</b>	<b>30.97</b>
Basic Matls	0.00	2.72
Consumer Cycl	0.00	11.14
Financial Svs	0.00	14.66
Real Estate	0.00	2.45
<b>Sensitive</b>	<b>100.00</b>	<b>40.36</b>
Commun Svs	0.00	4.19
Energy	0.00	7.13
Industrials	0.00	10.93
Technology	100.00	18.11
<b>Defensive</b>	<b>0.00</b>	<b>28.67</b>
Consumer Def	0.00	10.14
Healthcare	0.00	15.19
Utilities	0.00	3.34
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

% of Stocks	Portfolio %	Bmark %
<b>Americas</b>	<b>100.00</b>	<b>99.42</b>
North America	100.00	99.42
Latin America	0.00	0.00
<b>Greater Europe</b>	<b>0.00</b>	<b>0.55</b>
United Kingdom	0.00	0.21
Europe-Developed	0.00	0.34
Europe-Emerging	0.00	0.00
Africa/Middle East	0.00	0.00
<b>Greater Asia</b>	<b>0.00</b>	<b>0.04</b>
Japan	0.00	0.00
Australasia	0.00	0.00
Asia-Developed	0.00	0.04
Asia-Emerging	0.00	0.00
<b>Not Classified</b>	<b>0.00</b>	<b>0.00</b>

Trailing Returns	3 Mo	1 Yr	3 Yr	5 Yr	10 Yr
Portfolio Return	3.87	-21.80	18.13	16.84	28.91
Benchmark Return	9.12	1.72	11.06	11.67	7.41
+/- Benchmark Return	-5.25	-23.52	7.07	5.17	21.50

Best/Worst Time Periods	Best %	Worst %
3 Months	94.40 ( Sep 2004-Nov 2004 )	-72.92 ( Sep 2000-Nov 2000 )
1 Year	275.08 ( Mar 2004-Feb 2005 )	-71.06 ( Jan 2000-Dec 2000 )
3 Years	119.09 ( Feb 2003-Jan 2006 )	-40.73 ( Apr 2000-Mar 2003 )

<b>Portfolio Yield</b> ( 06-08-2016 )	Yield %
12-Month Yield	2.15

### Portfolio-Level Performance Disclosure

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown. The performance data reflects monthly portfolio rebalancing.

**Holdings** 06-08-2016

### Top 1 holding out of 1

Apple Inc (USD)

Symbol	Type	Holding Value \$	% Assets
AAPL	ST	1,000,000	100.00

# Portfolio Snapshot

## Recommended

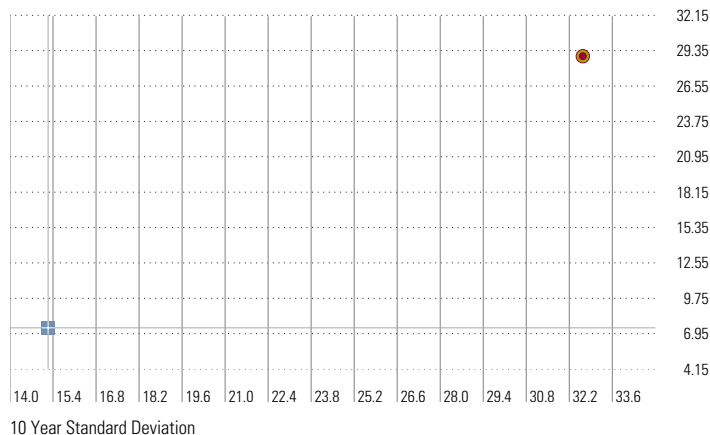
**Portfolio Value**  
\$1,000,000.00

**Benchmark**  
S&P 500 TR USD (USD)

### Risk Analysis 05-31-2016

#### Risk/Reward Scatterplot

● Portfolio ● Holdings ■ Bmark 10 Year Mean



#### Performance History Graph

■ Portfolio Quarterly returns +/- Benchmark in %



#### Risk and Return Statistics

	3 Yr		5 Yr		10 Yr	
	Portfolio	Bmark	Portfolio	Bmark	Portfolio	Bmark
Standard Deviation	25.92	11.33	26.52	12.16	32.64	15.24
Mean	18.13	11.06	16.84	11.67	28.91	7.41
Sharpe Ratio	0.85	1.03	0.78	1.02	1.06	0.50

#### MPT Statistics

	3 Yr Portfolio	5 Yr Portfolio	10 Yr Portfolio
Alpha	3.49	7.18	21.30
Beta	1.49	1.01	1.20
R-Squared	42.36	21.43	31.73

#### Portfolio-Level Performance Disclosure

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown. The performance data reflects monthly portfolio rebalancing.

### Fundamental Analysis 06-08-2016

#### Asset Allocation

	Portfolio Net %	Portfolio Long %	Portfolio Short %
Cash	0.00	0.00	0.00
US Stocks	100.00	100.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

#### Type Weightings

% of Stocks	Portfolio	Bmark
High Yield	—	5.76
Distressed	—	1.84
Hard Asset	—	7.96
Cyclical	100.00	38.29
Slow Growth	—	22.02
Classic Growth	—	8.10
Aggressive Growth	—	10.11
Speculative Growth	—	1.83
Not Available	0.00	4.09

#### Market Maturity

% of Stocks	Portfolio	Bmark
Developed Markets	100.00	100.00
Emerging Markets	0.00	0.00
Not Available	0.00	0.00

#### Valuation Multiples

	Portfolio	Bmark
Price/Earnings	11.04	19.45
Price/Book	4.16	2.73
Price/Sales	2.46	1.88
Price/Cash Flow	8.28	12.01

#### Profitability

% of Stocks	Portfolio	Bmark
2016-06	2016-06	2016-06
Net Margin	22.27	13.20
ROE	39.06	21.36
ROA	17.89	6.93
Debt/Capital	34.72	41.85

#### Fund Statistics

Potential Cap Gains Exposure	—
Avg Net Expense Ratio	—
Avg Gross Expense Ratio	—

#### Geometric Avg Capitalization (\$Mil)

Portfolio	542,429.40
Benchmark	73,768.66

#### Credit Quality Breakdown

% of Bonds	
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR/NA	—

#### Interest Rate Risk

Bonds	% Not Available
Avg Eff Maturity	—
Avg Eff Duration	—
Avg Credit Quality	—
Avg Wtd Coupon	—

# Portfolio Snapshot

## Recommended

**Portfolio Value**

\$1,000,000.00

**Benchmark**

S&amp;P 500 TR USD (USD)

**Non-Load Adjusted Returns**

<b>Total 1 holding as of 05-31-2016</b>	Symbol	Type	Holdings Date	% of Assets	Holding Value \$	7-day Yield	1 Yr Ret %	3 Yr Ret %	5 Yr Ret %	10 Yr Ret %
Apple Inc (USD)	AAPL	ST	—	100.00	1,000,000	—	-21.80	18.13	16.84	28.91

**Performance Disclosure**

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please visit <http://advisor.morningstar.com/familyinfo.asp>.

**See Disclosure Page for Standardized Returns.**

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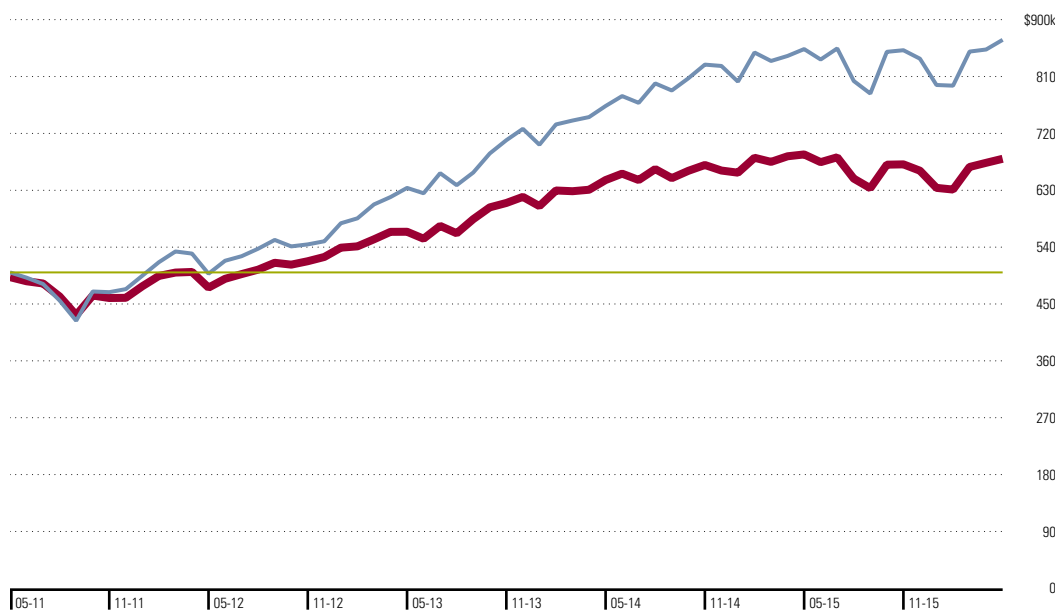


# Hypothetical Portfolio Illustration

05-31-2011 to 05-31-2016

## Portfolio Summary

Portfolio S&P 500 TR USD (USD) Net Amount Invested



## Planning Assumptions

Currency	USD
Rebalance	Annually
Rebalance Threshold% +/-	—
Allocation Update Frequency	None
Federal Income Tax Rate	0%
Capital Gain Tax Rate	0%
State Tax Rate	0%
Tax Paid	Out of Pocket

## Performance

Net Amount Invested	\$500,000
Final Market Value	\$679,833
Average Annualized Return	6.33%
Cumulative Return	35.97%
Cumulative Ret - Benchmark	73.62%

## Portfolio-Level Performance Disclosure

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown.

## Investment Detail

Period		Beginning Balance	New Investment	Distribution/Withdrawal	Total Reinvest	Charges & Fees	Taxes Due	Market Value	Total Return %
Totals		0	500,000	0	70,843	7,500	0	679,833	6.33
May-June	2011	0	500,000	0	856	7,500	0	485,974	-2.81
July-September	2011	485,974	0	0	873	0	0	432,433	-11.02
October-December	2011	432,433	0	0	3,262	0	0	459,785	6.33
January-March	2012	459,785	0	0	904	0	0	499,751	8.69
April-June	2012	499,751	0	0	922	0	0	489,863	-1.98
July-September	2012	489,863	0	0	940	0	0	515,206	5.17
October-December	2012	515,206	0	0	3,598	0	0	524,445	1.79
January-March	2013	524,445	0	0	962	0	0	552,375	5.33
April-June	2013	552,375	0	0	981	0	0	553,318	0.17
July-September	2013	553,318	0	0	990	0	0	584,286	5.60
October-December	2013	584,286	0	0	11,957	0	0	619,497	6.03
January-March	2014	619,497	0	0	1,849	0	0	628,504	1.45
April-June	2014	628,504	0	0	1,043	0	0	656,254	4.42
July-September	2014	656,254	0	0	1,052	0	0	649,183	-1.08
October-December	2014	649,183	0	0	21,364	0	0	661,222	1.85
January-March	2015	661,222	0	0	1,076	0	0	674,917	2.07
April-June	2015	674,917	0	0	1,086	0	0	674,522	-0.06
July-September	2015	674,522	0	0	1,095	0	0	633,250	-6.12
October-December	2015	633,250	0	0	14,918	0	0	660,968	4.38

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# Hypothetical Portfolio Illustration

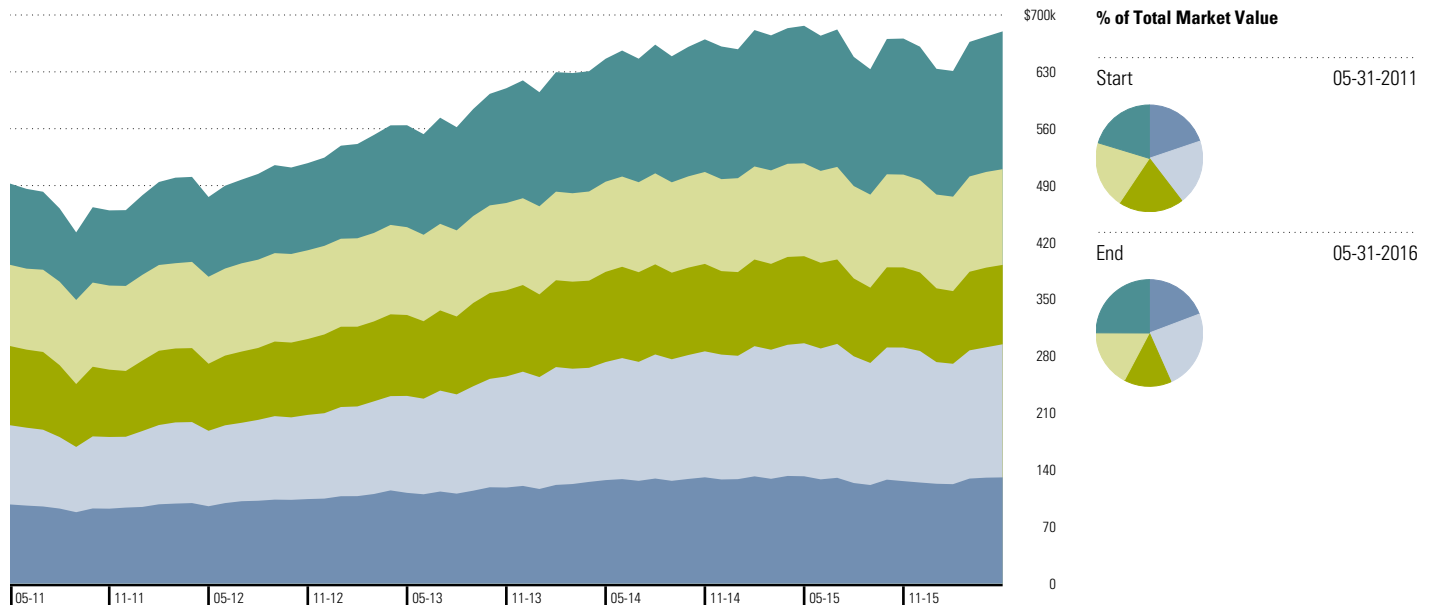
05-31-2011 to 05-31-2016

Investment Detail									
Period		Beginning Balance	New Investment	Distribution/ Withdrawal	Total Reinvest	Charges & Fees	Taxes Due	Market Value	Total Return %
Totals		0	500,000	0	70,843	7,500	0	679,833	6.33
January-March	2016	660,968	0	0	1,115	0	0	666,877	0.89
April-May	2016	666,877	0	0	0	0	0	679,833	1.94

# Hypothetical Portfolio Illustration Continued

05-31-2011 to 05-31-2016

## Security Summary



## Investment Assumptions

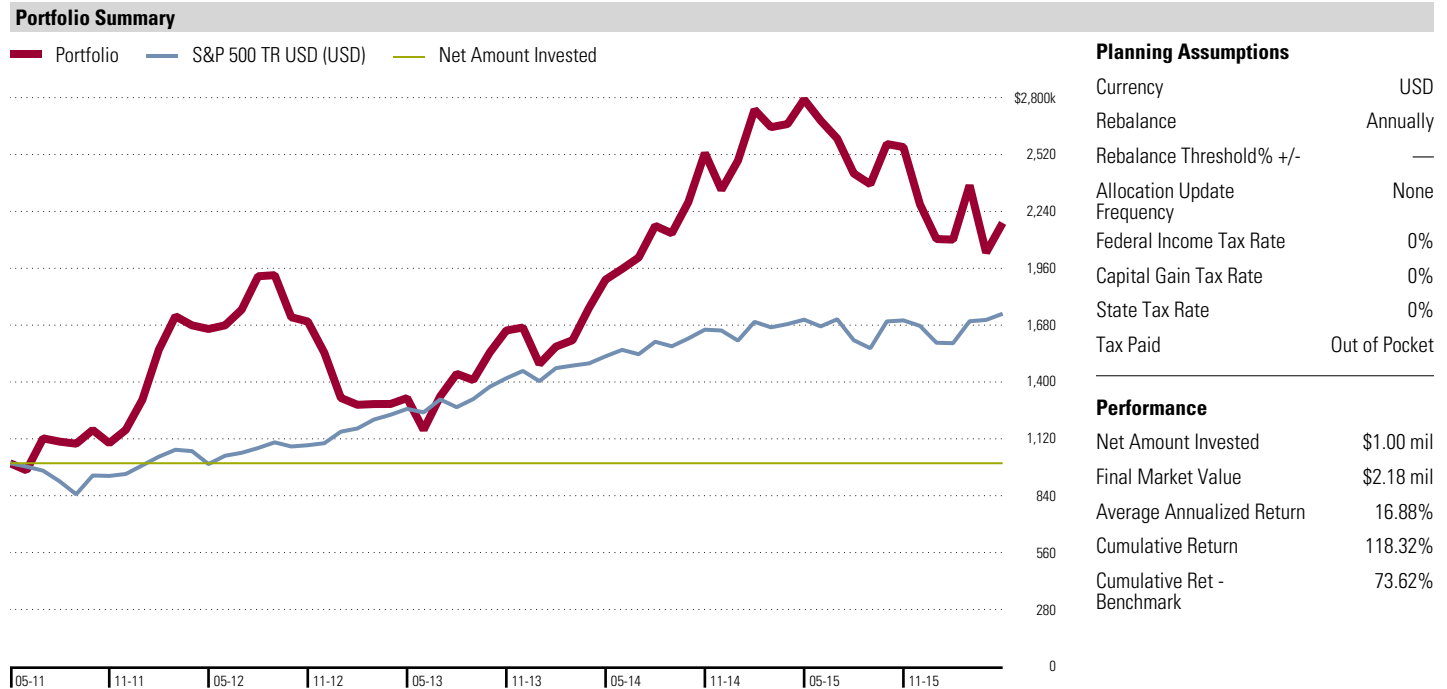
Investment Name	Holding Period		Initial Investment Amount	Subsequent Invest/Withdwl		Reinvest Distributions		Liqui-date	Re-balance %	Charges and Fees				Market Value End \$
	Start	End		Amount	Freq	Income	Cap Gains			Front Load	Annual Fee	Deferred Load Amount%	Period Years	
● American Funds Capital Income Bldr A (USD, CAIBX)	05-11	05-16	100,000	0	—	Y	Y	N	—	2.50%	0.00%	0.00-0.00	—	130,824
● American Funds Growth Fund of America (USD, AGTHX)	05-11	05-16	100,000	0	—	Y	Y	N	—	2.50%	0.00%	0.00-0.00	—	163,843
● American Funds New World A (USD, NEWFX)	05-11	05-16	100,000	0	—	Y	Y	N	—	2.50%	0.00%	0.00-0.00	—	97,730

Index/Proxy/Category Name	Holding Period		Initial Investment Amount	Subsequent Invest/Withdwl		Reinvest Distributions		Liqui-date	Re-balance %	Charges and Fees				Market Value End \$
	Start	End		Amount	Freq	Income	Cap Gains			Front Load	Annual Fee	Deferred Load Amount%	Period Years	
● Barclays US Agg Bond TR USD (USD)	05-11	05-16	100,000	0	—	Y	Y	N	—	0.00%	0.00%	0.00-0.00	—	117,813
● Russell 3000 TR USD (USD)	05-11	05-16	100,000	0	—	Y	Y	N	—	0.00%	0.00%	0.00-0.00	—	169,623

# Hypothetical Portfolio Illustration

05-31-2011 to 05-31-2016



## Portfolio-Level Performance Disclosure

The portfolio-level performance shown is hypothetical and for illustrative purposes only. Investor returns will differ from the results shown.

Investment Detail									
Period		Beginning Balance	New Investment	Distribution/ Withdrawal	Total Reinvest	Charges & Fees	Taxes Due	Market Value	Total Return %
Totals		0	1,000,000	0	155,622	0	0	2,183,215	16.88
May-June	2011	0	1,000,000	0	0	0	0	965,041	-3.50
July-September	2011	965,041	0	0	0	0	0	1,096,283	13.60
October-December	2011	1,096,283	0	0	0	0	0	1,164,361	6.21
January-March	2012	1,164,361	0	0	0	0	0	1,723,687	48.04
April-June	2012	1,723,687	0	0	0	0	0	1,678,982	-2.59
July-September	2012	1,678,982	0	0	7,619	0	0	1,926,093	14.72
October-December	2012	1,926,093	0	0	7,651	0	0	1,543,809	-19.85
January-March	2013	1,543,809	0	0	7,688	0	0	1,291,403	-16.35
April-June	2013	1,291,403	0	0	8,898	0	0	1,164,549	-9.82
July-September	2013	1,164,549	0	0	8,957	0	0	1,409,406	21.03
October-December	2013	1,409,406	0	0	9,017	0	0	1,668,243	18.36
January-March	2014	1,668,243	0	0	9,069	0	0	1,605,542	-3.76
April-June	2014	1,605,542	0	0	9,841	0	0	1,956,749	21.87
July-September	2014	1,956,749	0	0	9,896	0	0	2,131,962	8.95
October-December	2014	2,131,962	0	0	9,946	0	0	2,345,841	10.03
January-March	2015	2,345,841	0	0	9,989	0	0	2,654,800	13.17
April-June	2015	2,654,800	0	0	11,095	0	0	2,687,138	1.22
July-September	2015	2,687,138	0	0	11,141	0	0	2,373,769	-11.66
October-December	2015	2,373,769	0	0	11,191	0	0	2,275,045	-4.16

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# Hypothetical Portfolio Illustration

05-31-2011 to 05-31-2016

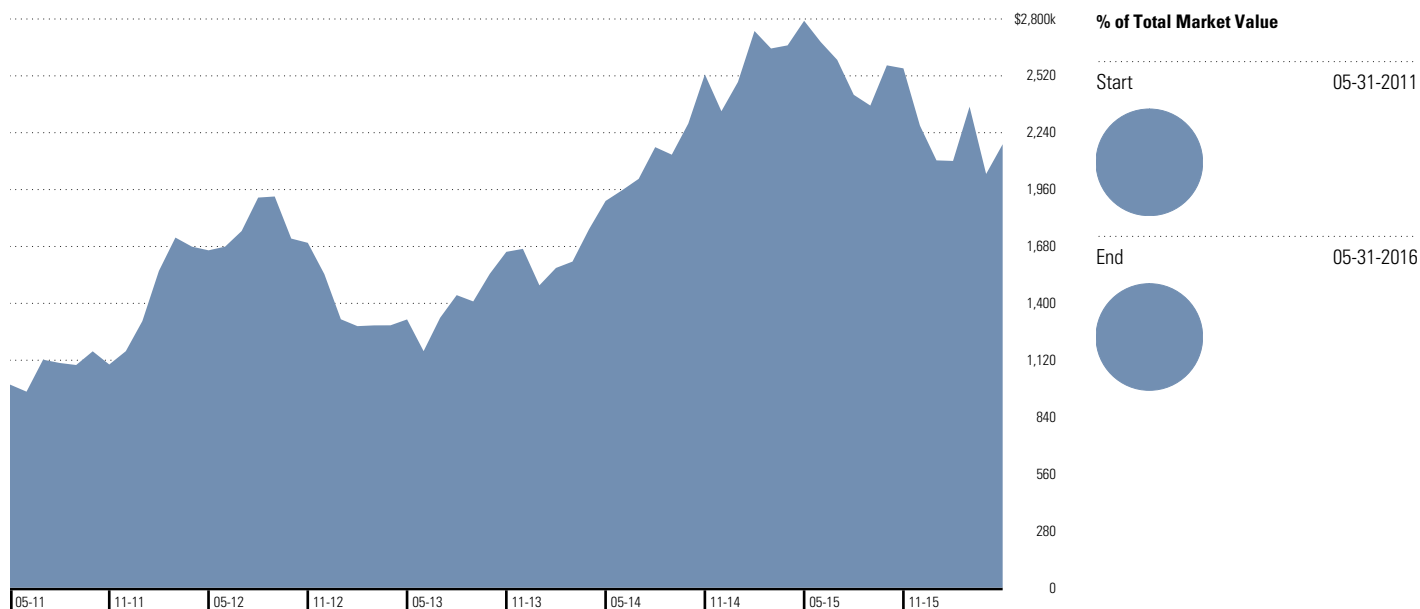
Investment Detail									
Period		Beginning Balance	New Investment	Distribution/ Withdrawal	Total Reinvest	Charges & Fees	Taxes Due	Market Value	Total Return %
Totals		0	1,000,000	0	155,622	0	0	2,183,215	16.88
January-March	2016	2,275,045	0	0	11,239	0	0	2,368,344	4.10
April-May	2016	2,368,344	0	0	12,386	0	0	2,183,215	-7.82



# Hypothetical Portfolio Illustration Continued

05-31-2011 to 05-31-2016

## Security Summary



## Investment Assumptions

Stock Name	Holding Period		Initial Investment Amount	Subsequent Invest/Withdwl		Reinvest Distributions	Liqui-date	Re-balance %	Charges and Fees			Market Value End \$
	Start	End		Amount	Freq				Purchase %	Purchase	Annual Fee	
● Apple Inc (USD, AAPL)	05-11	05-16	1.00 mil	0	—	Y	N	—	0.00	0.00	0.00%	2.18 mil

## Comparison Report Disclosure Statement

Used as supplemental sales literature, the Comparison report must be preceded or accompanied by the fund's/policy's current prospectus or equivalent. Please read these carefully before investing. In all cases, this disclosure statement should accompany the Comparison report. Morningstar is not itself a FINRA-member firm.

The underlying holdings of the portfolio are not federally or FDIC insured and are not deposits or obligations of, or guaranteed by, any financial institution. Investment in securities involve investment risks including possible loss of principal and fluctuation in value.

This report summarizes the composition characteristics of a portfolio of securities. It considers broad asset allocation and regional exposures, security style, and sector exposure to provide a variety of ways for considering the level of diversification within a portfolio, its potential riskiness, and its possible behavior in the future.

The information contained in this report is from the most recent information available to Morningstar as of the release date, and may or may not be an accurate reflection of the current composition of the securities included in the portfolio. There is no assurance that the weightings, composition and ratios will remain the same.

### Security Types

The following security types are represented herein: closed-end fund (CE), exchange-traded fund (ETF), holding company depository receipt (HOLDR), index (IDX), money market mutual fund (MM), open-end mutual fund (MF), separate account (SA), stock (ST), and variable annuity/life (VA/L).

### Items to Note Regarding Certain Underlying Securities

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market such as the New York Stock Exchange. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount.

An exchange-traded fund (ETF) is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, ETFs can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount.

A holding company depository receipt (HOLDR) is similar to an ETF, but they focus on narrow industry groups and initially own 20 stocks which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and

are not guaranteed by a bank or other financial institution. Although the money market seeks to preserve a stable per share value (i.e. \$1.00 per share), it is possible to lose money by investment in the fund.

Unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units.

Variable annuities are tax-deferred investments structured to convert a sum of money into a series of payments over time. Variable annuity policies have limitations and are not viewed as short-term liquid investments. An insurance company's fulfillment of a commitment to pay a minimum death benefit, a schedule of payments, a fixed investment account guaranteed by the insurance company, or another form of guarantee depends on the claims-paying ability of the issuing insurance company. Any such guarantee does not affect or apply to the investment return or principal value of the separate account and its subaccount. The financial ratings quoted for an insurance company do not apply to the separate account and its subaccount. If the variable annuity subaccount is invested in a money-market fund, although it seeks to preserve a stable per share value (i.e. \$1.00 per share), it is possible to lose money by investment in the fund.

Variable life insurance is a cash-value life insurance that has a variable cash value and/or death benefit depending on the investment performance of the subaccount into which premium payments are invested. Unlike traditional life insurance, variable life insurance has inherent risks associated with it, including market volatility, and is not viewed as a short-term liquid investment. For more information on a variable life product, including each subaccount, please read the current prospectus. Please note, the financial ratings noted on the report are quoted for an insurance company and do not apply to the separate account and its subaccount. If the variable life subaccount is invested in a money-market fund, although it seeks to preserve a stable per share value (i.e. \$1.00 per share), it is possible to lose money by investment in the fund.

### Asset Mix

This pie chart and table shows the portfolio's exposure to various asset classes. The "Other" category, if shown, represents an asset class that Morningstar recognizes but classifies outside of the other asset classes shown. (For example, funds that invest in a narrow sector such as Specialty-Precious Metals). "Not Classified" indicates the percentage of the portfolio Morningstar is unable to categorize.

### Morningstar Style Box Diversification

The Morningstar Style Box reveals a fund's investment style as of the date noted on this report.

For equity funds the vertical axis shows the market capitalization of the long stocks owned and the horizontal axis shows investment style (value, blend, or growth).

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest rate sensitivity as measured by a bond's effective duration.

Morningstar seeks credit rating information from fund companies on a periodic basis (e.g., quarterly). In compiling credit rating information, Morningstar instructs fund companies to only use ratings that have been assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). If two NRSROs have rated a security, fund companies are to report the lowest rating; if three or more NRSROs have rated the same security differently, fund companies are to report the rating that is in the middle. For example, if NRSRO X rates a security AA-, NRSRO Y rates the same security an A and NRSRO Z rates it a BBB+, the fund company should use the credit rating of 'A' in its reporting to Morningstar. PLEASE NOTE: Morningstar, Inc. is not itself an NRSRO nor does it issue a credit rating on the fund. An NRSRO rating on a fixed-income security can change from time-to-time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low", "medium", or "high" based on their average credit quality. Funds with a low credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; medium are those less than "AA-", but greater or equal to "BBB-"; and high are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index (MCBI), which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases static breakpoints are utilized. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-US taxable and non-US domiciled fixed income funds static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: greater than 3.5 and less than equal to 6 years; (iii) Extensive: greater than 6 years.

### Stock Sector

This table shows the percentage of the portfolio's equity assets invested in each of the three "supersectors" (in bold) and 12 major industry subclassifications, in comparison with a benchmark. The Sector Graph accompanying the table demonstrates the sector orientation of the portfolio in relation to the Morningstar Broad Market Index. "Not Classified" is for those securities Morningstar does not recognize or track. The percentage of each sector that composes the benchmark index is also listed.

### Regional Exposure

A broad breakdown of a portfolio's geographical exposure, by region and by market maturity. Only non-cash equity assets are evaluated in determining the exposures. "Not Classified" indicates the percentage of the equity portion of the portfolio for which Morningstar is unable to assess region or origin.

### Standardized Returns

For mutual funds, standardized return is total return adjusted for sales charges and reflects all ongoing fund expenses.

For money market mutual funds, standardized return is total return adjusted for sales charges and reflects all ongoing fund expenses. Current 7-day yield more closely reflects the current earnings of the money market fund than the total return quotation.

For VA subaccounts, standardized return is total return based on its inception date within the separate account and is adjusted to reflect recurring and non-recurring charges such as surrender fees, contract charges, maximum front-end load, maximum deferred load, maximum M&E risk charge, administration fees, and actual ongoing fund-level expenses.

For VL subaccounts, standardized return is total return based on its inception date within the separate account and is adjusted to reflect recurring and non-recurring charges such as surrender fees, contract charges, maximum front-end load, maximum deferred load, maximum M&E risk charge, administration fees, and actual ongoing fund-level expenses. For VLs, additional fees specific to a VL policy such as transfer fees and cost of insurance fees, which are based on specific characteristics on an individual policy, are not included. If VL fees were included in the return calculations, the performance would have been significantly lower. An investor should contact their financial advisor and ask for a personalized performance illustration, either hypothetical or historical, which reflects all applicable fees and charges including the cost of insurance. Please review the prospectus and SAI for more detailed information.

For ETFs and UITs, the standardized returns reflect performance, both at market price and NAV price, without adjusting for the effects of taxation or brokers commissions. These returns are adjusted to reflect all ongoing ETF expenses and assume reinvestment of dividends and capital gains. If adjusted, the effects of taxation would reduce the performance quoted.

For HOLDRs, the standardized returns reflect performance at market price, without adjusting for the effects of taxation or brokers commissions. These returns are adjusted to reflect all ongoing expenses and assume reinvestment of dividends and capital gains. If adjusted, the effects of taxation would reduce the performance quoted.

The charges and expenses used in the standardized returns are obtained from the most recent prospectus and/or shareholder report available to Morningstar. For mutual funds and VA/VLs, all dividends and capital gains are assumed to be reinvested. For stocks, stock acquired via divestitures is assumed to be liquidated and reinvested in the original holding.

### Trailing Returns

The portfolio's trailing returns reflect the weighted average of the underlying holding's non-standardized returns during the same periods.

### Past performance is no guarantee of future results.

For mutual funds, total return is not adjusted for sales charges and reflects all ongoing fund expenses for various time periods. These returns assume reinvestment of dividends and capital gains. If adjusted for sales charges and the effects of taxation, the mutual fund returns would be reduced.

For money market funds, total return is not adjusted for sales charges and reflects all ongoing fund expenses for various time periods. These returns assume reinvestment of dividends and capital gains. If adjusted for sales charges and the effects of taxation, the money market returns would be reduced.

For VA and VL subaccounts, total return illustrates performance of the subaccount since the inception date of the underlying fund and is adjusted to reflect all actual ongoing subaccount-level expenses including M&E risk charges and underlying fund-level expenses. These returns assume reinvestment of dividends and capital gains. If adjusted for sales charges and the effects of taxation, the subaccount returns would be reduced.

For ETFs and closed-end funds, total returns are calculated based on its market price as of the end of the business day for the period noted and does not include any fee or expenses incurred in buying or selling such a security like brokerage commission.

### Benchmark Returns

Benchmark returns may or may not be adjusted to reflect ongoing expenses such as sales charges. An investment's portfolio may differ significantly from the securities in the benchmark.

Returns for custom benchmarks are calculated by applying user-supplied weightings to each benchmark's returns every month. Trailing returns are calculated by geometrically linking these weighted-average monthly returns. Custom benchmark returns thus assume monthly rebalancing.

### Risk and Return Statistics

All the following statistics are calculated for three-, five-, and 10-year periods for the portfolio and its benchmark.

Standard Deviation is a statistical measure of the volatility of a portfolio's returns around its mean.

Mean represents the annualized geometric return of the portfolio for the period shown.

Sharpe Ratio uses a portfolio's standard deviation and total return to determine reward per unit of risk.

### Modern Portfolio Theory (MPT) Statistics

All the following MPT statistics are calculated for three-, five-, and 10-year periods for the portfolio.

Alpha measures the difference between a portfolio's actual returns and its expected performance, given its beta and the actual returns of the benchmark index. Alpha is often seen as a measurement of the value added or subtracted by a portfolio's manager.

Beta measures the degree of change in value one can expect in a portfolio given a change in value in a benchmark index. A portfolio with a beta greater than one is generally more volatile than its benchmark index, and a portfolio with a beta of less than one is generally less volatile than the index.

R-squared reflects the percentage of a portfolio's movements that are explained by movements in its benchmark index, showing the degree of correlation between the portfolio and a benchmark. This figure is also helpful in assessing how likely it is that alpha and beta are statistically significant.

### Holdings

This section reflects the underlying holdings in which the various portfolio statistics noted within this report are derived and their weighted average in terms of the overall portfolio. The determination of the holdings and to which portfolio they are assigned was made by your financial professional and not

Morningstar.

## Portfolio Snapshot Report Disclosure Statement

### General

Investment portfolios illustrated in this report can be scheduled or unscheduled. With an unscheduled portfolio, the user inputs only the portfolio holdings and their current allocations. Morningstar calculates returns using the given allocations assuming monthly rebalancing. Taxes, loads, and sales charges are not taken into account.

With "scheduled" portfolios, users input the date and amount for all investments into and withdrawals from each holding, as well as tax rates, loads, and other factors that would have affected portfolio performance. A hypothetical illustration is one type of scheduled portfolio.

Both scheduled and unscheduled portfolios are theoretical, for illustrative purposes only, and are not reflective of an investor's actual experience. For both scheduled and unscheduled portfolios, the performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return of stocks, mutual funds, and variable annuity/life products will fluctuate, and an investor's shares/units, when redeemed, will be worth more or less than the original investment. Stocks, mutual funds, and variable annuity/life products are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution. Portfolio statistics change over time.

Used as supplemental sales literature, the Portfolio Snapshot report must be preceded or accompanied by the fund/policy's current prospectus or equivalent. In all cases, this disclosure statement should accompany the Portfolio Snapshot report. Morningstar is not itself a FINRA-member firm.

The underlying holdings of the portfolio are not federally or FDIC-insured and are not deposits or obligations of, or guaranteed by any financial institution. Investing in securities involves investment risks including possible loss of principal and fluctuation in value.

The information contained in this report is from the most recent information available to Morningstar as of the release date, and may or may not be an accurate reflection of the current composition of the securities included in the portfolio. There is no assurance that the weightings, composition and ratios will remain the same.

### Items to Note Regarding Certain Underlying Securities

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market such as the New York Stock Exchange. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount.

An exchange-traded fund (ETF) is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price

above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution. Although the money market seeks to preserve a stable per share value (i.e. \$1.00 per share), it is possible to lose money by investment in the fund.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units.

Variable annuities are tax-deferred investments structured to convert a sum of money into a series of payments over time. Variable annuity policies have limitations and are not viewed as short-term liquid investments. An insurance company's fulfillment of a commitment to pay a minimum death benefit, a schedule of payments, a fixed investment account guaranteed by the insurance company, or another form of guarantee depends on the claims-paying ability of the issuing insurance company. Any such guarantee does not affect or apply to the investment return or principal value of the separate account and its subaccount. The financial ratings quoted for an insurance company do not apply to the separate account and its subaccount. If the variable annuity subaccount is invested in a money-market fund, it seeks to preserve a stable per share value (i.e. \$1.00 per share), but it is possible to lose money by investment in the fund.

Variable life insurance is a cash-value life insurance that has a variable cashvalue and/or death benefit depending on the investment performance of the subaccount into which premium payments are invested. Unlike traditional life insurance, variable life insurance has inherent risks associated with it, including market volatility, and is not viewed as a short-term liquid investment. For more information on a variable life product, including each subaccount, please read the current prospectus. Please note, the financial ratings noted on the report are quoted for an insurance company and do not apply to the separate account and its subaccount. If the variable life subaccount is invested in a money-market fund, it seeks to preserve a stable per share value (i.e. \$1.00 per share), but it is possible to lose money by investment in the fund.

A bond is a debt security. When an investor purchases a bond, the purchase amount is lent to a government, municipality, corporation or other entity known as an issuer. The issuer promises to pay a specified rate of interest during the life of the bond and repay the face value of the bond when it matures. Individual bond issue data, price evaluations, and effective duration are provided by Interactive Data Corporation.

### Pre-inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the fund's actual inception. These calculated returns reflect the historical performance of the oldest share class of the fund, adjusted to reflect the fees and expenses of this share class. These fees and expenses are referenced in the report's list of holdings and again on the standardized returns page. When pre-inception data is presented in the report, the header at the top

of the report will indicate this and the affected data elements will be displayed in italics.

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

### Scheduled Portfolio Trailing Returns

Scheduled Portfolios are customized by the user to account for loads, taxes, cash flows and specific investment dates. Scheduled portfolios use the portfolio's investment history to calculate final market values and returns. For scheduled portfolios, both individual holdings and portfolio returns are internal-rate-of-return calculations that reflect the timing and dollar size of all purchases and sales. For stocks and mutual funds, sales charges and tax rates are taken into account as specified by the user (except in the pre-tax returns, which reflect the impact of sales charges but not taxes). Note that in some scheduled portfolio illustrations, dividends and capital gains distributions, if applicable, are reinvested at the end of the month in which they are made at the month-end closing price. This can cause discrepancies between calculated returns and actual investor experience.

### Scheduled Portfolio Returns-Based Performance Data

For scheduled portfolios, the monthly returns used to calculate alphas, betas, R-squareds, standard deviations, Sharpe ratios and best/worst time-period data are internal rates of return.

### Important VA Disclosure for Scheduled Portfolios

For variable annuity products, policy level charges (other than front-end loads, if input by the advisor) are not factored into returns. When withdrawals and liquidations are made, increases in value over the purchase price are taxed at the capital gains rate that currently is in effect. This is not reflective of the actual tax treatment for these products, which requires the entire withdrawal to be taxed at the income tax rate. If adjusted for sales charges and the effects of taxation, the subaccount returns would be reduced.

### Scheduled Portfolio Investment Activity Graph

The historic portfolio values that are graphed are those used to track the portfolio when calculating returns.

### Unscheduled Portfolio Returns

Monthly total returns for unscheduled portfolios are calculated by applying the ending period holding weightings supplied by the user to an individual holding's monthly returns. When monthly returns are unavailable for a holding (ie. Due to it not being in existence during the historical period being reported), the remaining portfolio holdings are re-weighted to maintain consistent proportions. Inception dates are listed in the Disclosure for Standardized and Tax Adjusted Returns. Trailing returns are calculated by geometrically linking these weighted-average monthly returns. Unscheduled portfolio returns thus assume monthly rebalancing. Returns for individual holdings are simple time-weighted trailing returns. Neither portfolio returns nor holding returns are adjusted for loads or taxes, and if they were, the returns stated would be reduced. The returns stated assume the reinvestment of dividends and capital gains. Mutual fund returns include all ongoing fund expenses. VA/VL returns reflect subaccount level fund expenses, including M&E expenses, administration fees, and actual ongoing fund level expenses.

### Unscheduled Portfolio Investment Activity Graph



The historic performance data graphed is extrapolated from the ending portfolio value based on monthly returns.

### Benchmark Returns

Benchmark returns may or may not be adjusted to reflect ongoing expenses such as sales charges. An investment's portfolio may differ significantly from the securities in the benchmark.

Returns for custom benchmarks are calculated by applying user-supplied weightings to each benchmark's returns every month. Trailing returns are calculated by geometrically linking these weighted-average monthly returns. Custom benchmark returns thus assume monthly rebalancing.

### Standardized Returns

For mutual funds, standardized return is total return adjusted for sales charges, and reflects all ongoing fund expenses. Following this disclosure statement, standardized returns for each portfolio holding are shown.

For money-market mutual funds, standardized return is total return adjusted for sales charges and reflects all ongoing fund expenses. Current 7-day yield more closely reflects the current earnings of the money-market fund than the total return quotation.

For VA subaccounts, standardized return is total return based on the inception date within the separate account and is adjusted to reflect recurring and non-recurring charges such as surrender fees, contract charges, maximum front-end load, maximum deferred load, maximum M&E risk charge, administration fees and actual ongoing fund-level expenses.

For ETFs, the standardized returns reflect performance, both at market price and NAV price, without adjusting for the effects of taxation or brokerage commissions. These returns are adjusted to reflect all ongoing ETF expenses and assume reinvestment of dividends and capital gains. If adjusted, the effects of taxation would reduce the performance quoted.

The charges and expenses used in the standardized returns are obtained from the most recent prospectus and/or shareholder report available to Morningstar. For mutual funds and VAs, all dividends and capital gains are assumed to be reinvested. For stocks, stock acquired via divestitures is assumed to be liquidated and reinvested in the original holding.

### Non-Standardized Returns

For mutual funds, total return is not adjusted for sales charges and reflects all ongoing fund expenses for various time periods. These returns assume reinvestment of dividends and capital gains. If adjusted for sales charges and the effects of taxation, the mutual fund returns would be reduced. Please note these returns can include pre-inception data and if included, this data will be represented in italics.

For money-market funds, total return is not adjusted for sales charges and reflects all ongoing fund expenses for various time periods. These returns assume reinvestment of dividends and capital gains. If adjusted for sales charges and the effects of taxation, the money-market returns would be reduced.

For VA and VL subaccounts, non-standardized returns illustrate performance that is adjusted to reflect recurring and non-recurring charges such as surrender fees, contract charges, maximum front-end load, maximum deferred load, maximum M&E risk charge, administrative fees and underlying fund-level expenses for various time periods. Non-Standardized performance returns assume reinvestment of dividends and capital gains. If adjusted for the effects of taxation, the subaccount returns would be significantly reduced. Please note

these returns can include pre-inception data and if included, this data will be represented in italics.

### Investment Advisory Fees

The investment(s) returns do not necessarily reflect the deduction of all investment advisory fees. Client investment returns will be reduced if additional advisory fees are incurred such as deferred loads, redemption fees, wrap fees, or other account charges.

### Asset Allocation

The weighting of the portfolio in various asset classes, including "Other" is shown in this graph and table. "Other" includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks. "Not classified" represents the portion of the portfolio that Morningstar could not classify at all, due to missing data.

In the graph and table, allocation to the classes is shown for long positions, short positions, and net (long positions net of short) positions. These new portfolio statistics help investors look "under the hood" of a portfolio. These statistics summarize what the managers are buying and how they are positioning the portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the funds' exposure and risk.

Most managed product portfolios hold fairly conventional securities, such as long positions in stocks and bonds. Other portfolios use other investment strategies or securities, such as short positions or derivatives, to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while others have unique return and risk characteristics.

Most portfolios take long positions in securities. Long positions involve buying the security outright and then selling it later, with the hope that the security price rises over time. In contrast, short positions are taken to benefit from anticipated price declines. In this type of transaction, the investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can now buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience losses by buying it at a higher price than the sale price.

The strategy of selling securities short is prevalent in specialized portfolios, such as long-short, market-neutral, bear-market, and hedge funds. Most conventional portfolios do not typically short securities, although they may reserve the right to do so under special circumstances. Funds may also short derivatives, and this is sometimes more efficient than shorting individual securities. Short positions produce negative exposure to the security that is being shorted. This means that when the security rises in value, the short position will fall in value and vice versa. Morningstar's portfolio statistics will capture this negative exposure. For example, if a fund has many short stock positions, the percent of assets in stocks in the asset allocation breakdown may be negative. Funds must provide their broker with cash collateral for the short position, so funds that short often have a large cash position, sometimes even exceeding 100% cash.

### Investment Style

The Morningstar Style Box reveals a fund's investment style as of the date noted on this report.

For equity funds the vertical axis shows the market capitalization of the stocks owned and the horizontal axis shows investment style (value, blend, or growth).

For fixed-income funds, the vertical axis shows the credit quality of the bonds owned and the horizontal axis shows interest rate sensitivity as measured by a bond's effective duration.

Morningstar seeks credit rating information from fund companies on a periodic basis (e.g., quarterly). In compiling credit rating information, Morningstar instructs fund companies to only use ratings that have been assigned by a Nationally Recognized Statistical Rating Organization (NRSRO). If two NRSROs have rated a security, fund companies are to report the lowest rating; if three or more NRSROs have rated the same security differently, fund companies are to report the rating that is in the middle. For example, if NRSRO X rates a security AA-, NRSRO Y rates the same security an A and NRSRO Z rates it a BBB+, the fund company should use the credit rating of 'A' in its reporting to Morningstar. PLEASE NOTE: Morningstar, Inc. is not itself an NRSRO nor does it issue a credit rating on the fund. An NRSRO rating on a fixed-income security can change from time-to-time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low", "medium", or "high" based on their average credit quality. Funds with a low credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; medium are those less than "AA-", but greater or equal to "BBB-"; and high are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index (MCBI), which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases static breakpoints are utilized. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-US taxable and non-US domiciled fixed income funds static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: greater than 3.5 and less than equal to 6 years; (iii) Extensive: greater than 6 years.

### Stock Regions

This section provides the allocation of the portfolio's long stock positions to the world regions, in comparison with a benchmark.

### Risk and Return

Standard deviation is a statistical measure of the volatility of a portfolio's returns around its mean.

Mean represents the annualized geometric return for the period shown.

Sharpe ratio uses a portfolio's standard deviation and total return to determine reward per unit of risk.

Alpha measures the difference between a portfolio's actual returns and its expected performance, given its beta and the actual returns of the benchmark index. Alpha is often seen as a measurement of the value added or subtracted by a portfolio's manager.

Beta is a measure of the degree of change in value one can expect in a portfolio given a change in value in a benchmark index. A portfolio with a beta greater than one is generally more volatile than its benchmark index, and a portfolio with a beta of less than one is generally less volatile than its benchmark index.

R-squared reflects the percentage of a portfolio's movements that is explained by movements in its benchmark index, showing the degree of correlation between the portfolio and a benchmark. This figure is also helpful in assessing how likely it is that alpha and beta are statistically significant.

### Portfolio Yield

The dividend yield produced for the most recent 12 months is presented.

### Fundamental Analysis

The below referenced data elements are a weighted average of the long equity holdings in the portfolio.

The median market capitalization of a subaccount's equity portfolio gives you a measure of the size of the companies in which the subaccount invests.

The Price/Cash Flow ratio is a weighted average of the price/cash-flow ratios of the stocks in a subaccounts portfolio. Price/cash-flow shows the ability of a business to generate cash and acts as a gauge of liquidity and solvency.

The Price/Book ratio is a weighted average of the price/book ratios of all the stocks in the underlying fund's portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation.

The Price/Earnings ratio is calculated by dividing the market value of the equity assets by the trailing 12 month earnings. The 12 month earnings value comes from multiplying the number of shares and the adjusted trailing 12 months' earnings per share for each equity asset and summing the results.

The Price/Sales ratio is a weighted average of the price/sales ratios of the stocks in the underlying fund's portfolio. The P/S ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months' revenues per share. In computing the average, Morningstar weights each portfolio holding by the percentage of equity assets it represents.

The return on assets (ROA) is the percentage a company earns on its assets in a given year. The calculation is net income divided by end-of-year total assets, multiplied by 100.

The Return on Equity (ROE) is the percentage a company earns on its shareholders' equity in a given year. The calculation is net income divided by end-of-year net worth, multiplied by 100.

Market Maturity shows the percentage of a holding's long common stocks that are domiciled in developed and emerging markets.

The data elements listed below are a weighted average of the long fixed income holdings in the portfolio.

Average maturity is used for holdings in the taxable fixed-income category. This is a weighted average of all the maturities of the bonds in a portfolio, computed by weighting each maturity date by the market value of the security.

Credit quality breakdowns are shown for corporate-bond holdings and depict the quality of bonds in the underlying portfolio. The report shows the percentage of fixed-income securities that fall within each credit quality rating as assigned by an NRSRO. Bonds not rated by an NRSRO are included in the not rated (NR) category.

Debt as a percentage of capital is calculated by dividing long-term debt by total capitalization (the sum of common equity plus preferred equity plus long-term debt). This figure is not provided for financial companies.

Duration is a time measure of a bond's interest-rate sensitivity.

Net Margin is a measure of profitability. It is equal to annual net income divided by revenues from the same period for the past five fiscal years, multiplied by 100.

Type Weightings divide the stocks in a given holding's portfolio into eight type designations each of which defines a broad category of investment characteristics. Not all stocks in a given holding's portfolio are assigned a type. These stocks are grouped under NA.

The data elements listed below are a weighted average of the total holdings in the portfolio.

The average expense ratio is the percentage of assets deducted each year for operating expenses, management fees, and all other asset-based costs incurred by the fund, excluding brokerage fees. Please note for mutual funds, variable annuities/life, ETFs and closed-end funds we use the gross prospectus ratio as provided in the prospectus. Separate accounts and stocks are excluded from the average expense ratio.

Potential capital gains exposure is the percentage of a holding's total assets that represent capital appreciation.