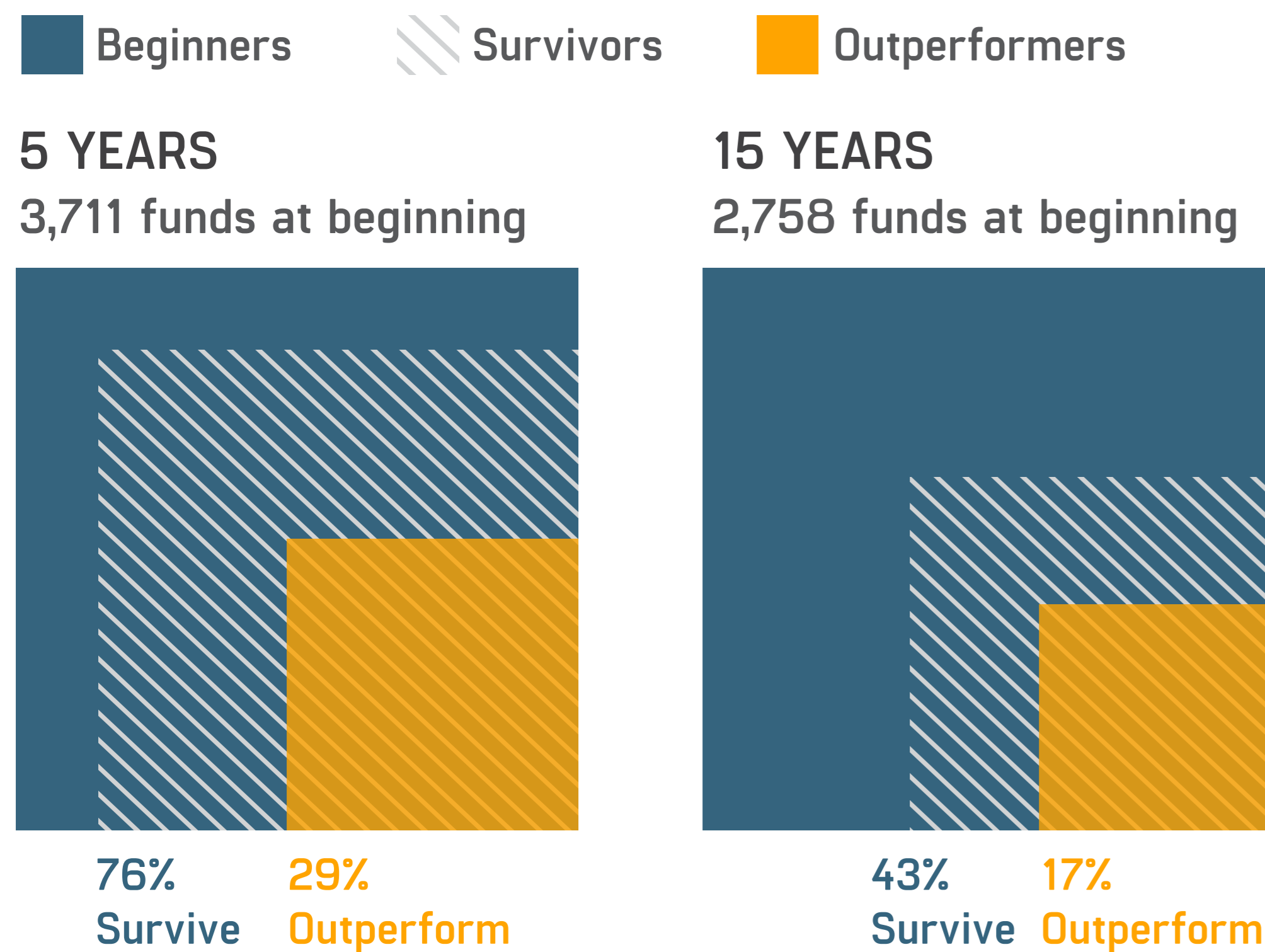
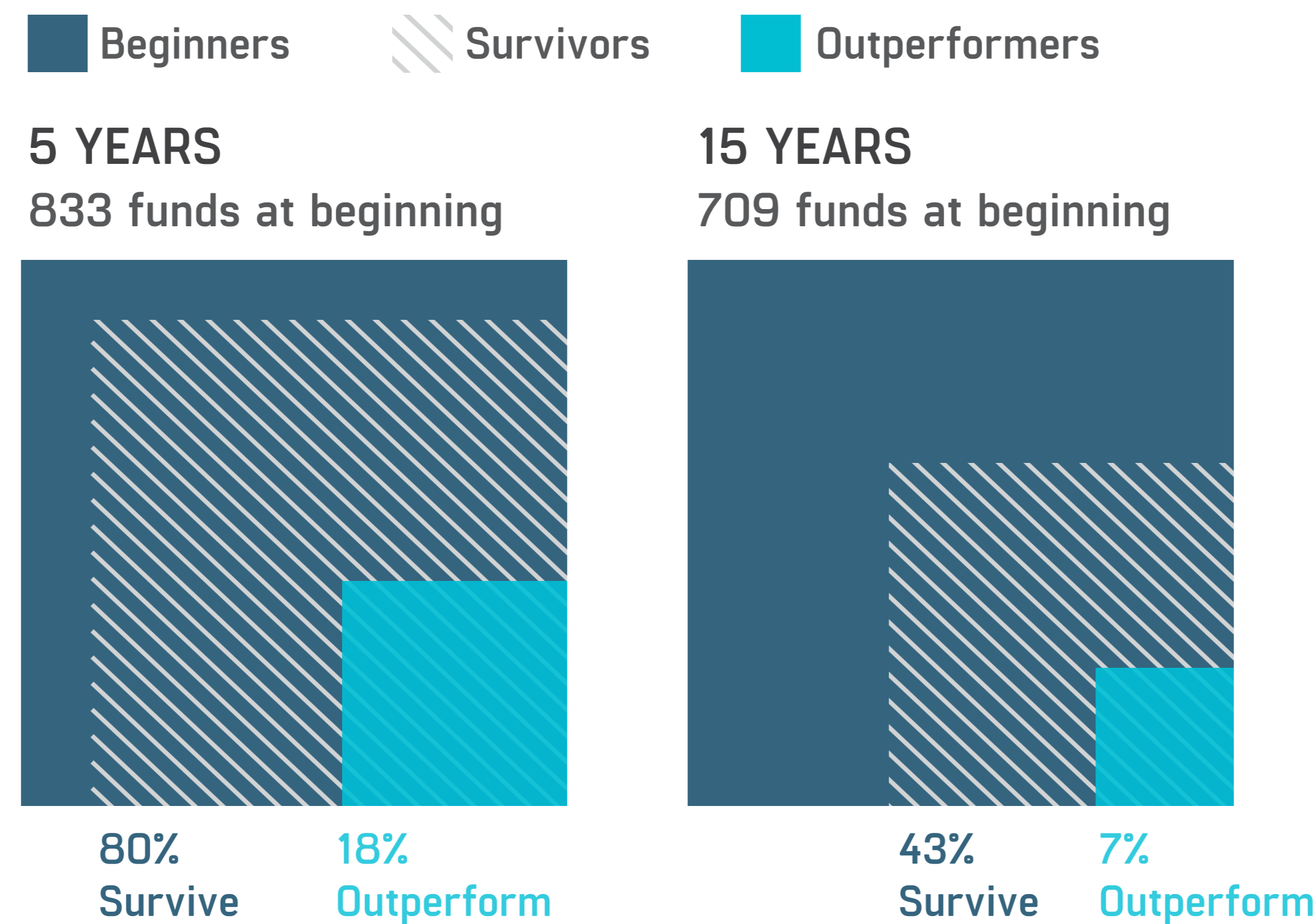


## FORECASTING HAS LOW ODDS OF SUCCESS

### Stock Funds



### Bond Funds



Beginning sample include funds as of the beginning of the three-, five-, 10- and 15-year periods ending December 31, 2015. The number of beginners is indicated below the period label. Survivors are funds that were still in existence as of December 31, 2015. Non-survivors include funds that were either liquidated or merged. Outperformers (winners) are funds that survived and beat their respective benchmarks over the period. Past performance is no guarantee of future results. See Data appendix for more information. US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security prices, University of Chicago.

Conventional investment strategies rely on highly-trained investment managers (“stock pickers”) who use forecasting to identify the best stocks and bonds to own.

These methods virtually guarantee higher risk, fees and taxes, and have generally produced poor investment returns.

The large blue boxes represent all mutual funds that existed over the 5- and 15-year periods prior to 12/31/15. Here are their results: During the 15-year period, only 43% of funds survived, and just 17% of stock funds and 7% of bond funds managed to beat their benchmarks.



## LOWER VOLATILITY = LESS STRESS & GREATER WEALTH

	Beginning Balance	Year 1	Year 2	Year 3	Year 4	Year 5	Average Return	Compound Return
<b>Security A (High Volatility)</b>								
Annual Return		35%	-20%	25%	-4%	9%	9.0%	7.15%
Wealth	\$100,000	\$135,000	\$108,000	\$135,000	\$129,600	\$141,264		
<b>Security B (Low Volatility)</b>								
Annual Return		9%	9%	9%	9%	9%	9.0%	9.0%
Wealth	\$100,000	\$109,000	\$118,810	\$129,503	\$141,158	\$153,862		

Lowering the volatility of your investments not only decreases your emotional anxiety, but can also result in greater wealth creation.

Consider two securities with the *same* average return over time; however, one has lower volatility.

While you might expect both securities to produce similar results, it's a mathematical fact that the less volatile one will provide greater wealth.

## SEEK BROAD DIVERSIFICATION

No one—even on Wall Street or in the financial media—can truly predict the future.

Here's a periodic table that ranks annual returns among major asset classes and shows no predictable pattern; it is virtually impossible to predict which asset class will outperform each year. Whether you look at asset classes, sectors, or countries, this same random pattern of performance is evident.

Seeking broad diversification among thousands of securities is the surest way to invest when you can't know what the future holds. It's also the greatest panacea for volatility.

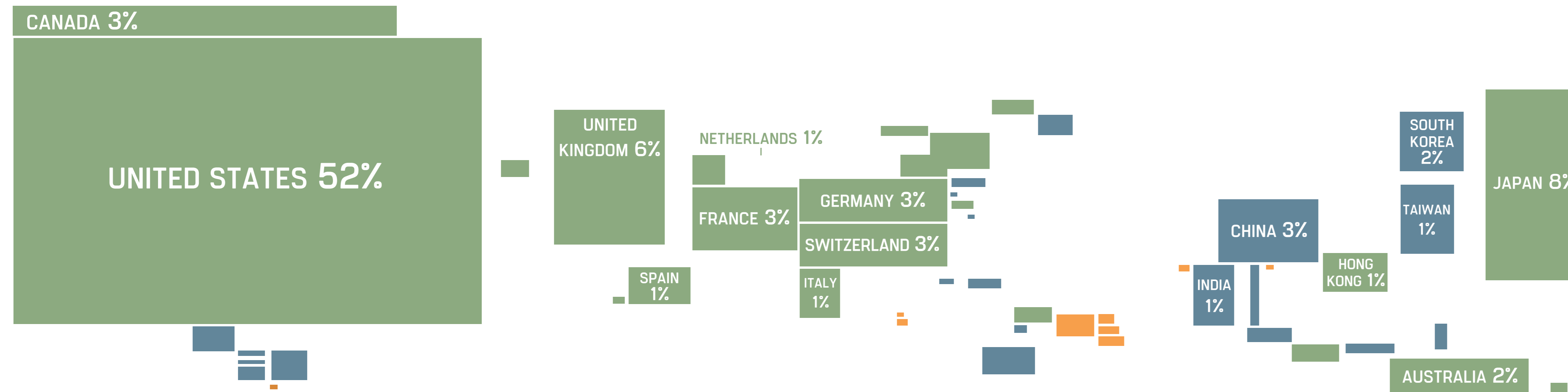
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Large Cap	33.2%	34.5%	36.0%	42.7%	6.6%	79.7%	28.1%	9.4%	18.6%	38.8%	32.0%	4.5%
Large Cap Value	31.2%	33.6%	32.6%	39.8%	5.1%	79.0%	26.9%	5.8%	18.1%	34.5%	13.5%	1.1%
Small Cap	26.0%	14.0%	32.5%	11.6%	4.6%	34.2%	24.5%	3.1%	17.9%	33.1%	13.2%	1.0%
Small Cap Value	24.3%	13.8%	30.4%	7.4%	-28.9%	32.5%	19.2%	2.3%	17.7%	32.5%	4.9%	1.0%
Real Estate	22.2%	13.8%	26.9%	7.3%	-33.8%	28.5%	18.8%	1.5%	17.5%	23.3%	4.2%	0.9%
International	20.7%	7.0%	23.5%	6.3%	-36.8%	28.4%	16.1%	0.4%	17.1%	23.0%	3.1%	-0.4%
International Value	18.3%	6.3%	22.2%	6.0%	-37.6%	27.2%	15.5%	-4.2%	16.4%	1.2%	1.9%	-3.8%
Emerging Market	16.5%	4.7%	18.4%	5.8%	-39.2%	20.6%	8.2%	-5.5%	16.4%	0.6%	1.5%	-4.4%
Emerging Market Value	11.4%	4.6%	15.5%	-0.2%	-43.1%	19.7%	5.9%	-11.7%	16.3%	0.3%	-1.8%	-5.7%
Short-Term Bond	3.0%	3.1%	4.2%	-1.6%	-44.1%	5.2%	4.2%	-12.2%	3.9%	-0.9%	-3.6%	-7.5%
Intermediate Bond	2.7%	1.6%	4.1%	-9.8%	-50.1%	4.9%	3.2%	-17.6%	2.5%	-2.3%	-4.5%	-14.6%
Global Bond	1.8%	1.4%	4.1%	-17.6%	-53.2%	2.3%	2.0%	-18.2%	2.1%	-4.7%	-5.4%	-18.2%

Source: Morningstar Office. US Large Cap: Russell 1000 Index. US Large Cap Value: Russell 1000 Value Index. US Small Cap: Russell 2000. US Small Cap Value: Russell 2000 Value. Real Estate: DJ US Select REIT Index. Intl Developed: MSCI EAFE Index. Intl Developed Value: MSCI EAFE Value Index. Emerging Markets: MSCI Emerging Markets Index. Emerging Markets Value: MSCI Emerging Markets Value Index. Short-Term Bond: BofA Merrill Lynch 1-5 Year Corporate and Government Index. Intermediate Bond: Bloomberg Barclays U.S. Government/Credit Bond Index Intermediate. Global Bond: Citigroup World Government Bond Index 1-5 Year (hedged to USD).

## THINK GLOBAL

### Percentage of World Stock Market Capitalization

DEVELOPED MARKETS EMERGING MARKETS FRONTIER MARKETS



### Global Performance Ranking (among 40 largest countries)

Year	Rank	Country	Percentage
2011	1.	Ireland	18.1%
	2.	Qatar	8.2%
	3.	Indonesia	7.2%
	4.	New Zealand	6.5%
	5.	South Africa	4.5%
	8.	US	1.0%
2012	1.	Turkey	55.8%
	2.	Belgium	38.6%
	3.	Philippines	38.2%
	4.	Thailand	30.8%
	5.	Denmark	30.4%
	24.	US	16.4%
2013	1.	UAE	104.5%
	2.	Japan	98.7%
	3.	Finland	54.8%
	4.	US	33.6%
	5.	Saudia Arabia	32.2%
2014	1.	Israel	38.7%
	2.	Turkey	29.6%
	3.	Indonesia	29.5%
	4.	Philippines	27.4%
	5.	India	26.4%
	18.	US	12.6%
2015	1.	Denmark	38.9%
	2.	Ireland	30.2%
	3.	Belgium	25.9%
	4.	Russia	22.9%
	5.	Austria	15.7%
	20.	US	0.5%

Market cap data is free-float adjusted from Bloomberg securities data. Many nations not displayed. Total may not equal 100% due to rounding. For educational purposes; should not be used as investment advice. China market capitalization excludes A-shares, which are generally only available to mainland China investors. Ranking of country returns is among top 40 countries only.

Diversification within your home market is not enough. The US represents only 52% of the world's market capitalization (and is often *not* among the world's top performers), which means half of your wealth creating opportunities can be found abroad.

But, how do you decide which countries to invest in?

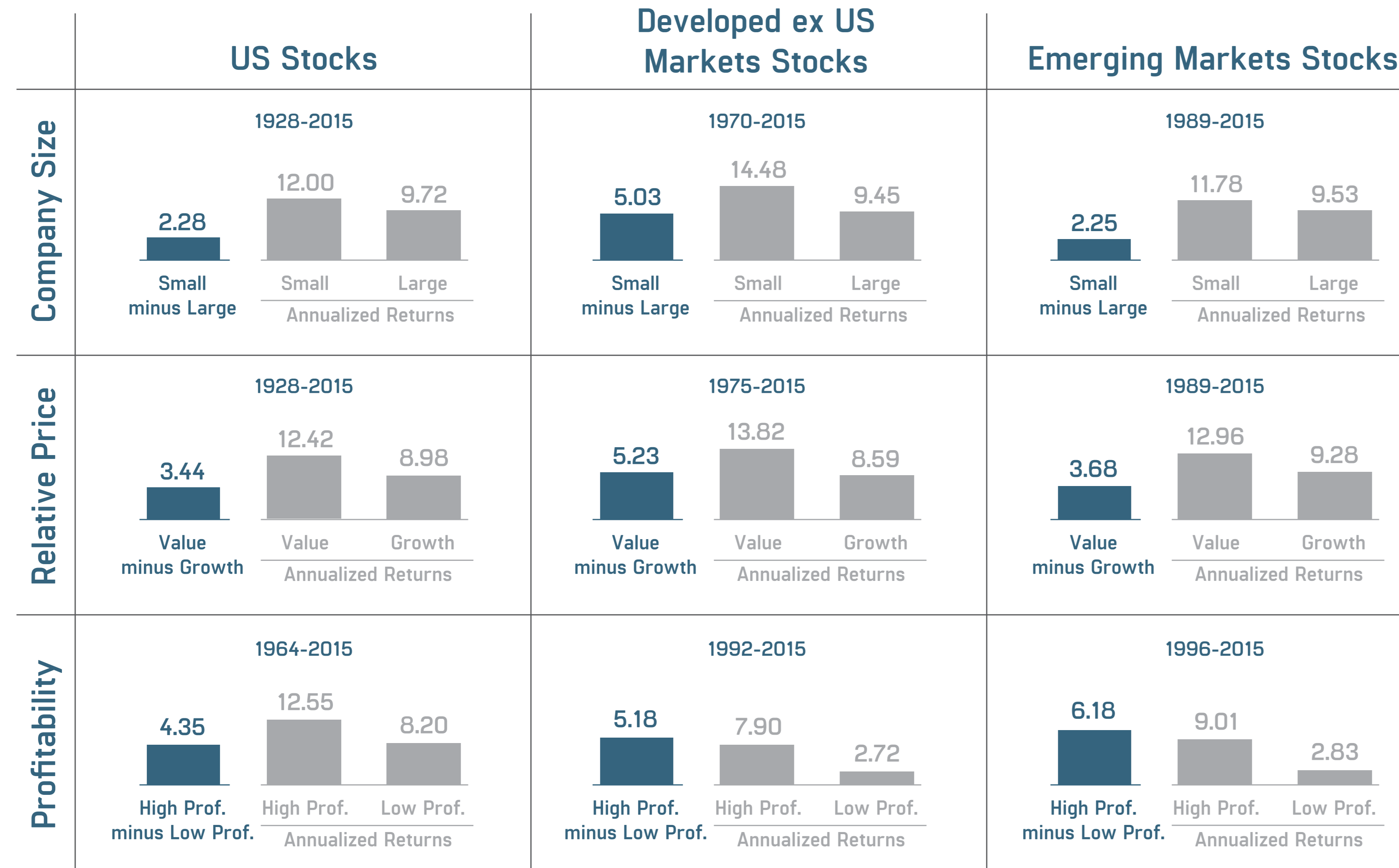
Viewing the world according to market capitalization provides clarity to asset allocation decisions and is more meaningful than looking at a country's GDP, population size or exports.

## IDENTIFY SOURCES OF HIGHER RETURN

While difficult to predict which stocks will outperform in any given year, Nobel Prize-winning research has identified various risk factors that generate market-beating returns over time.

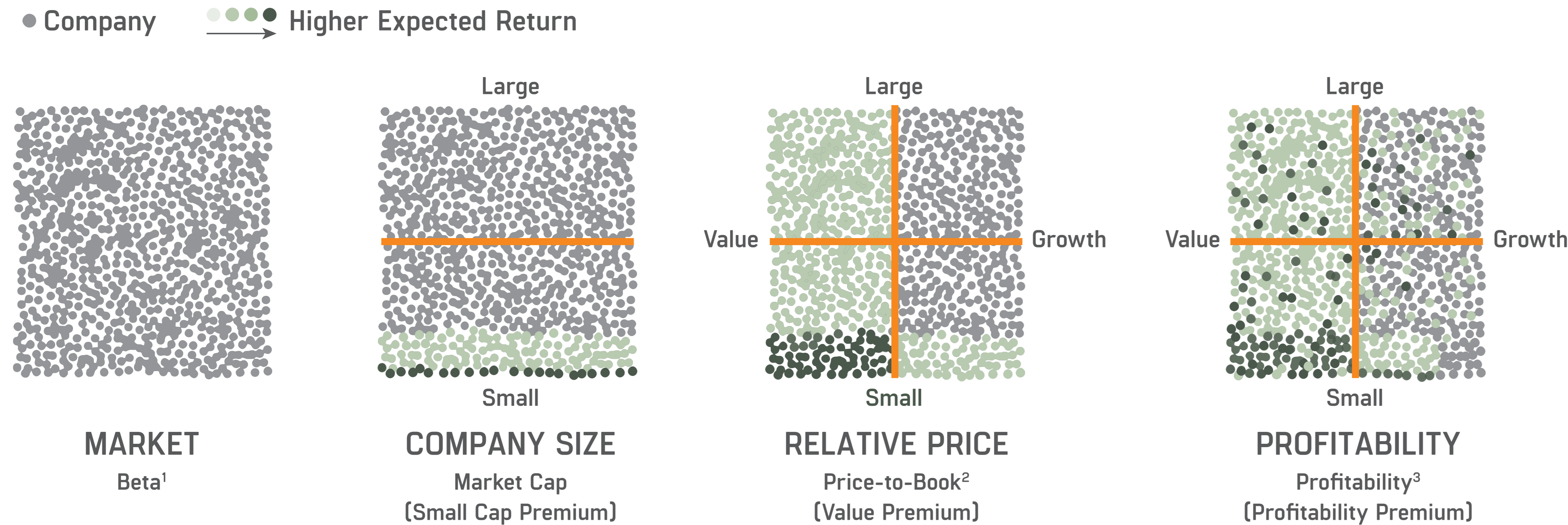
Among these factors, company size (small vs. large), relative price (value vs. growth), and profitability (high vs. low) have proven to be the most sensible, persistent and pervasive indicators of higher expected returns. For example, investors in smaller US companies have received an average excess return of 2.28% *annually* vs. owning the S&P 500, a large company index.

There are logical, economic reasons why these factors should continue to show up over time and across markets.



Indices not available for direct investment. Performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. Actual returns may be lower. See "Index Descriptions" for descriptions of Dimensional and Fama/French index data. Eugene Fama and Ken French are members of the Board of Directors for and provide consulting services to Dimensional Fund Advisors LP. The S&P data is provided by Standard & Poor's Index Services Group. MSCI data. © MSCI 2016, all rights reserved.

## PAY ATTENTION TO PORTFOLIO STRUCTURE



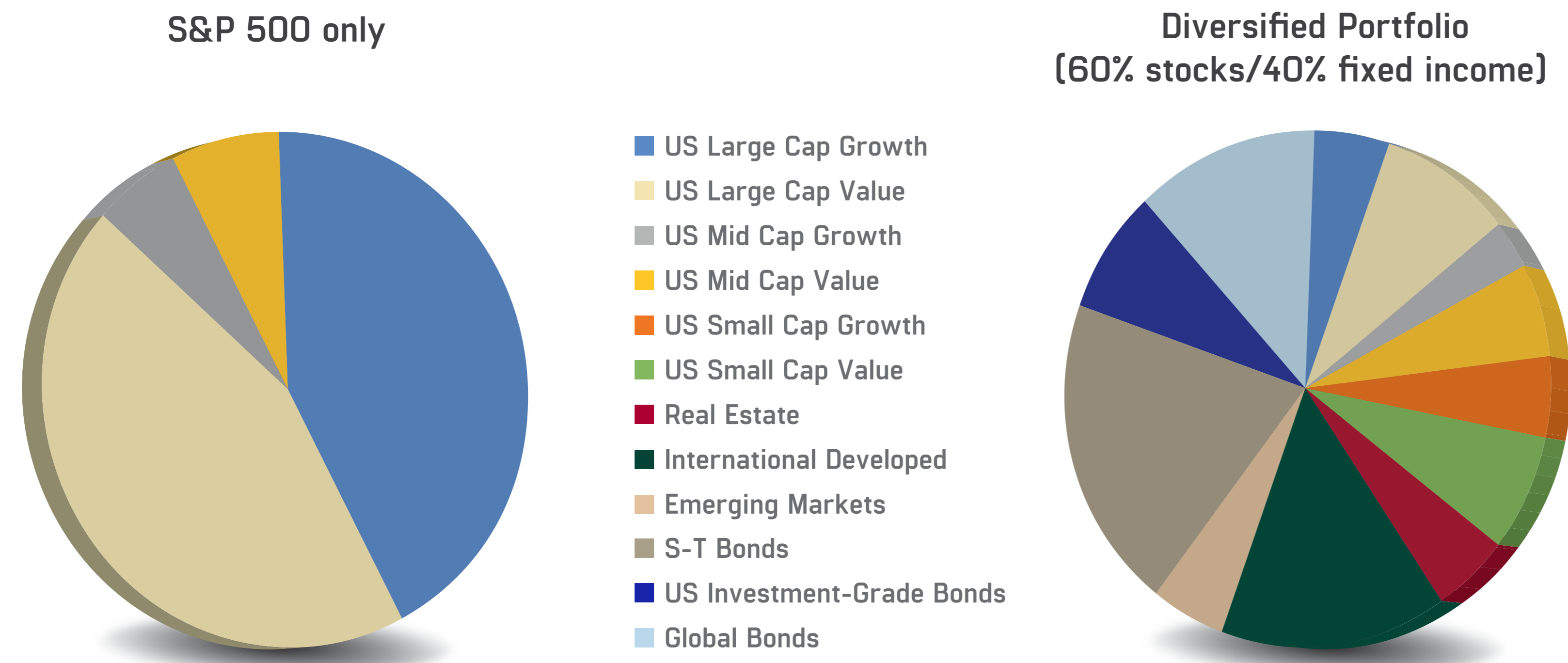
1. Beta: A quantitative measure of the co-movement of a given stock, mutual fund, or portfolio with the overall market. 2. Price-to-Book Ratio: A company's capitalization divided by its book value. It compares the market's valuation of a company to the value of that company as indicated on its financial statements. 3. Profitability: A measure of a company's current profits. We define this as operating income before depreciation and amortization minus interest expense, scaled by book equity.

Combining what we know about forecasting being unreliable and that certain factors in the market are more attractive than others, we can look to portfolio structure to pursue higher expected returns.

These boxes represent the total stock market and the dots are individual stocks. By carefully structuring a portfolio to tilt towards desirable parts of the market and then owning thousands of those securities, you can increase your expected returns and lower your risk.

Sometimes combining two or more factors together (e.g., a small cap value fund) can be particularly potent.

## S&P 500 vs. Diversified Portfolio (January 2000-October 2016)



	S&P 500	Diversified Portfolio
Return (annualized)	4.21%	5.77%
Risk (standard deviation)	14.93%	9.41%
Best 3 Years	25.56%	18.58%
Worst 3 Years	-16.09%	-8.51%

Diversified portfolio consists of index-based allocations in an actual Ascend Wealth Management ("AWM") portfolio and assumes annual rebalancing. Diversified portfolio's return data is shown net of AWM's max fee of 1% (fees may be lower depending on assets under management) and 1.5% cash allocation. Indices, including the S&P 500 Index, are not available for direct investment and their performance does not reflect fund-related expenses associated with the management of an actual portfolio. See Data Appendix for more detailed information on indices. Diversification does not guarantee profit or protect against loss in a declining market. Performance data represents past performance and does not predict future performance. Sources: Standard and Poor's Index Services Group; Dimensional Fund Advisors' Returns Web program.

## FIND BALANCE

A well-balanced investment strategy that is structured to capture higher returns and is broadly diversified among stocks and bonds can yield greater wealth with less volatility.

Here, we show the risk and returns of investing in the S&P 500 Index, compared to a more balanced portfolio (60% stocks/40% bonds) since the beginning of 2000.

Notably, this period includes the "lost decade" of 2000-2009 that marked the most challenging time to start investing since the 1930s due to two major market corrections and the Great Recession.

In this case, the balanced portfolio provided greater wealth with much lower volatility.



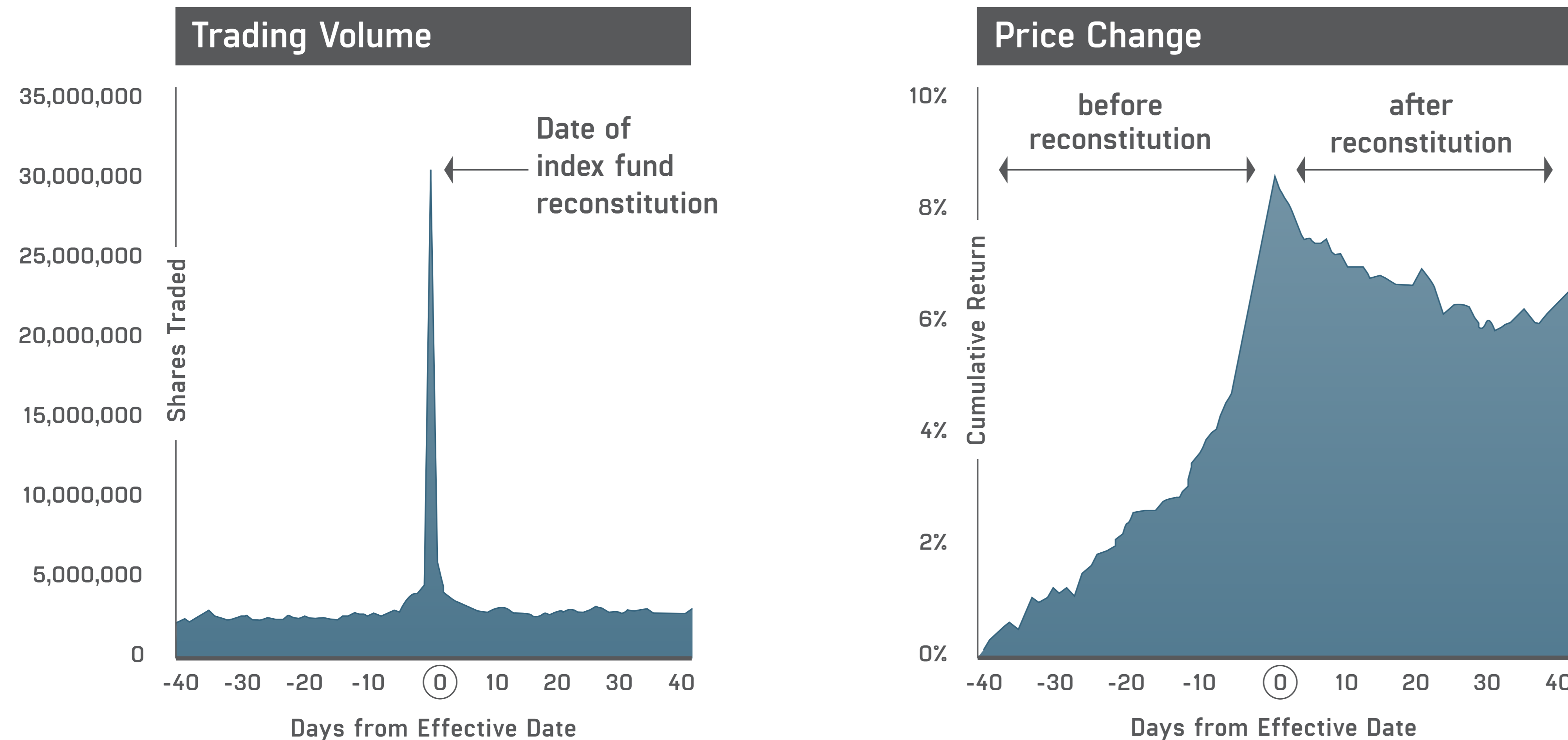
## EXERT SOME CONTROL

Poor performance among professional managers has made indexing a popular investment choice. However, index funds were designed to serve as benchmarks, not investment vehicles, and therefore have a number of inherent weaknesses.

Because index funds attempt to match the returns of a commercial benchmark, they have no control over their holdings and must quickly buy and sell (or “reconstitute”) the same securities as the benchmark at the same time (the “effective date”). This high trading volume within a short period of time has an undesirable effect on security prices, which lowers index fund returns.

A better approach to investing incorporates a flexible and patient trading approach that does not demand liquidity at the same time as the rest of the market.

### Equal weighted additions relative to S&P 500 Index (2000-2015)



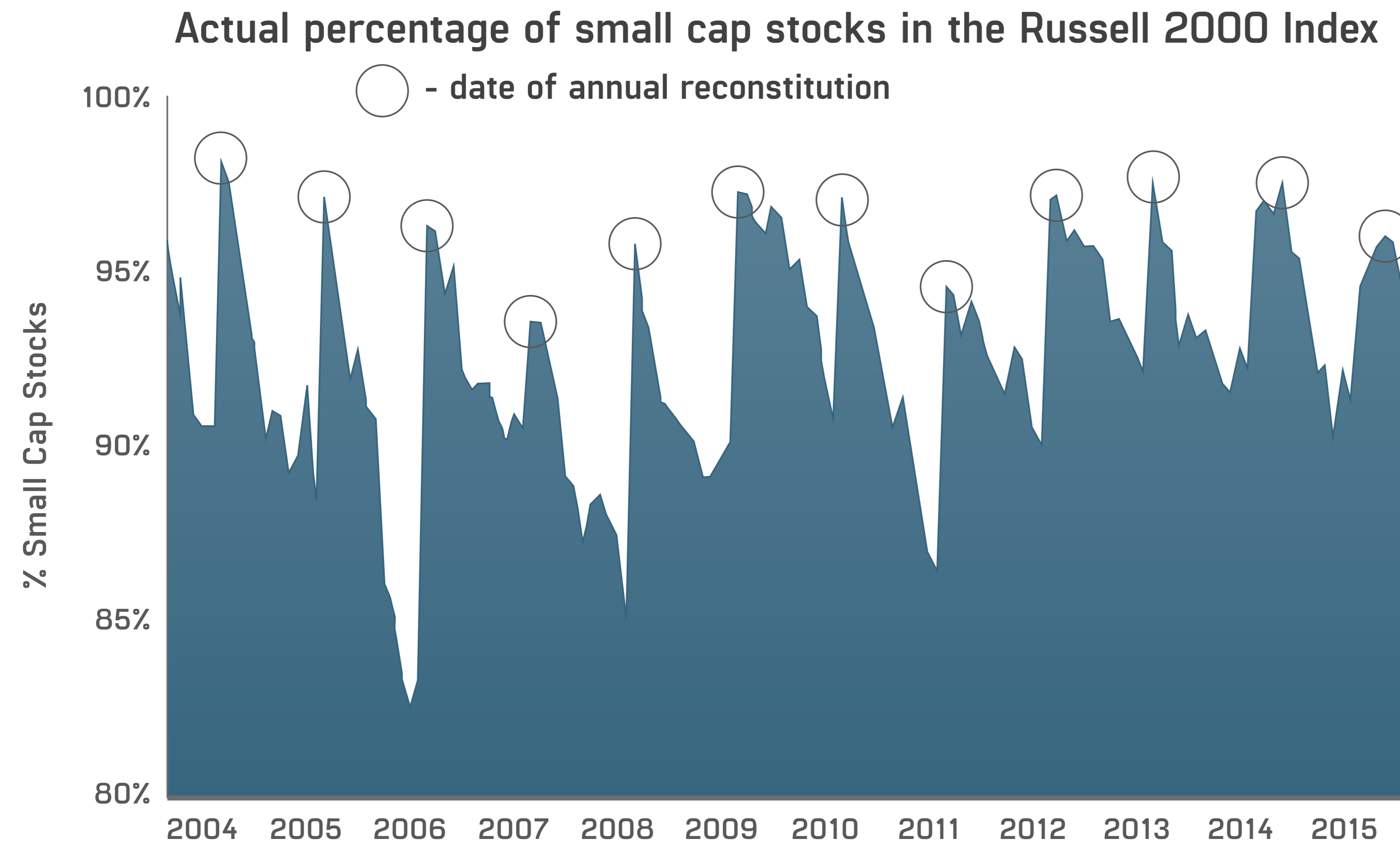
In US dollars. Source: Center for Research and Security Prices, University of Chicago, and Standard and Poor's. The information shown here is derived from such indices. For more on index reconstitution see Chen, Noronha, and Singal (2004) [Equity] and Dick-Neilsen (2012) [Fixed Income]. Past performance is no guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

## AVOID STYLE DRIFT

An index fund that purports to represent a certain asset class may not be doing its job.

Consider the small cap-focused Russell 2000 Index: due to infrequent—once a year—reconstitution, the index, along with any funds that track it, lose their targeted exposure to the smallest 10% of stocks throughout the year, only to regain it briefly at the time of reconstitution.

This style drift occurs because stocks can move in or out of an asset class at any time (e.g., small cap stocks can grow into mid or large cap stocks), yet index funds reconstitute their holdings much less frequently. This presents a challenge to achieving consistent exposure to desirable parts of the market and may leave an investor holding stocks they don't want to own.



In US dollars. As of December 31, 2015. Month-end values from December 2003-December 2015. The information shown here is derived from the index. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio.

## STAY THE COURSE

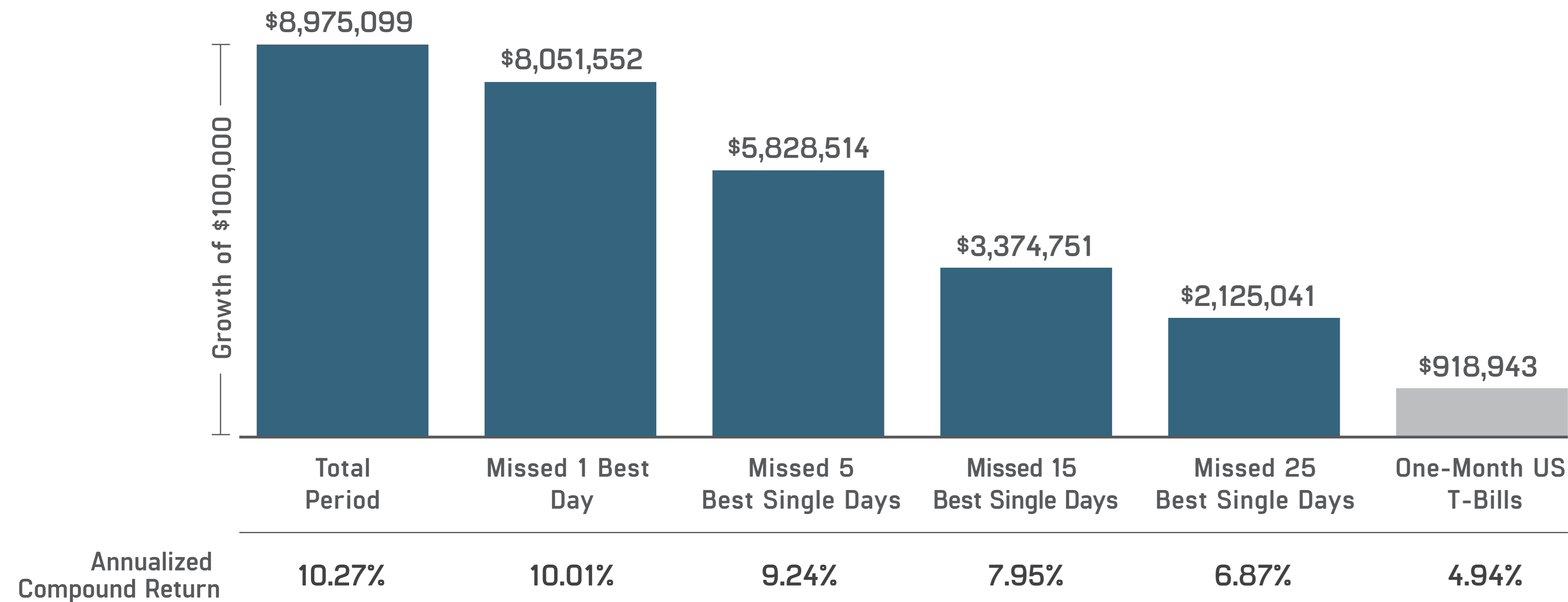
The value of staying invested throughout market cycles cannot be overstated.

Some of the market's best days occur as a result of oversold conditions during periods of extreme panic and fear. However, many investors miss these best days and often miss the ensuing recovery for the months or even years that follow.

Missing the top five days over the past 45 years—or only *one* day every *nine* years—lowered *annual* returns by 1% for the entire period.

Staying invested throughout the expected ups and downs of the market requires a sound investment strategy that is designed specifically to help you stay the course.

### Growth of \$100,000 based on performance of the S&P 500 Index (1970-2015)



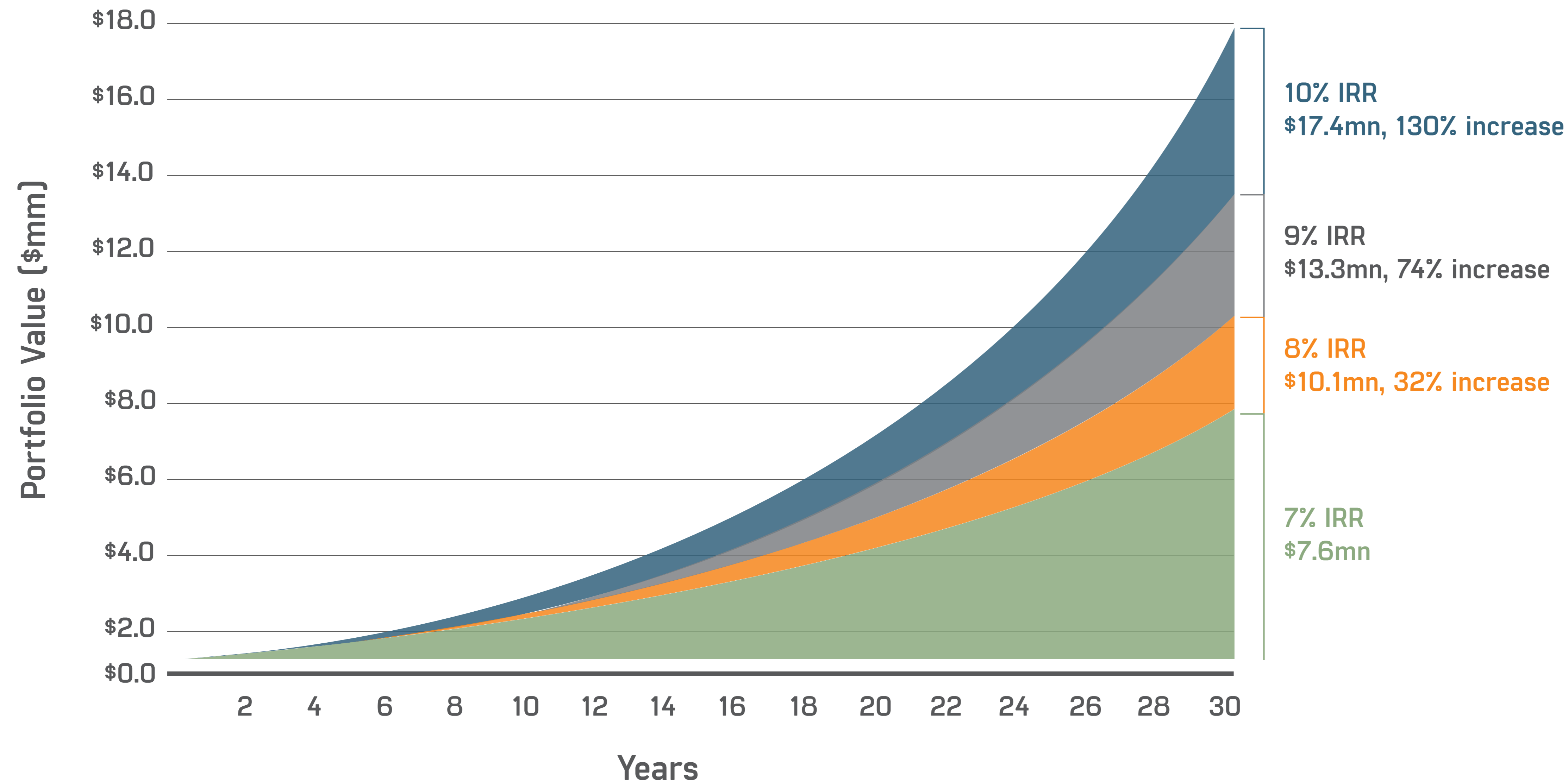
In US dollars. Indices not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results. Performance data for January 1970–August 2008 provided by CRSP; performance data for September 2008–December 2015 provided by Bloomberg. S&P data provided by Standard & Poor's Index Services Group. Bonds, T-bills and inflation data provided by Morningstar.

## THE POWER OF COMPOUNDING

Because we're living longer, healthier, and more active lives, it is important to make smarter investment decisions now so your portfolio can provide for you as you age.

Due to the power of compounding, the difference between earning 7% or 8% on \$1mm over 30 years is an additional \$2,450,400. This increase in wealth can substantially enhance your life in retirement, the gift you provide to your heirs, or your philanthropic aspirations.

You owe it to yourself to make the smartest investment decisions possible.



The Evidence.

## DATA APPENDIX

US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago.

Certain types of equity and fixed income funds were excluded from the performance study. For equities, sector funds and funds with a narrow investment focus, such as real estate and gold, were excluded. Money market funds, municipal bond funds, and asset-backed security funds were excluded from fixed income.

Funds are identified using Lipper fund classification codes. Correlation coefficients are computed for each fund with respect to diversified benchmark indices using all return data available between January 1, 2001, and December 31, 2015. The index most highly correlated with a fund is assigned as its benchmark. Winner funds are those whose cumulative return over the period exceeded that of their respective benchmark. Loser funds are funds that did not survive the period or whose cumulative return did not exceed their respective benchmark.

Benchmark data provided by Barclays, MSCI, Russell, Citigroup, BofA Merrill Lynch, and S&P. Barclays data provided by Barclays Bank PLC. MSCI data © MSCI 2016, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Citigroup bond indices © 2016 by Citigroup. The BofA Merrill Lynch index is used with permission; © 2016 Merrill Lynch, Pierce, Fenner & Smith Incorporated; all rights reserved. Merrill Lynch, Pierce, Fenner & Smith Incorporated is a wholly owned subsidiary of Bank of America Corporation. The S&P data is provided by Standard & Poor's Index Services Group.

Benchmark indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio.

Mutual fund investment values will fluctuate, and shares, when redeemed, may be worth more or less than original cost. Diversification neither assures a profit nor guarantees against a loss in a declining market. Past performance is no guarantee of future results. Expense ratio ranges: The ranges of expense ratios for equity funds over the five-, 10-, and 15-year periods are 0.01% to 4.90%, 0.01% to 4.72%, and 0.07% to 4.44%, respectively. For fixed income funds, ranges over the same periods are 0.02% to 3.09%, 0.06% to 2.67%, and 0.03% to 3.66%, respectively.

## INDEX DESCRIPTIONS

US size premium: Dimensional US Small Cap Index minus S&P 500 Index. US relative price premium: Fama/French US Value Index minus Fama/French US Growth Index. US profitability premium: Dimensional US High Profitability Index minus Dimensional US Low Profitability Index. Dev. ex US size premium: Dimensional Intl. Small Cap Index minus MSCI World ex USA Index (gross div.). Dev. ex US relative price premium: Fama/French International Value index minus Fama/French International Growth Index. Dev. ex US profitability premium: Dimensional International High Profitability Index minus Dimensional International Low Profitability Index. Emerging Markets size premium: Dimensional Emerging Markets Small Cap Index minus MSCI Emerging Markets Index (gross div.). Emerging Markets relative price premium: Fama/French Emerging Markets Value Index minus Fama/French Emerging Markets Growth Index. Emerging Markets profitability premium: Dimensional Emerging Markets High Profitability Index minus Dimensional Emerging Markets Low Profitability Index. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book.

Diversified portfolio (60/40) consists of the following indices: Fama/French Total US Market Index Portfolio, Dimensional US Large Cap Value Index, Fama/French US Small Value Index, Fama/French US Small Cap Index, Dow Jones US Select REIT Index, Dimensional World ex US Adjusted Market Index, Fama/French Emerging Markets Small Cap Index, Dimensional International Small Cap Value Index, Bloomberg Barclays U.S. Government/Credit Index 1-5 Years, Citi World Government Bond Index 1-5 Years (hedged), Bloomberg Barclays U.S. Aggregate Bond Index. Diversification does not guarantee profit or protect against loss.