ADVANCING WOMEN IN NASHVILLE

AWIN Monthly Program: Women & Money

Hosted by AllianceBernstein

Opening Remarks

AB Community Partner Renewal House

Pamela Sessions, CEO, Renewal House

BERNSTEIN

Women & Wealth
Five Things You Need to Know

Heather A. George, CFP®
Co-Head, Family Engagement Services
Director, Wealth Strategies
Heather.George@Bernstein.com

Natalie Moretz, CFP®
Vice President, Financial Advisor
AllianceBernstein Private Wealth
Natalie.Moretz@Bernstein.com

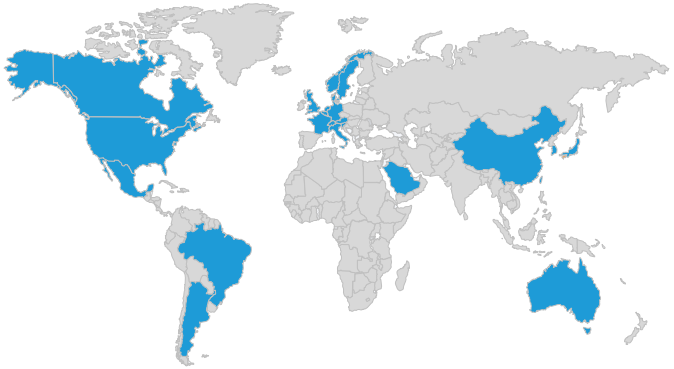
About AB

$623 Billion

Assets under management

285 Research Analysts

Offices in 51 cities in 25 countries



Average years of experience per portfolio manager

13 at Bernstein

23 in the industry

50+

Years helping clients reach their financial goals

$0.00

Long-term debt on Bernstein's balance sheet

Revenue from investment research and management

As of December 31, 2019.
Source: AB

How We Make Money Meaningful

Discovering Priorities

Values

Goals

Legacy

Philanthropy

Framing Solutions

Multigenerational Wealth Planning

Outcome-Oriented Investment Strategies

Educating and Facilitating

Family Meetings

Developing Investment Policy Statements

Family Philanthropy

Bernstein University Education/ Enrichment Programs

Philanthropy

Maximizing Philanthropic Impact

ESG

Aligning Investments with Values

Embedded in Research or via Specialized Portfolios

Beyond Money Management—Your Holistic Advisor

Research and Money Management

- Active and passive strategies
- Opportunistic strategies
- Responsible investing
- Integrated volatility and tax management
- Access to broad array of alternatives

Sophisticated Planning Capabilities

- Sale of a business expertise
- Custom financial planning tools
- Tax-deferral strategies
- Multigenerational wealth transfer
- Educating the next generation

Philanthropic Services

- Private foundations
- Donor-advised funds
- IRA charitable rollovers
- Charitable trusts
- Nonprofits and endowments/ foundations advisory services

Global Family Investment Platform

- Comprehensive advice across US and non-US investment platforms
- Single point of contact
- Fee aggregation
- Multi-currency

Trusted Advisor Coordination

- Quarterback communication among trusted professionals
- Lending
- Insurance
- M&A professionals
- Corporate law
- Personal and business tax advisors

Cash Management

- Broad cash management offering
- Matched maturity
- Additional SIPC coverage and insurance per account
- Margin lending

Comprehensive Consolidated Reporting

- Aggregate-level reporting including illiquid assets
- Real-time, custom portfolio analysis

Independent services would be provided by third parties with whom Bernstein is not affiliated. While Bernstein can make introductions to such parties, it is not responsible for any services they may provide, recommendations they may make, or fees they may charge.

Source: AB

If You’re a Breadwinner Today, You’re Not Alone!

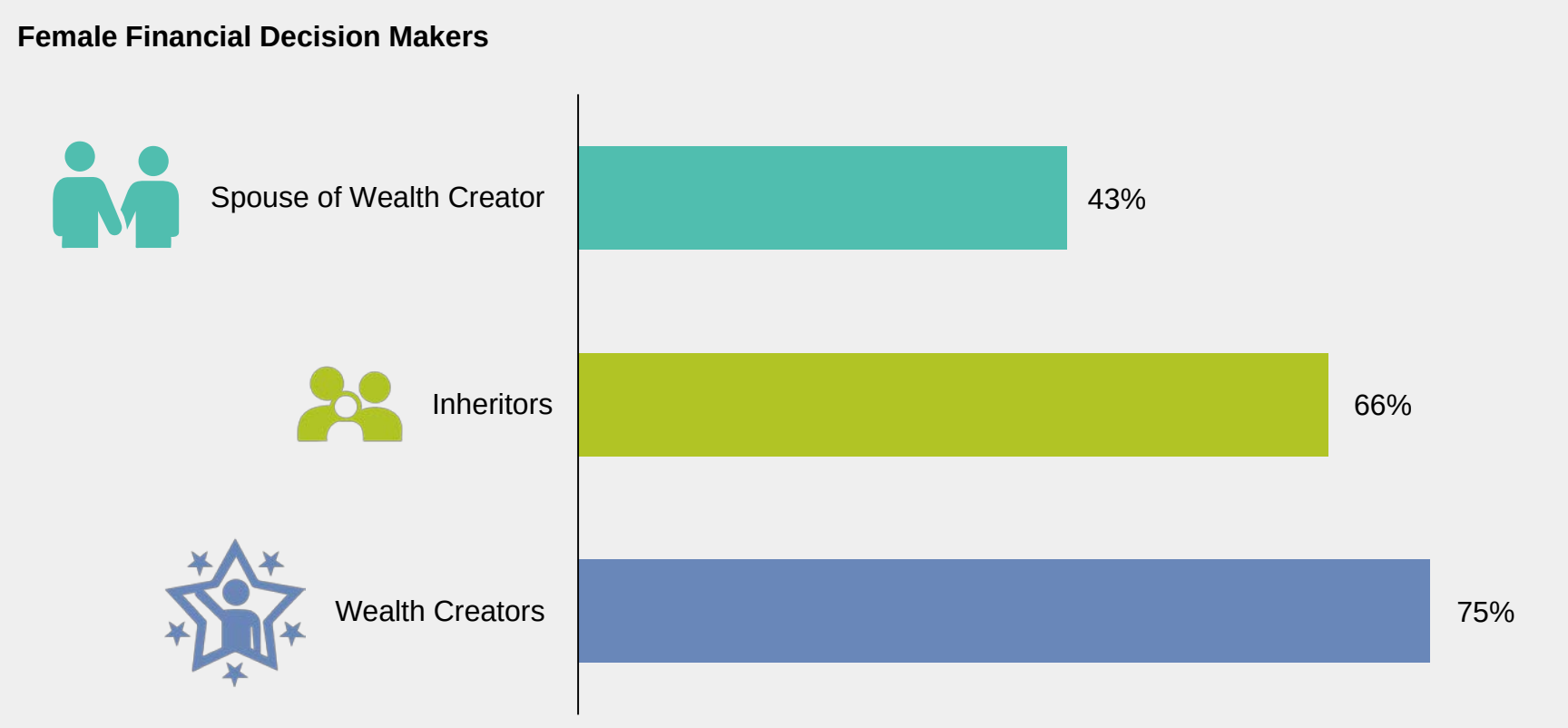
44% of all households have a female primary breadwinner

65% of these women take the lead in financial/retirement planning

As of 2015
Source: “Prudential: Financial Experience & Behaviors Among Women,” 2015

Who Are These Female Decision Makers?

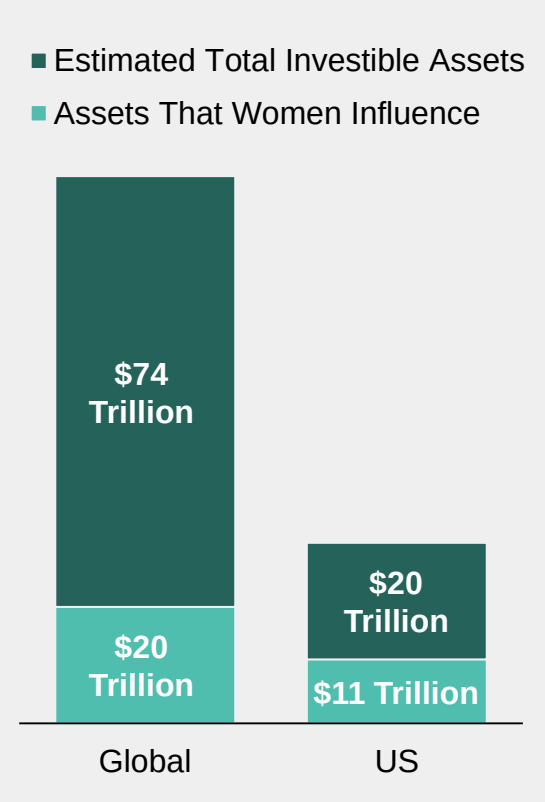
66% of Women in the US, UK, India, China, Singapore, and Hong Kong Identify Themselves as Primary Decision Makers over Household Investable Assets



Source: “Harnessing the Power of the Purse: Female Investors and Global Opportunities for Growth,” Center for Talent Innovation, Sylvia Ann Hewlett and Andrea Turner Moffitt with Melinda Marshall, 2015

Women Influence an Enormous Amount of Wealth Globally

Women's Decision-Making Power



27%
Global

39%
US

Sole Control of Assets

$5.1
Trillion

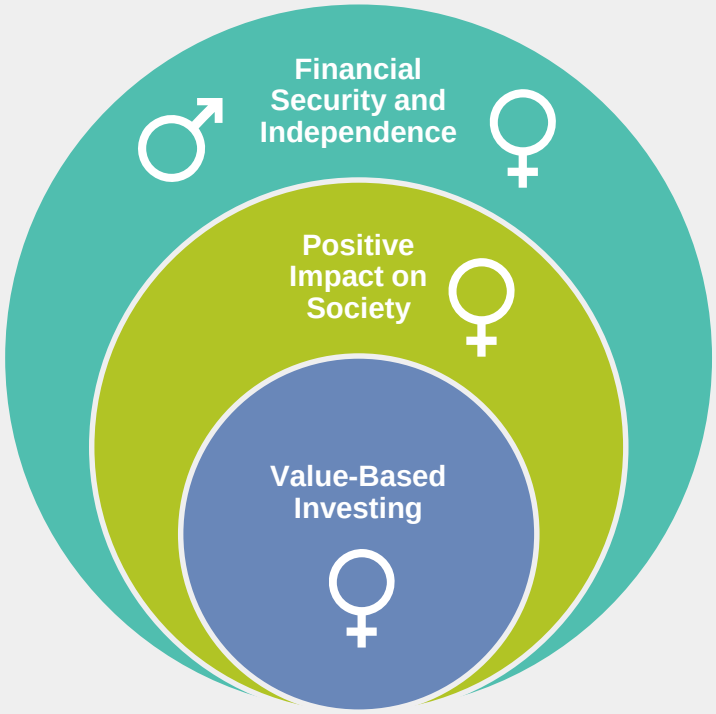
Source: "Harnessing the Power of the Purse: Female Investors and Global Opportunities for Growth," Center for Talent Innovation, Sylvia Ann Hewlett and Andrea Turner Moffitt with Melinda Marshall, 2015

If You Don’t Control Finances Today, You’re Likely to Some Day!

- 80% of men die married, while 80% of women die single
- Widows outlive their husband by an average of 14 years
- 50% of marriages end in divorce
- So, 95% of women will be their family’s primary financial decision maker at some point in their lives

Source: “Women of Wealth. Family Wealth Advisors Council,” 2011

The Gender Gap in Wealth Objectives



- Gender Equality
- Leadership Diversity
- Environmental Causes

Source: “Harnessing the Power of the Purse: Female Investors and Global Opportunities for Growth,” Center for Talent Innovation, Sylvia Ann Hewlett and Andrea Turner Moffitt with Melinda Marshall, 2015

What Are We Doing at Bernstein?

- We have always worked with individuals as individuals
  - Everybody is unique—as is their financial plan
  - There is no formula or algorithm that can replace individualized advice
- We have created forums nationally to foster engagement and dialogue among women
- We have a global offering of Impact Investment offerings
- We have a national philanthropy team, focused on helping clients optimize their charitable giving strategies
- We are proactively focused on growing our female leadership ranks and broadening our diversity

Know Your Numbers

Know Your Numbers

Budget

Asset Values

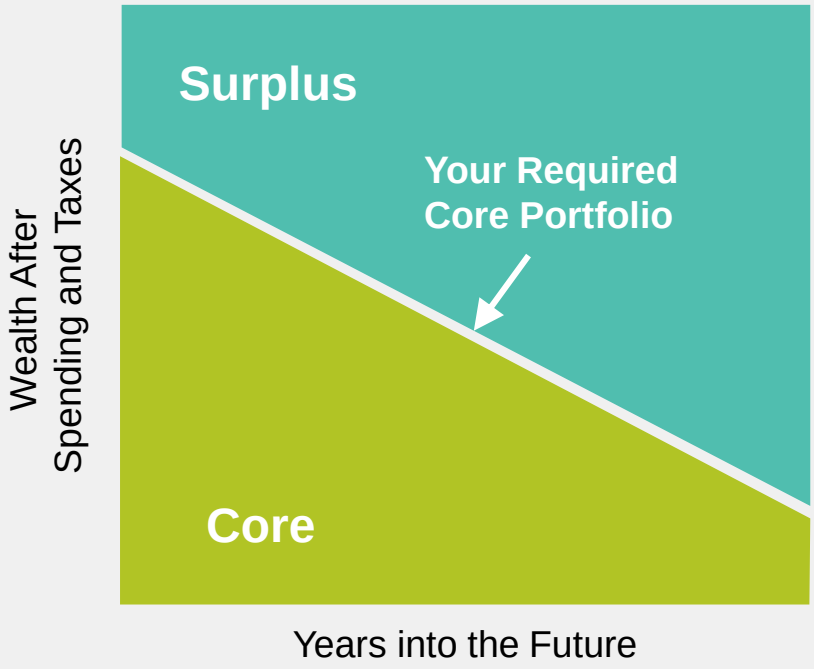
Investment Allocations

Savings Targets

Sustainable Spending Amounts

Core Capital—A Disciplined, Research-Based Framework

Core Capital
The Amount You Need to Fund Retirement



Key Drivers

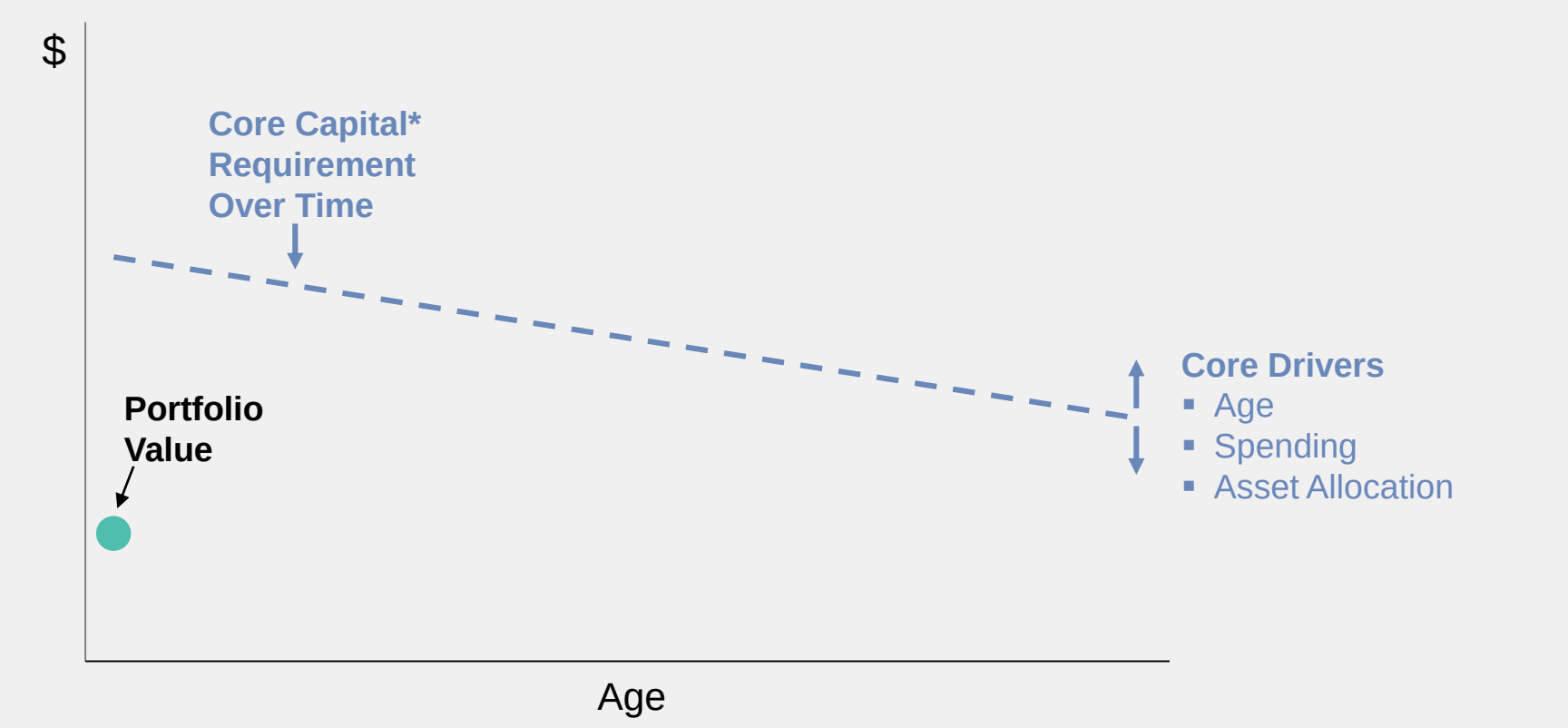
- Age
- Spending
- Asset allocation

Stress-Tested for

- High inflation
- Poor markets
- Long life

Source: AB

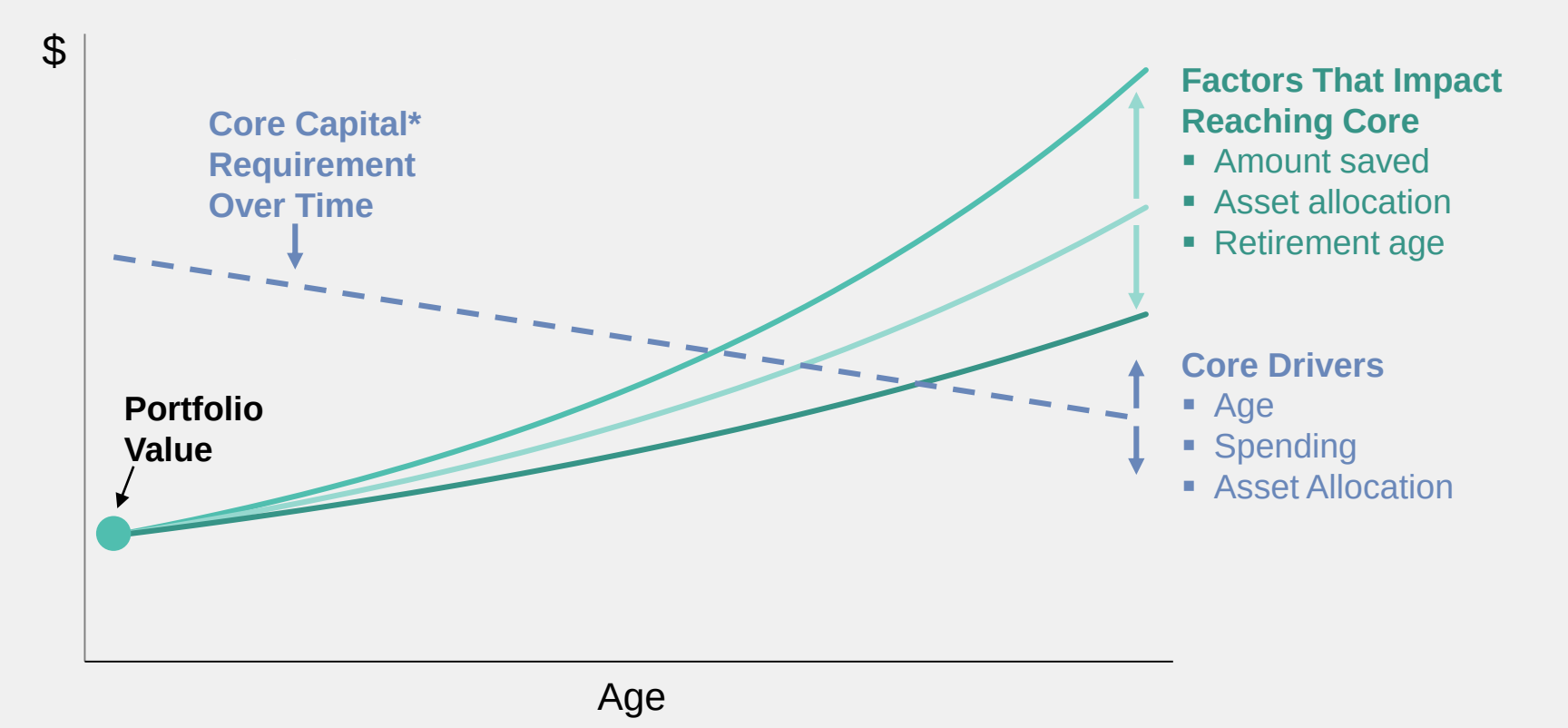
Our Framework Starts by Quantifying Your Core Capital Requirement…



For illustrative purposes only. There can be no assurance that any investment objectives will be achieved.

*Schematic Only – Core capital is defined as the amount of money needed today to support lifetime spending at a high degree of confidence.
Source: AB

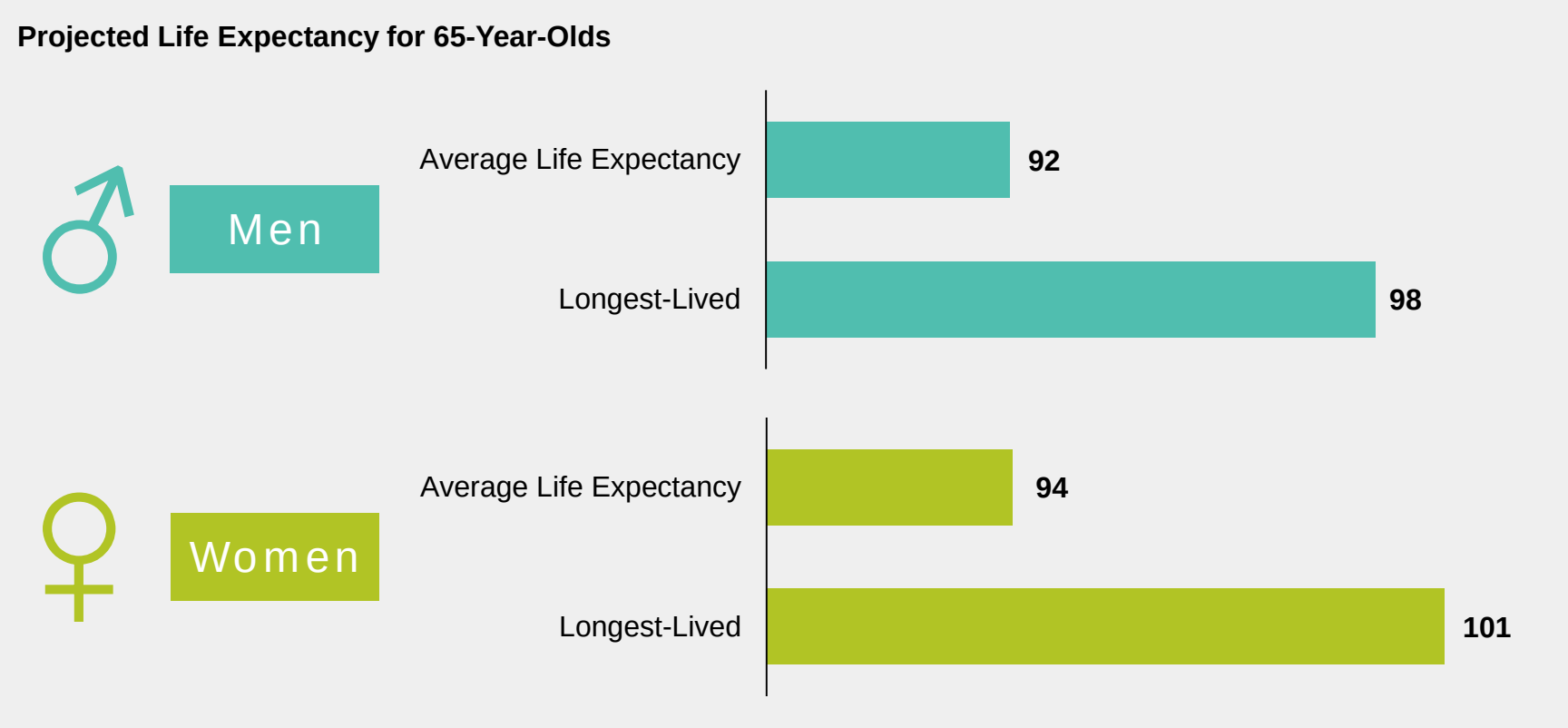
… And Then Helping You Get There



For illustrative purposes only. There can be no assurance that any investment objectives will be achieved.

*Schematic Only – Core capital is defined as the amount of money needed today to support lifetime spending at a high degree of confidence.
Source: AB

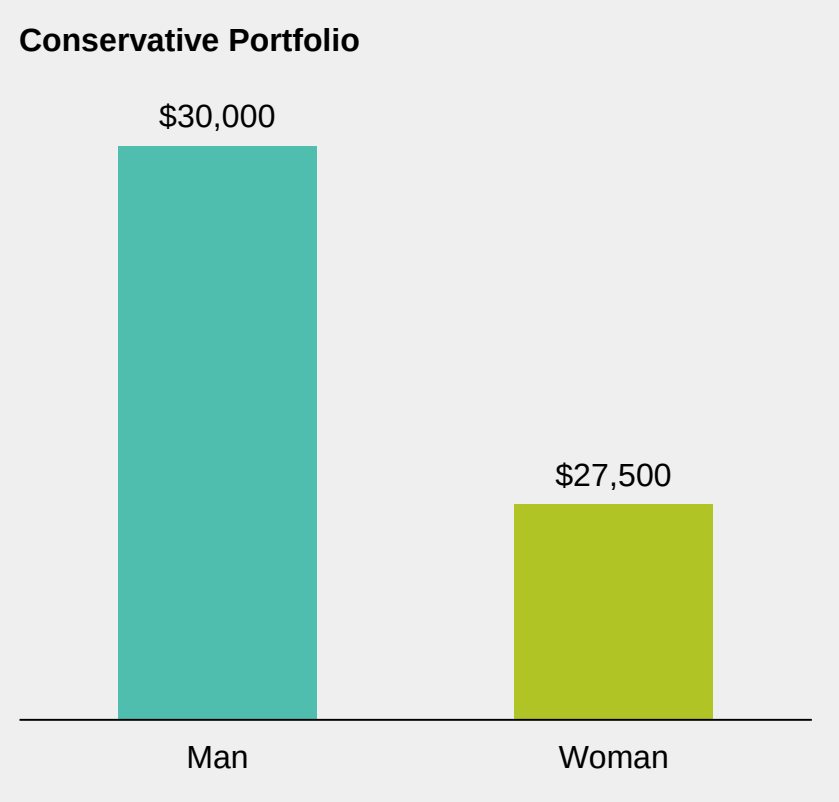
We Are Likely to Outlive Our Male Counterparts…

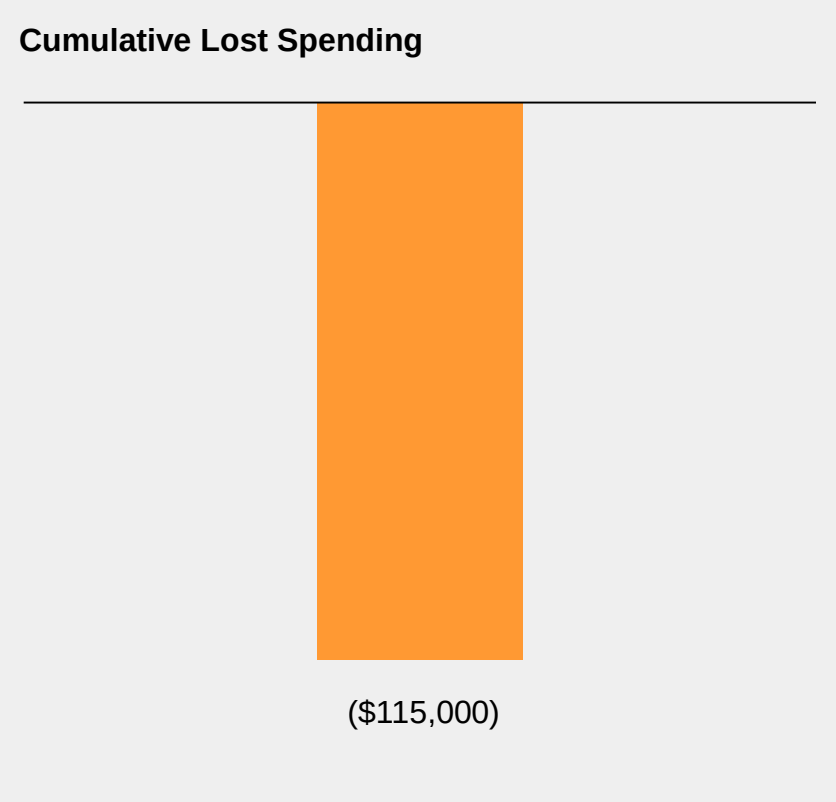


Source: Longevity data are from the Society of Actuaries and M Financial Group

Greater Longevity Reduces Sustainable Spending for Women

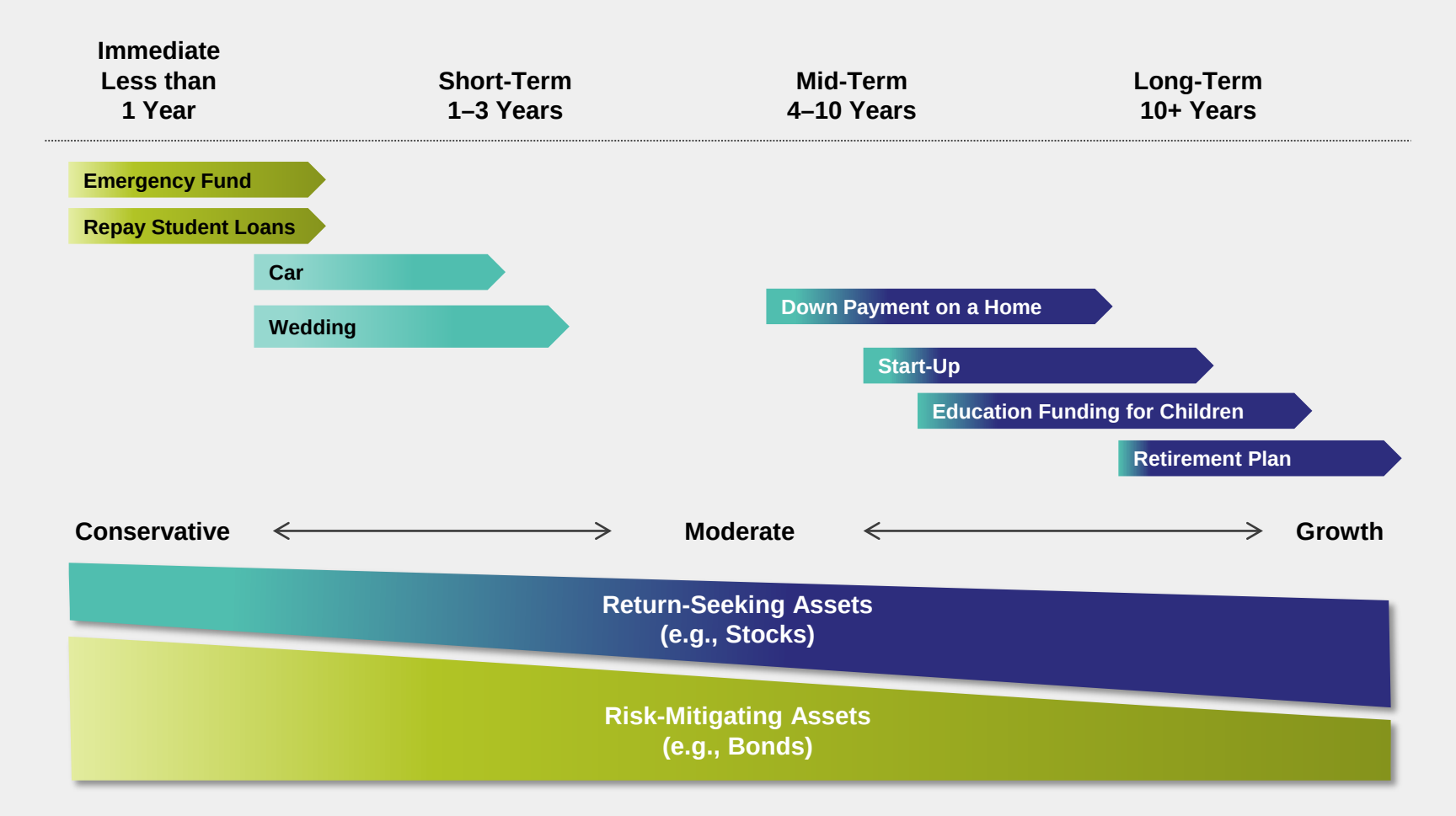
Annual Spending for Life from a $1 Million Portfolio for a 65-Year-Old





Conservative Portfolio is modeled as 20% stocks and 80% bonds. Stocks modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small/mid cap, 22.5% developed international, and 7.5% emerging markets. Bonds modeled as intermediate-term diversified municipals. Sustainable spending amount defined as the inflation-adjusted annual spending that a given portfolio value could support for life, even if capital markets are very poor, given expected longevity and Bernstein's estimates of the range of returns for stocks and bonds as of June 30, 2016. Data does not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Bernstein Wealth Forecasting System at the end of this article.
Source: M Financial Group, Society of Actuaries, and Bernstein

Identifying the Time Horizon for Financial Goals



Map the Timing and Hierarchy of Your Goals

Immediate: Less than 1 Year	Mid-Term: 4 – 10 Years

Short-Term: 1 – 3 Years	Long-Term: 10+ Years

Protect Against Worst-Case Outcomes

Protect Against Worst-Case Outcomes

Cash Reserves	Disability Insurance	Life Insurance
Long-Term Care Insurance	Property & Casualty Insurance	Medical Insurance

Organize Your Financial House

Organize Your Financial House

Access to All Accounts

Know Your Advisors

Estate Planning Documents

Plan for Future Care of Loved Ones

Plans for Your Future Care

Build Your Dream Team

Build Your Dream Team

- Accountant
- Estate Planning Attorney
- Financial Advisors
- Insurance Advisor
- Corporate/ General/ Employment Attorney
- Charitable Advisor

Fund Your Favorites

Fund Your Favorites

Lifestyle

Future Generations

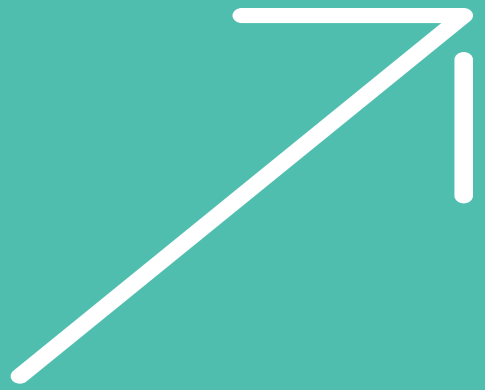
Senior Generation

Charity

Purpose-Driven Investing

The Five Things You Need to Know

- Know Your Numbers
- Protect Against Worst Case Outcomes
- Organize Your Financial House
- Build Your Dream Team
- Fund Your Favorites



Q & A

Bernstein.com/Women

Women are controlling more wealth than ever and embracing their economic potential. We also share some universal concerns and preferences when it comes to finances. Welcome to our unique space to learn, grow, and come into our own as female investors.

EXPLORE

Learn about the unique needs of women as they connect with their wealth.

VIEW BLOGS »

EDUCATE

Consider tips on becoming more financially engaged.

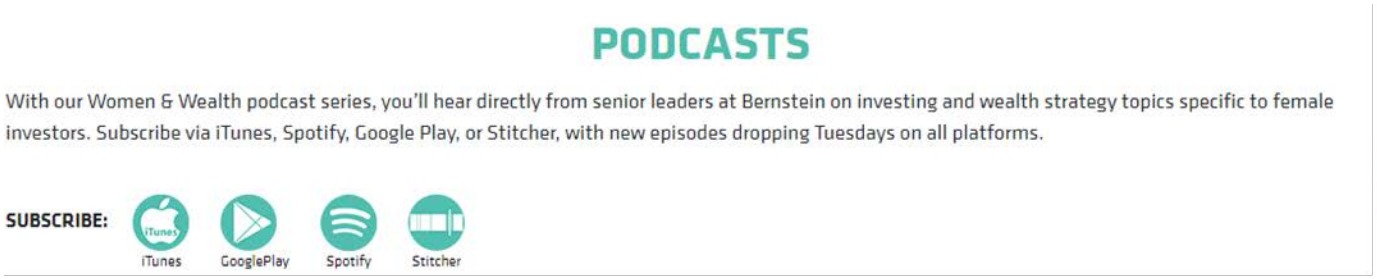
LISTEN TO PODCASTS »

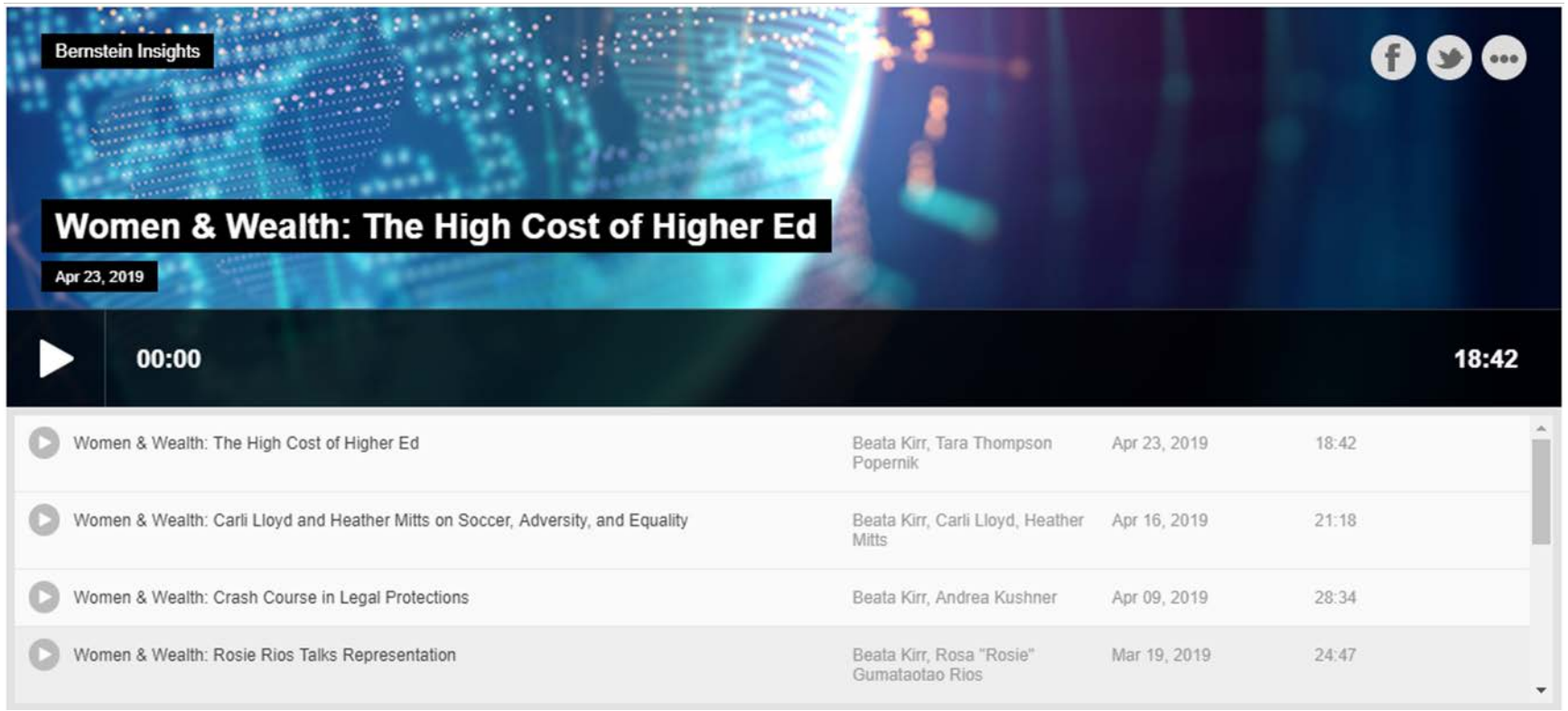
INSPIRE

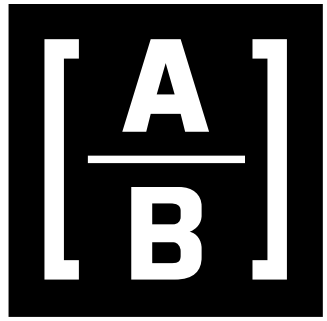
Experience our inclusive platform for sharing passion and perspective.

VIEW VIDEOS »

Check Out the Podcast!

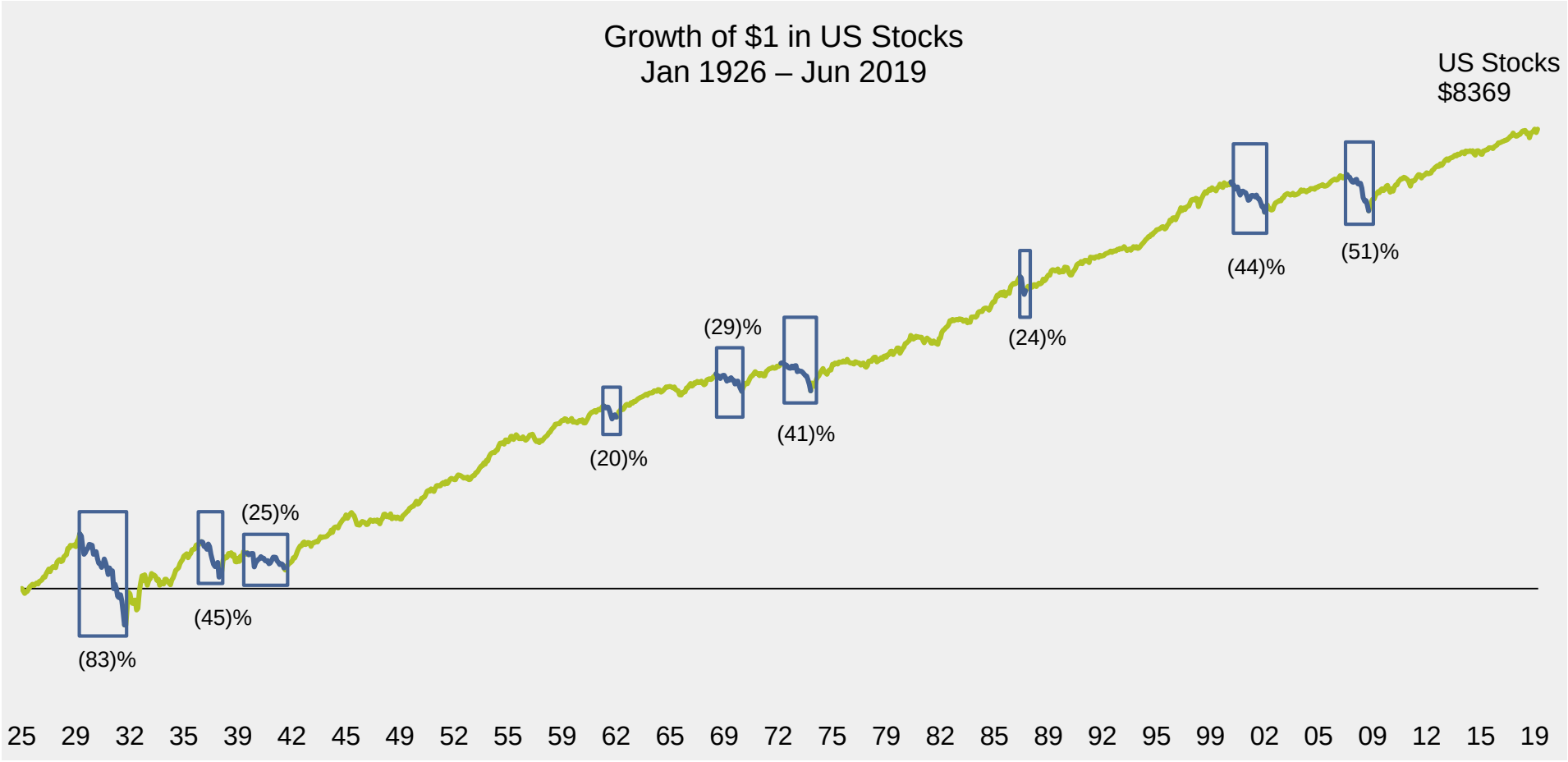






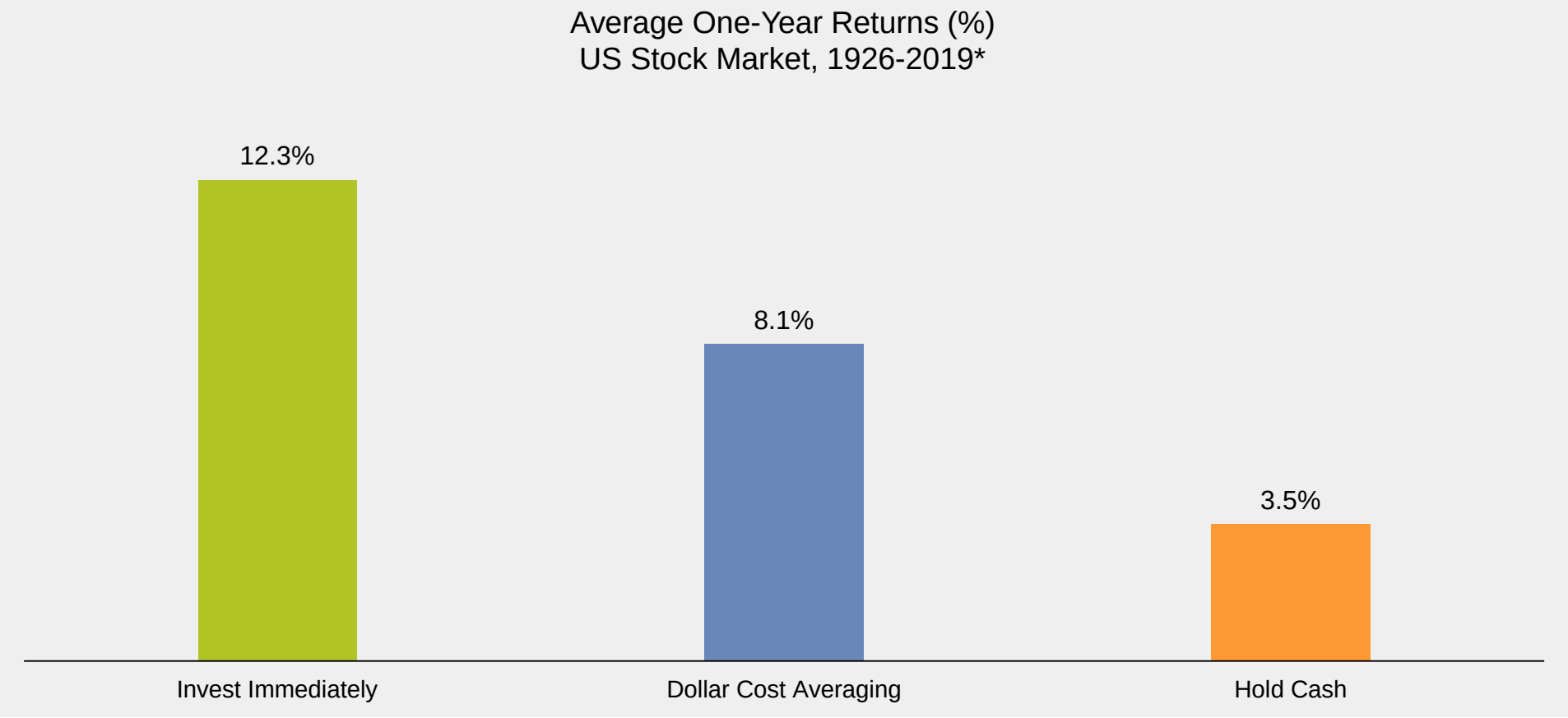
BERNSTEIN

Long Term, Stocks Create Wealth… Despite Deep Downturns



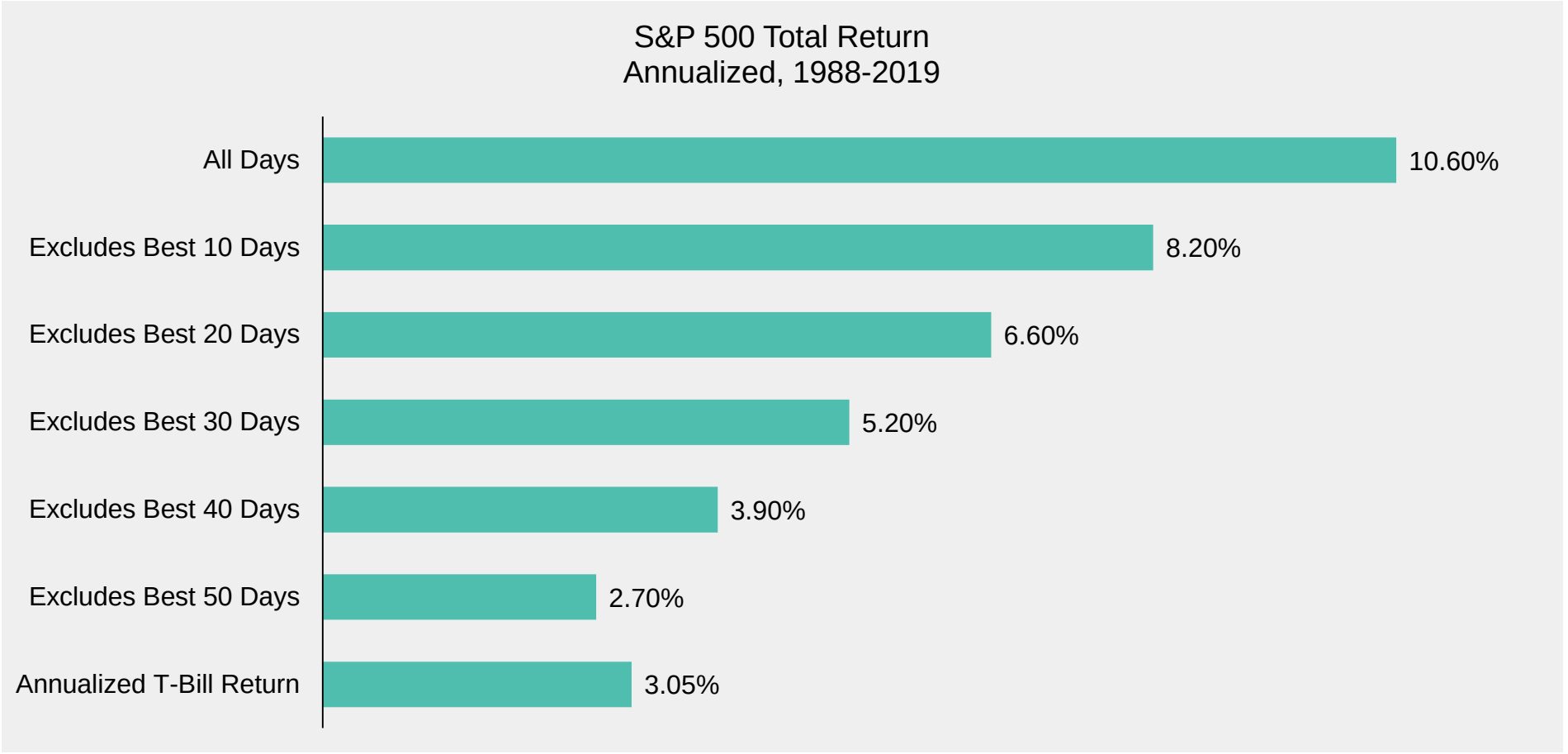
As of June 30, 2019.
Past performance does not guarantee future results.
US stocks are represented by Ibbotson through 1974 and the S&P 500 thereafter.
Source: Compustat; Roger G. Ibbotson and Rex A. Sinquefield, " Stocks, Bonds, Bills and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard & Poor's; and AllianceBernstein

Historically, Investing Immediately Has Maximized Returns



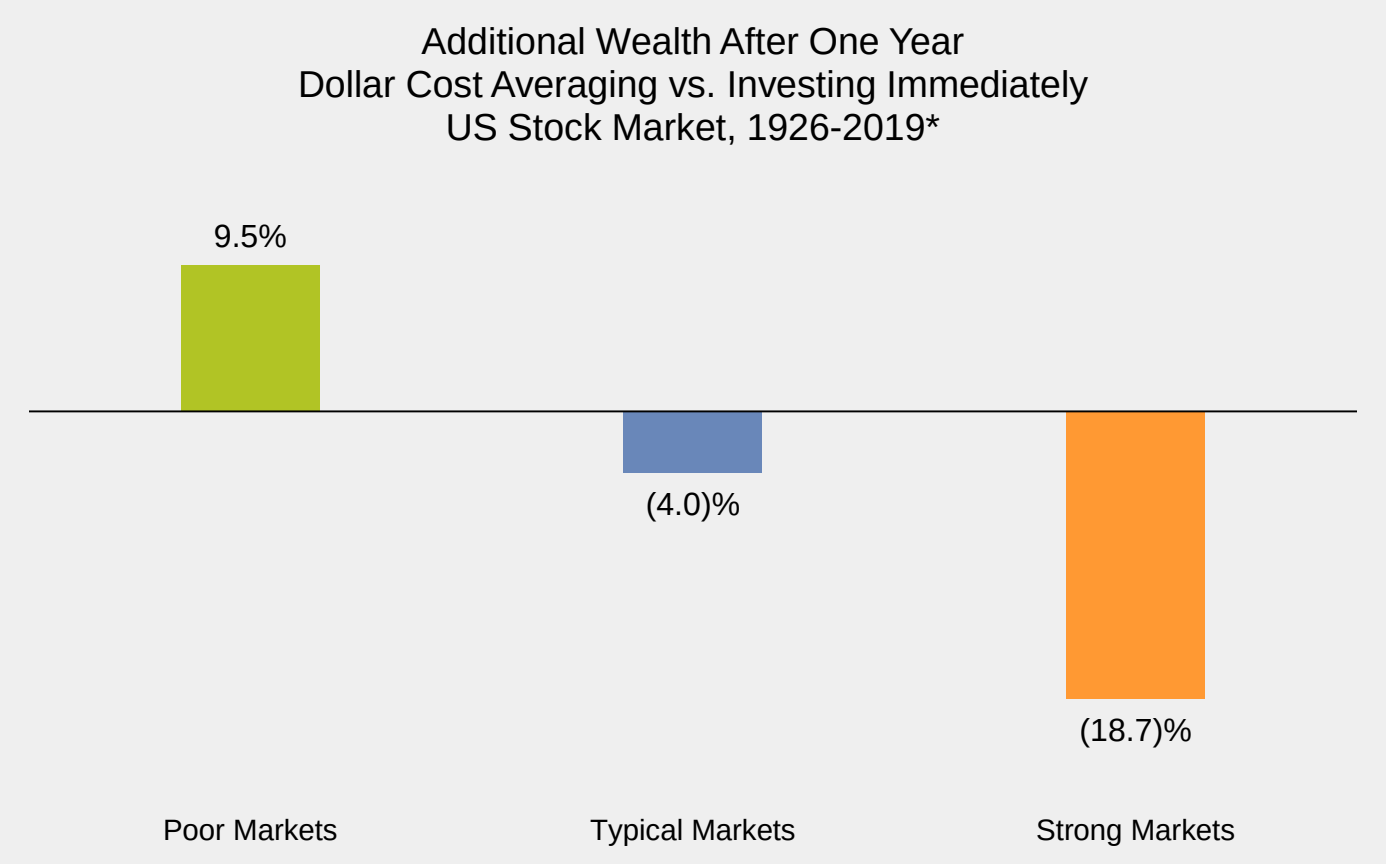
As of June 30, 2019.
Past performance does not guarantee future results.
*Historical returns are based on 12-month rolling periods from 1926 through 2019. Invest Immediately is the S&P 500 return. Hold Cash is the three-month Treasury bill return. Dollar Cost Averaging assumes level investments for 12 months into the S&P 500 while holding the balance in cash. Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, " Stocks, Bonds, Bills and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard & Poor's; and AllianceBernstein

Penalties for Missing the Market's Best Days Are Stiff



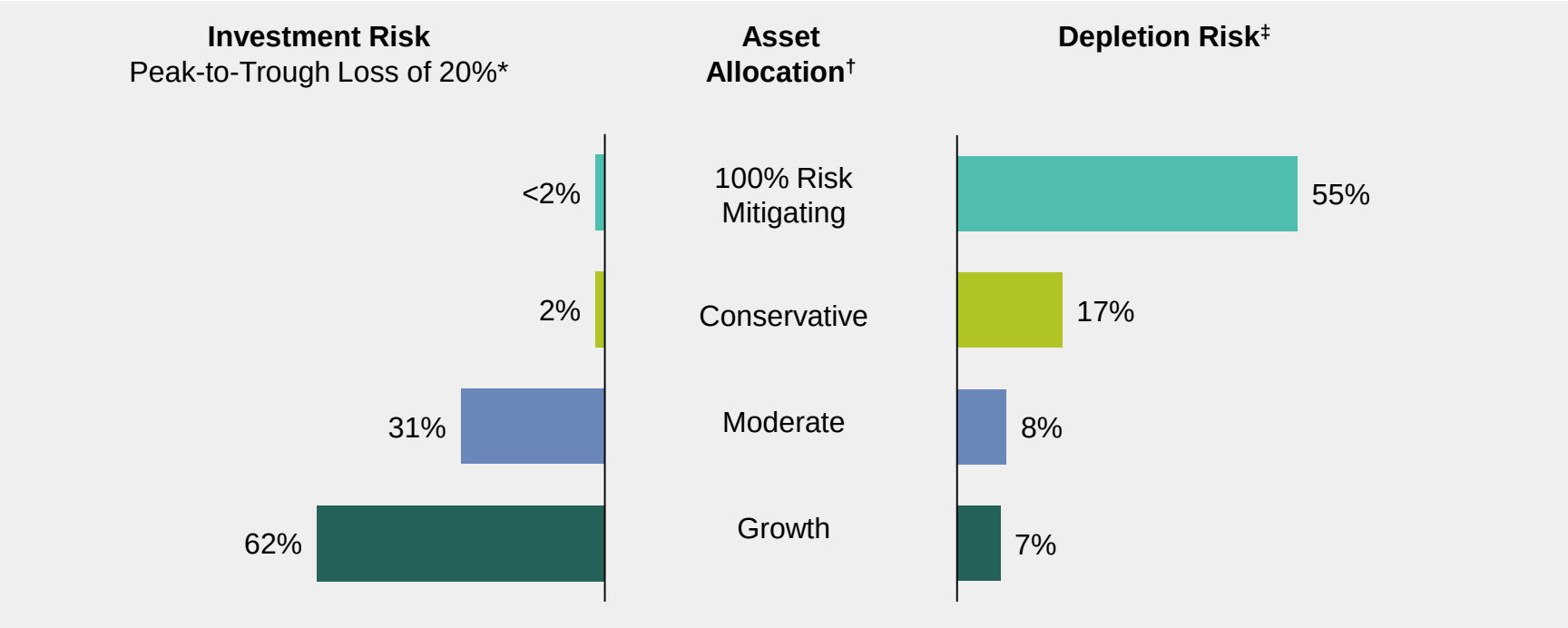
As of June 30, 2019.
Past performance does not guarantee future results.
T-bills are represented by the Lipper Three-Month T-Bill Index.
Source: Bloomberg, Lipper, and AllianceBernstein

Dollar Cost Averaging Has A Price



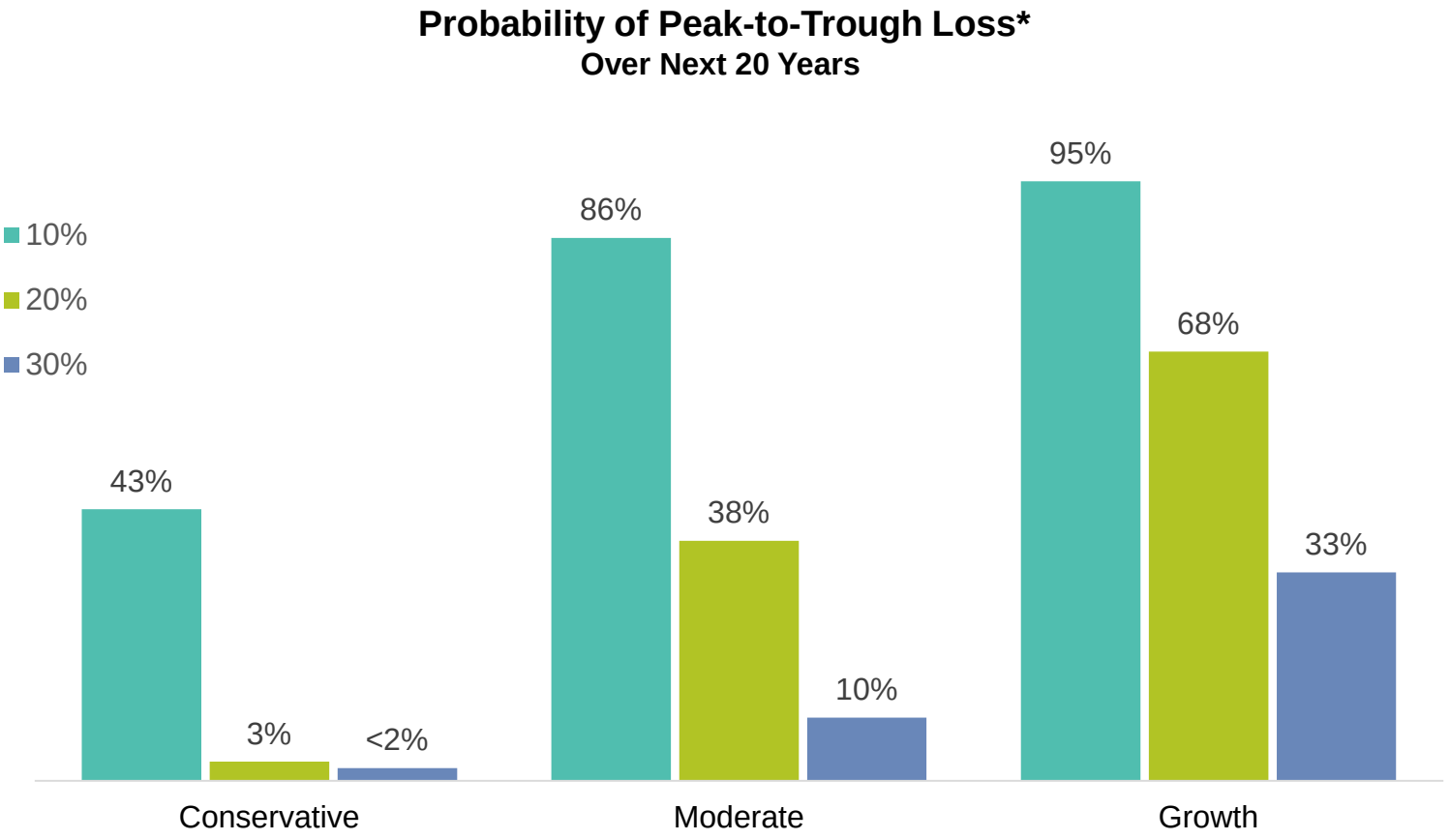
As of June 30, 2019.
Past performance does not guarantee future results.
*Based on 12-month rolling periods from 1926 through 2019. Investing Immediately is the S&P 500 return. Dollar Cost Averaging assumes level investments for 12 months into the S&P 500 while holding the balance in three-month Treasury bills. Typical markets represent the middle 60%, poor markets the bottom 20%, and strong markets the top 20% of S&P 500 returns. Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, " Stocks, Bonds, Bills and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard & Poor's; and AllianceBernstein

Allocating Assets Requires a Trade-Off Between Short-Term and Long-Term Risks



As of June 30, 2019.
*Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 20% over the next 20 years. Because the Wealth Forecasting System uses annual capital-markets returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years.
†Represents the probability of running out of money for a 65-year-old couple spending $100,000 per year (inflation-adjusted) from a $3 million portfolio. Assumes 6.5% state tax.
‡100% risk-mitigating portfolio is all bonds; conservative portfolio is 30% stocks/70%bonds; moderate portfolio is 60% stocks/40% bonds; growth portfolio is 80% stocks/20% bonds. Stocks modeled as 12% US diversified, 16% US value, 16% US growth, 6% US small- and mid-cap, 33% developed international and 7% emerging markets. Bonds modeled as intermediate-term diversified municipals.
Based on AllianceBernstein's estimates of the range of returns for the applicable capital markets over the periods analyzed. **Data do not represent past performance and are not a promise of actual future results or a range of future results.** See Notes on Wealth Forecasting System at the end of this presentation for further details.

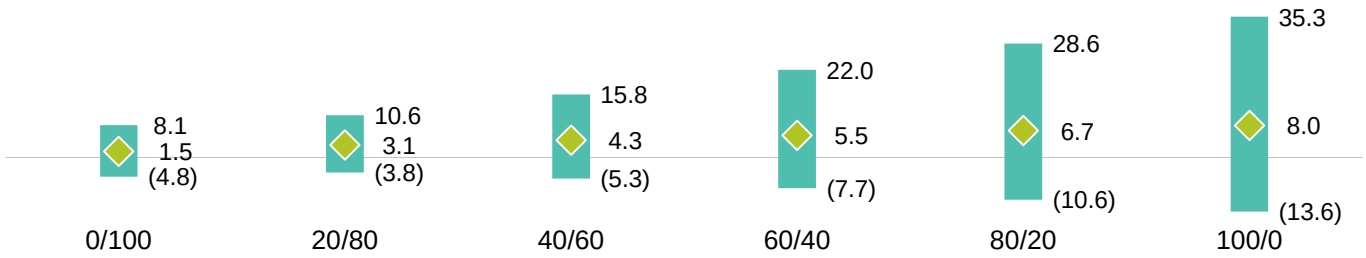
Volatile Markets Are Included in Our WFA Projections

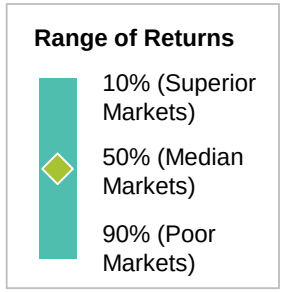


*****Projections indicate the probability of a peak-to-trough decline in pre-cash-flow cumulative returns of 10%, 20%, or 30% over the next 20 years. Because the Wealth Forecasting System uses annual capital market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years. **Data do not represent past performance and are not a promise of actual future results or range of future results**. See Assumptions and Notes on the Wealth Forecasting System in the Appendix for further details. Conservative is 30% stocks/70%bonds; moderate is 60%stocks/40% bonds; growth is 80% stocks/20% bonds. Stocks are represented by the following allocation: 12% to US Diversified, 16.2% to US Value and US Growth, 6% to US SMID, 9.6% to US Low Vol Equity, 23.6% to Developed International, 7.4% to Emerging Markets, and 9% to High-Risk Int'l. Equity weights may shift in proportion to total return-seeking allocation. Bonds are represented by diversified intermediate-term municipal bonds in the proportions noted.
*Based on Bernstein's estimates of the range of returns for the applicable capital markets over the next 20 years as of March 31, 2020.

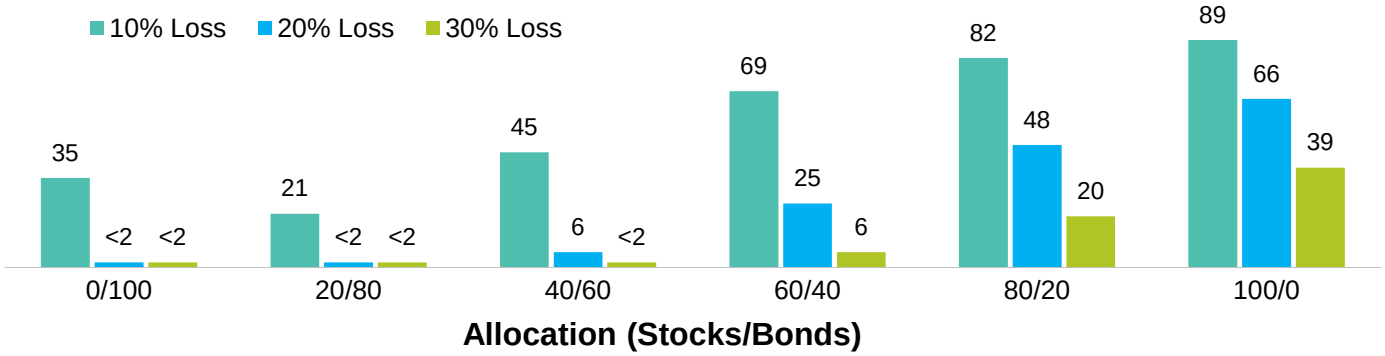
Projected Returns and Volatility—over 10 Years (Taxable)

Range of Annual Pretax Returns* (%)





Probability of Peak-to-Trough Losses** (%)



Data do not represent past performance and are not a promise of actual or range of future results. See Assumptions and Notes on Bernstein Wealth Forecasting System in Appendix for further details. Globally diversified stocks are represented by the following allocation for a 100% return-seeking allocation: 16.2% US value, 16.2% US growth, 12.0% US diversified, 6.0% US small-/mid-cap, 23.7% developed foreign markets, 7.3% emerging markets, 9.6% US Low Vol Equity, 9.0% high-risk international. Equity geography weights may shift in proportion to total return-seeking allocation. Bonds are represented by diversified intermediate-term municipal bonds in the proportions noted. Additional details regarding allocation available upon request.

*Based on Bernstein's estimates of the range of returns for the applicable capital markets over the next 10 years as of March 31, 2020. First-year volatility of the portfolios: 0/100 = 5.3%, 20/80 = 7.1%, 40/60 = 11.3%, 60/40 = 15.9%, 80/20 = 20.5%, 100/0 = 25.1%. The annual equivalent volatility of the portfolios over the entire 10-year analysis: 0/100 = 3.2%, 20/80 = 4.3%, 40/60 = 6.8%, 60/40 = 9.6%, 80/20 = 12.5%, 100/0 = 15.4%. Annual equivalent volatility differs from the first-year volatility because the expectation and distribution of asset-class returns change over time.

**Data indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 10%, 20%, or 30% over the next 10 years. Because the Wealth Forecasting System uses annual capital-market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years.

Estimated Spending Rate and Core Capital Amounts: Based on Age

Sustainable Spending Rate*

Allocation	0/100	20/80	40/60	60/40	80/20	100/0
Age 55	1.4%	2.0%	2.4%	2.7%	2.9%	2.9%
Age 65	1.9	2.6	2.9	3.3	3.4	3.4
Age 75	2.9	3.4	3.8	4.2	4.5	4.3

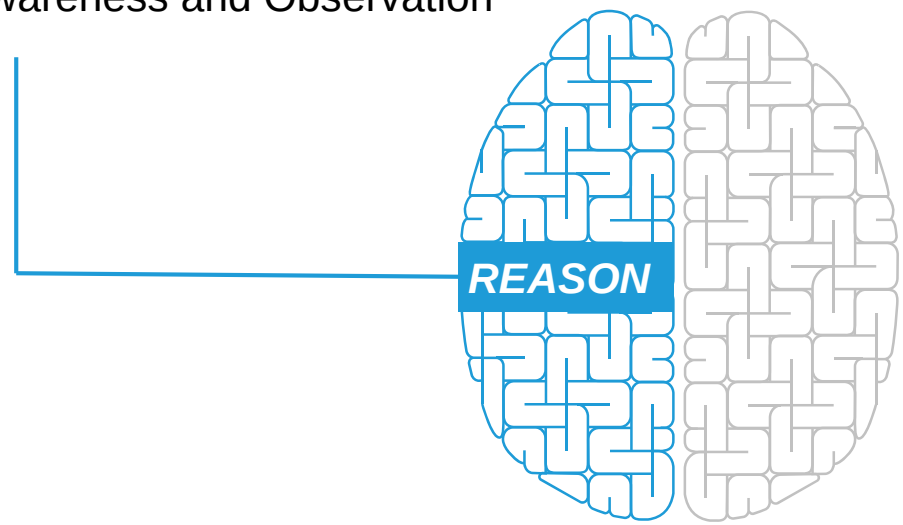
Estimated Core Capital—Spending $100,000
USD Millions

Allocation	0/100	20/80	40/60	60/40	80/20	100/0
Age 55	$7.0	$5.1	$4.1	$3.7	$3.5	$3.5
Age 65	5.3	3.9	3.4	3.0	2.9	2.9
Age 75	3.5	2.9	2.6	2.4	2.2	2.3

*These spending rates are for couples and assume an allocation of globally diversified stocks. Asset allocations assume globally diversified stocks. Globally diversified stocks are represented by the following allocation for a 100% return-seeking allocation: 16.2% US value, 16.2% US growth, 12.0% US diversified, 6.0% US small-/mid-cap, 23.7% developed foreign markets, 7.3% emerging markets, 9.6% US Low Vol Equity, 9.0% high-risk international. Equity geography weights may shift in proportion to total return-seeking allocation. Bonds are represented by diversified intermediate-term municipal bonds in the proportions noted. Additional details regarding allocation available upon request. Spending is a percentage of initial value of portfolio and is grown with inflation; spending rates assume maintaining spending with a 90% level of confidence. Based on Bernstein estimates of the range of returns for the applicable capital markets over the periods analyzed as of March 31, 2020. **Data do not represent past performance and are not a promise of actual future results.** See Notes on Bernstein Wealth Forecasting at the end of this presentation for further details. All information on longevity and mortality-adjusted investment analyses in this study are based on mortality tables compiled in 2000. To reflect that high-net-worth individuals live longer than average, we subtract three years from each individual's age (e.g., a 55-year-old would be modeled as a 52-year-old). In our mortality-adjusted analyses, the life span of an individual varies in each of our 10,000 trials in accordance with mortality tables.
Source: Society of Actuaries RP-2000 mortality tables and AB

Our Brain Is Not Pre-Wired for Investing Success

- Cause and Effect Relationships
- Future and Planning
- Self-Awareness and Observation

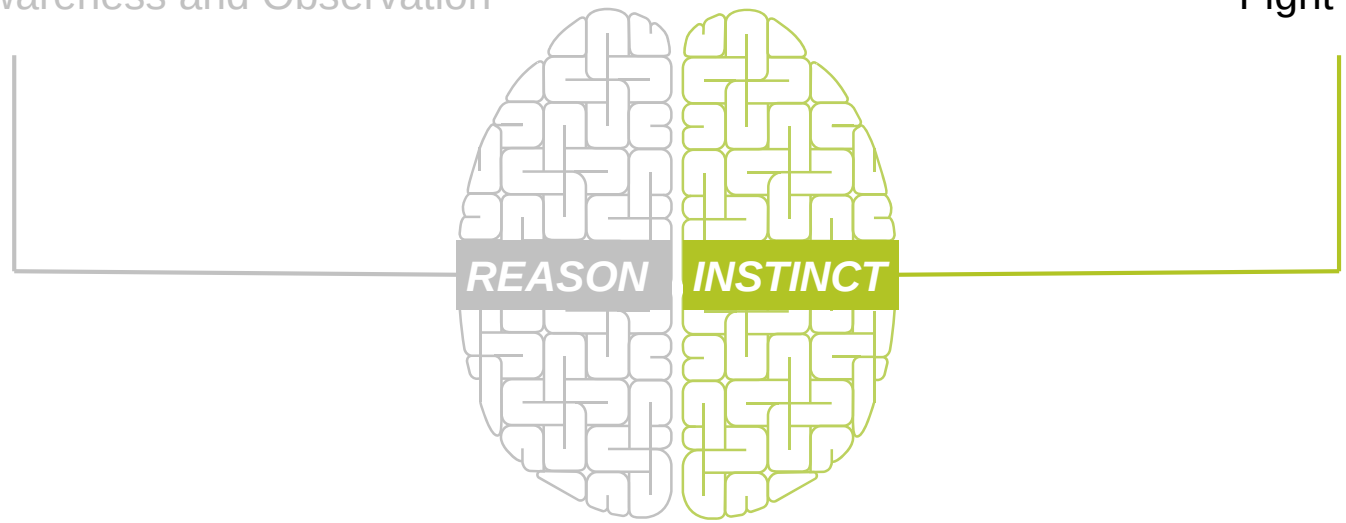


Source: Daniel Kahneman and Amos Tversky

Our Brain Is Not Pre-Wired for Investing Success

- Cause and Effect Relationships
- Future and Planning
- Self-Awareness and Observation

- Feelings
- Physical Actions
- “Fight-or-Flight”



The greatest challenge facing investors is how to avoid succumbing fully to the impulsive part of the brain when making an investment decision during a difficult downturn in the markets.

Source: Daniel Kahneman and Amos Tversky

Common Emotional Biases

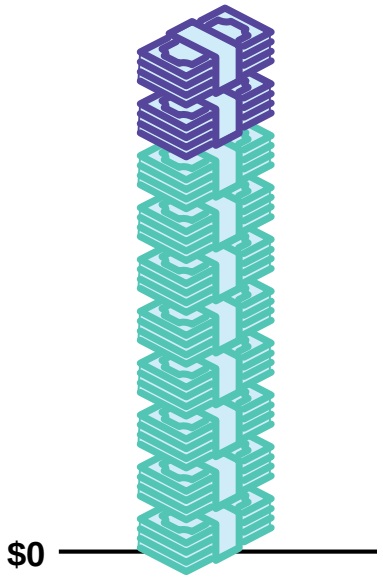
“Fight or Flight”	**The instinctual choice we make when we feel threatened** e.g., investor reacts to a market development or analyst report by selling securities
Loss Aversion	**More pain is felt from a loss than pleasure felt from an equal gain** e.g., trader sells high-performing stocks too quickly and holds on to low-performing stocks
Anchoring	**Extrapolating from a singular experience that stands out** e.g., individual changes his or her position in relation only to an initial view, and not appropriately considering new information
Data Frequency	**We are influenced by how often we receive information** e.g., investor chooses an investment based on advertising, rather than thorough analysis of fundamentals

A Nice Problem to Have

80% Chance of Getting $4,000/ 20% Chance of Getting Nothing

OR

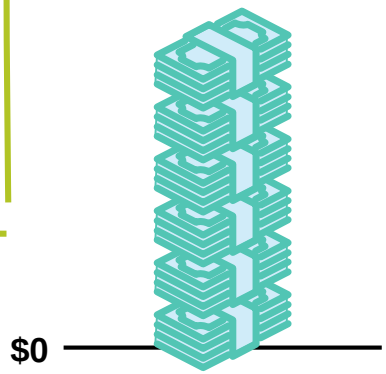
100% Chance of Getting $3,000



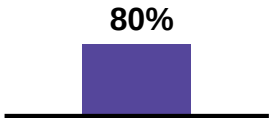
Expected Value
$3,200

Popularity

We Choose Certainty When It Comes to Gains



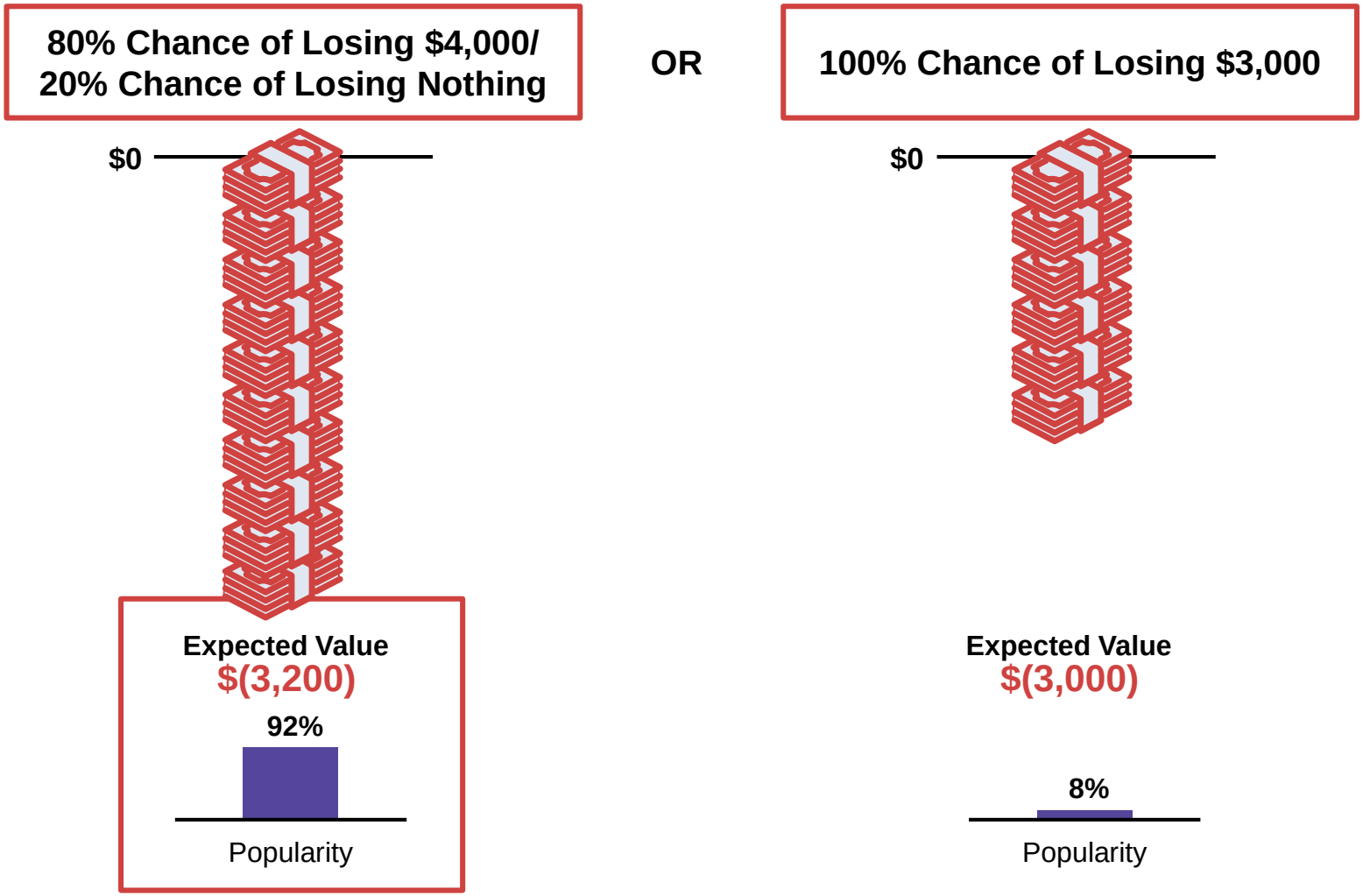
Expected Value
$3,000



Popularity

Source: Research conducted by Daniel Kahneman and Amos Tversky

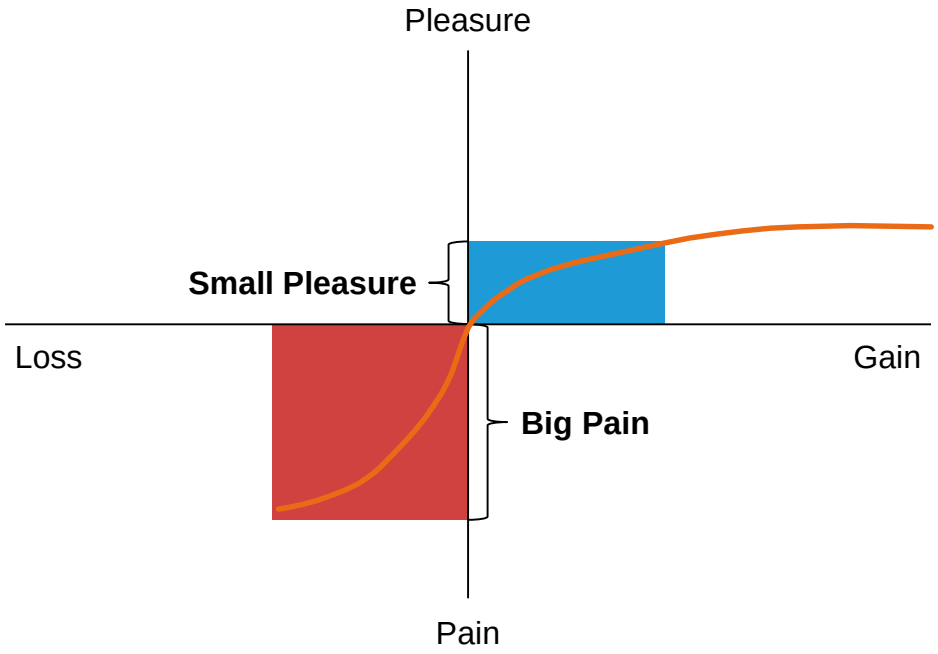
A Not-So-Nice Problem



Source: Research conducted by Daniel Kahneman and Amos Tversky

Loss Aversion

Pain of Loss Greater than Pleasure of Gain



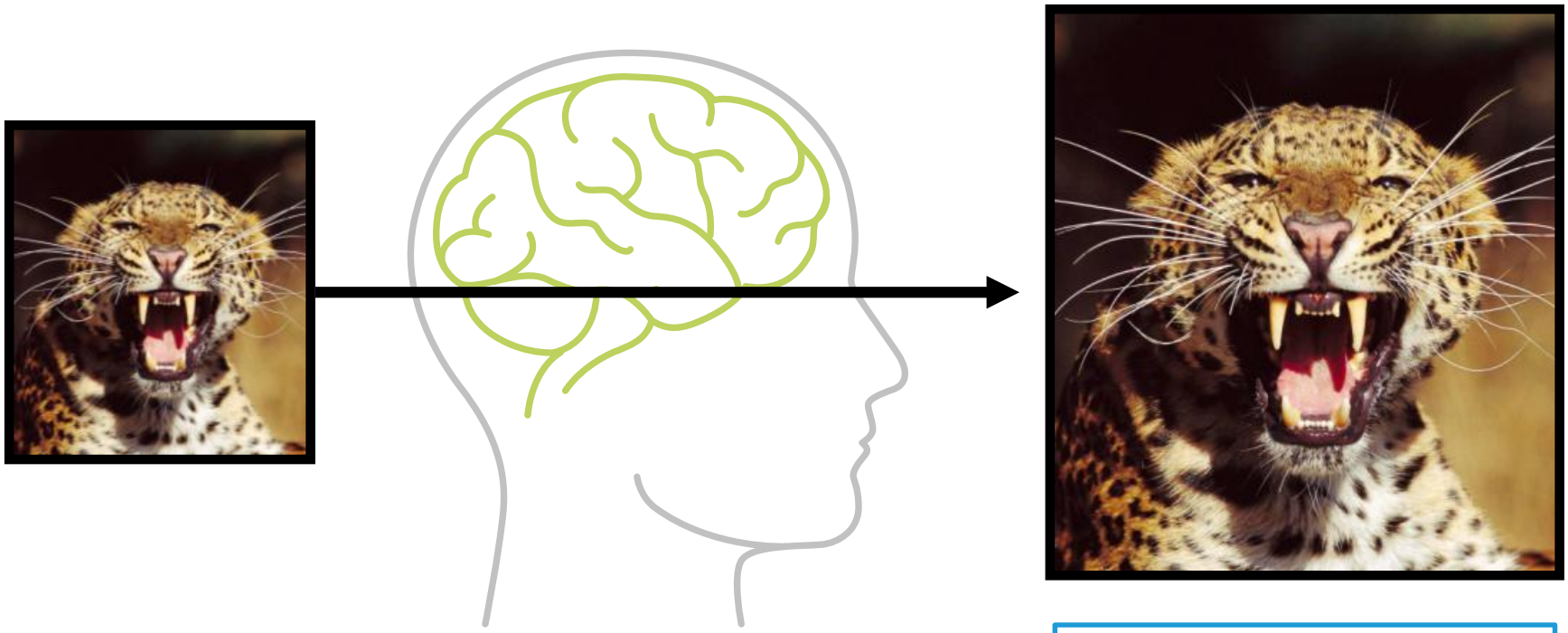
Investors do not like to lose money—they are hard-wired to act irrationally when faced with investment problems.

This can be overcome by choosing a disciplined investment approach based on future expectations, rather than perceived gain or loss.

Source: Amos Tversky and Daniel Kahneman, "Advances in Prospect Theory: Cumulative Representation of Uncertainty," *Journal of Risk and Uncertainty*, 1992

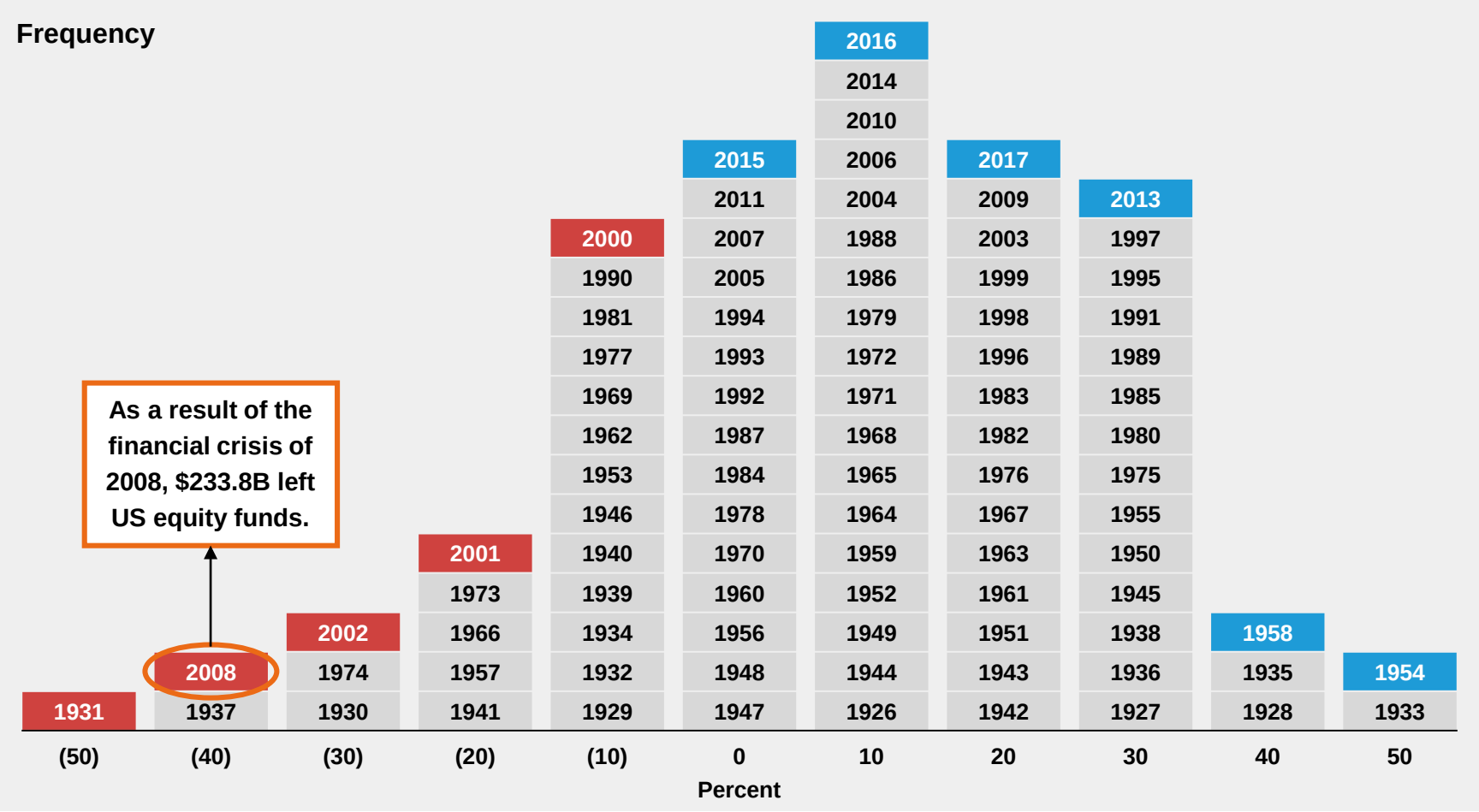
Anchoring

Extrapolating from a Singular Experience



Seeing the possibility of an experience everywhere we look–i.e., 2008

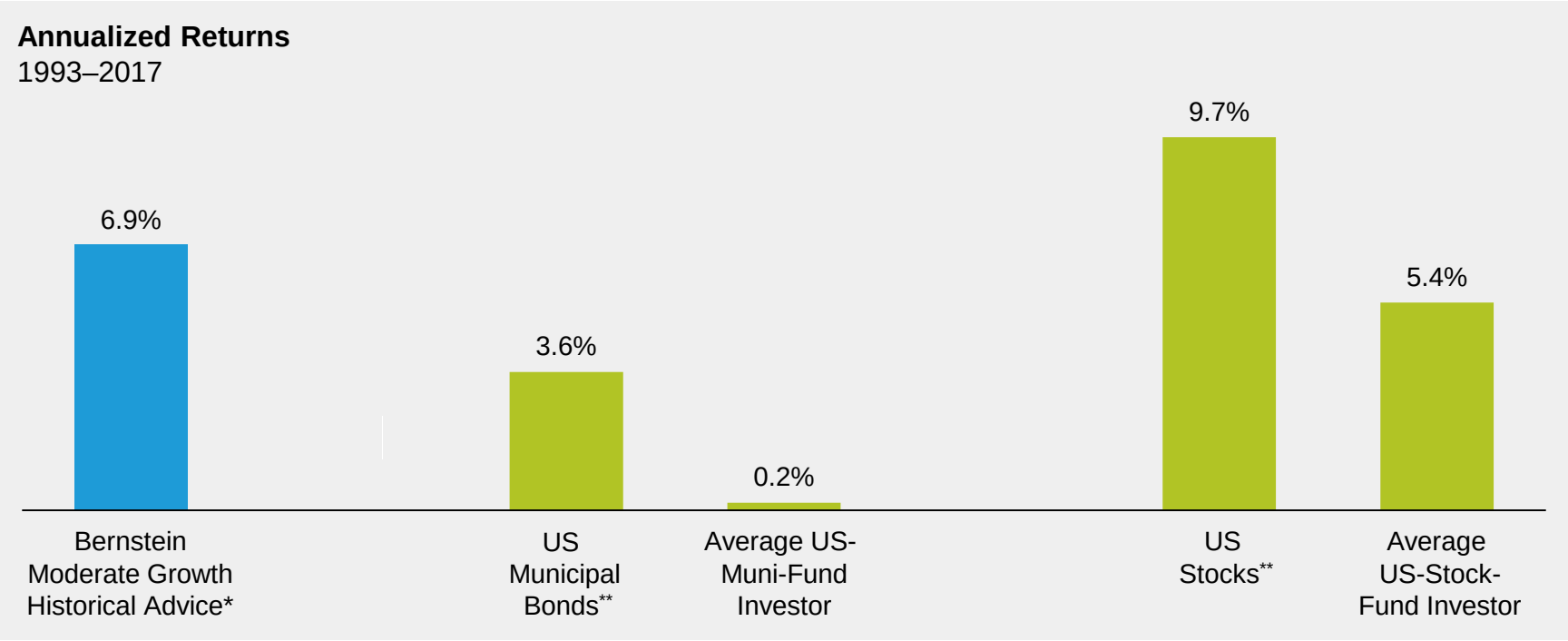
Investors Can Anchor in the Best—or Worst—of Times



(50)	(40)	(30)	(20)	(10)	0	10	20	30	40	50
1931	1937	1930	1941	1929	1947	1926	1942	1927	1928	1933
	2008	1974	1957	1932	1948	1944	1943	1936	1935	1954
		2002	1966	1934	1956	1949	1951	1938	1958	
			2001	1939	1960	1952	1961	1945		
			1973	1940	1970	1959	1963	1950		
				1946	1978	1964	1967	1955		
				1953	1984	1965	1976	1975		
				1962	1987	1968	1982	1980		
				1969	1992	1971	1983	1985		
				1977	1993	1972	1996	1989		
				1981	1994	1979	1998	1991		
				1990	2005	1986	1999	1995		
				2000	2007	1988	2003	1997		
					2011	2004	2009	2013		
					2015	2006	2017			
						2010				
						2014				
						2016				

As of December 31, 2017
Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, “Stocks, Bonds, Bills, and Inflation,” Journal of Business (University of Chicago Press), 1976; S&P and AB

Investors Who Avoid “What’s Hot” Have Benefited



Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.
An investor cannot invest in an index. Index figures do not reflect the deduction of management fees and other expenses an investor would incur when investing in a fund or separately managed portfolio.
*The performance of the taxable Bernstein Moderate Growth Historical Advice (after fees) is presented for illustrative purposes only. The performance shown is simulated to reflect the annualized, net-of-fee returns of Bernstein’s recommended asset allocation for clients with a moderate growth profile using Bernstein investment services.
No representation is being made that an investor will, or is likely to, achieve a return similar to the result shown here.
**US municipal bonds are represented by the Lipper Short/Intermediate Blended Municipal Fund Average; US stocks, by the S&P 500. The average US-stock-fund investor captures investors in US-registered stock funds, which may include funds that invest in whole or in part in non-US stocks.
There can be no assurance that working with a financial advisor will improve investment results. Investors cannot invest directly in indices. The results for the average US-muni-fund and US-stock-fund investors are in the Dalbar study “Quantitative Analysis of Investor Behavior” (QAIB), 2018. QAIB calculates investor returns as the change in mutual fund assets after excluding sales, redemptions, and exchanges. This method of calculation captures realized and unrealized capital gains, dividends, interest, trading costs, sales charges, fees, expenses and any other costs, annualized over the period.
Source: Dalbar, Lipper, S&P and AB

Overcoming Common Investing Mistakes

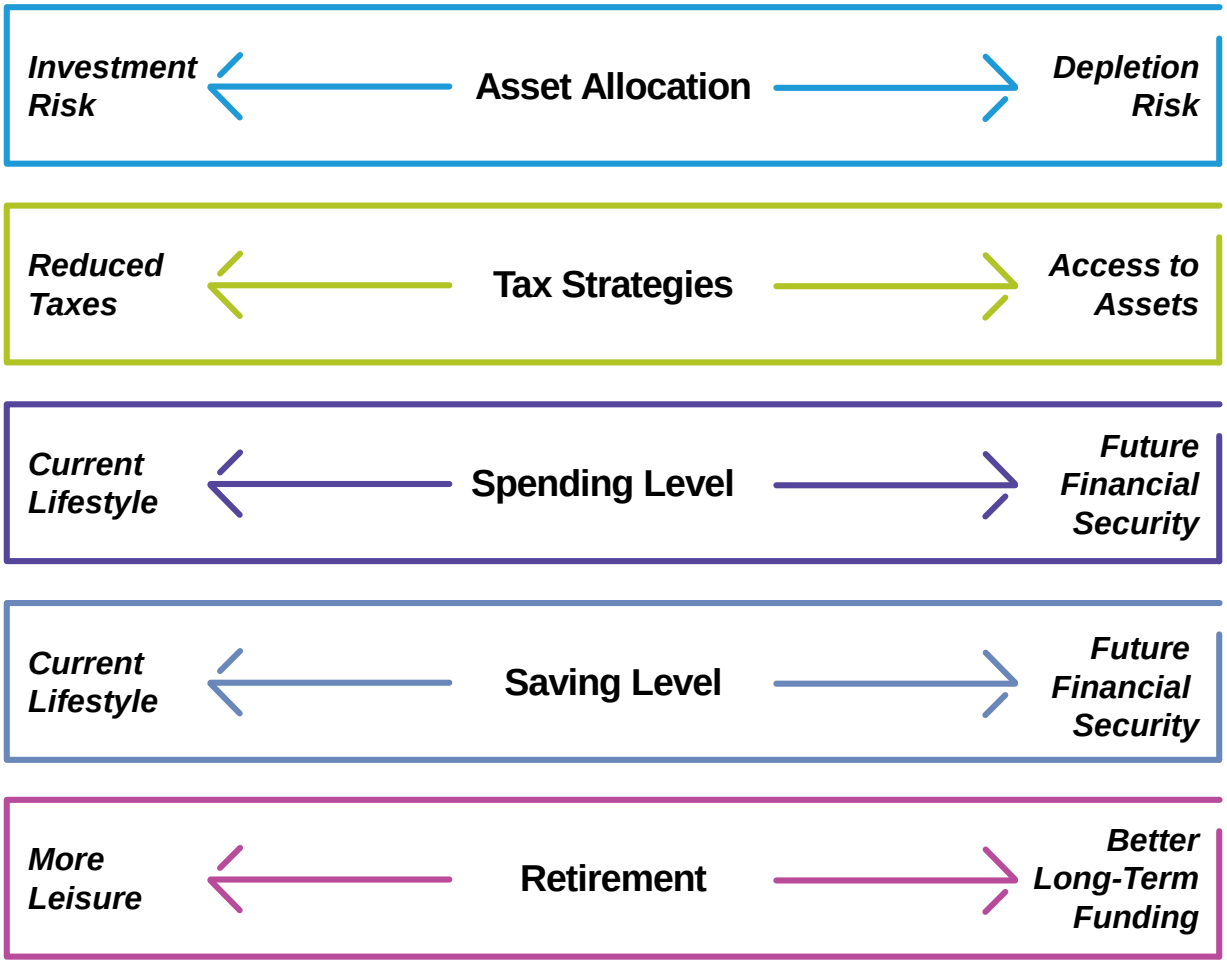
Pitfalls

- **“Fight or Flight”**
- **Loss Aversion**
- **Anchoring**
- **Data Frequency**

What Can I Do?

- Acknowledge that your biases are real
- Recognize that losses will occur
- Seek objective advice
- Develop and monitor an investment plan
- Measure outcomes versus your goals

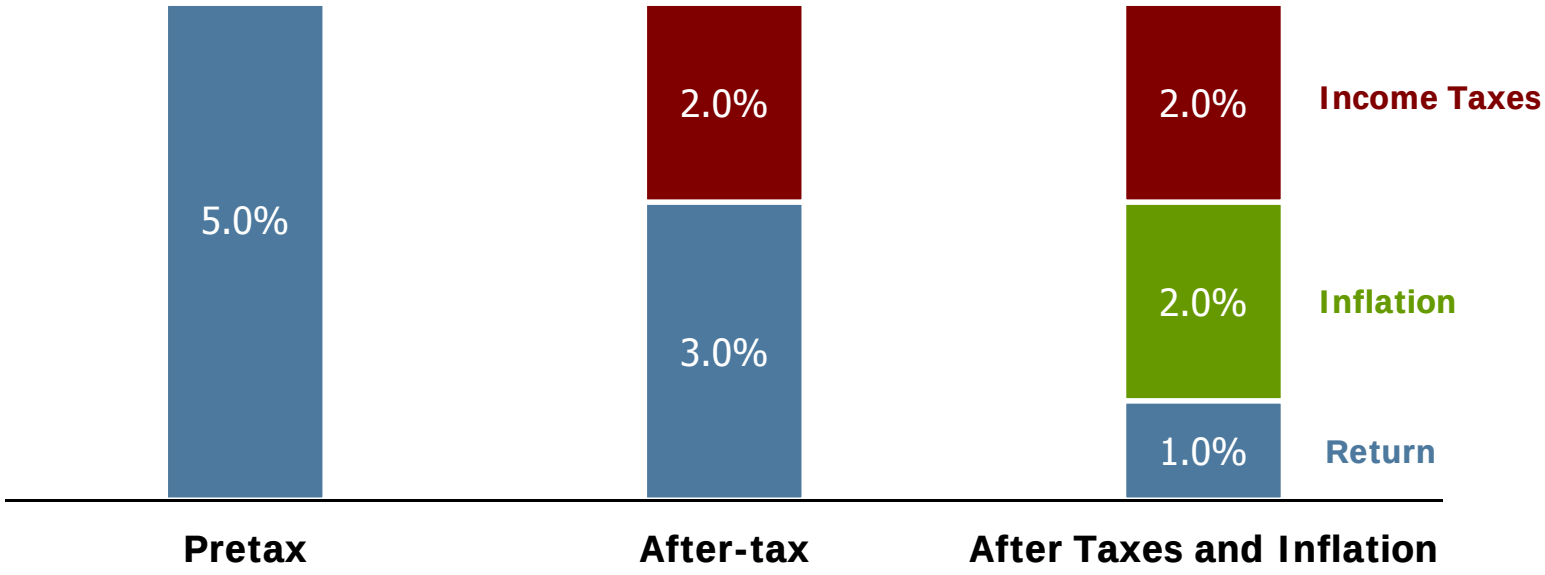
Every Element You Control Requires a Trade-Off and Can Be Influenced by Your Biases



Source: AB

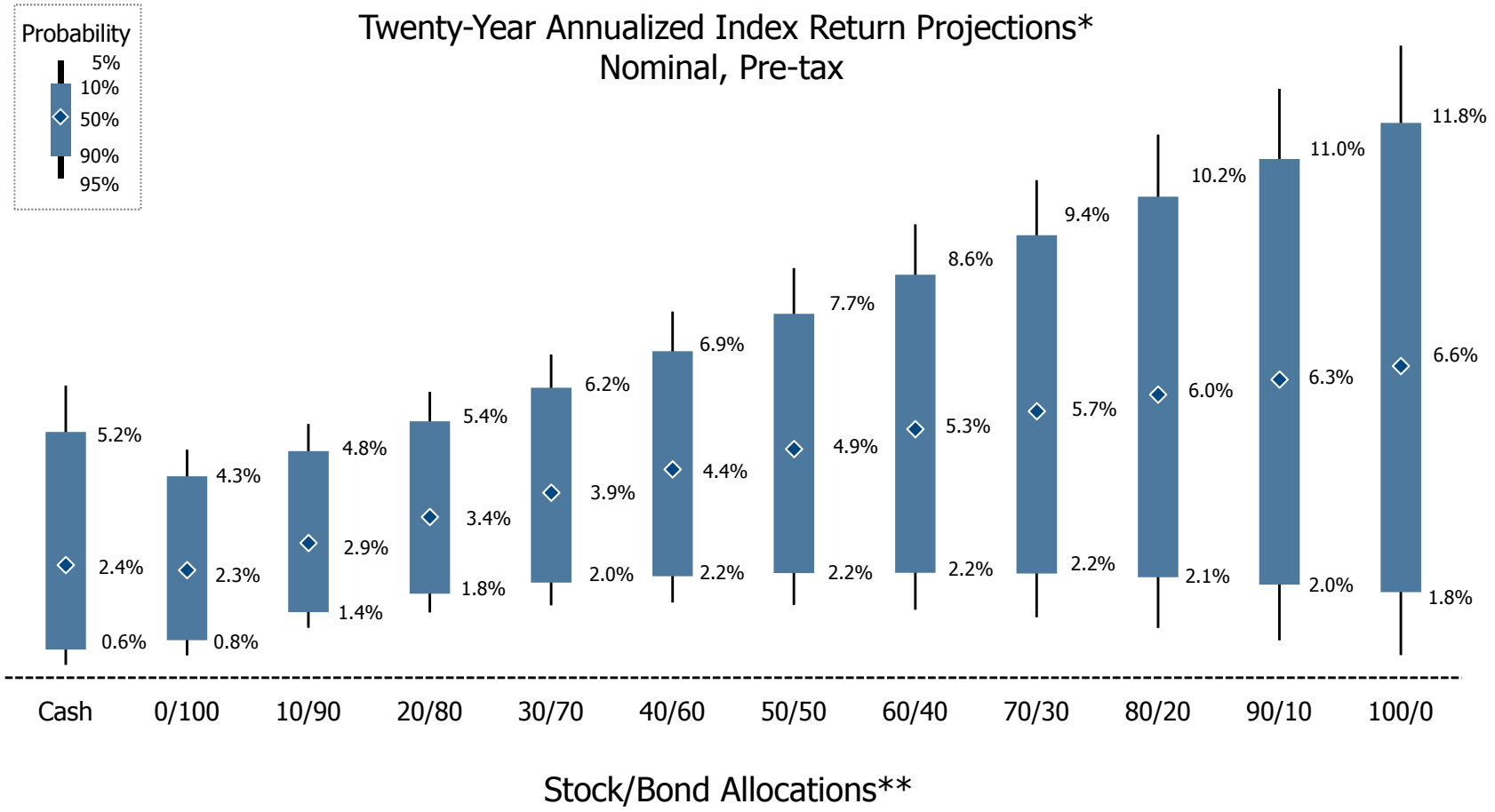
Breaking Down Returns: Hypothetical Illustration

Assumptions: 5% Return, 40% Tax and 2% Inflation



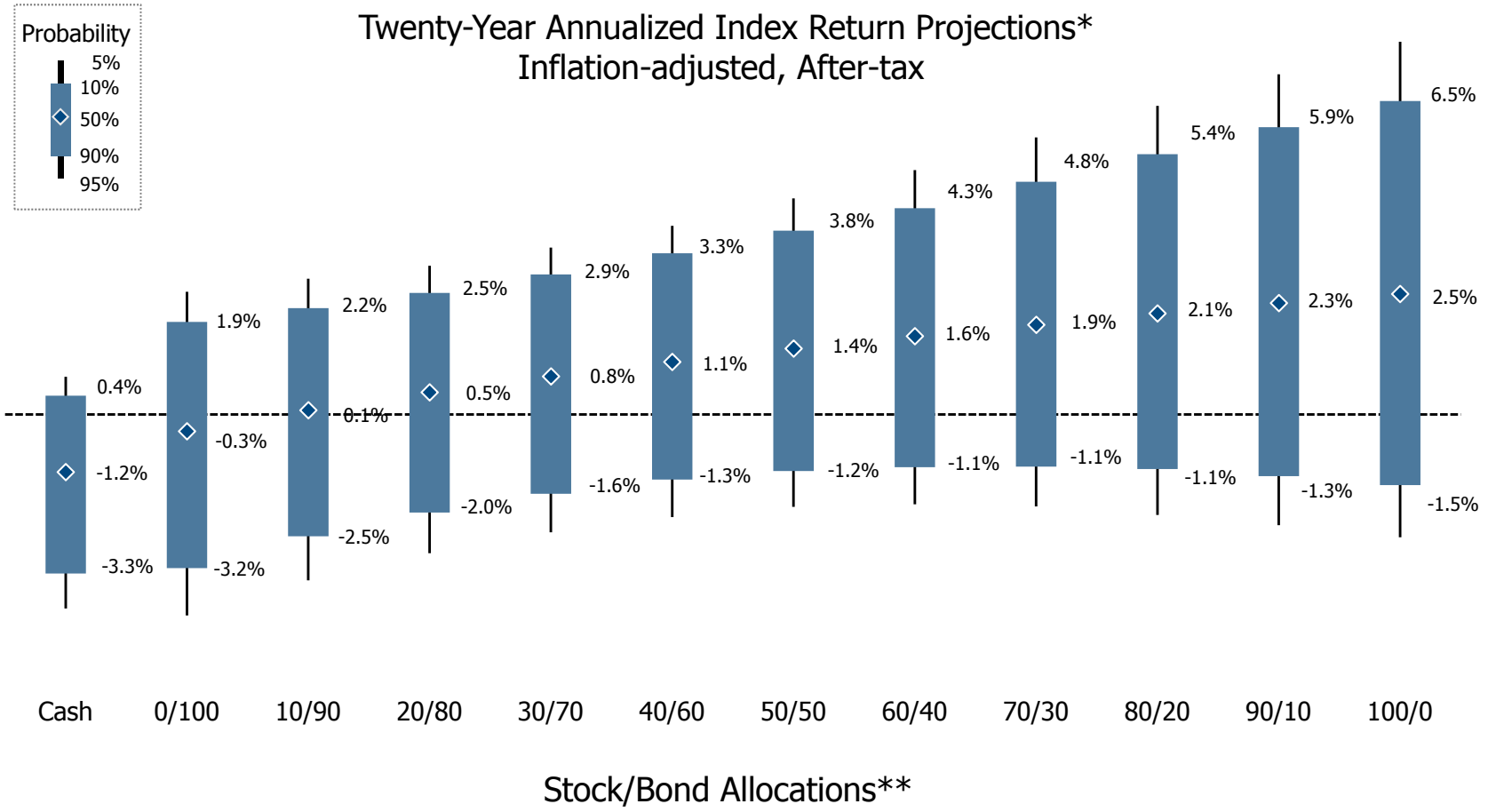
For illustrative purposes only

Twenty-Year Return Projections: Nominal, Pre-tax



As of December 31, 2019
*Represents projected pretax compound annual growth rates.
**Stocks modeled as MSCI World Index. Bonds modeled as intermediate-term diversified municipals.
Based on AllianceBernstein's estimates of the range of returns for the applicable capital markets over the periods analyzed. **Data do not represent past performance and are not a promise or a range of future results.** See Appendix for further details.

Twenty-Year Return Projections: Inflation-adjusted, After-tax



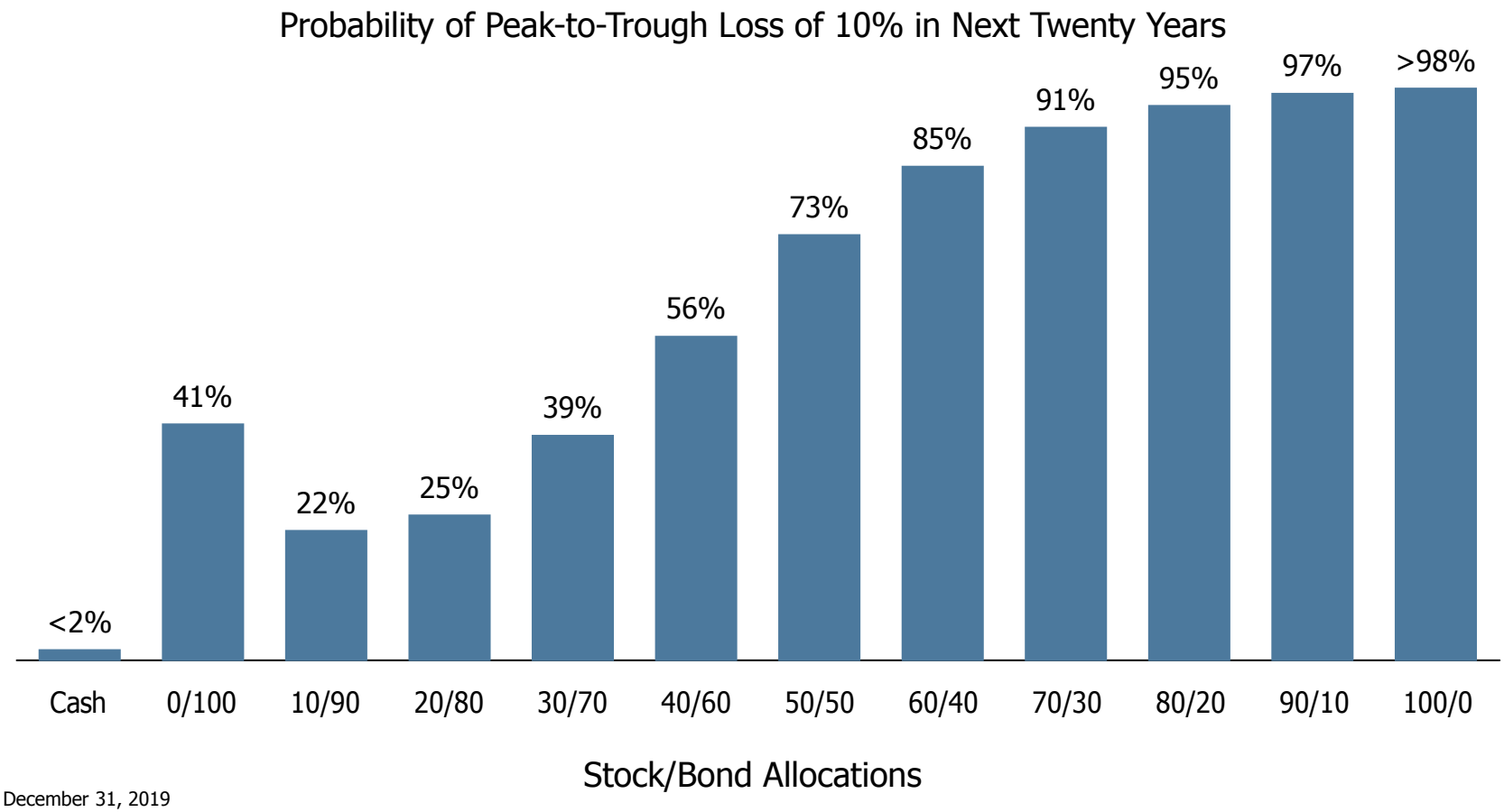
As of December 31, 2019

*Represents projected after-tax compound annual growth rates. Assumes top marginal federal income tax rates. Growth rates calculated based on the estimated market value; if the assets were liquidated, additional capital gains or losses would be realized that are not reflected here.

**Stocks modeled as MSCI World Index. Bonds modeled as intermediate-term diversified municipals.

Based on AllianceBernstein's estimates of the range of returns for the applicable capital markets over the periods analyzed. **Data do not represent past performance and are not a promise or a range of future results.** See Appendix for further details.

Probability of 10% Drawdown in Next Twenty Years



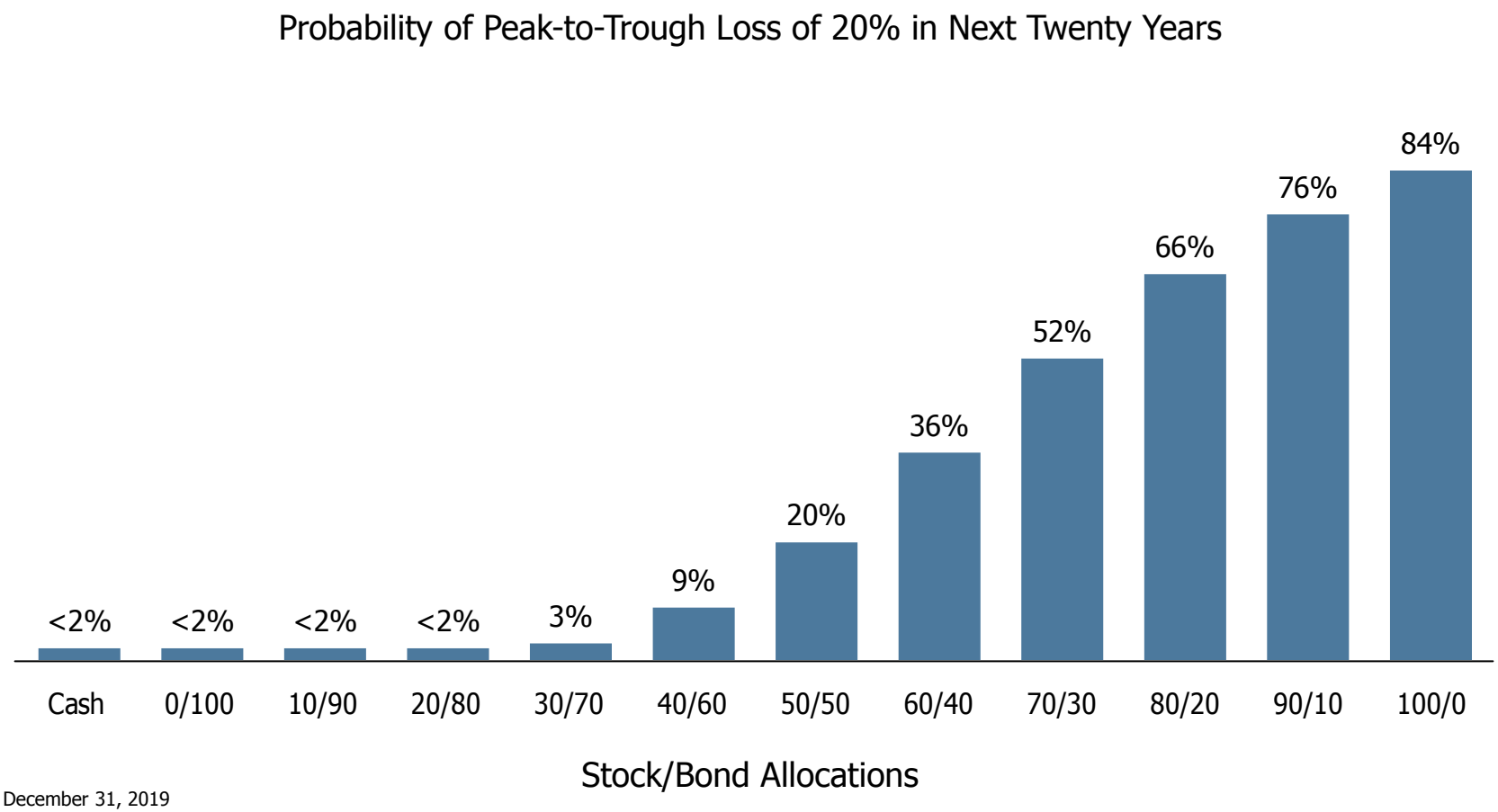
As of December 31, 2019

Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 10% over the period analyzed. Because the Wealth Forecasting System uses annual capital market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years.

Stocks modeled as MSCI World Index. Bonds modeled as intermediate-term diversified municipals.

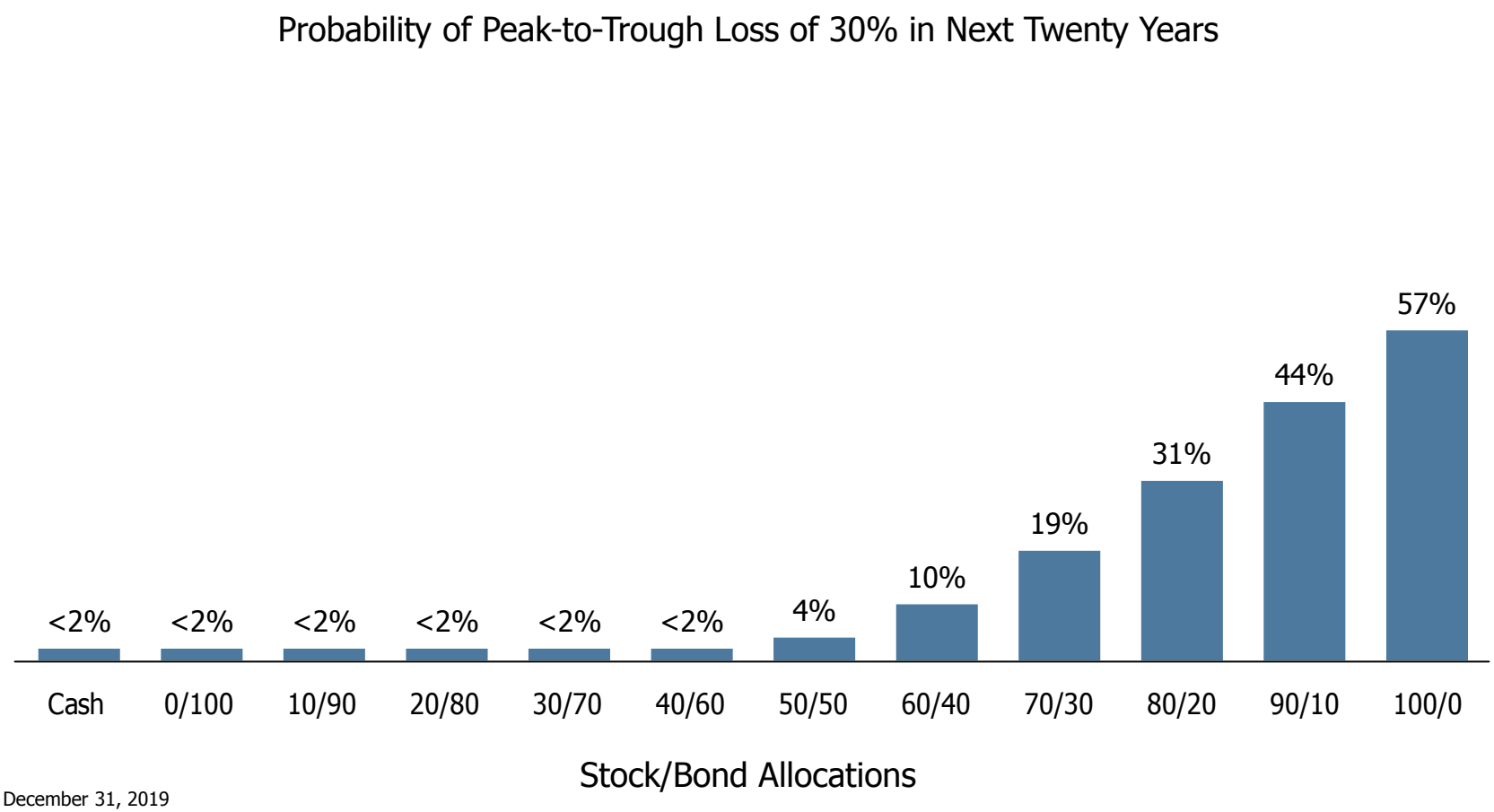
Based on AllianceBernstein's estimates of the range of returns for the applicable capital markets over the period analyzed. **Data do not represent past performance and are not a promise or a range of future results.** See Appendix for further details.

Probability of 20% Drawdown in Next Twenty Years



As of December 31, 2019
Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 20% over the period analyzed. Because the Wealth Forecasting System uses annual capital market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years.
Stocks modeled as MSCI World Index. Bonds modeled as intermediate-term diversified municipals.
Based on AllianceBernstein's estimates of the range of returns for the applicable capital markets over the period analyzed. **Data do not represent past performance and are not a promise or a range of future results.** See Appendix for further details.

Probability of 30% Drawdown in Next Twenty Years

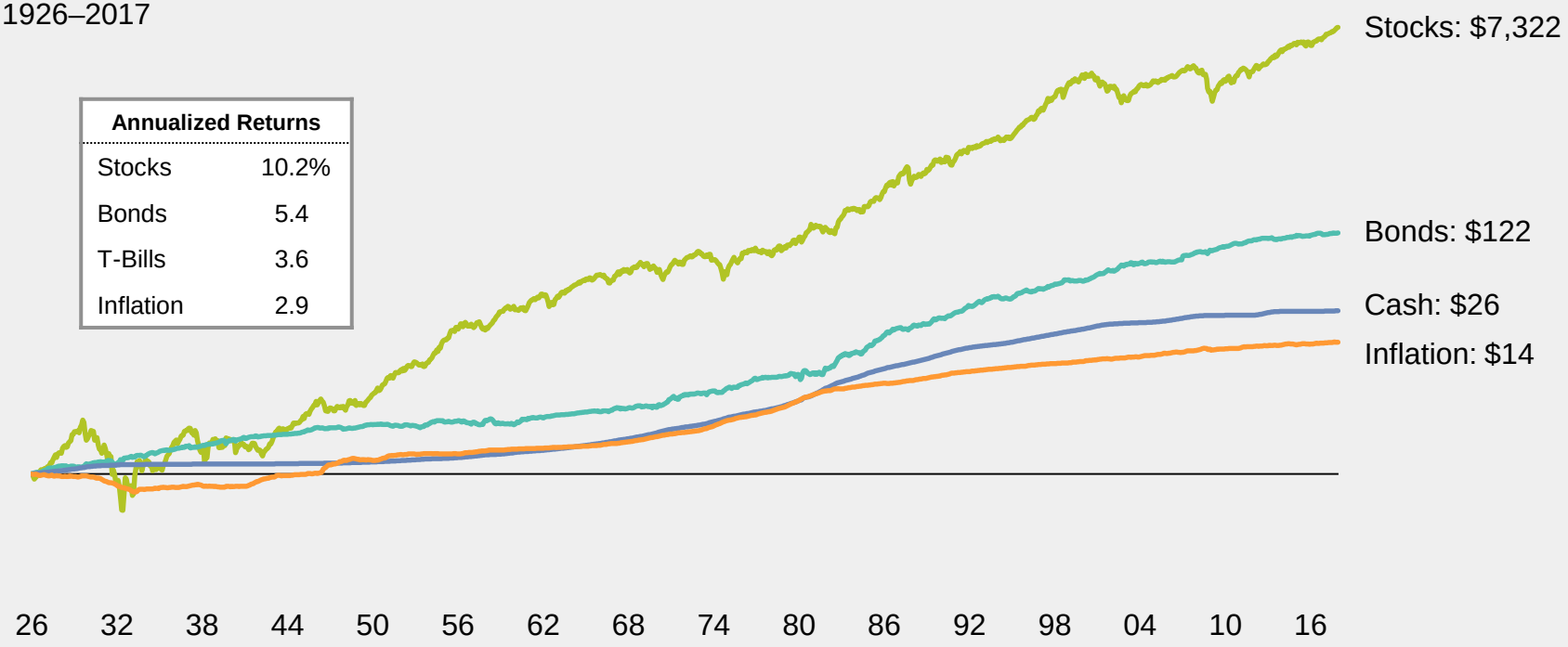


As of December 31, 2019
Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 30% over the period analyzed. Because the Wealth Forecasting System uses annual capital market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years.
Stocks modeled as MSCI World Index. Bonds modeled as intermediate-term diversified municipals.
Based on AllianceBernstein's estimates of the range of returns for the applicable capital markets over the period analyzed. **Data do not represent past performance and are not a promise or a range of future results.** See Appendix for further details.

Investing for Your Future

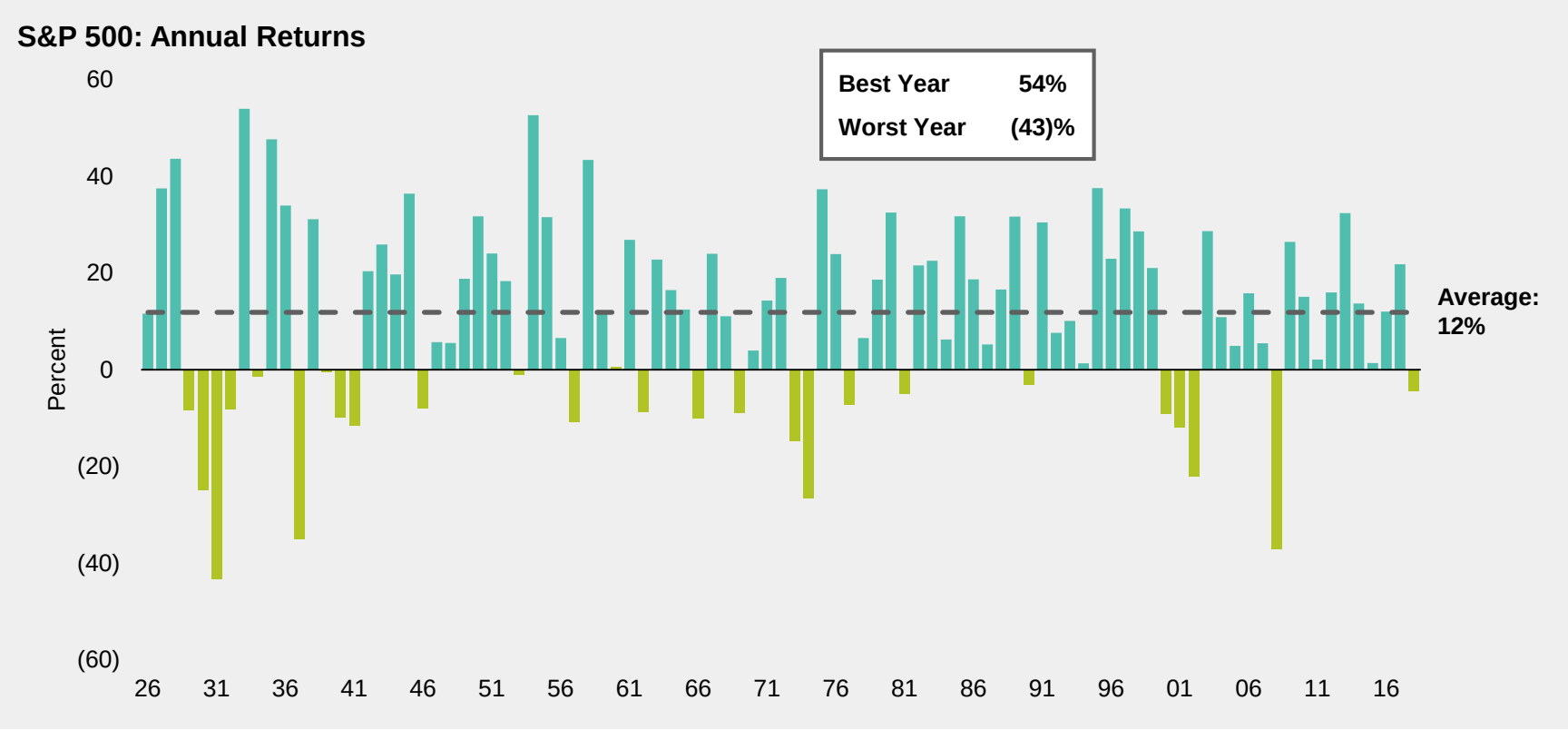
Bonds and Cash Provide Stability; Stocks Provide Growth

Growth of $1
1926–2017



Past performance is not necessarily indicative of future results.
Through December 31, 2017.
US stocks are represented by the S&P 500; bonds are represented by US long-term government bonds from 1926 to January 1962, US five-year Treasuries from February 1962 to 1975, and Bloomberg Barclays US Aggregate Index 1976 and thereafter; T-bills are represented by three-month Treasury bills; and inflation by the Consumer Price Index.
Source: Bloomberg Barclays; Bureau of Labor Statistics; Center for Research in Security Prices; Compustat; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press *Journal of Business* (January 1976); Standard & Poor's; and AB

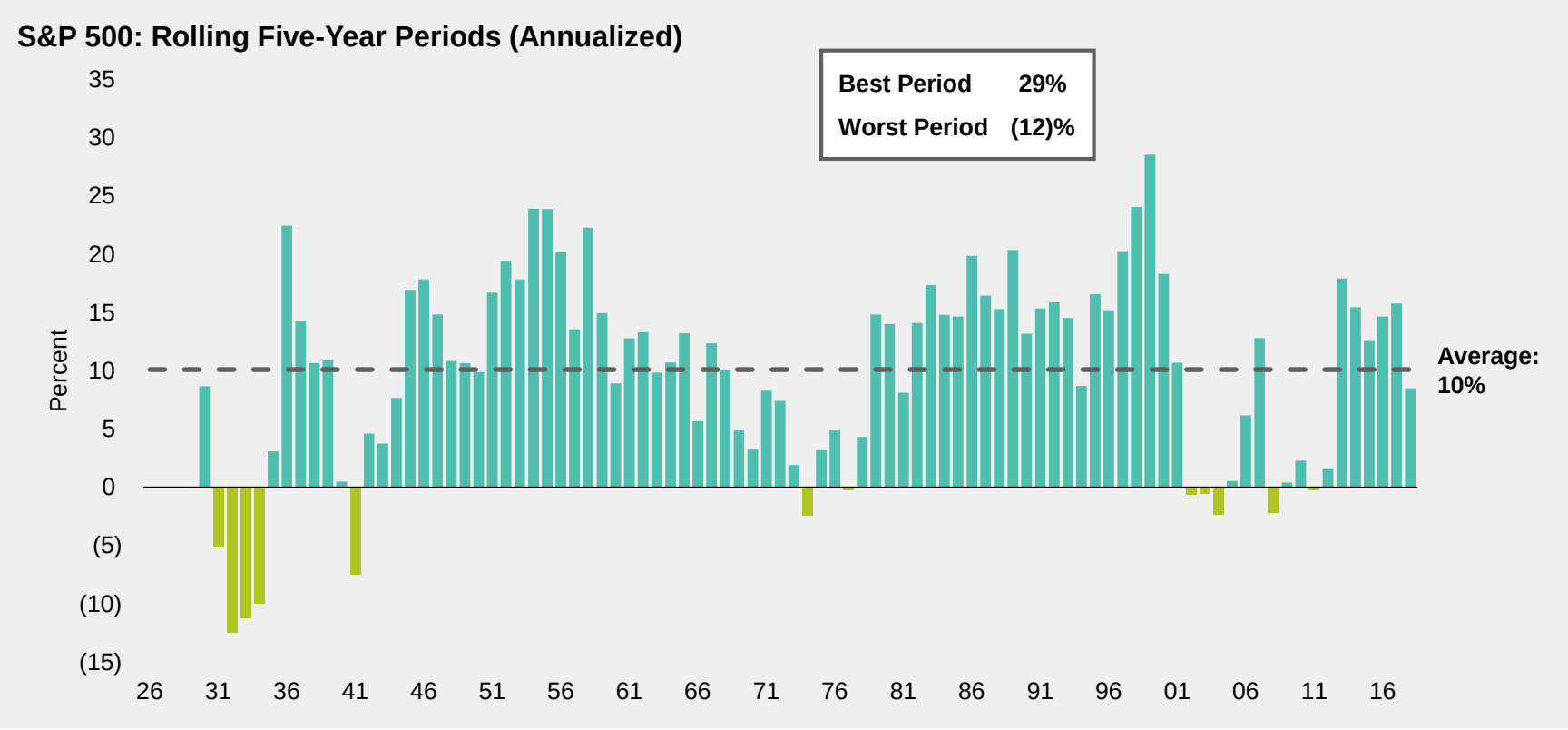
Stocks Have Been Volatile Year by Year…



Past performance is not necessarily indicative of future results.
As of December 31, 2018.
Source: Compustat; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press *Journal of Business* (January 1976); Standard & Poor's; and AB

BERNSTEIN

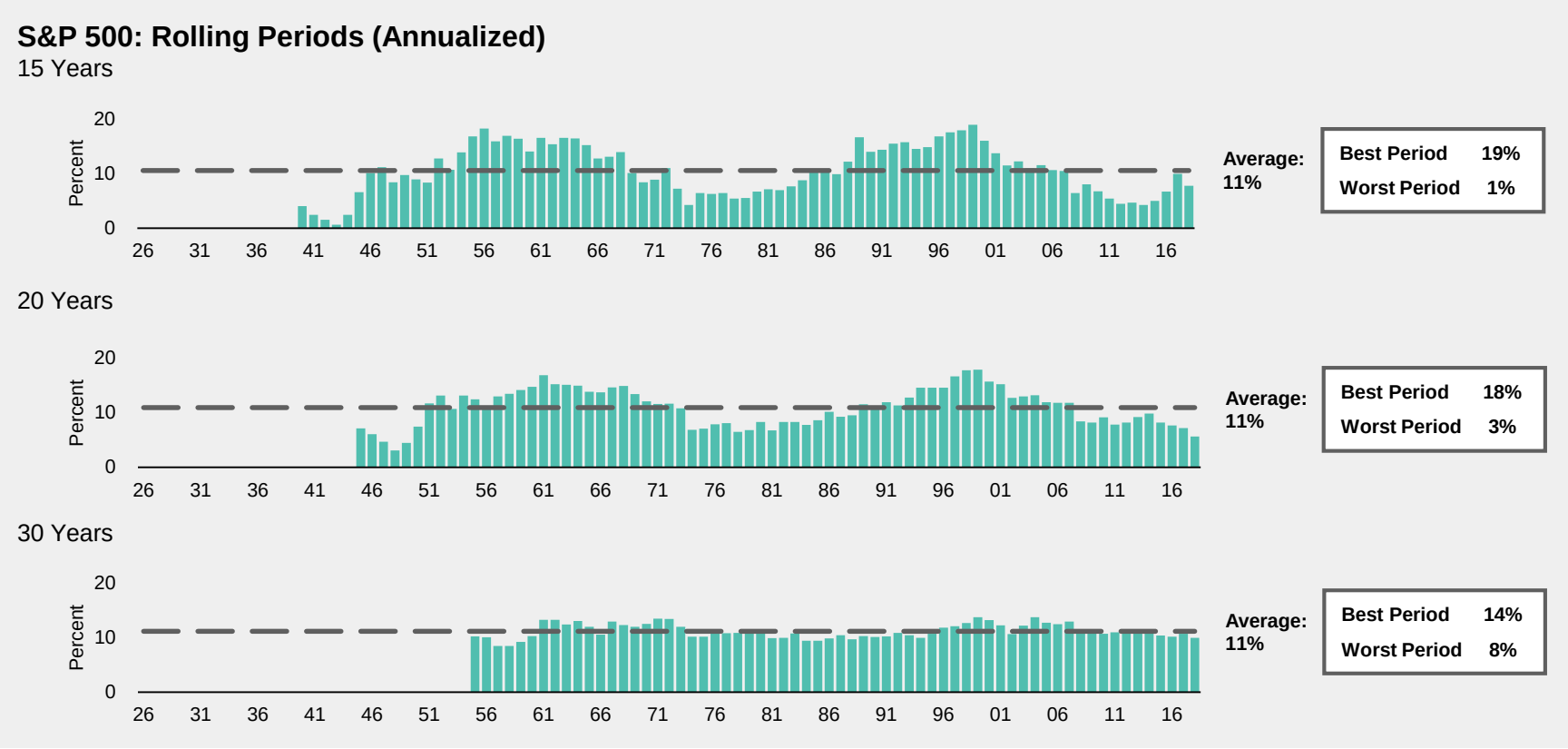
…but Losses over Five-Year Periods Have Been Rare…



Past performance is not necessarily indicative of future results.
As of December 31, 2018.
Source: Compustat; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press *Journal of Business* (January 1976); Standard & Poor's; and AB

BERNSTEIN

…and Losses Have Disappeared over the Very Long Term



Past performance is not necessarily indicative of future results.
As of December 31, 2018.
Source: Compustat; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press *Journal of Business* (January 1976); Standard & Poor's; and AB

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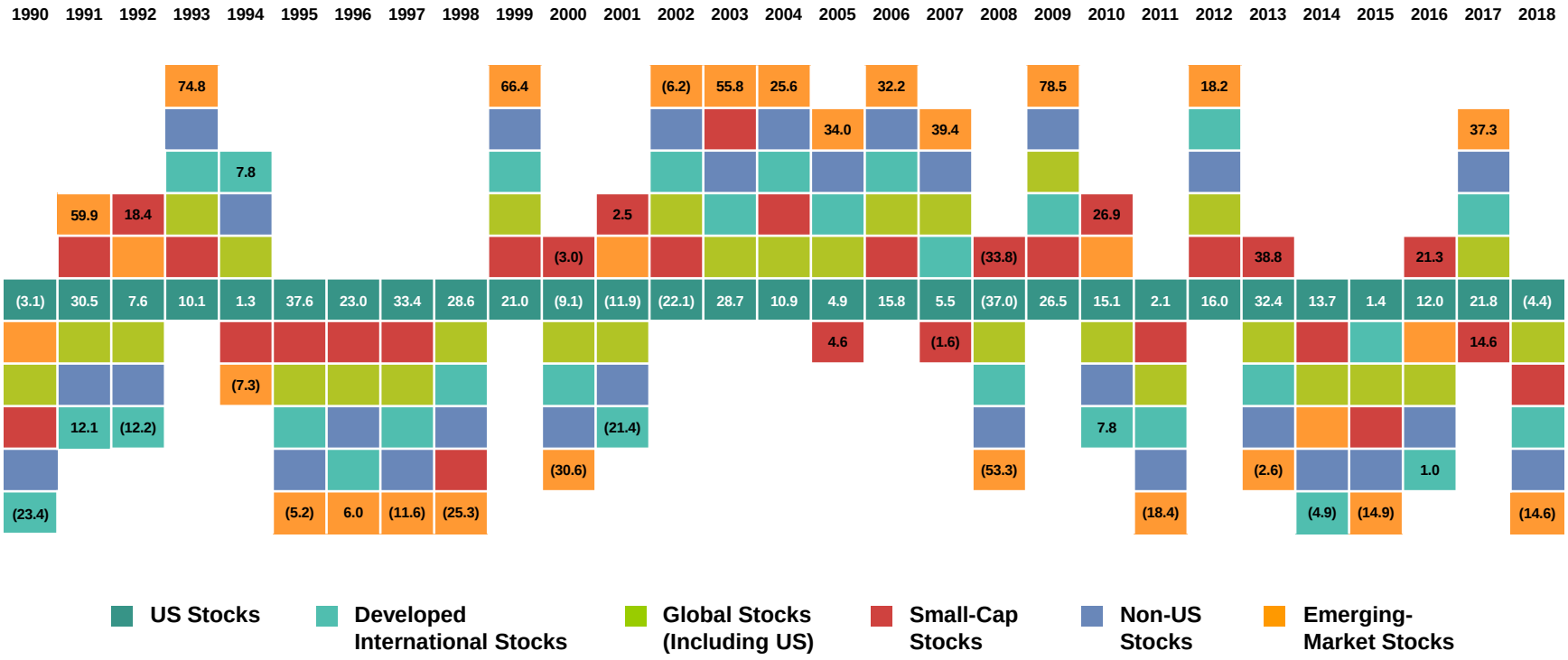
Diversification Is Important as No Asset Class Always Wins

Index Returns by Calendar Year (%)



Past performance is not indicative of future results. There is no guarantee that any estimates or forecasts will be realized.
As of December 31, 2018—all returns are in USD terms.
US stocks represented by the S&P 500, emerging-market stocks by the MSCI Emerging Markets Index, global stocks (including US) by the MSCI ACWI Index, small-cap stocks by the Russell 2000, non-US stocks by the MSCI ACWI ex US Index, and developed international stocks by the MSCI EAFE Index.
Source: MSCI, Russell, S&P, and AB

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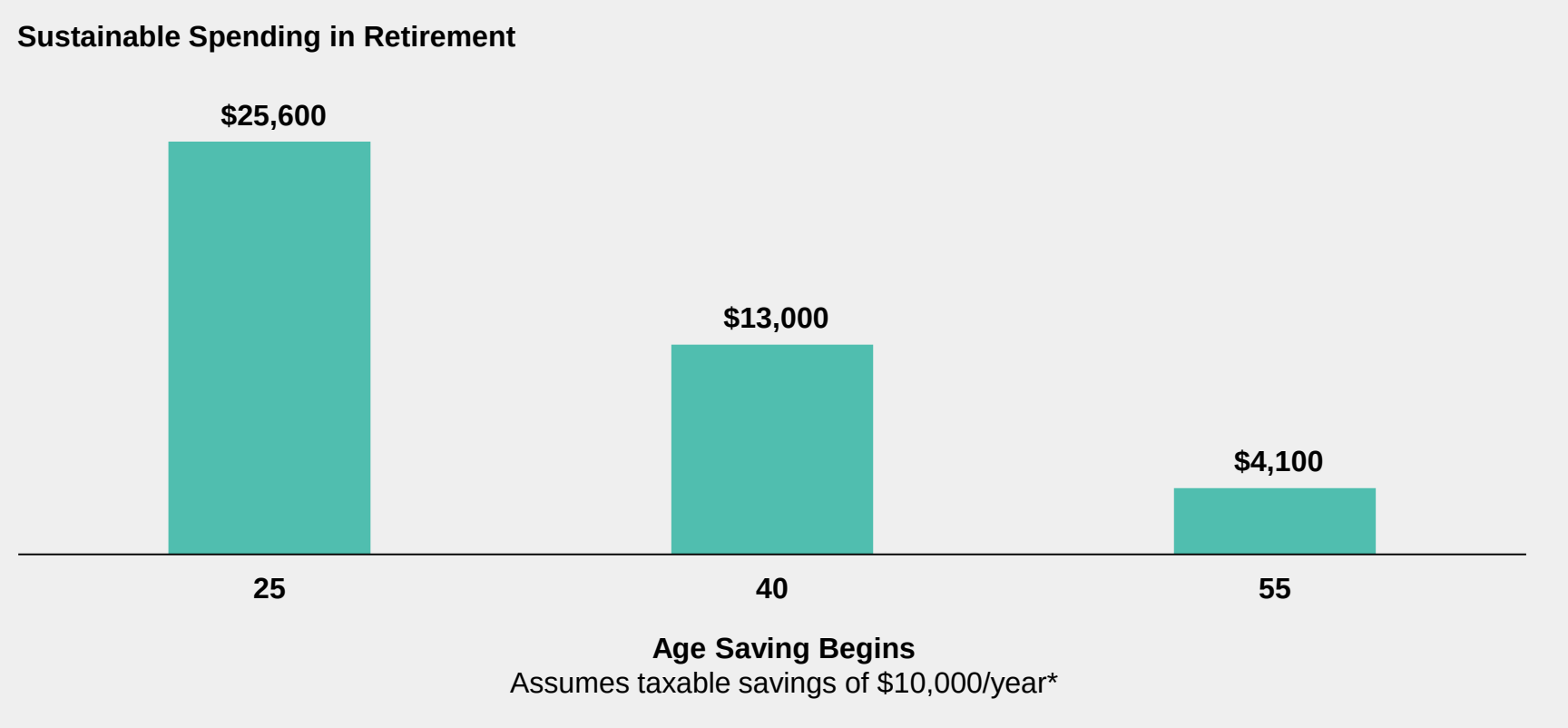
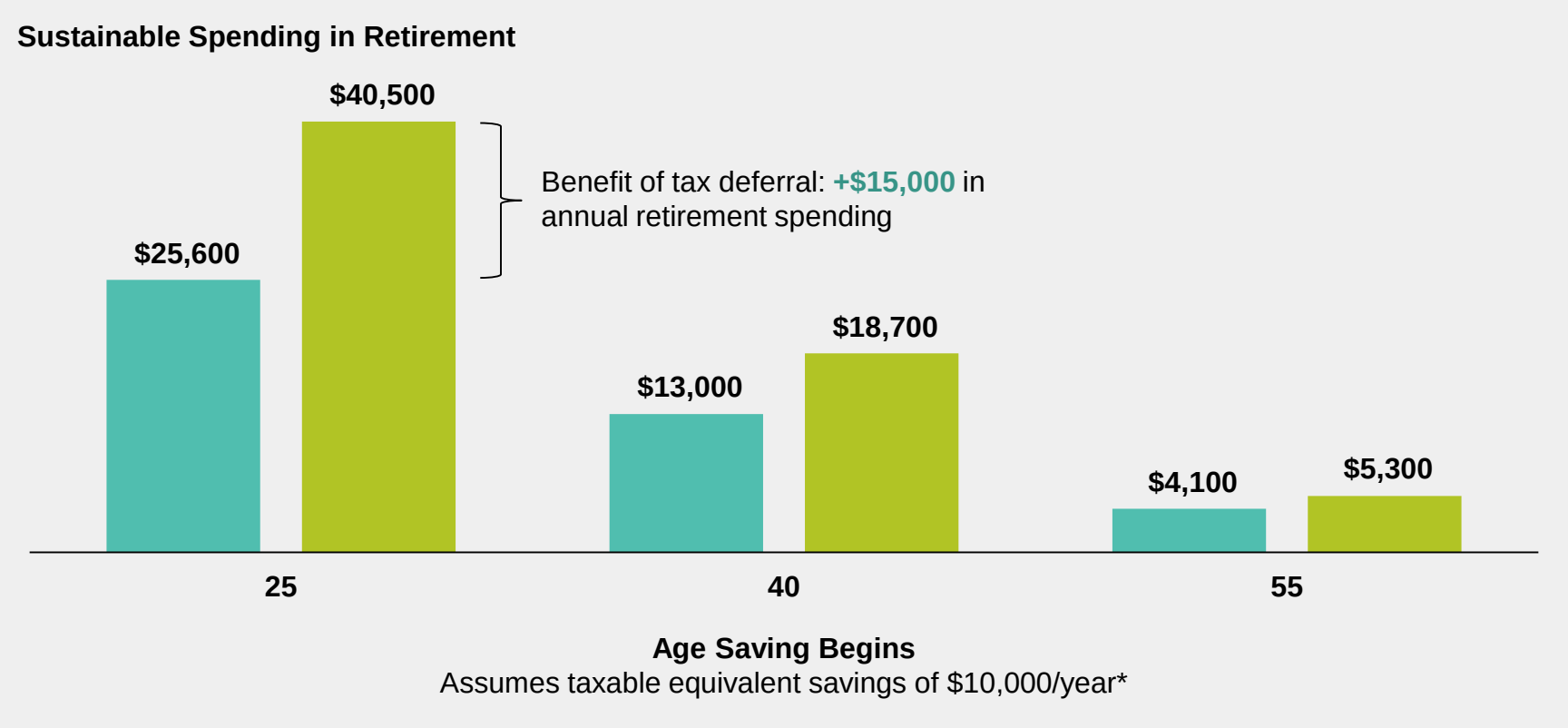
Saving Earlier Can Increase Spending in Retirement



*We assume savings of $10,000/year for taxable accounts, starting at each of the ages listed, and adjusted annually for inflation. Sustainable spending amounts listed are adjusted for inflation and based on the assumption that spending begins at age 65. Assumes allocation is 60% global stocks/40% bonds. Bonds are modeled as intermediate-term diversified municipals in taxable accounts. Tax rate assumptions: federal tax rates—35% earned/ordinary income, and 20% capital gains/qualified dividends; no state or local taxes.

Early Tax-Deferred Saving Can Further Increase Retirement Spending



*We assume savings of $10,000/year for taxable accounts and $15,385/year for tax-deferred accounts, starting at each of the ages listed, and adjusted annually for inflation. Sustainable spending amounts listed are adjusted for inflation and based on the assumption that spending begins at age 65. Assumes allocation is 60% global stocks/40% bonds. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxable bonds in retirement accounts. Tax rate assumptions: federal tax rates—35% earned/ordinary income, and 20% capital gains/qualified dividends; no state or local taxes.

Types of Retirement Savings Plans

	COMMON EMPLOYER-SPONSORED RETIREMENT PLANS		COMMON INDIVIDUAL RETIREMENT ACCOUNTS	
	Traditional 401(k)/403(b)	**Roth 401(k)/ 403(b)**	**Traditional IRA**	**Roth IRA**
Earnings grow tax-deferred?	Yes	Yes, and can be withdrawn tax-free	Yes	Yes, and can be withdrawn tax-free
Contributions reduce taxable income or are deductible?	Yes	No	Maybe*	No
Taxes to pay upon withdrawal?**	Yes	No, if owner > 59½ or Roth held less than five years	Yes	No, if owner > 59½ or Roth held less than five years
Maximum annual contribution for people < 50***	$19,000	$19,000	$6,000	$6,000
Age when required minimum distributions (RMDs) start	At 70½	At 70½	At 70½	None during owner's life
Benefits	**Higher contribution limits May have employer matching of contributions**		**Easy to set up independently**	

*Depends on your household income and whether you or your spouse is covered by an employer plan. See Internal Revenue Service Publication 590-A: https://www.irs.gov/pub/irs-pdf/p590a.pdf.
**With few exceptions, retirement account withdrawals taken before age 59½ will incur a 10% additional penalty tax.
***Maximum contribution amounts adjust with inflation and are announced by the IRS each year. For participants age 50 and older, defined contribution plans allow a "catch-up" contribution of $6,000 per year, and traditional and Roth IRAs allow a "catch-up" contribution of $1,000 per year.
Source: Internal Revenue Service and Bernstein

Building Up Your Credit Score: Factors Which Impact Your Credit

Available Credit (30%)	Total credit limit across all accounts less the total amount owed across all accounts
Payment History (35%)	A record of on-time and late payments made ▪ Late payments, derogatory marks, and defaults hurt credit while on-time payments build credit
Length of History (15%)	Length of time since each account was opened ▪ The longer the time open, the better—so don't close the oldest account
Type of Credit (10%)	Examples: credit cards, mortgages, auto loans, etc.
Number of Inquiries (10%)	Number of times applied for credit

Source: www.creditcards.com, www.creditcards.com/credit-card-news/how-your-fico-credit-score-is-calculated-1270.php

Credit Scores: What the Numbers Mean

	FICO Credit Score		% of People
Exceptional	800–850	Applicants with scores in this range are at the top of the list for the best rates from lenders.	**20%**
Very Good	740–799	Applicants with scores here are likely to receive better-than-average rates from lenders.	**18%**
Good	670–739	Only 8% of applicants in this score range are likely to become seriously delinquent.	**22%**
Fair	580–669	Applicants with scores in this range are considered to be subprime borrowers.	**20%**
Very Poor	300–579	Applicants may have to pay a fee or deposit, and may not be approved for credit at all.	**17%**

Check Your Score Today:

credit karma

nerdwallet

Source: www.experian.com, http://www.experian.com/blogs/ask-experian/credit-education/score-basics/what-is-a-good-credit-score/

Manage Your Debt

Not all debt is bad or unmanageable, but the key is to know what debt is sensible

Make a List

- Loan balances
- Due dates
- Interest rates

Pay off High-Cost Debt First

- Credit card debt is frequently most expensive
- Set time-based goals for reducing loan balances
- Interest on mortgage debt can be tax deductible

Consolidate/Refinance Debt

- Avoid extending loan term
- Avoid high consolidation fees

Notes on Wealth Forecasting System

1. **Purpose and Description of Wealth Forecasting Analysis**
   Bernstein's Wealth Forecasting Analysis is designed to assist investors in making their long-term investment decisions as to their allocation of investments among categories of financial assets. Our planning tool consists of a four-step process: (1) Client-Profile Input: the client's asset allocation, income, expenses, cash withdrawals, tax rate, risk-tolerance level, goals and other factors; (2) Client Scenarios: in effect, questions the client would like our guidance on, which may touch on issues such as when to retire, what his/her cash-flow stream is likely to be, whether his/her portfolio can beat inflation long-term, and how different asset allocations might impact his/her long-term security; (3) The Capital-Markets Engine: our proprietary model that uses our research and historical data to create a vast range of market returns, which takes into account the linkages within and among the capital markets, as well as their unpredictability; and finally (4) A Probability Distribution of Outcomes: based on the assets invested pursuant to the stated asset allocation, 90% of the estimated ranges of returns and asset values the client could expect to experience are represented within the range established by the 5th and 95th percentiles on "box-and-whiskers" graphs. However, outcomes outside this range are expected to occur 10% of the time; thus, the range does not establish the boundaries for all outcomes. Expected market returns on bonds are derived taking into account yield and other criteria. An important assumption is that stocks will, over time, outperform long bonds by a reasonable amount, although this is in no way a certainty. Moreover, actual future results may not meet Bernstein's estimates of the range of market returns, as these results are subject to a variety of economic, market and other variables. Accordingly, the analysis should not be construed as a promise of actual future results, the actual range of future results or the actual probability that these results will be realized. The information provided here is not intended for public use or distribution beyond our private meeting.

Notes on Wealth Forecasting System

2. Modeled Asset Classes

The following assets or indexes were used in this analysis to represent the various model classes:

Asset Class	Modeled As	Annual Turnover
Cash Equivalents	3-month US Treasury bills	100%
Short-Term Treasuries	US Treasuries of 2-year maturity	50%
Short-Term Taxables	Taxable bonds of 2-year maturity	50%
Short-Term Diversified Municipals	AA-rated diversified municipal bonds of 2-year maturity	50%
Int.-Term Treasuries	US Treasuries of 7-year maturity	30%
Int.-Term Taxables	Taxable bonds of 7-year maturity	30%
Int.-Term Corporates	US investment grade corporate debt of 7-year maturity	30%
Int.-Term Diversified Municipals	AA-rated diversified municipal bonds of 7-year maturity	30%
Global Int.-Term Taxables (Hedged)	50% sovereign and 50% investment grade corporate debt of developed countries of 7-year maturity	30%
Int.-Term TIPS	US TIPS of 7-year maturity	30%
High Yield	Taxable bonds of 7-year maturity with credit characteristics of CSFB High Yield Index II	30%
Global Large-Cap (Unhedged)	MSCI World Index (NDR) Index	15%
US Diversified	S&P 500 Index	15%
US Value	S&P/Barra Value Index	15%
US Growth	S&P/Barra Growth Index	15%
US Mid-Cap	Russell Mid-Cap Index	15%
US Small/Mid-Cap	Russell 2500 Index	15%
US Small-Cap	Russell 2000 Index	15%
Developed International	MSCI EAFE Index (Unhedged)	15%
Emerging Markets	MSCI Emerging Markets Index	20%
Global REITs	NAREIT Index	30%
Real Assets	1/3 NAREIT, 1/3 MSCI ACWI Commodity Producer Index, 1/3 DJ-UBS Commodity Futures Index	30%
Diversified Hedge Fund	Diversified Hedge Fund Asset Class	33%

Notes on Wealth Forecasting System

3. Volatility

Volatility is a measure of dispersion of expected returns around the average. The greater the volatility, the more likely it is that returns in any one period will be substantially above or below the expected result. The volatility for each asset class used in this analysis is listed on the Capital-Market Projections page at the end of these Notes. In general, two-thirds of the returns will be within one standard deviation. For example, assuming that stocks are expected to return 8.0% on a compounded basis and the volatility of returns on stocks is 17.0%, in any one year it is likely that two-thirds of the projected returns will be between (8.9)% and 28.8%. With intermediate government bonds, if the expected compound return is assumed to be 5.0% and the volatility is assumed to be 6.0%, two-thirds of the outcomes will typically be between (1.1)% and 11.5%. Bernstein's forecast of volatility is based on historical data and incorporates Bernstein's judgment that the volatility of fixed income assets is different for different time periods.

4. Technical Assumptions

Bernstein's Wealth Forecasting System is based on a number of technical assumptions regarding the future behavior of financial markets. Bernstein's Capital Markets Engine is the module responsible for creating simulations of returns in the capital markets. These simulations are based on inputs that summarize the current condition of the capital markets as of December 31, 2014. Therefore, the first 12-month period of simulated returns represents the period from December 31, 2014, through December 31, 2015, and not necessarily the calendar year of 2015. A description of these technical assumptions is available on request.

5. Expenses and Spending Plans (Withdrawals)

All results are generally shown after applicable taxes and after anticipated withdrawals and/or additions, unless otherwise noted. Liquidations may result in realized gains or losses, which will have capital gains tax implications.

6. Tax Implications

Before making any asset allocation decisions, an investor should review with his/her tax advisor the tax liabilities incurred by the different investment alternatives presented herein, including any capital gains that would be incurred as a result of liquidating all or part of his/her portfolio, retirement-plan distributions, investments in municipal or taxable bonds, etc. Bernstein does not provide tax, legal, or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions.

Notes on Wealth Forecasting System

7. Tax Implications

Before making asset-allocation decisions, an investor should review with his/her tax advisor the tax liabilities incurred by the different investment alternatives presented herein, including any capital gains that would be incurred as a result of liquidating all or part of his/her portfolio, retirement-plan distributions, investments in municipal or taxable bonds, etc. Bernstein does not provide tax, legal or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions.

8. Tax Rates

Bernstein's Wealth Forecasting System has used various assumptions for the income tax rates of investors in the case studies. See the assumptions in each case study (including footnotes) for details. The federal income tax rate is Bernstein's estimate of either the top marginal tax bracket or an "average" rate calculated based upon the marginal rate schedule. For 2014 and beyond, the maximum federal tax rate on investment income is 43.4% and the maximum federal long-term capital-gains tax rate is 23.8%. Federal tax rates are blended with applicable state tax rates by including, among other things, federal deductions for state income and capital-gains taxes. The state tax rate generally represents Bernstein's estimate of the top marginal rate, if applicable.

9. Charitable Remainder Trust

The charitable remainder trust (CRT) is modeled as a tax-planning or estate-planning vehicle that makes an annual payout to the grantors and at the end of its term (the grantors' lifetimes, in this case) transfers any remaining assets as a tax-free gift to a charitable organization. The case study presents a charitable remainder unitrust (CRUT), which makes a payout equal to a fixed percentage of the portfolio's beginning-year value. In the inception year of the CRUT, the grantors receive an income-tax deduction typically equal to the present value of the charitable donation, subject to the applicable adjusted gross income (AGI) limits on charitable deductions and phaseout of itemized deductions. Although the CRT does not pay taxes on its income or capital gains, its payouts are included in the recipients' AGI using the following four accounting tiers: Tier 1: ordinary income (taxable interest/dividends); Tier 2: realized long-term capital gains; Tier 3: other income (tax-exempt interest); and Tier 4: principal. CRTs are required to pay out all current and previously retained Tier 1 income first, all current and previously retained Tier 2 income next, all current and previously retained Tier 3 income next, and Tier 4 income last.

10. Core-Capital Analysis

The term "core capital" means the amount of money necessary to cover anticipated lifetime net spending. All non-core-capital assets are termed "surplus capital." Bernstein estimates core capital by inputting information supplied by the client, including expected future income and spending, into our Wealth Forecasting System, which simulates a vast range of potential market returns over the client's anticipated life span. From these simulations, we develop an estimate of the core capital that the client will require to maintain his/her spending level over time. Variations in actual income, spending, applicable tax rates, life span and market returns may substantially affect the likelihood that a core-capital estimate will be sufficient to provide for future expenses. Accordingly, the estimate should not be construed as a promise of actual future results, the actual range of results or the actual probability that the results will be realized.

Ten-Year Capital Markets Projections: Asset Classes

	Median 10-Year Growth Rate	Mean Annual Return	Mean Annual Income	One-Year Volatility	10-Year Annual Equivalent Volatility
Cash Equivalents	1.1%	1.4%	1.5%	0.4%	4.1%
Short-Term Treasuries	2.0%	2.2%	2.1%	0.9%	3.2%
Short-Term Taxables	2.9%	3.1%	3.2%	1.5%	3.3%
Short-Term Diversified Municipals	2.0%	2.2%	2.0%	1.0%	2.6%
Int.-Term Treasuries	0.5%	0.7%	2.3%	4.9%	3.0%
Int.-Term Taxables	1.3%	1.5%	3.6%	6.1%	3.5%
Int.-Term Corporates	1.8%	2.1%	4.5%	8.3%	4.3%
Int.-Term Diversified Municipals	1.4%	1.5%	2.4%	5.2%	3.2%
Global Int.-Term Taxables (Hedged)	0.9%	1.1%	2.3%	5.3%	3.7%
Int.-Term TIPS	2.2%	2.8%	3.4%	3.8%	7.9%
High Yield	6.6%	7.5%	9.1%	20.6%	8.3%
Global Large-Cap (Unhedged)	7.8%	9.4%	3.1%	25.0%	15.4%
US Diversified	6.9%	8.7%	2.7%	26.2%	16.2%
US Value	7.4%	9.1%	3.1%	25.6%	16.0%
US Growth	6.3%	8.6%	2.3%	29.0%	17.8%
US Mid-Cap	7.1%	9.3%	2.3%	28.5%	18.1%
US Small/Mid-Cap	7.0%	9.4%	2.2%	29.8%	19.1%
US Small-Cap	6.8%	9.7%	2.1%	32.6%	21.3%
Developed International	8.8%	11.2%	4.1%	28.9%	18.0%
Emerging Markets	7.0%	11.8%	4.3%	41.8%	28.0%
Global REITs	7.0%	9.0%	4.3%	27.2%	16.7%
Real Assets	6.8%	8.1%	3.1%	20.5%	15.4%
Diversified Hedge Fund	5.3%	5.7%	1.8%	13.2%	15.1%
Inflation	2.3%	2.7%	n/a	2.2%	6.9%

Based on 10,000 simulated trials each consisting of ten-year periods. Reflects AllianceBernstein's estimates and the capital-market conditions of March 31, 2020. For hedge fund asset classes, "Mean Annual Income" represents income and short-term capital gains.
Data do not represent past performance and are not a promise or a range of future results.

Capital Markets Projections

	Median 20-Year Growth Rate	Mean Annual Return	Mean Annual Income	One-Year Volatility	20-Year Annual Equivalent Volatility
Cash Equivalents	2.5%	2.8%	2.8%	0.3%	7.0%
Short-Term Treasuries	3.4%	3.6%	3.5%	0.7%	6.6%
Short-Term Taxables	3.9%	4.2%	4.3%	1.0%	6.7%
Short-Term Diversified Municipals	2.3%	2.5%	2.4%	0.6%	4.6%
Int.-Term Treasuries	3.2%	3.4%	3.9%	4.2%	5.2%
Int.-Term Taxables	3.5%	3.8%	5.1%	4.6%	5.5%
Int.-Term Corporates	3.8%	4.0%	5.8%	5.5%	5.9%
Int.-Term Diversified Municipals	2.8%	3.0%	3.0%	3.6%	5.2%
Global Int.-Term Taxables (Hedged)	2.8%	3.1%	3.9%	4.0%	6.2%
Int.-Term TIPS	3.1%	3.6%	3.9%	2.9%	11.4%
High Yield	5.2%	6.1%	10.5%	12.5%	9.4%
Global Large-Cap (Unhedged)	7.1%	8.6%	2.7%	15.8%	16.1%
US Diversified	6.5%	8.1%	2.5%	16.4%	16.5%
US Value	6.9%	8.3%	3.0%	16.0%	16.3%
US Growth	6.2%	8.1%	2.0%	18.2%	18.0%
US Mid-Cap	6.8%	8.6%	2.2%	17.9%	18.4%
US Small/Mid-Cap	6.8%	8.8%	2.1%	18.7%	19.2%
US Small-Cap	6.7%	9.1%	2.0%	20.5%	21.1%
Developed International	7.4%	9.4%	3.2%	18.0%	18.0%
Emerging Markets	5.5%	9.3%	3.5%	26.1%	26.5%
Global REITs	6.6%	8.3%	4.3%	16.9%	16.7%
Real Assets	6.1%	7.2%	3.4%	13.1%	15.3%
Diversified Hedge Fund	5.4%	5.9%	2.7%	11.0%	15.3%
Inflation	2.5%	2.9%	n/a	1.1%	8.9%

Based on 10,000 simulated trials each consisting of twenty-year periods. Reflects AllianceBernstein's estimates and the capital-market conditions of December 31, 2014. For hedge fund asset classes, "Mean Annual Income" represents income and short-term capital gains.
Data do not represent past performance and are not a promise or a range of future results.