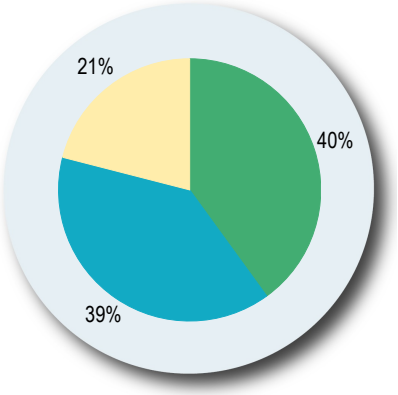
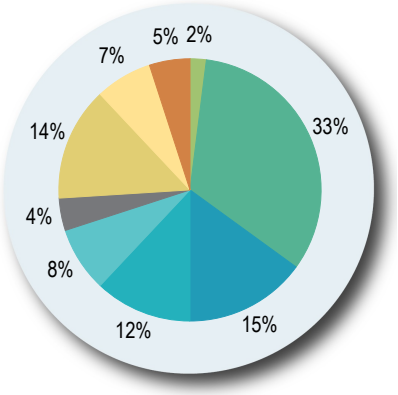
Portfolio Diversification

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[1]. Your recommended portfolio was designed with asset class exposures optimally weighted with the intention of reducing risk or improving returns.





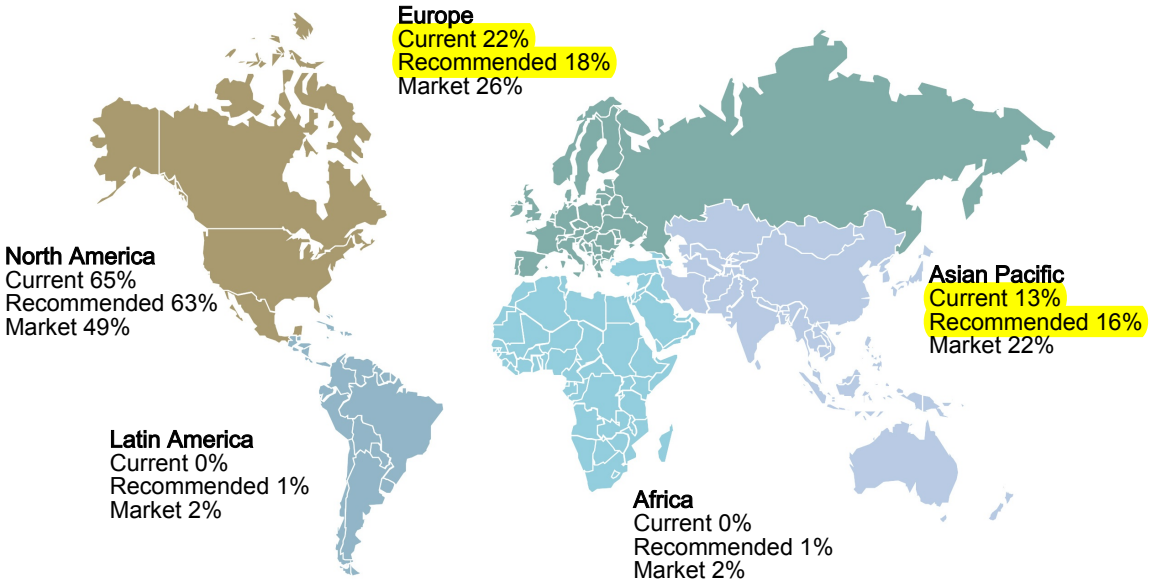
	Current	Recommended	Gap
Cash	0%	2%	-2%
Short-Term Fixed Income	0%	33%	-33%
US Investment Grade	40%	0%	40%
US Stocks	0%	15%	-15%
US Large Neutral	39%	0%	39%
US Large Value	0%	12%	-12%
US Small Neutral	0%	8%	-8%
US REITs	0%	4%	-4%
International Large Neutral	21%	0%	21%
International Large Value	0%	14%	-14%
International Small Neutral	0%	7%	-7%
Emerging Markets	0%	5%	-5%

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 portfolios' exposure in various regions of the world relative to the distribution of world market capitalization.

Data Sources: Dimensional Fund Advisors, "Global Market Breakdown" (August 2011)

Potential Gap

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
US Core Equity	44	64	57	7
International Core Equity	43	36	38	-2
Emerging Core Equity	13	0	6	-6
Not Classified	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
US Core Equity	6082	3348	2975	373
International Core Equity	8556	933	5118	-4185
Emerging Core Equity	8585	15	1328	-1313
Not Classified	0	0	0	0
Total	23223	4296	9421	-5125

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.

Potential Gap

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 funds expense ratio.

Trading costs are not easy to quantify and thus, often go unreported. Independent research by Loring Ward[1] 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

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.

[1]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.

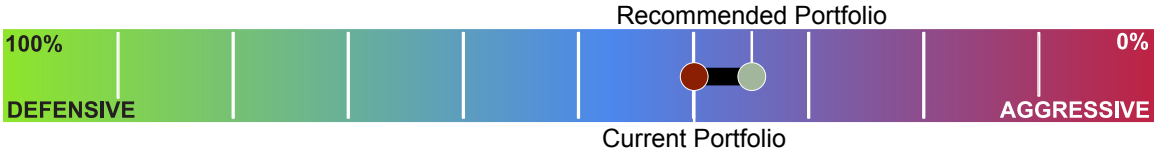
☐ Potential Gap

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.

Historical Returns and Inflation Rates (1972 - 2015)

	Current	Recommended
Annualized Returns	9.39%	10.20%
Base Inflation Rate	4.05%	4.05%
Real Annualized Return	5.34%	6.15%
Worst One Year Loss (or Lowest Gain)	-21.72%	-24.62%
Annual Standard Deviation	11.38%	11.99%

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.