



BlackRock Industry Insights

FINANCIAL PLANNING ASSOCIATION

PRESENTED BY:
CULLEN ROBERTS, CIMA®

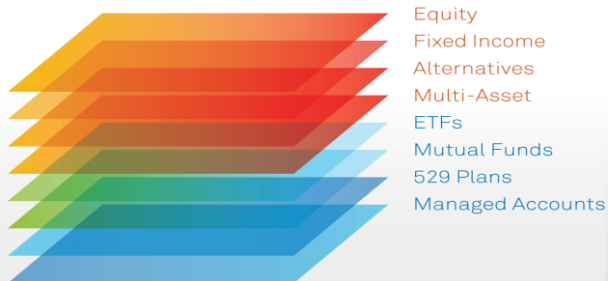
The BlackRock Advantage

BlackRock partners with advisors to help build better portfolios to help meet client goals

Comprehensive Set of Innovative Solutions

OBJECTIVE POINT OF VIEW

- ▶ 400+ products across ETFs, funds, alternatives, managed accounts and more
- ▶ Solutions range from single strategy investments to complete outcome-oriented portfolios
- ▶ Framework for blending active and index



Global Market & Investment Insights

INFORMED DECISIONS

- ▶ The world's largest asset manager* with local presence in every major market, including 65 offices in 30 countries
- ▶ 1,800 investment professionals meet daily to discuss markets, portfolio positioning and ongoing trends
- ▶ Committed to share with you informed views on investment opportunities



Sophisticated Risk & Portfolio Analytics

THOROUGH UNDERSTANDING

- ▶ Aladdin® risk technology monitors \$15 trillion for some of the world's largest institutions
- ▶ US and European governments have engaged us for critical risk assessments and banking sector stabilization strategies
- ▶ Portfolio consulting to help you identify risks and gaps, run scenario tests and optimize investment opportunities

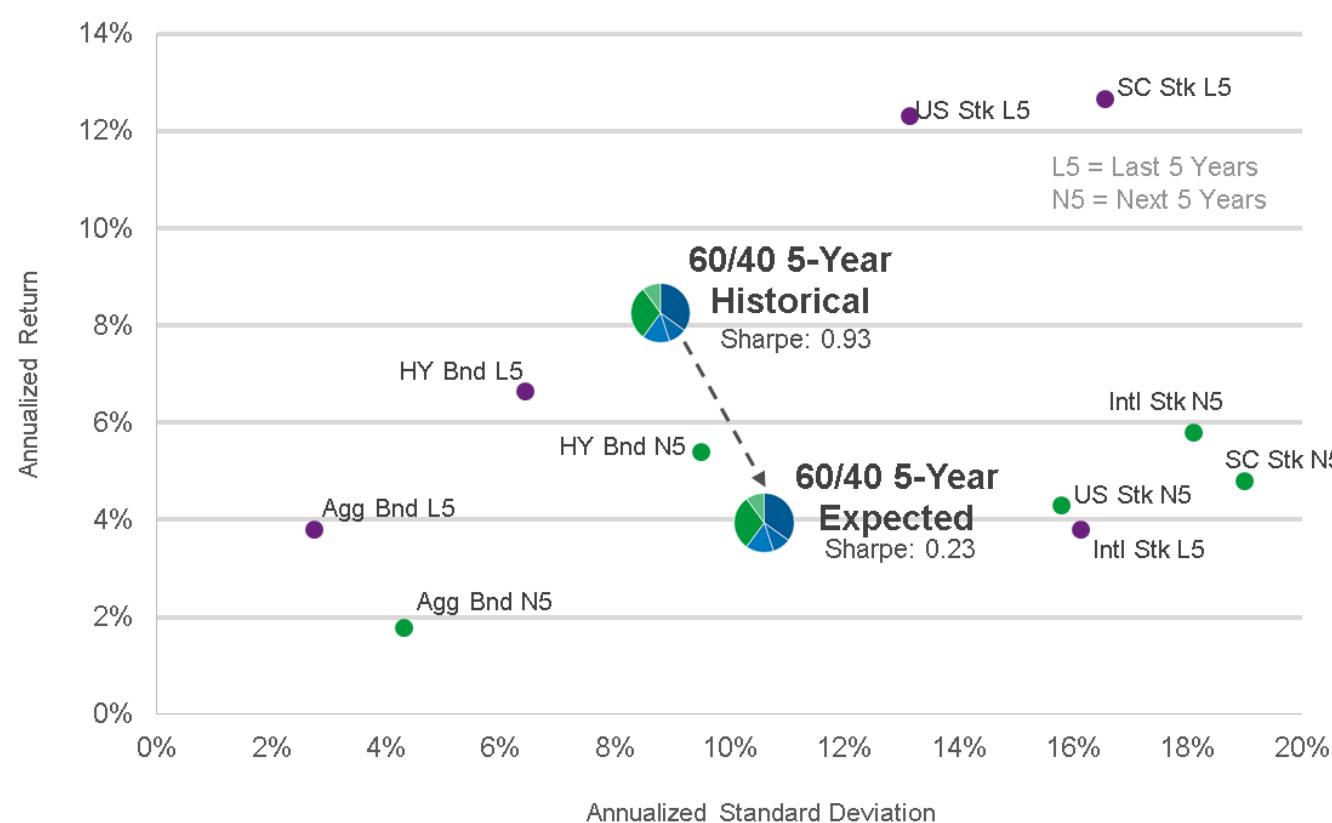


* Source: BlackRock as of 12.31.15 based on assets under management.

Portfolio construction is becoming harder

Going Forward, 60/40 May Produce Half the Return with 25% More Risk

Asset Class and 60/40 Portfolio Risk and Return from 12/31/2010–12/31/2015 (L5) and 5-Year BlackRock Investment Institute CMA



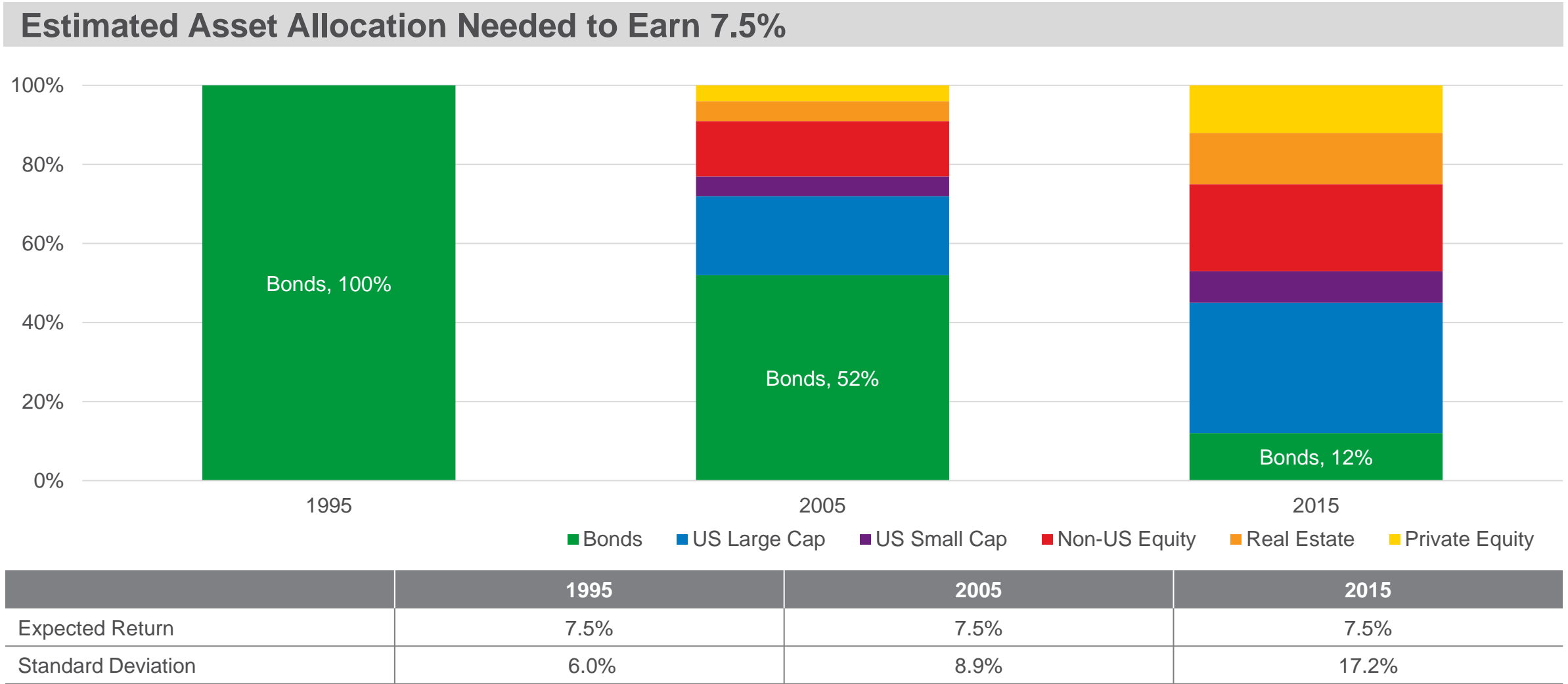
60/40 Portfolio:

- 35% US Stocks
- 10% Small Cap Stocks
- 15% International Stocks
- 30% Intermediate Bonds
- 10% High Yield Bonds

Asset Class	Vol Chg
US Stocks	+20%
US Small Cap	+15%
Intl Stocks	+12%
Interm Bonds	+57%
HY Bonds	+48%

Source: BlackRock Investment Institute, Morningstar Direct as of 12/31/15. Please see slide at the end of the presentation describing methodology and limitations of BlackRock Investment Institute's firm-wide Capital Market Assumptions. US Stocks represented by the MSCI USA Index. Small Cap Stocks represented by the MSCI USA Small Cap Index. International Stocks represented by the MSCI World ex USA Index. Intermediate Bonds represented by the Barclays US Aggregate Bond Index. High Yield Bonds represented by the Barclays US Corporate High Yield Index. Indexes are unmanaged. It is not possible to invest directly in an index.

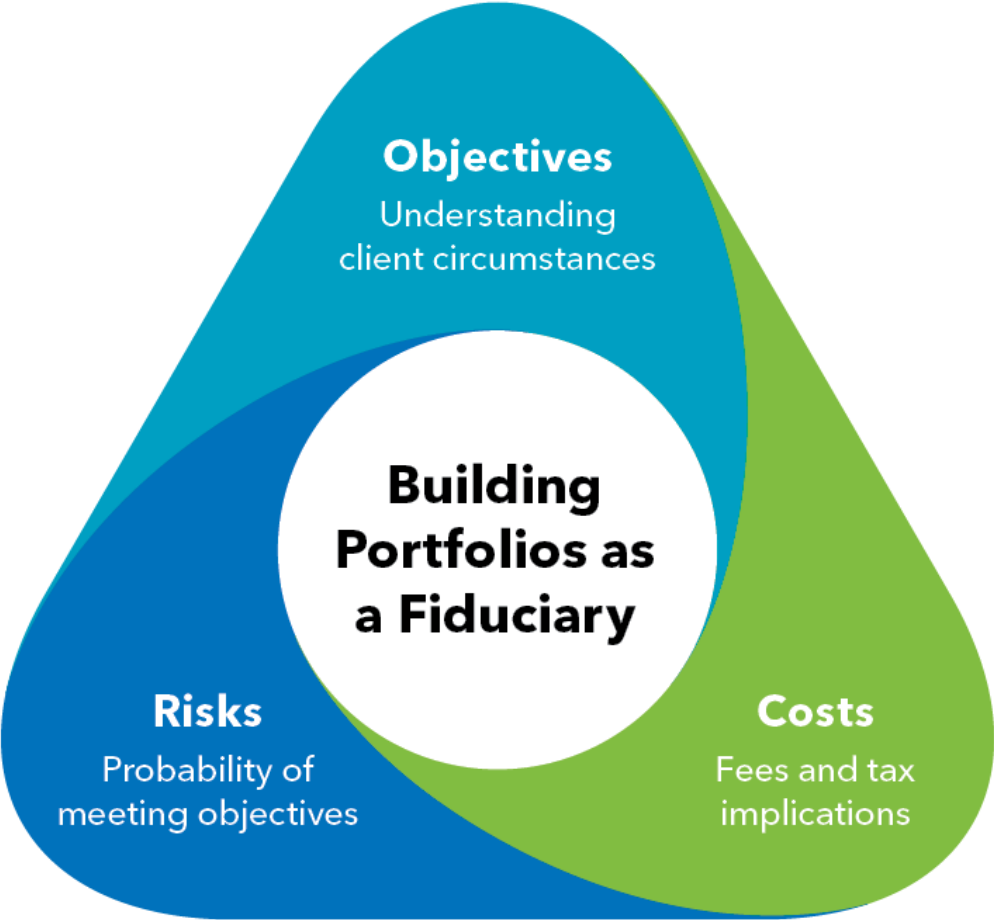
Natural tension between objectives and risk



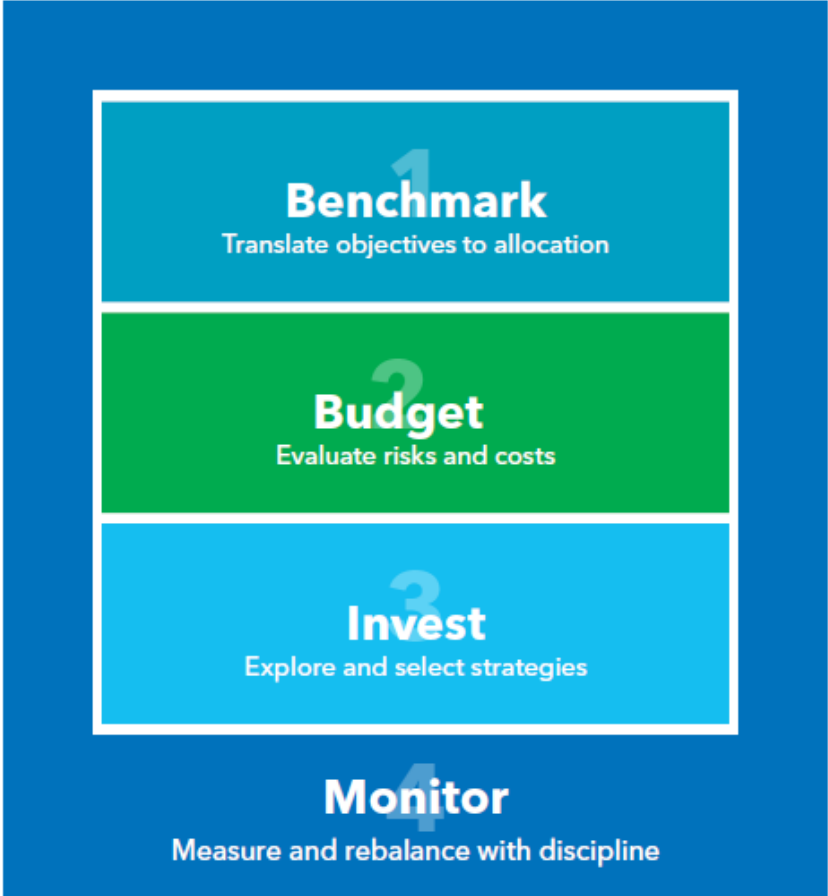
Source: Callan Associates, Wall Street Journal, 5/31/2016. <http://www.wsj.com/articles/pension-funds-pile-on-the-risk-just-to-get-a-reasonable-return-1464713013>.

The Portfolio Construction Process

Crucial fiduciary advisor considerations

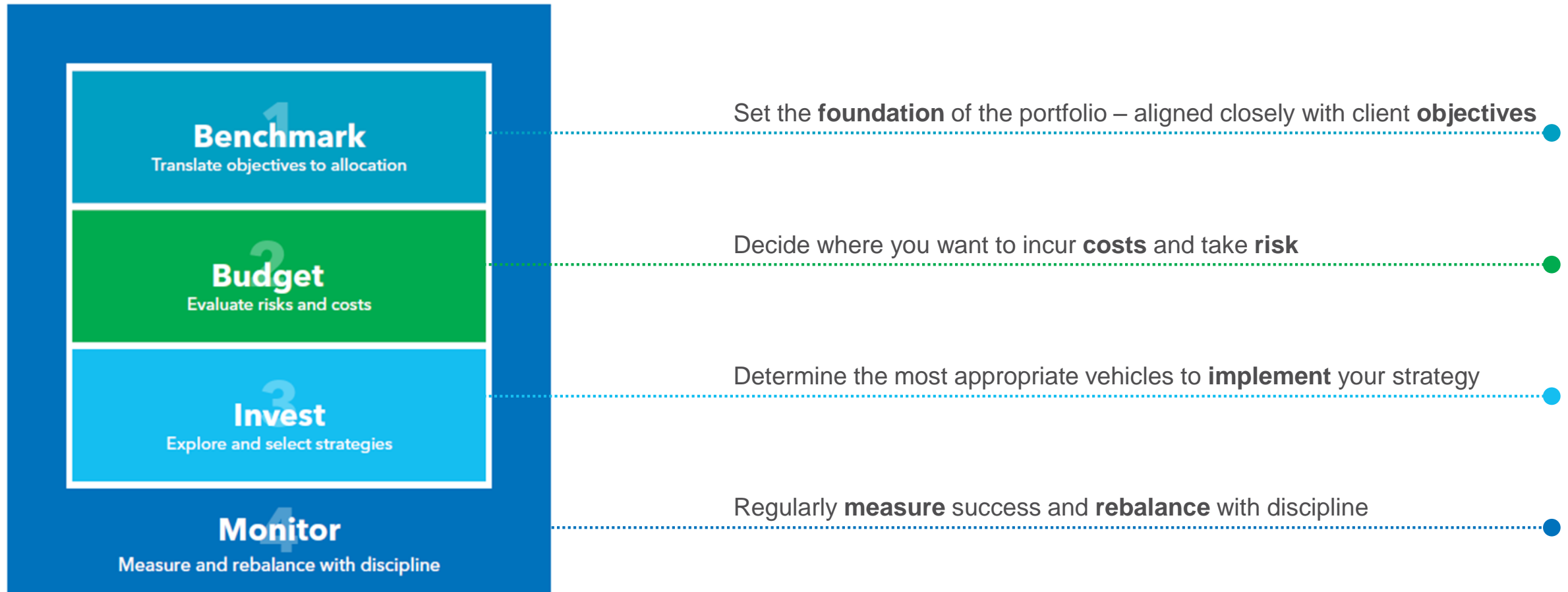


PORTFOLIO CONSTRUCTION PROCESS



The Portfolio Construction Process

Fiduciary advisor should follow a thoughtful, well-documented process for portfolio construction.

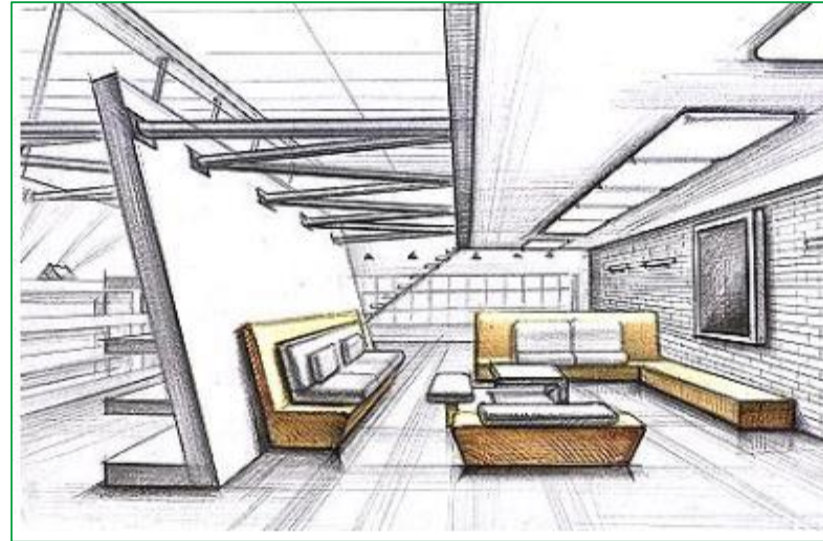


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Constructing a portfolio is like building a house



The steps of the “home construction” process



Language of Risk

Why focus on risk?



Risk

Correlations

Stress Test Outcomes

Long-Term Returns

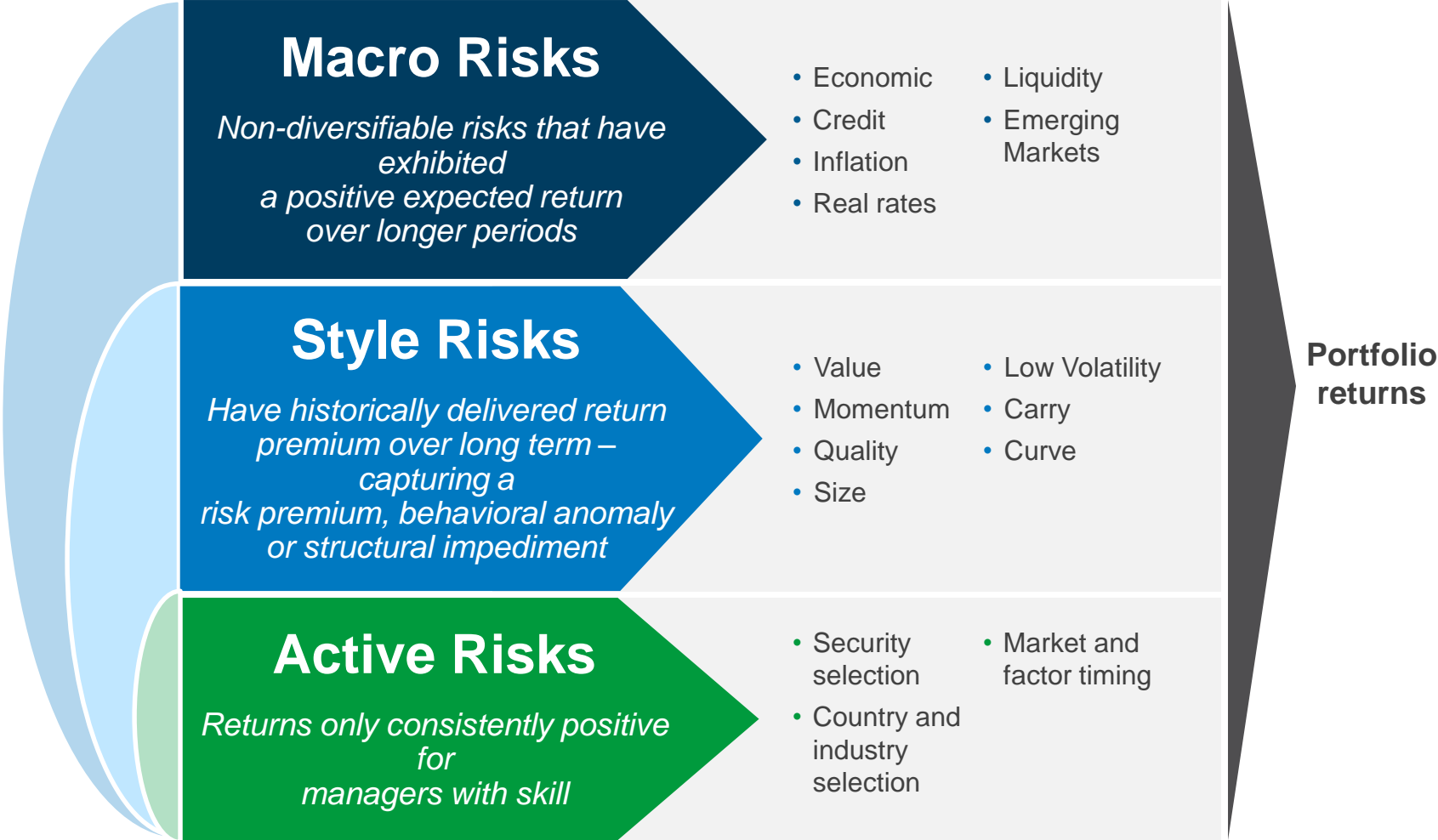
Event Probability

Short-Term Performance

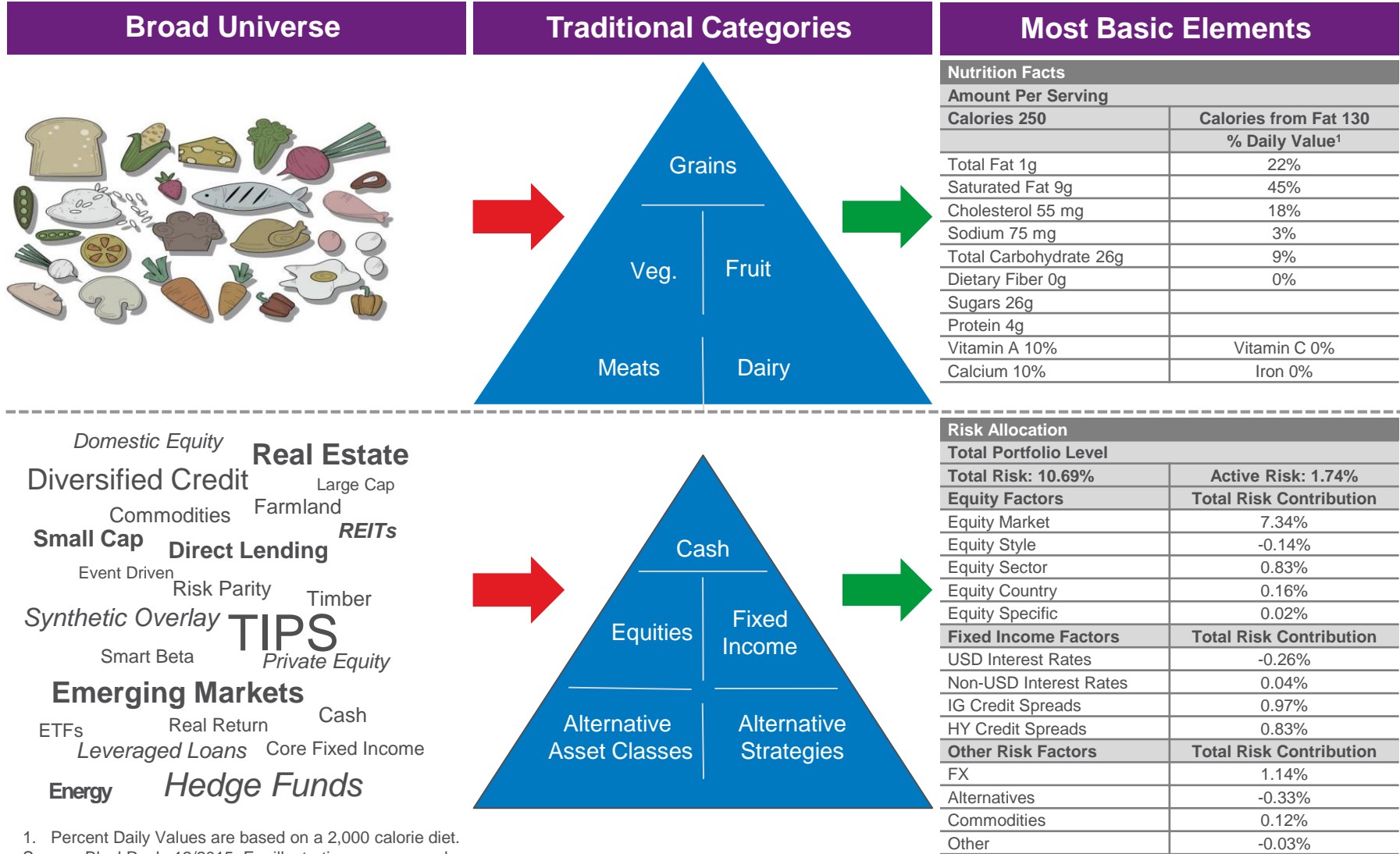
Returns are unpredictable, but risk can be managed

*For illustrative purposes only

Risk drives returns over the long term



Understanding The Building Blocks Of Risk And Return



Enhancing your view can help you better manage a portfolio

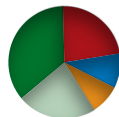
RETURNS-BASED ANALYSIS

A dissection of the portfolio's **past return patterns**

What can the **past returns** of my portfolio tell me?

- ▶ Portfolio behavior in real markets
- ▶ Style consistency & alpha generation
- ▶ Risk contribution of portfolio constituents

Your Portfolio Today



HOLDINGS-BASED ANALYSIS

A decomposition of the portfolio's **current exposures**

What can the **holdings** of my portfolio tell me?

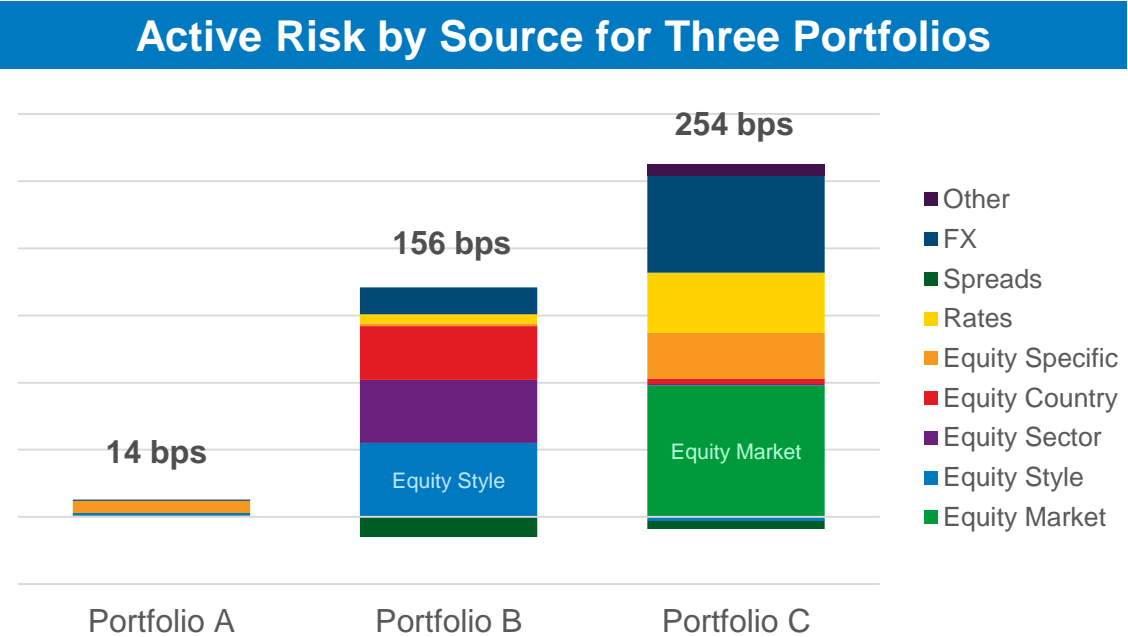
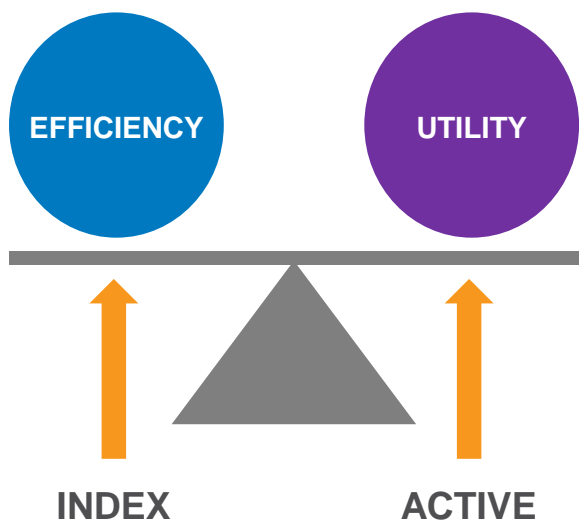
- ▶ Portfolio's sensitivity to specific risk factors
- ▶ Each risk factor's contribution to total risk
- ▶ Sources of active risk

BlackRock Portfolio Solutions is skilled with both

Please note that BlackRock does not have complete insight into the timing of past portfolio decisions and does not have real-time information on the current portfolio.

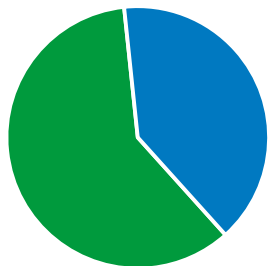
The critical role of benchmarking and active risk

Using your own tilts, or those of active managers, involves taking an intentional step away from the path of market returns ... *you should know how large that potential gap can be*



Hypothetical portfolios shown for illustrative purposes only to demonstrate different potential sources of risk.

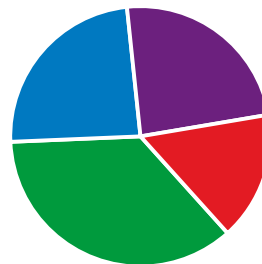
The right benchmark depends on how you manage portfolios...



Broad

Consider if you...

- Make asset class calls or hire broad active managers
- Want to measure value of strategic tilts



Strategic

Consider if you...

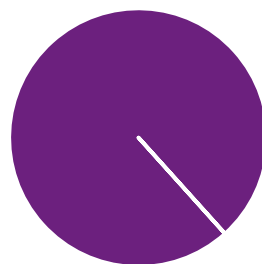
- Make asset class calls or hire active managers
- Want to measure value of tilts away from long-term neutral allocation



Granular

Consider if you...

- Want to measure style purity
- Want to measure whether portfolio is generating alpha above style bets



Objective

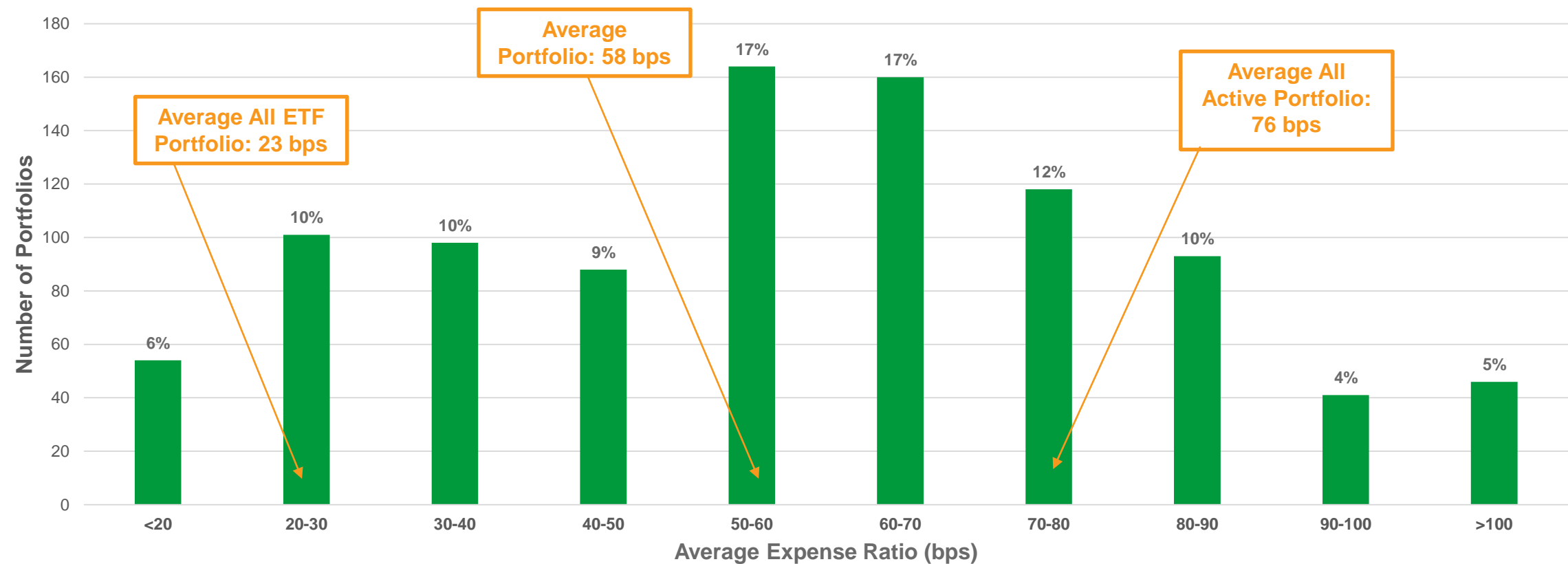
Consider if you...

- You simply want to show ability to meet objectives, regardless of efficiency

The Quest for Efficiency

How much is too much?

Distribution of Costs for Advisor-Run Models



Source: BlackRock Portfolio Solutions. Entire universe of 963 portfolios analyzed by BlackRock between February and August 2016 that contained allocations to mutual Funds, ETFs, and/or closed-end Funds (single stock portfolios excluded). 252 portfolios were 100% active (defined as having allocations to mutual Funds or closed-end Funds only), 481 had at least 75% allocated to active strategies, 136 were roughly 50/50 (defined as between 40-60% allocations to each), 162 had at least 75% allocated to ETFs, and 104 portfolios were 100% ETF. Expense Ratio is weighted average of underlying Funds.

Where is Cost Less Important?

Outcome-Oriented

- ▶ Designed to achieve a specific client objective with equity growth; e.g.:
 - Income
 - Protection
 - Diversification
- ▶ Clear mandate and measure of success



INCOME



GROWTH

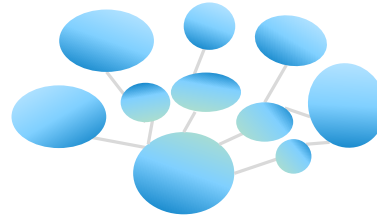


PROTECTION

Offering clients solutions for their individual needs

Flexible / Unconstrained

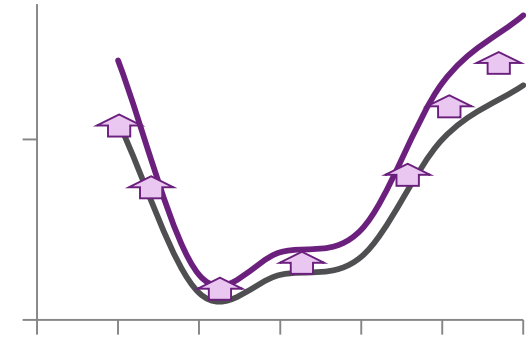
- ▶ “Go-anywhere” to take advantage of opportunities
- ▶ Maximize potential for manager skill to produce higher returns or lower risk



Clearly differentiated products that are not behold to a benchmark

Benchmark Plus

- ▶ **High conviction managers** with a proven and repeatable process for delivering excess returns



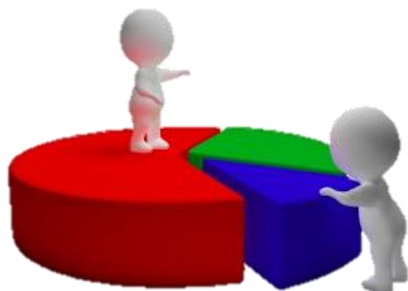
Traditional actively managed, benchmark plus products

For illustrative purposes only.

Where is Cost Important?

Core Investments

- ▶ Broad building blocks for the core of clients' portfolios
- ▶ Seek to lock in market returns at the lowest cost possible



Market exposures to fill in asset allocation buckets

Financial Instruments

- ▶ Highly liquid tools seeking to enable efficient trading and market access



Trading vehicles

Precision Exposures

- ▶ Easy access to targeted exposures to express a particular market view
- ▶ Short-term tactical bets
- ▶ Macro calls



Tactical macro calls

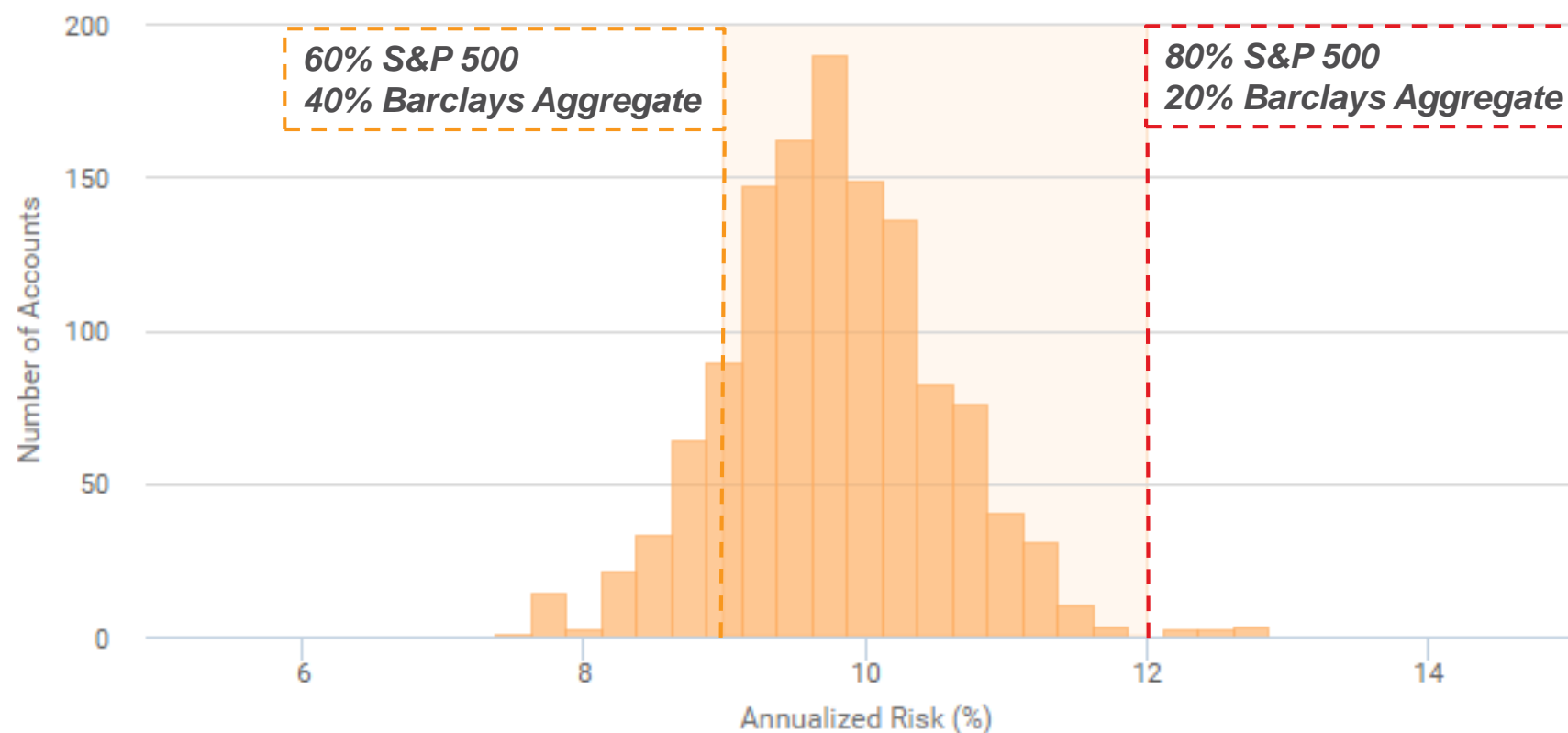
Trends in Advisor Models

Insights From Portfolio Consulting Engagements

The Myth of the Balanced Portfolio: 60/40 is no longer 60/40

Data from ~1700 portfolio consulting engagements on portfolios with roughly 60% allocation to equities

Distribution of Portfolio Risk for 60/40 Portfolios



Source: BlackRock Aladdin risk model analysis of advisor portfolios as of 12/31/15. Analysis includes portfolios collected by BlackRock from Q4 2015 and Q1 2016 with a capital allocation between 55% and 65% equities, and risk is an estimated standard deviation based on the Aladdin risk factor model.

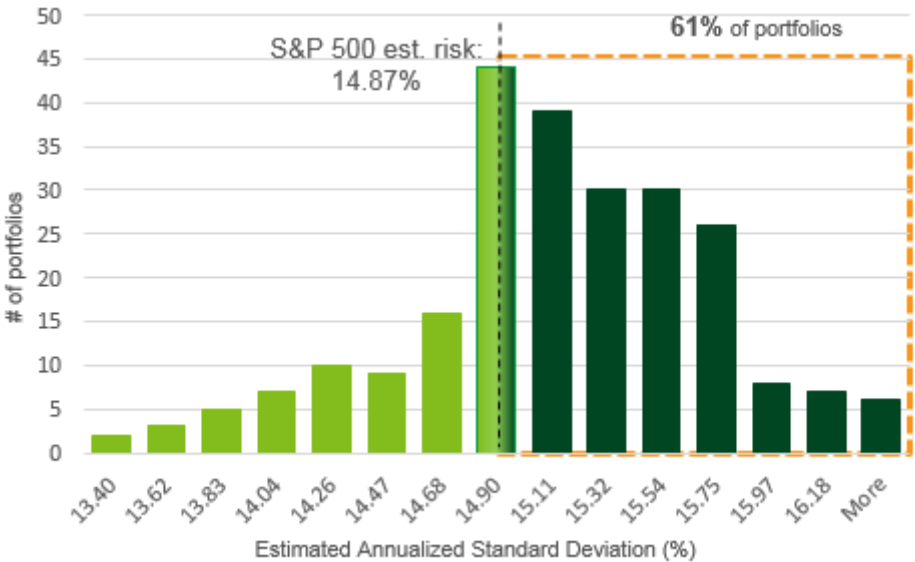
Theme 1: Volatility In Equities

Over-Allocating to Risky Equities

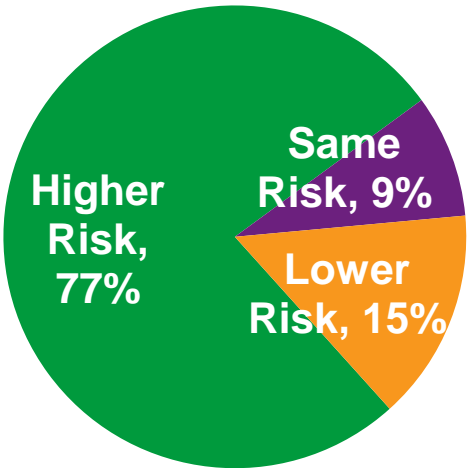
65% of advisors say they are “concerned about equity market risk”

A Majority of Equity Portfolios Exhibit More Risk than the S&P 500

Ex-ante standard deviation of equity sleeves of 60-40 advisor model portfolios analyzed by BlackRock’s PCS team



Equity Fund Assets Are Riskier vs. S&P500



10 Years Ago – 6/2005

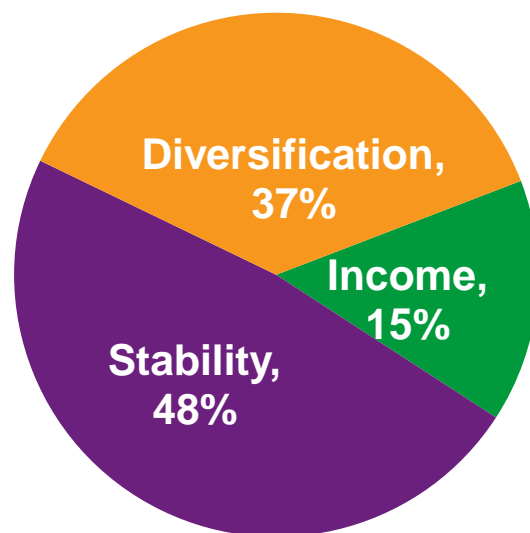
Higher Risk	44%
Same Risk	8%
Lower Risk	48%

Source (left): BlackRock Aladdin risk model analysis of advisor portfolios as of 12/31/15. Analysis includes portfolios collected by BlackRock from Q4 2015 and Q1 2016 with a capital allocation between 55% and 65% equities, and risk is an estimated standard deviation based on the Aladdin risk factor model. Right: Morningstar as of 12/31/15.

Theme 2: Credit Risk In Fixed Income

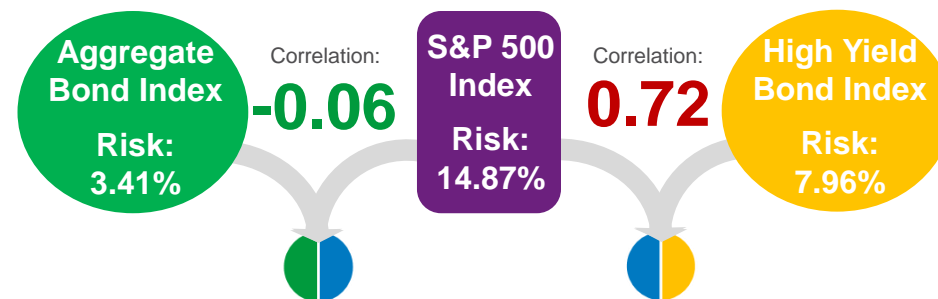
Sacrificing Diversification in the Search for Returns

Advisor View of the Primary Portfolio Role of Fixed Income

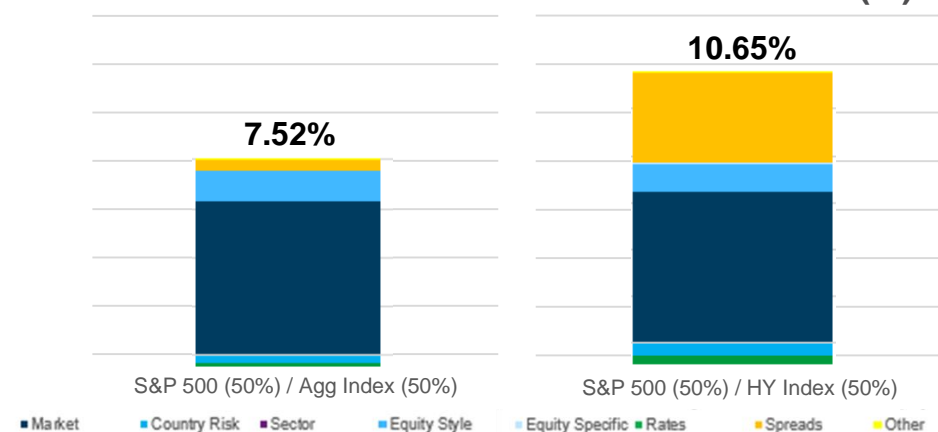


49% average credit risk exposure as % of total fixed income risk

Diversifying Equity Risk with Bonds How Much Will Credit Risk Cost You?



Estimated Annualized Standard Deviation (%)

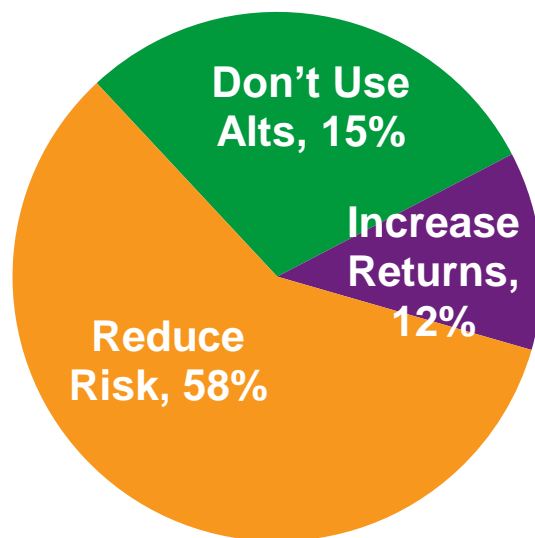


Source (left): Roughly 1,000 Advisor responses from 2015-2016 to BlackRock portfolio consulting engagement questionnaire. Right: Aladdin risk model analysis as of 12/31/15.

Theme 3: Alternatives With Embedded Market Beta

Reducing Risk, but not Achieving True Diversification

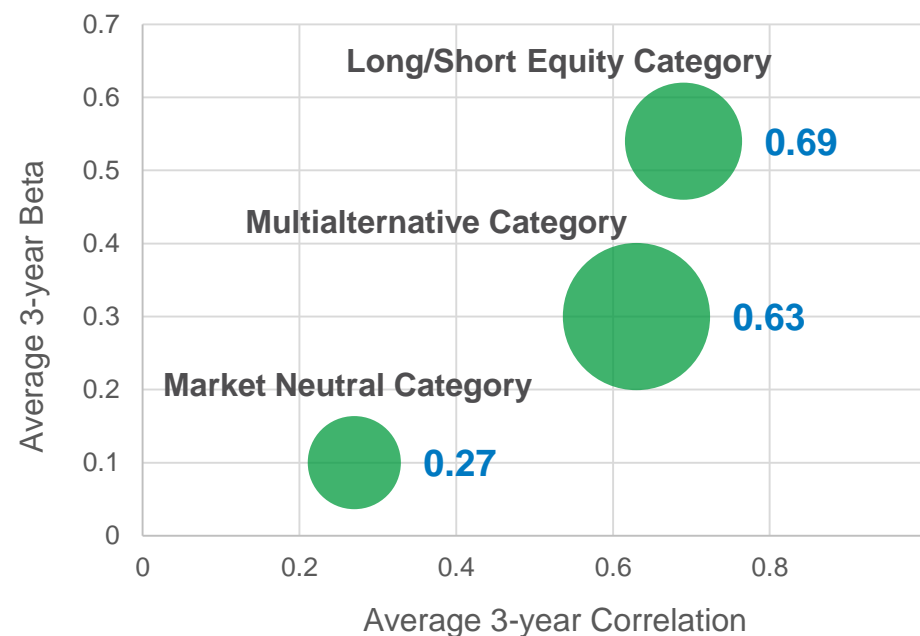
Advisor View of the Primary Portfolio Role of Alternatives



58% average equity risk exposure as % of total risk in alternatives

What Portfolio Benefits are Alternative Funds Providing?

3-year Correlation, beta and category size for alternatives Morningstar Cats



Blue number represents correlation to equities
Size of bubbles represents category asset size

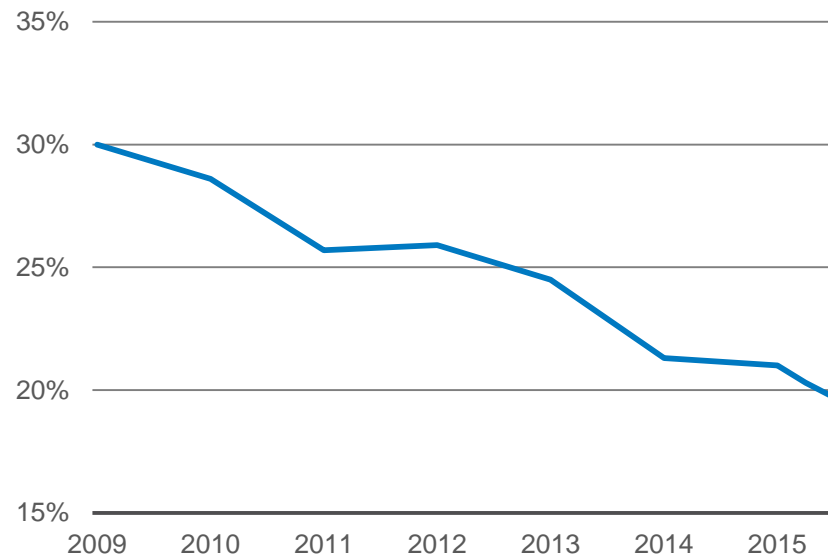
Source (left): Roughly 1,000 Advisor responses from 2015-2016 to BlackRock portfolio consulting engagement questionnaire. Right: Morningstar as of 12/31/15.

Theme 4: Home Country Bias

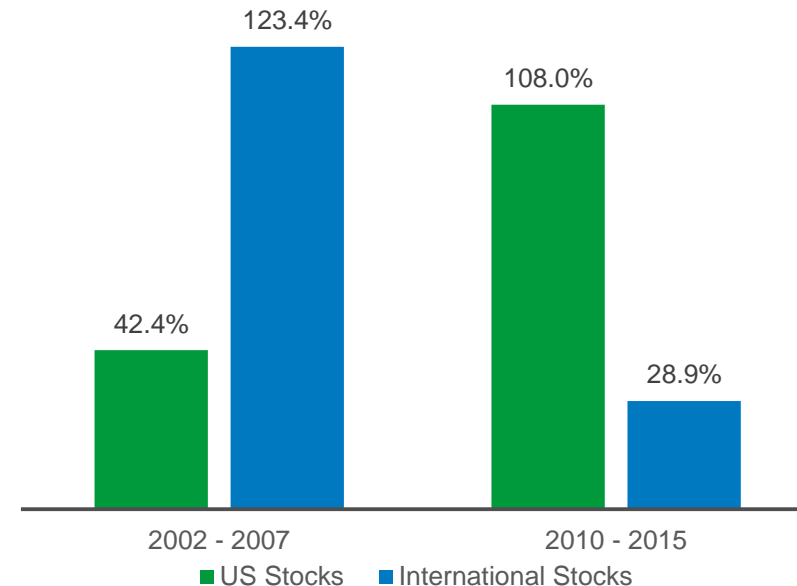
Over-Allocating to US

The average advisor portfolio we analyzed had only 26%* of its equities in non-US stocks. Half the world's equity market capitalization is outside the US.

Evolution of international stock weight in a hypothetical portfolio without rebalancing



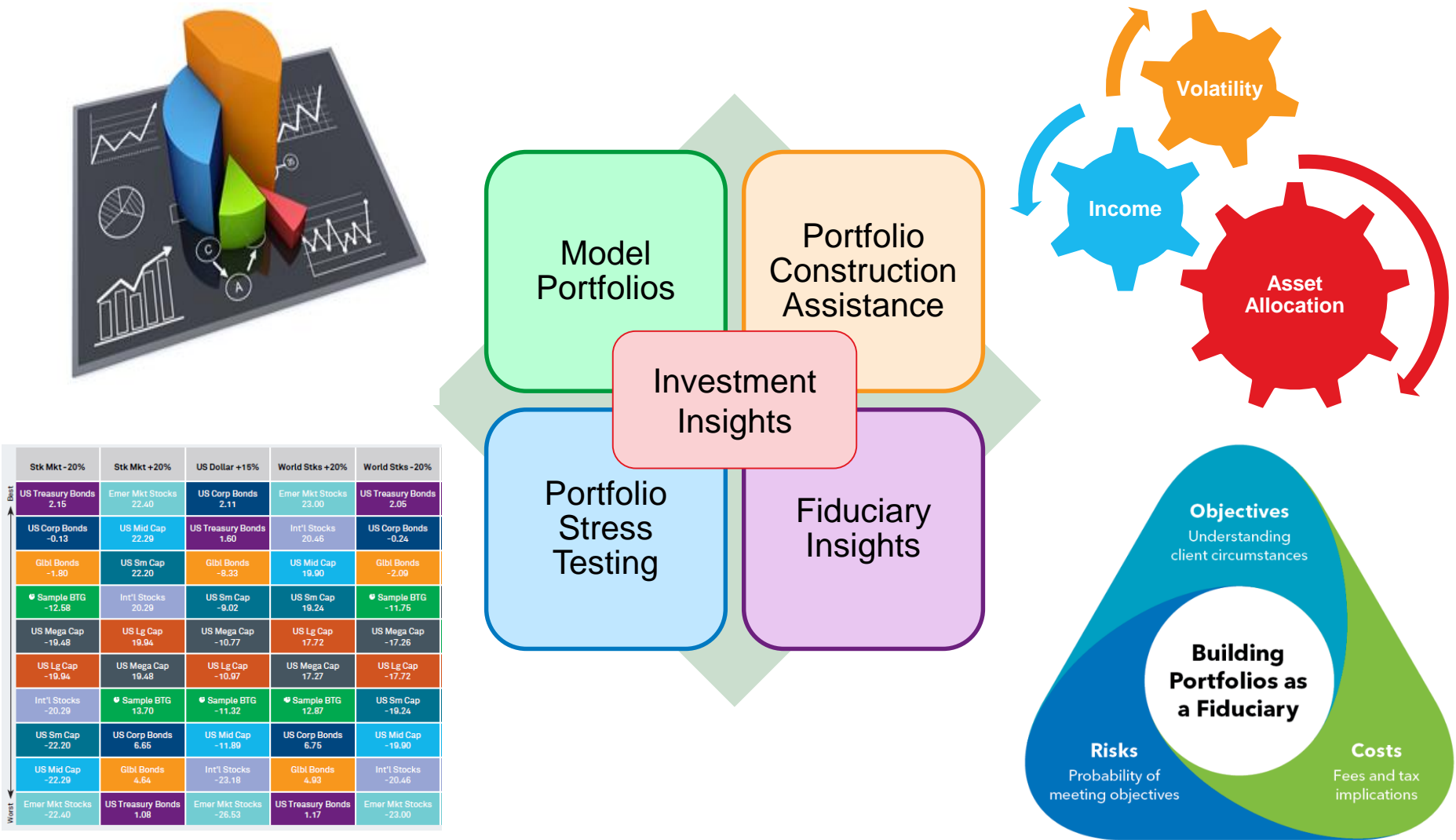
Cumulative total returns of U.S. stocks versus international stocks



Performance data quoted represents past performance and does not guarantee future results. As of June 30, 2016. Source: BlackRock, Bloomberg, Lipper. U.S. stocks represented by the S&P 500 Index, international stocks represented by the MSCI EAFE Index. Hypothetical portfolio assumes 70% invested in U.S. stocks and 30% invested in international stocks on December 31, 2009. The indexes are unmanaged. It is not possible to invest directly in an index. *26% is reflective of average asset allocation from sample of 400 balanced models analyzed by BlackRock's Portfolio Solutions team in 2016.

How We Can Help: BlackRock's Resources

Reach out to your BlackRock Market Leader to learn more



Important additional information on BII Capital Market Assumptions

BlackRock's Long-Term Capital Markets Assumption Disclosures

This information is not intended as a recommendation to invest in any particular asset class or strategy or as a promise of future performance. Note that these asset class assumptions are passive, and do not consider the impact of active management. All estimates in this document are in U.S. dollar terms unless noted otherwise. Given the complex risk-reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations to all the asset classes and strategies.

References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. Assumptions, opinions and estimates are provided for illustrative purposes only. They should not be relied upon as recommendations to buy or sell securities. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material has been prepared for information purposes only and is not intended to provide, and should not be relied on for, accounting, legal, or tax advice.

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Investing involves risk. Information concerning portfolio allocations and holdings is representative of the target portfolio for this strategy and does not necessarily reflect an actual account. Actual portfolios may differ as a result of account size, client-imposed investment restrictions, the timing of client investments, market, economic and individual company considerations. Futures and options may not be used in the portfolio to create leverage or for any other reason. Futures and options may not be used in the portfolio to create leverage or for any other reason.

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Appendix: Glossary

Alpha

A fund's rate of return in excess of that which can be explained by its systematic risk, or Beta. It is a result of the analysis regressing a fund's returns against those of a benchmark index. A positive Alpha implies that a manager has added value relative to its benchmark on a risk-adjusted basis.

Batting Average

The percentage frequency with which a fund's return exceeds its benchmark's return. A manager who outperforms its benchmark for 27 out of 36 months will have a Batting Average of 0.75.

Beta

A manager's sensitivity to systematic, or market risk. Market risk is defined the risk/return behavior of the benchmark. Beta is a result of regressing a fund's returns against those of a benchmark index. A fund with a Beta of 1 should move perfectly with the benchmark. A Beta of less than 1 implies that a fund's returns are less volatile than the market's. A Beta of greater than 1 similarly implies that a fund exhibits greater volatility than the market.

Capture Ratio

A measure of a fund's performance relative to its benchmark under different market conditions. It is defined as the average return of the fund relative to the return of the fund's benchmark in different return environments. Up market capture refers to relative performance in periods where the benchmark return is greater than 0. Down market capture is calculated over those periods where the benchmark return is less than 0.

Correlation

A measure of the strength and direction of a linear relationship between two variables. A positive Correlation indicates that the two variables tend to move in the same direction. A negative Correlation indicates that the two variables tend to move in opposite directions.

Excess Return

A fund's return in excess of its benchmark's return.

Gain-Loss Ratio

The ratio between the simple average gain and loss multiplied by the ratio between the number of months with gain and the number of months with loss.

Information Ratio

A measure of a fund's excess return per unit of Active Risk. It is the ratio of a fund's Excess Return over the benchmark divided by the fund's Tracking Error. A higher Information Ratio implies greater fund efficiency.

Maximum Drawdown

The fund's cumulative return from their peak (highest level of return) to trough (lowest level of return). The Maximum Drawdown should be compared to the fund's benchmark, to provide broader market context.

Maximum Run Up

The fund's cumulative return from their trough (lowest level of return) to peak (highest level of return). The Maximum Run Up should be compared to the fund's benchmark, to provide broader market context.

R-Squared

The portion of a fund's movements that are explained by movements in a benchmark index. R-squared values range from 0 to 100. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. The coefficient of determination from the same regression equation, a high R-Squared supports the validity of the Alpha and Beta measures.

Semi-Standard Deviation / Downside Risk

A measure of risk using only the returns below a target rate, typically zero.

Sharpe Ratio

A measure of a fund's return per unit of risk. It is calculated by subtracting the risk-free rate from the fund's total return and dividing the result by the fund's standard deviation. A higher Sharpe Ratio implies greater fund efficiency.

Standard Deviation / Risk

Standard Deviation is a measure of the extent to which observations in a series vary from the arithmetic mean of the series. This measure of volatility or risk allows the estimation of a range of values for a fund's returns. The wider the range, the more uncertainty, and therefore the riskier a fund is assumed to be.

Tracking Error / Active Risk

A measure of the extent to which a fund's returns diverge from its benchmark's returns. It is the Standard Deviation of the Excess Return series. The lower the Tracking Error, the more closely a fund tracks its benchmark index.

Treynor Ratio

A measure similar to Sharpe Ratio, except that it divides the fund's excess returns relative to the risk-free rate by the fund's systematic risk (Beta) rather than total risk (Standard Deviation). A higher Treynor Ratio implies a higher level of compensation for the level of systematic risk.

Historical Value at Risk (VaR)

A statistical technique that is used to measure downside risk within a portfolio by looking at the magnitude, probability, and a frequency of a particular level of extreme loss events. For example, assume you own a portfolio with a daily Historical Value at Risk (95%) of 1% over the past 3 years. This measure says that in 5% of all the daily periods, that this portfolio has experienced a loss of 1% or worse. Said differently, in 1 out of every 20 days on average over the preceding 3-year period, the portfolio lost 1% or more of its value.