

**WEALTHVEST NAVIGATE:**  
LONGEVITY  
PARADOX

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## ABOUT THE AUTHORS



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**DREW DOKKEN** attended the University of Denver, graduating with a Bachelor of Science degree in international studies and a minor in economics. He studied abroad in 2012, attending Fudan University in Shanghai, China, during this time. After graduating college in 2013, Drew attended the Career Development Program at Jackson National Life. In 2016, Drew completed his Masters in International Business at Hult University in San Francisco.

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## LONGEVITY PARADOX

# CASE STUDY #1: INVESTOR BEHAVIOR

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American investors substantially lag behind the stock and bond indexes in which they invest. Multiple reasons exist for this, as we detail in this report, but more important than the reasons are the implications, which are sadly clear.

## INVESTOR BEHAVIOR IS A MAJOR SOURCE OF INVESTOR UNDER-PERFORMANCE

If investors' 401(k)s, IRAs or other private savings consistently underperform average stock and bond indices, Americans will be vastly unprepared to fully fund their retirements. This failure to fully fund their retirements will result in longer careers, lower quality of life in retirement, or in the worst case, destitution in their final years—if they completely outlive their savings.

Investors are partly to blame for their own under performance. Many investors are wary of risk, yet in spite of this aversion, investors jump into rising stock markets late and sell out of losing investments late. Like a novice at the Las Vegas poker table, they get fleeced both coming and going.

Bad behavior can often be balanced by good behavior. Eating dessert can be balanced by eating salad and taking a long walk. Drinking too much wine on Saturday can be mitigated by sleeping in and taking aspirin on Sunday. An argument with a spouse can be repaired with an apology and perhaps with some flowers or a loving touch.

Such balancing is not so easy with investments. Bad investor behavior tends to be lifelong. Time is lost, which means money and opportunity are lost, and when that happens, there is a price to pay. We will highlight throughout this paper that increased longevity, coupled with traditional patterns of investor behavior, which cause under-performance in the markets, is a longevity paradox. As our life expectancy increases, faulty investment decisions become more problematic.

In the year 1900, life expectancy in the United States was 48.92 years old<sup>1</sup> and only 4.1% of Americans were 65 years and older.<sup>2</sup> In 2029, when the youngest baby boomer will be 65 years old, *71.4 million people aged 65 and older will be alive, representing roughly 20% of the American population.*<sup>3</sup>

Income taxes paid by working Americans fund American retiree's public pensions, Social Security and Medicare. What does this mean? Well, for starters, it means that there is no magic bag of money waiting for retirees. Today's workers are paying for today's retirees. When today's workers retire, younger workers will have to pay the payroll taxes that are necessary to fund the retirement benefits.

As life expectancies have increased, so has the proportion of the population who are retired. This means a relatively small proportion of America's total population will end up funding the retirement of a historically significant retirement population. The wealth required to support America's over-65 age cohort must come from current workers.

In 1940, the ratio of workers to beneficiaries was 159.4:1, and as beneficiaries have left the workforce with the maturation of Social Security, the ratio has continued to decline, in 2013, it reached a ratio of 2.8:1.<sup>4</sup> The math is fairly simple. Either benefits must go down, or payroll taxes must go up.

When the first baby boomers were born, the life expectancy for a man was 64.4 years, and the life expectancy for a woman was 69.4 years.<sup>5</sup> Today, a couple should expect at least one member to live to age 89.<sup>6</sup> Additionally, there is a 25% probability that at least one member of a couple will live into their 90's. This is a far cry from 1900, when a newborn baby boy had a life expectancy less than 50 years.<sup>7</sup>

1. "Life Expectancy at Birth." Gapminder. Accessed October 23, 2019. <https://www.gapminder.org/data/documentation/gd004/>.

2. Werner, Carrie A. *The Older Population: 2010*, The Older Population: 2010 § (2011). <https://www.census.gov/content/dam/Census/library/publications/2011/dec/c2010br-09.pdf>

3. Pollard, Kelvin M., and Paola Scommegna. "Just How Many Baby Boomers Are There?" Population Reference Bureau, April 16, 2014. <https://www.prb.org/justhowmanybabyboomersarethere/>

4. "Social Security." Social Security History. Accessed October 25, 2019. <https://www.ssa.gov/history/ratios.html>

5. Life expectancy in the USA, 1900-98. Accessed October 25, 2019. <https://u.demog.berkeley.edu/~andrew/1918/figure2.html>.

6. "Mortality Improvement Scale MP-2017." SOA. Accessed October 25, 2019. <https://www.soa.org/resources/experience-studies/2017/mortality-improvement-scale-mp-2017/>.

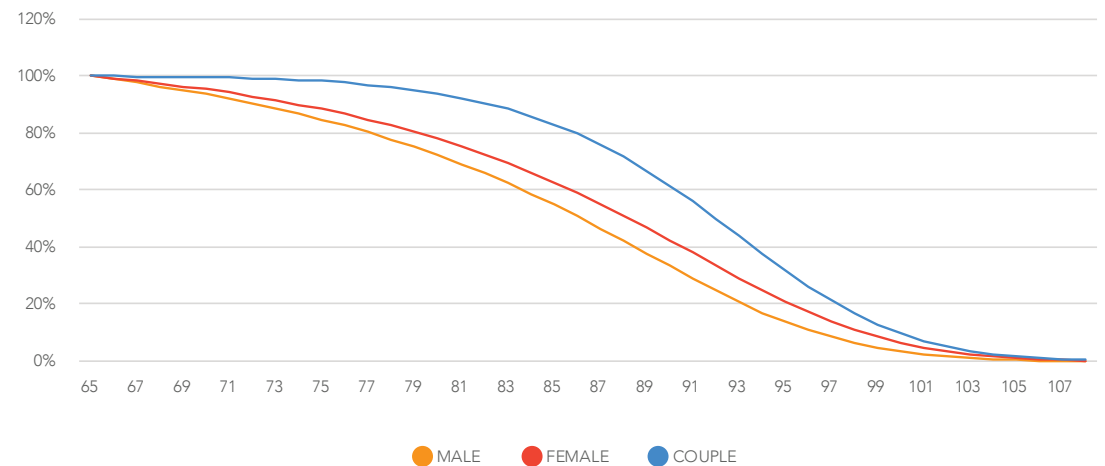
7. Bell, Felicite C, and Michael L Miller. United States. Social Security Administration. Office of the Chief Actuary. *Life Tables for the United States Social Security Area 1900-2100*, United

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## LIFE EXPECTANCY<sup>6</sup>: MALE VS. FEMALE VS. JOINT

This revolution in longevity is not unique to the United States—in fact, it is 28th worldwide in longevity. Greater distribution of medicine, reduced violence, more sophisticated farming, and increased globalization of wealth have all contributed to this dramatic and rapid increase in life expectancy. Most of this dramatic change has taken place within the past 120 years.

Life Expectancy Male Vs Female Vs Couple

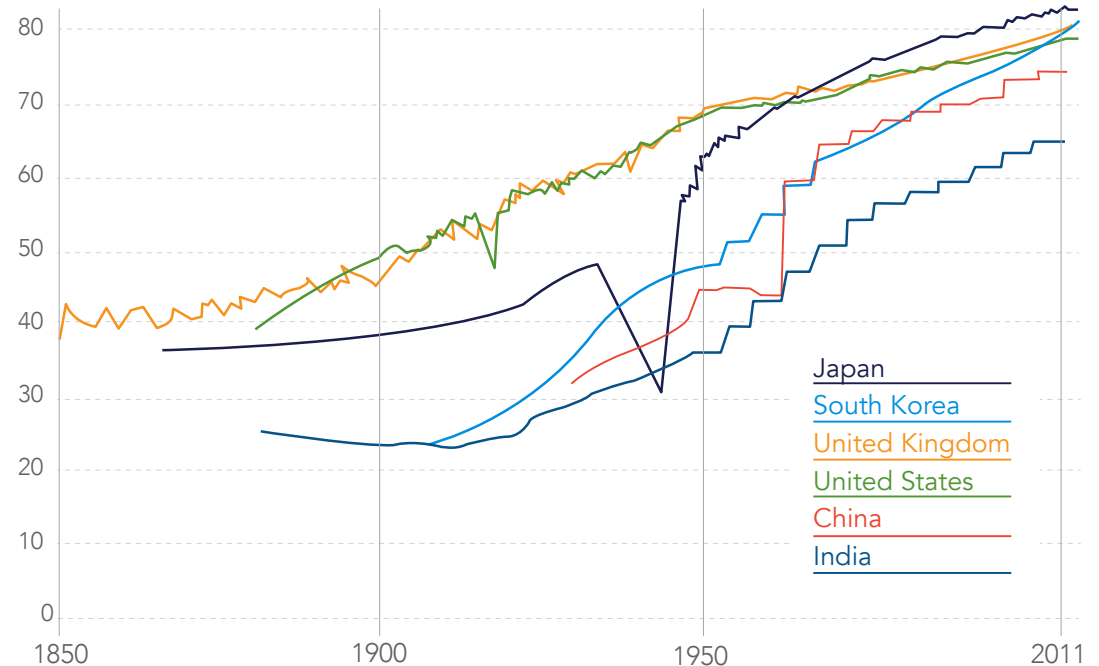


## LIFE EXPECTANCY<sup>8</sup>:

Shown in the graph on the right, is the average period life expectancy at birth. This corresponds to an estimate of the average number of years a newborn infant born in that country would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

The dynamic of life expectancy increasing over ones lifespan is referred to as the longevity paradox. Americans are living profoundly longer, but their productive years—the time when, like a bear fattening up to prepare for hibernation, people store up savings to get through retirement—are not growing at a rate commensurate to that of their retirement years. The savings years, in fact, are little changed. At the beginning of the 20th century, the typical work years ranged from roughly 18 to 60. Today, they are from roughly 22 to 67.

Again, in 1900, the retirement period lasted, on average, minus 5 years (as half of the population did not reach age 65); compare that figure to today's average of 20 years (which can potentially stretch to 35–40 years). Americans have progressed from largely not having a retirement to spending their working years squirreling away savings to prepare for retirement. This means that both the savings years and the retirement-income years must be handled very carefully.



States. Social Security Administration. Office of the Chief Actuary. Life Tables for the United States Social Security Area 1900-2100 § (2005).

8. "Life Expectancy" – What Does This Actually Mean?" Our World in Data. Accessed February 22, 2019. <https://ourworldindata.org/life-expectancy>

America is counting on savings rates from individual retirement accounts, 401(k)s, and other private pensions to act as bulwarks against the demographic entitlement-program tidal wave and against greater life expectancy. However, investor behavior is consistently damaging the potential of individual savings accounts, as investment returns are lagging behind the opportunities available in stocks and bonds.

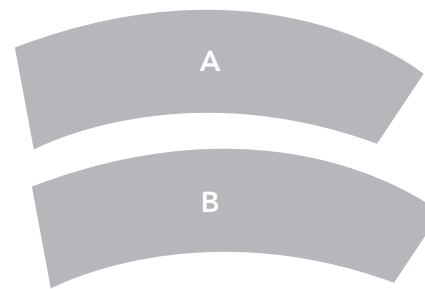
Americans must address the longevity paradox comprehensively. As a nation, America must improve its economic productivity. The cost of health care must come down. The tax code and public sentiment must change to increase public and private savings. The entitlement strains of a burgeoning population of centenarians will be difficult to remedy. Public policy must find an equilibrium between the cost of public pensions and public health care on the one hand, and payroll taxes to support these programs on the other. America must reinvent work for the post-65 population segment to retain this group's experience and intelligence while simultaneously delaying the costs of public support.

Many economic, cultural, fiscal, and public policy issues remain, but America first must address a most pressing issue: investigating how investment behaviors impact Americans' investment performances—particularly during retirement—and determining what Americans can do to improve their risk-adjusted investment performances.

If investors increase their performance by just 1-2%, that would have a dramatic impact on retirement funds' potential shortfalls and help alleviate one negative implication of the longevity paradox.

## YOU DO NOT HAVE TO MAKE PERFECT DECISIONS TO HAVE A COMFORTABLE RETIREMENT. **WHAT DO YOU THINK?**

**1** Which shape is longer?



**2** A Rolls Royce and a Ferrari together cost \$190,000. The Rolls Royce costs \$100,000 more than the Ferrari does. How much does the Ferrari cost?

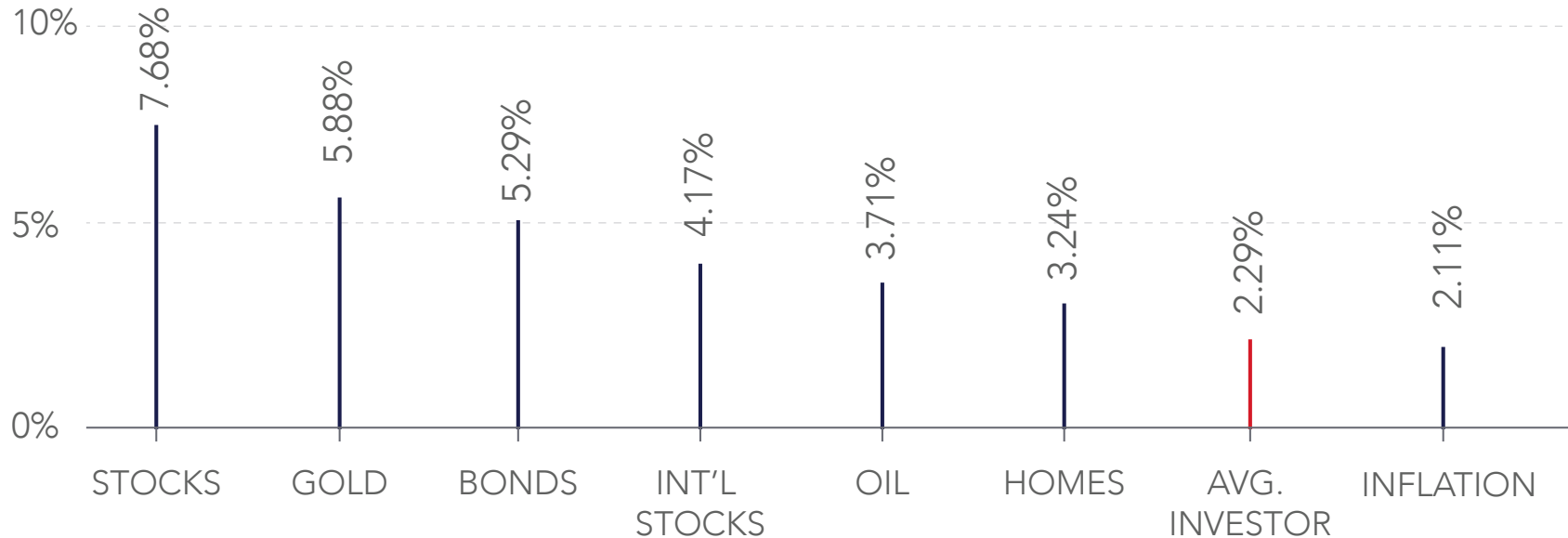
**3** Think of the investment that has performed best for you. Who selected it?

**4** A Rolls Royce and a Ford together cost \$190,000. The Rolls Royce costs \$100,000 more than the Ford does. How much does the Ford cost?

*By reading this report, you can learn more about the types of mistakes that can hurt investment performance. The answers to the quiz above can be found on page 16.*

## HOW THE **AVERAGE INVESTOR**<sup>9</sup> STACKS UP

The average investor underperforms 20-Year annualized returns by asset class (1997-2016)



9. BLACKROCK. Investing and Emotions. 2016. [http://www.franklyfinancial.com/wp-content/uploads/BR\\_Investing.pdf](http://www.franklyfinancial.com/wp-content/uploads/BR_Investing.pdf)

Sources: BlackRock; Bloomberg; Informa Investment Solutions; Dalbar. Past performance is no guarantee of future results. It is not possible to directly invest in an index. Oil is represented by the change in price of the NYMEX Light Sweet Crude Future contract. Contract size is 1,000 barrels with a contract price quoted in U.S. Dollars and Cents per barrel. Delivery dates take place every month of the year. Gold is represented by the change in the spot price of gold in USD per ounce.

Homes are represented by the National Association of Realtors' (NAR) Existing One Family Home Sales Median Price Index. Stocks are represented by the S&P 500 Index, an unmanaged index that consists of the common stock of 500 large capitalization companies, within various industrial sectors, most of which are listed on the New York Stock Exchange. Bonds are represented by the BBG Barclay U.S. Aggregate Bond Index, an unmanaged market-weighted index that consists of investment-grade corporate bonds (rated BBB or better), mortgages and U.S. Treasury and government agency issues with at least 1 year to maturity. International Stocks are represented by the MSCI EAFE Index, a broad-based measure of international stock performance. Inflation is represented by the Consumer Price Index. Average Investor is represented by Dalbar's average asset allocation investor return, which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Returns are annualized (and total return where applicable) and represent the 20-year period ending 12/31/16 to match Dalbar's most recent analysis.

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## HALF OF INVESTORS HAVE BELOW-AVERAGE RETURNS

Investors have a problem: Their returns tend to be below market averages. This problem is not at the top of their minds when the markets are moving higher, but it never disappears. Likewise, when the market is down, investors returns tend to be worse than the index they are tracking. For instance, during 2018, the average equity investor lost -9.42%, whereas the S&P 500® lost -4.38%.

Over a long period of time, investor under-performance really begins to compound. Looking back at the 20 years through December 31, 2018, the Standard & Poor's 500® Index delivered an average annual return of 5.62%, whereas the average equity fund investor had a return of 3.88%.<sup>10</sup>

	Average Equity Fund Investor	Average Fixed Income Fund Investor	Average Asset Allocation Fund Investor	S&P 500®	Bloomberg Barclays Aggregate Bond Index	Inflation
20 YEAR	3.88%	0.22%	1.87%	5.62%	4.55%	2.17%
10 YEAR	9.66%	0.70%	4.53%	13.12%	3.48%	1.82%
5 YEAR	3.96%	-0.40%	1.50%	8.49%	2.52%	1.56%
3 YEAR	5.58%	-0.11%	1.84%	9.26%	2.06%	2.04%
12 MONTH	-9.42%	-2.84%	-6.97%	-4.38%	0.01%	1.93%

Returns are for the period ending December 31, 2018. Average equity investor, average bond investor and average asset allocation investor performance results are calculated using data supplied by the Investment Company Institute. Investor returns are represented by the change in total 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. After calculating investor returns in dollar terms, two percentages are calculated for the period examined: Total investor return rate and annualized investor return rate. Total return rate is determined by calculating investor return dollars as a percentage of the net of sales, redemptions and exchanges for each period.

10. "Quantitative Analysis of Investor Behavior." Dalbar, 2019. [www.dalbar.com](http://www.dalbar.com).

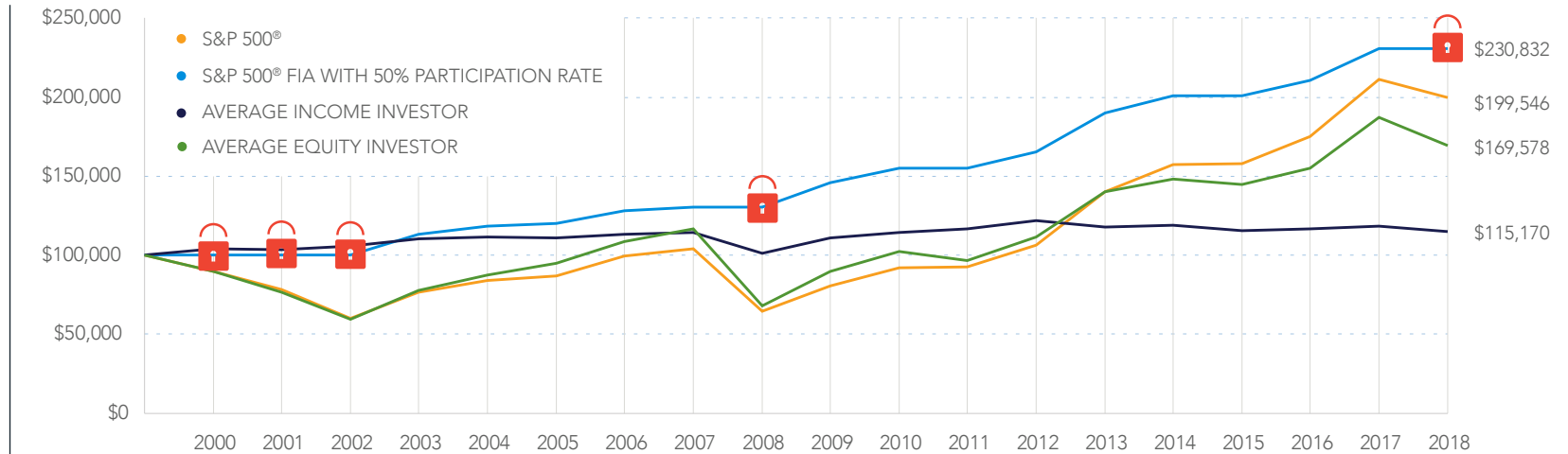


## LOCKS IN INTEREST CREDITS DURING MARKET DECLINES

### DID YOU KNOW?

Fixed index annuities do not have a memory past one year, so interest credits are locked in during market declines. This allows the fixed index annuity account value to remain level during declines and gain on subsequent increases, regardless if the high watermark has been reached.

HOW FIXED INDEX ANNUITIES PERFORM THIS CENTURY



These hypothetical examples are intended to illustrate how index fluctuations might affect your contract values based on the selected crediting methods. They are not intended to show past or future results. The hypothetical products were purchased at the market close on 12/31/1999 and the initial premiums and the hypothetical investment amounts in the S&P 500® were \$100,000. The depiction assumes no withdrawals or additional premiums or principal were added during the 19-year period ending 12/31/2018. Index returns for a given year have been calculated by comparing the adjusted close from the last trade day of the preceding year with the adjusted close from the last trade day of the given year. For example, the return for 2003 is calculated using the adjusted close of the index on 12/31/2002 and the adjusted close of the index on 12/31/2003.

The S&P 500® returns shown include dividends. Annual returns were modeled using ticker symbol (^SP500TR).

The S&P 500® returns shown are net of assumed management fees. The annual assumed management fee used within the model was 1.14% and is based on a summation of the annual average fee for households with managed assets of \$1 million to \$1.5 million in 2018 of 1.06% and the average equity index mutual fund average fee of 0.08%. This fee data was gathered from McKinsey & Company and ICI Research, respectively.

The returns for the participation rate and cap rate crediting methods were calculated using the S&P 500® return for a given year, excluding dividends and fees. This was done to mimic how fixed index annuity interest credits are calculated in the real world. These returns were modeled using quotes from ticker symbol (^GSPC). All data used was from Yahoo! Finance.

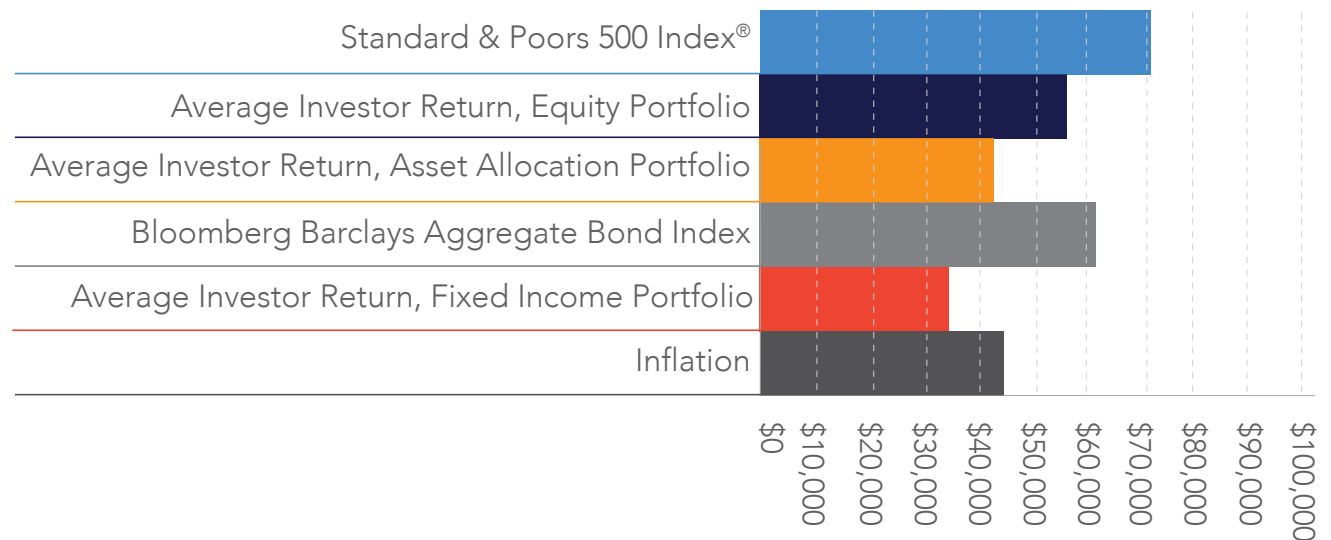
Average equity investor and average fixed income investor are based on a DALBAR study (see source 10), "Quantitative Analysis of Investor Behavior (QAIB), 2019." DALBAR is an independent, Boston-based financial research firm. Using monthly fund data supplied by the Investment Company Institute, QAIB calculates investor returns as the change in 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. After calculating investor returns in dollar terms, two percentages are calculated for the period examined: Total investor return rate and annualized investor return rate. Total return rate is determined by calculating the investor return dollars as a percentage of the net of the sales, redemptions, and exchanges for the period.

Equity benchmark performance and systematic equity investing examples are represented by the Standard & Poor's 500 Composite Index, an unmanaged index of 500 common stocks generally considered representative of the U.S. stock market. Indexes do not take into account the fees and expenses associated with investing, and individuals cannot invest directly in any index. Past performance cannot guarantee future results.

Bond benchmark performance and systematic bond investing examples are represented by the Barclays Aggregate Bond Index, an unmanaged index of bonds generally considered representative of the bond market. Indexes do not take into account the fees and expenses associated with investing, and individuals cannot invest directly in any index. Past performance cannot guarantee future results.

## RETIREMENT SAVINGS ACCUMULATED OVER A 20-YEAR PERIOD, **BASED ON AVERAGE INVESTOR RETURNS**

This performance gap suggests that investors will have less money at retirement than they anticipate if they calculate their returns based on benchmark averages. For example, an investor who starts with \$10,000 and adds \$1,200 each year might expect to have roughly \$70,000 after 20 years of saving and investing in stocks based on S&P 500® returns. In reality, that investor may have accumulated far less.



(\$10,000 initial investment with \$1,200 added each year)

*These returns were calculated using the Dalbar 20-year averages, for each respective asset class.*

Coming up short on retirement savings can cause investors to have to:

- **work until a later age,**
- **lower their standard of living during retirement, or**
- **outlive their savings.**

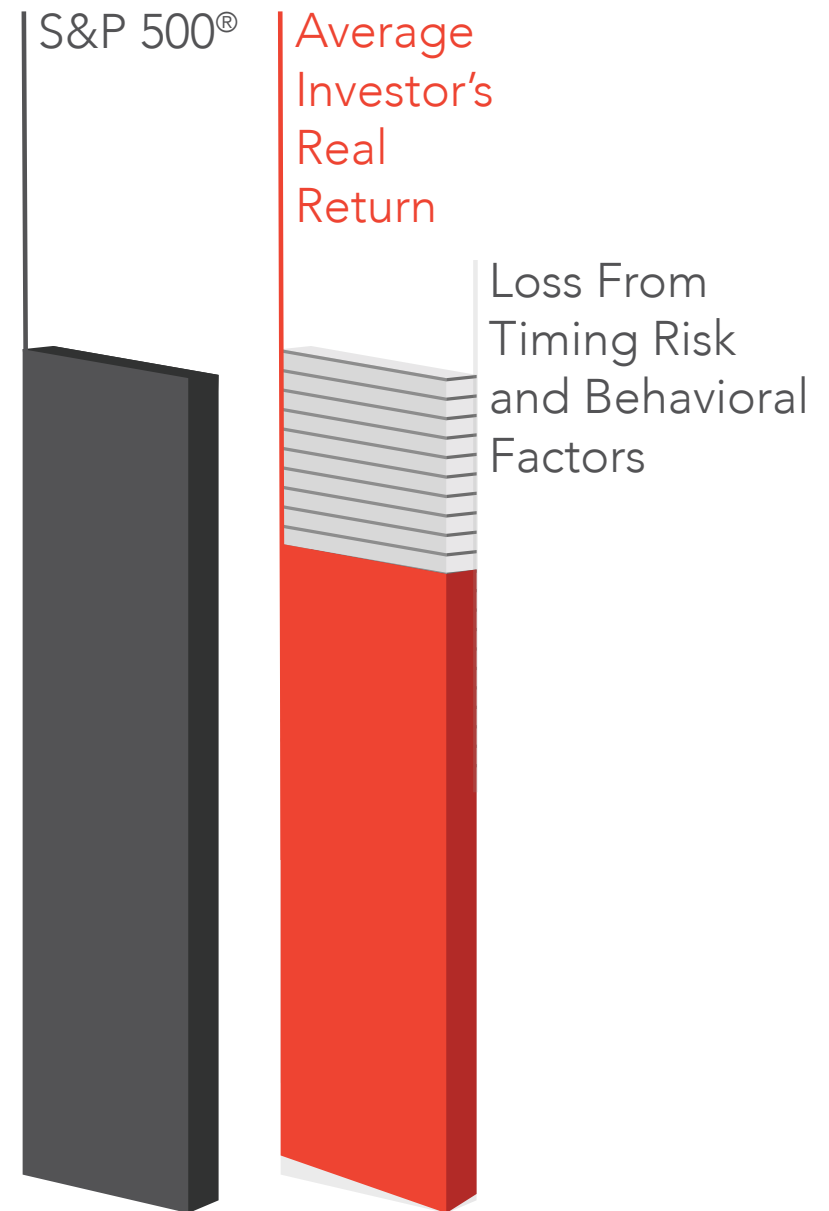
As you read on, you will learn about some of the reasons for investors' underperformance and about the investment behaviors that hurt performance, according to experts. You will also discover an idea about how to improve returns over time.

## WHY DO INVESTORS **UNDERPERFORM?**

This question has intrigued researchers and analysts for a long time. As it turns out, the performance of investors' portfolios lag behind indices for many reasons, including

- **cash-flow issues,**
- **poorly timed distributions,**
- **investment expenses, and**
- **investor behavior.**

Each of these plays a role in investment performance, but many experts agree that one issue—investor behavior—contributes more to underperformance than any other issue. Specifically, investors often do not act rationally.



## INVESTORS DO NOT ALWAYS MAKE **SOUND DECISIONS**

Many economic and investment theories were built on the idea that people act rationally at all times. Economic theory was developed around “Homo economicus,” or the “economic man”—the infinitely rational human being who assesses probabilities and incorporates new information before determining the best course of action.

Surprisingly, the idea that people do not always act rationally did not gain a foothold in mainstream economics until the 1970s. Daniel Kahneman and Amos Tversky challenged the idea that people are always rational:

*“In making predictions and judgments under uncertainty, people do not appear to follow the calculus of chance or the statistical theory of prediction. Instead, they rely on a limited number of heuristics which sometimes yield reasonable judgments and sometimes lead to severe and systematic errors.”<sup>11</sup>*

“

### WHAT ARE HEURISTICS?

Heuristics are techniques or assumptions that people use to learn, discover, and solve problems.

Over time, it has become abundantly clear that investors’ decisions are not always grounded in logic or reason. Investors’ thoughts and actions reflect investor biases (the heuristics that investors rely on). Many investors use mental shortcuts that lead them to behave in specific ways. These shortcuts sometimes facilitate rational decision-making but sometimes do not. Investors may also have emotional biases that inspire them to take action based on feelings rather than judgments.

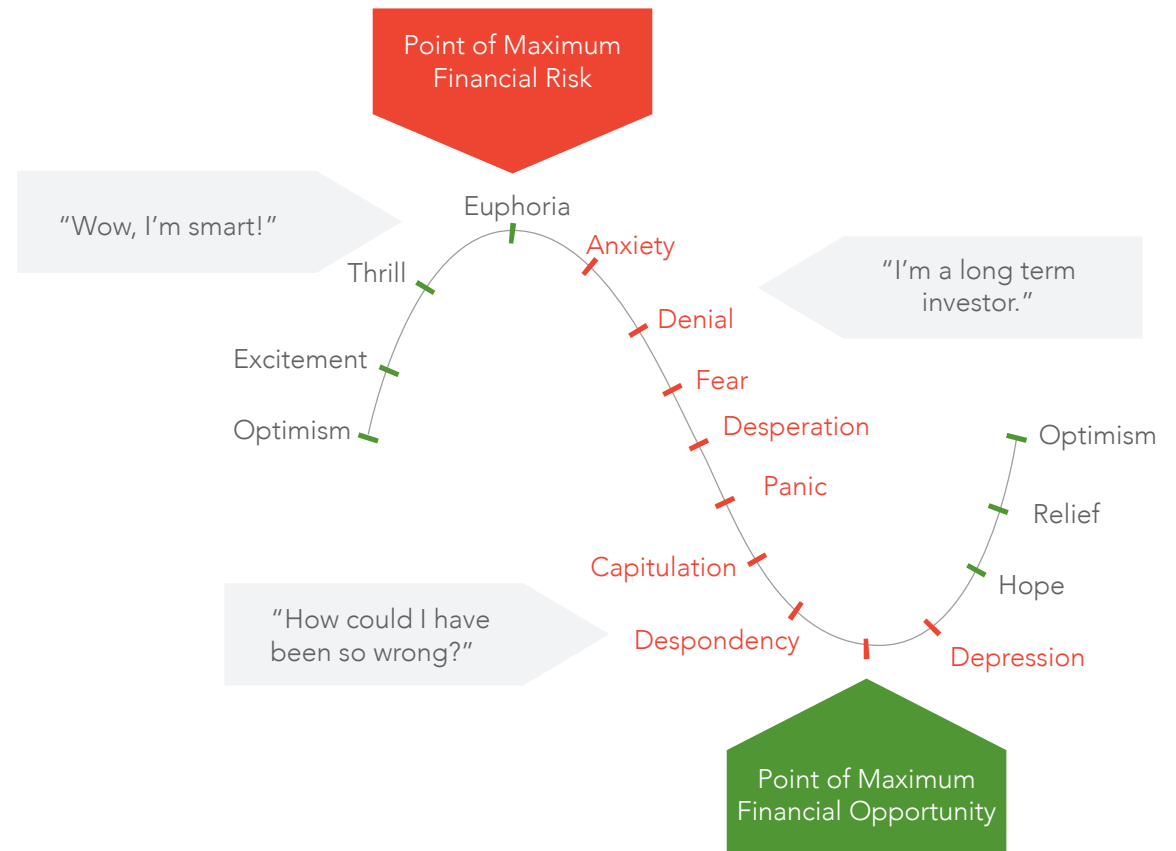
For example, the No. 1 rule for investing is the adage, “Buy low and sell high.” Investors commonly take the opposite approach. Many investors buy high (after stock prices have increased) and sell low (after stock prices have fallen), as the chart “Do Emotions Lead You Astray” shows on page 15. This is an example of emotional bias. When markets gain value, investors are optimistic about future gains, so they buy. When share prices fall, investors become pessimistic about future gains, so they sell.

11. Kahneman, Daniel. Tversky, Amos. *On The Psychology Of Prediction. Psychological Review. Vol. 80, No. 4. July 1973. Page 237.*

## THE SMALL INVESTOR INVESTMENT BEHAVIOR ROLLER COASTER

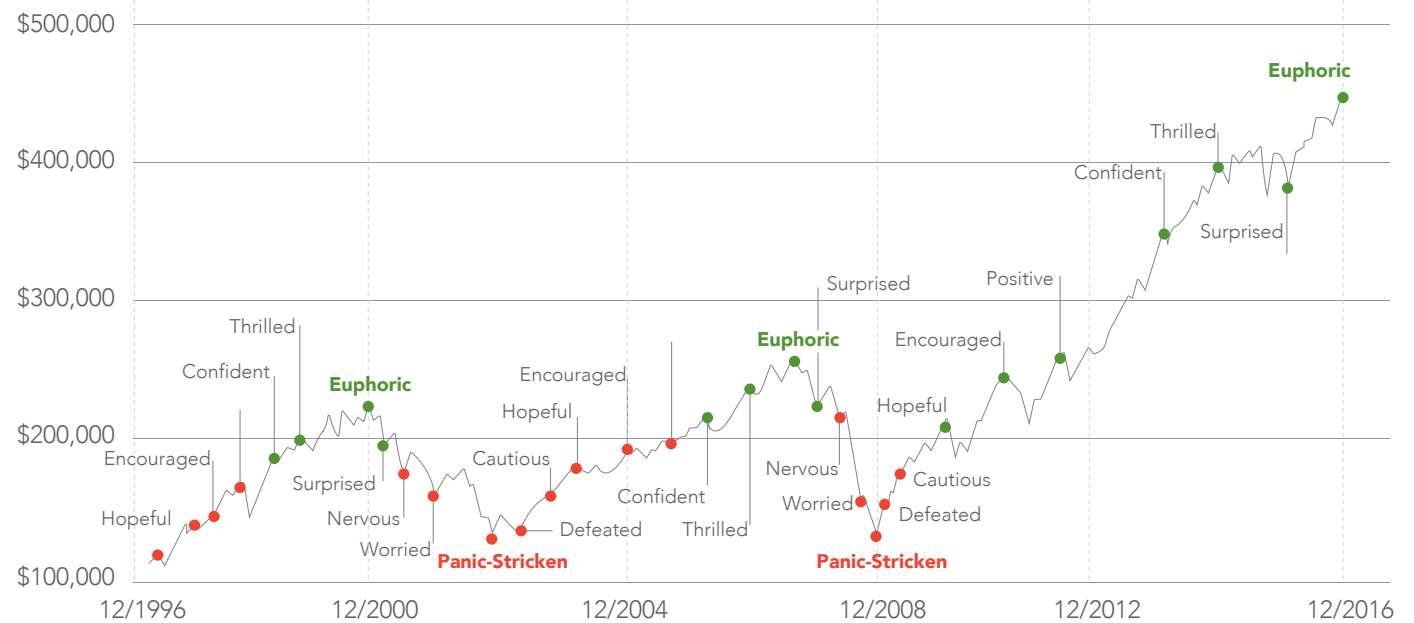
Another adage on Wall Street is that one should never follow small investors. Often these small investors watch a stock (or a fund, or the market, or any investment) go up for an extended period of time, and then, when all value has been lost (because prices are too high), they buy, as the run-up has convinced them that the investment is a good purchase. Conversely, they are slow to sell and suffer most of the losses in a decline, as they wait for the recovery before selling. As a stock, mutual fund or any other stock-based investment declines with the market, small investors determine that they can only sell when there is a recovery (i.e., when the stock goes back up). This does not address the individual small investor's real tolerance for losses and can result in lower long-term average returns.

The humorous "Small Investor Investment Behavior Roller Coaster" chart deftly explains the travails of the individual investor.



# DO YOUR EMOTIONS LEAD YOU ASTRAY?<sup>9</sup>

Growth of a hypothetical \$100,000 investment in the S&P 500® index over a span of 20 years (1997-2016)



Sources: BlackRock; Informa Investment Solutions. Emotions are hypothetical and for illustrative purposes only. The S&P 500 Index is an unmanaged index that consists of the common stock of 500 large-capitalization companies, within various industrial sectors, most of which are listed on the New York Stock Exchange. Returns assume reinvestment of dividends. It is not possible to invest directly in an index. Past performance is no guarantee of future results. The information provided is for illustrative purposes only.

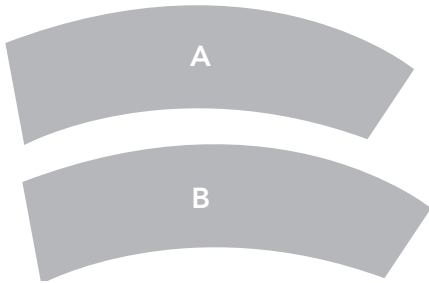
## WHAT DO YOU THINK? QUIZ ANSWERS

As you review these, try to identify the type of bias that may have affected your answer.

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**1** Which shape is longer?

Neither. The shapes are exactly the same length. This is called the Jastrow illusion.<sup>12</sup>



**2** A Rolls Royce and a Ferrari together cost \$190,000. The Rolls Royce costs \$100,000 more than the Ferrari does. How much does the Ferrari cost?

Many people will answer \$90,000. However, the Ferrari costs \$45,000.

**3** Think of the investment that has performed best for you. Who selected it?

“The Folklore of Finance” suggests that 59% of Americans who answer the question will say they were responsible for their best investments.<sup>13</sup>

**4** A Rolls Royce and a Ford together cost \$190,000. The Rolls Royce costs \$100,000 more than the Ford does. How much does the Ford cost?

The Ford costs \$45,000. If you answered question two incorrectly and this question correctly, it is because the idea that a Ford would cost \$90,000 conflicts with what you know, causing your critical thinking to kick in.<sup>14</sup>

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12. New World Encyclopedia, Jastrow Illusion, cited December 23, 2017. [http://www.newworldencyclopedia.org/entry/Jastrow\\_illusion](http://www.newworldencyclopedia.org/entry/Jastrow_illusion)

13. Folklore of Finance: How Beliefs and Behaviors Sabotage Success in the Investment Management Industry. U.S. Regional Snapshot. Page 2. State Street Center for Applied Research. December 2014 <http://www.statestreet.com/ideas/articles/folklore-of-finance.html>

14. Trémolière, Bastien. De Neys, Wim. ‘When intuitions are helpful: Prior beliefs cansupport reasoning in the bat-and-ball problem.’ *Journal of Cognitive Psychology*, 26:4, Pps. 486-490, March 21, 2014.



## COMMON REASONS FOR POOR **DECISION-MAKING**

People make decisions every day. Often, these are instinctive decisions; this type of decision-making can be useful when one is avoiding a poorly driven car, touching a hot pan, or driving off a tee, but it can also lead to trouble. When it comes to investing, instinct can lead investors astray. Thus, carefully considered decisions are the better option.

One way in which investors can reduce the influence of instinct is to be aware of it. When individuals recognize what they are doing, they may be able to avoid it; this can improve decision-making. Here are a few examples of biases that people have.



### 1. LOSS AVERSION:

Research has shown that investors are far more emotionally affected by losses than gains. As Kahneman and Tversky wrote, “Analysis suggests that a person who has not made peace with his losses is likely to accept gambles that would be unacceptable to him otherwise.”<sup>15</sup>

A classic example of this is when portfolio managers or individual investors hold on to stocks that are losing value. They do this with the hope that the shares will regain lost ground and that the investment will break even.<sup>16</sup>



### 2. ANCHORING:

People often rely on the first piece of information they receive when making complex decisions. For example, car dealers post sticker prices that are often far higher than the values of the cars. This tactic is effective because buyers naturally anchor themselves to the first numbers they see; in this case, they believe that they have won when salespeople eventually give lower prices—even if those prices are still far above the cars’ values.

Investors may decide that a stock is undervalued or overvalued because its share price was previously much higher or much lower, respectively. However, prior prices have little bearing on the current share prices.



### 3. CONFIRMATION BIAS:

Investors, and humans generally, tend to collect and rely on information that supports their ideas and hypotheses. Investors also tend to discount information that might prove their ideas and hypotheses wrong. In other words, investors are so interested in being right that they forget to think critically.

15. Kahneman, Daniel. Tversky, Amos. *Choices, Values, and Frames*. Cambridge University Press. 2000. Page 41.

16. Zuckerman, David. *The Emotional Pitfalls of Selling*. FPA.com. May 21, 2012. [<http://www.plannersearch.org/financial-planning/the-emotional-pitfalls-of-selling-stocks>]

For instance, imagine that an investor has owned shares of a company for many years. The investor buys this company's products and strongly recommends them to others. The investor may be inclined to read news accounts that support the idea that the company is performing well and to ignore accounts that indicate that the company's new management has made poor decisions, negatively affecting sales. Instead of selling the stock, the investor may hold onto it even as the price drops, simply because the investor is convinced that it will rebound.



#### 4. OVERCONFIDENCE BIAS:

Name one of your strengths. If your answer was “driving,” you are not alone. Ninety-three percent of Americans think they are above-average drivers. Of course, only 50% can be above average. People regularly overestimate their knowledge. A profound gap exists between what they know and what they think they know—and experts are more vulnerable to overconfidence than laypeople are!<sup>17</sup>

In 1998, Professor Terence Odean from the University of California, Berkeley, observed that overconfident traders believe that they are better than other people when it comes to selecting stocks and deciding when to enter and exit markets. Their overconfidence resulted in higher trading volumes and lower returns than those of market indices.<sup>18</sup>



#### 5. SELF-ATTRIBUTION BIAS:

When people succeed, they tend to credit their own talents and abilities. When they fail, they blame factors beyond their control. Students who get A's credit their hard work, whereas students who receive C's may blame their grades on a teacher, on personal time constraints or on the difficulty of the material.

A study of individual investors found that “The higher the returns in a previous period are, the more investors agree with a statement claiming that their recent performance accurately reflects their investment skills (and vice versa).”<sup>19</sup>

Although everyone is susceptible to cognitive and emotional biases, it is possible to counteract them. For instance, Warren Buffet avoids confirmation bias by entertaining ideas that contradict his own.

17. Odean, Terrance. Volume, Volatility, Price, and Profit When All Traders Are Above Average. *The Journal of Finance*. Vol. LIII, No. 6, December 1998.

18. Daniel, Kent. Hirshleifer, David. Overconfident Investors, Predictable Returns, and Excessive Trading. *Journal of Economic Perspectives*. Volume 29, Number 4. Fall 2015. Page 62.

19. Hoffmann, Arvid O.I. Post, Thomas. Self-attribution bias in consumer financial decision-making: How investment returns affect individuals' belief in skill. *Journal of Behavioral and Experimental Economics*. Volume 52, October 2014, Pages 23–28. [<http://www.sciencedirect.com/science/article/pii/S2214804314000597>]

## IMPROVING INVESTOR BEHAVIOR

Get off the roller coaster of fear and greed. Know your real risk tolerance and invest accordingly.

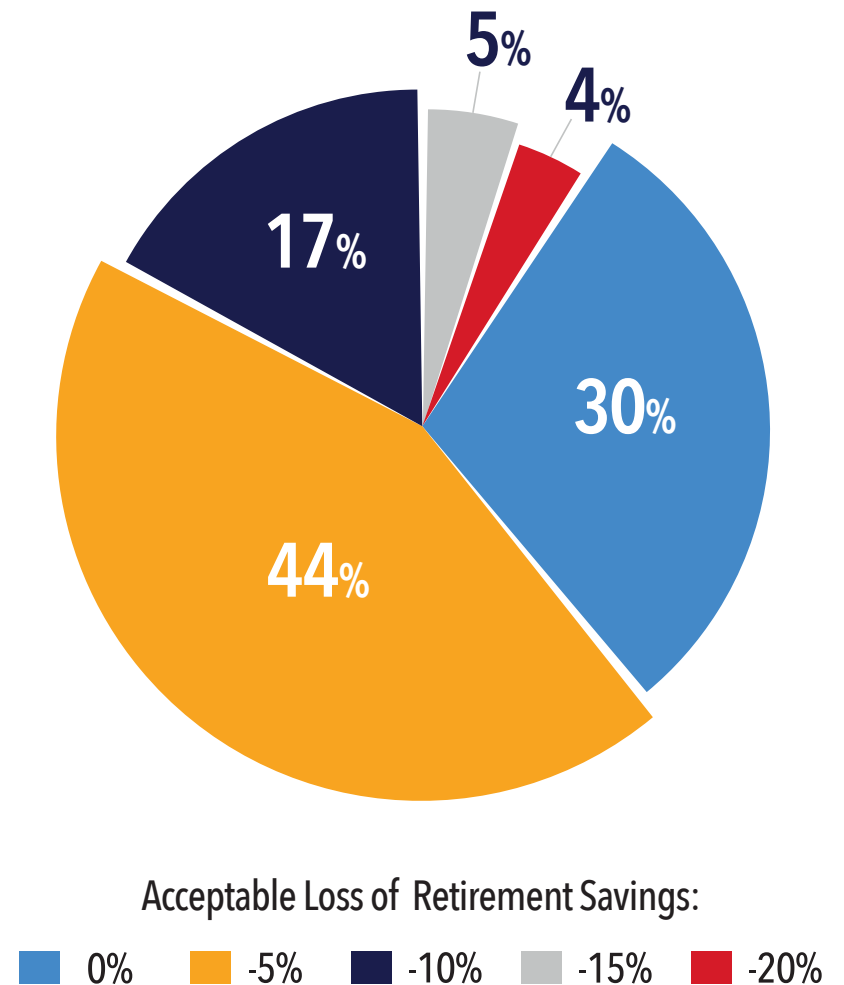
Various methods exist for avoiding emotion and improving confidence in retirement.

If you are not eager to work into your 70s, and you do not want to risk running out of money before you retire, you may want to consider the benefits of investments that protect your principal value from loss. A majority of investors are uncomfortable with 5% or greater risk to their principal; therefore, a majority of investor retirement funds should be free from principal loss.

The heart of the investment behavior conundrum is that investors take excessive risks. Investors must match their personal risk tolerances to the risk of their investments. A national study of investors found that over 74% of investors want no more than 5% risk to their retirement savings and that 30% of respondents want 0% risk.

This conflict is one of fear and greed. Investors fear falling markets, but they want the returns of rising markets, or at least returns that are better than bonds or bank certificates of deposit.

If investors want to improve their actual returns, they must address their investment behaviors. Fixed-index annuities can help them avoid market downturns while participating in market upturns.



*Fixed-index annuities offer several benefits that help individual investors, particularly those near or in retirement, to protect themselves from poor investment behavior.*

- The interest credits on fixed-index annuities are linked to stock-market indices, so these investments have an inflation-protection component.
- In years of stock market declines, fixed-index annuities may provide no interest credits, but also suffer no losses, so the portfolio never suffers the extremes of equity investing.
- Perhaps most importantly, fixed-index annuities offer lifetime income options, thus protecting investors from the longevity risk of running out of money. Many also offer guaranteed lifetime withdrawal benefits, which allow income accounts to grow predictably regardless of interest credits.
- Financial advisors often use the Nobel Prize-winning theory of modern portfolio management and optimized portfolios. The closer an investor's age is to 65, the less risk that investor should take with his or her retirement assets. Fixed-index annuities are an important part of building a safe, balanced portfolio for retirement income.

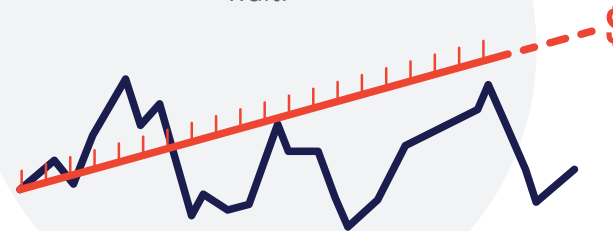
### PREMIUM PROTECTED

Your annuity value and all annual interest credits are protected from market loss.



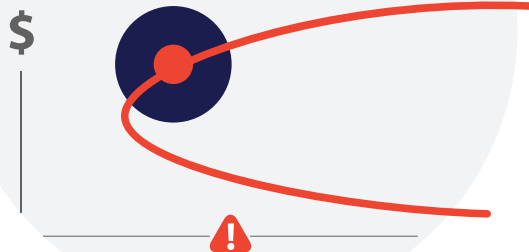
### INCOME SECURED

Income from your FIA can be guaranteed for life and is guaranteed to grow the longer you wait.



### GROWTH OPTIMIZED

Adding FIA's to your portfolio adds safety, while preserving return.



### TAX DEFERRED

Interest credits are tax-deferred during accumulation.



Retirement savings are ultimately about one thing—retirement income. Investors save during their working years to create a nest egg through which to generate a safe, predictable income in retirement.

However, having a safe, predictable retirement income is not enough. The income must also last for the entirety of the investor's life. A person's life span is unknown, but on average, the total retirement years are getting longer. Many Americans will be retired for 35-40 years.

Annuities protect investors against longevity risk because they offer guaranteed streams of income for life. Annuities offer protection from the longevity paradox.

Wade Pfau, a professor of retirement income at The American College, suggests that investors add annuities to their portfolios to serve the following goals:

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### 1. ELIMINATE POOR INVESTMENT CHOICES.

Fixed-index annuities eliminate decisions related to which stocks to buy or sell and when to do so. Investors no longer have to make these decisions. These funds cannot lose money in market downturns, and their assets are positioned to appreciate during market upturns.

### 2. IMPROVE PORTFOLIO RETURN POTENTIAL.

Adding fixed-index annuities to portfolios can reduce those portfolios' overall risk and optimize their performance. During periods of rising interest rates, the values of outstanding bonds usually fall. However, these circumstances improve the pricing environment for index annuities, thus allowing them to achieve higher credited interest.

### 3. HAVE INCOME FOR LIFE.

People today are living much longer than their grandparents did. That is one reason why more than two-thirds of Americans are worried they will outlast their savings. This is also why annuities have become enormously popular — they can provide streams of income for life.

### 4. SAFELY TAKE OUT MORE INCOME DURING RETIREMENT.

An ongoing question relates to how much retirees can safely withdraw. Many experts no longer consider 4% to be a safe withdrawal rate. What is a safe rate, then? A 2.2% real withdrawal rate from a portfolio that is invested in 20% stocks and 80% bonds has a high probability of success. However, this may not offer a level of spending that will satisfy retiring clients.<sup>20</sup> Annuities guarantee that investors can withdraw 4-5% per year for life, thus providing an income stream that they will never outlive.

Pfau explored safe withdrawal rates, finding that there can be a benefit in allocating assets to a mix of stocks and fixed single-premium annuities.<sup>21</sup>

20. Finke, Michael S. and Pfau, Wade D. and Blanchett, David, *The 4 Percent Rule is Not Safe in a Low-Yield World*. January 15, 2013.

21. Finke, Michael S. and Pfau, Wade D. and Blanchett, David, *The 4 Percent Rule is Not Safe in a Low-Yield World*. January 15, 2013.

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## CONCLUSION

Both professional and individual investors have been underperforming the markets for years. Many experts in behavioral finance believe that cognitive and emotional biases are the primary reasons for investors' poor returns.

The heart of the problem is the discontinuity between the level of investment risk that clients are comfortable with and the much higher risks that investors incur in the real world. This mismatch between real risk and ideal risk is the root cause of bad investor behaviors and low investment returns.

We have discussed five common biases, but many others exist. Becoming aware of these biases is the first step toward overcoming them. The second step involves choosing investment products such as fixed-index annuities that do not require investors to make excessively risky decisions. Of course, fixed-index annuities may offer other benefits as well—including improved returns, higher levels of income during retirement, and lifetime streams of income.



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## KEY TERMS:

**ASSET ALLOCATION**<sup>22</sup>: Asset allocation is an investment strategy that aims to balance risk and reward by apportioning a portfolio's assets according to an individual's goals, risk tolerance and investment horizon. The three main asset classes – equities, fixed-income, and cash and equivalents - have different levels of risk and return, so each will behave differently over time.

**FIXED INDEX ANNUITIES (FIA)**: A fixed index annuity (FIA) is a tax-deferred, long-term retirement savings vehicle issued by an insurance company. FIAs are designed to meet long-term needs for retirement income. While product and feature availability may vary by insurance carrier and state, in general, FIAs provide guarantees of premiums (backed by the financial strength and claims-paying ability of the issuing company), credited interest (subject to surrender charges), and

a death benefit for beneficiaries. Any distributions may be subject to ordinary income taxes and if taken prior to age 59 1/2, an additional 10% federal tax. Early withdrawals may result in loss of the premium and credited interest due to surrender charges.

**INFLATION**<sup>23</sup>: Inflation is a quantitative measure of the rate at which the average price level of a basket of selected goods and services in an economy increases over a period of time. Often expressed as a percentage, inflation indicates a decrease in the purchasing power of a nation's currency.

**S&P 500**<sup>24</sup>: The S&P 500 or Standard & Poor's 500 Index is a market-capitalization-weighted index of the 500 largest U.S. publicly traded companies.

22. Chen, James. "Asset Allocation." Investopedia. March 12, 2019. Accessed March 14, 2019. <https://www.investopedia.com/terms/a/assetallocation.asp>.

23. Chen, James. "Inflation." Investopedia. March 12, 2019. Accessed March 14, 2019. <https://www.investopedia.com/terms/i/inflation.asp>.

24. Will Kenton and Chris B Murphy. "Understanding S&P 500 Index – Standard & Poor's 500 Index." Investopedia. February 27, 2019. Accessed March 14, 2019. <https://www.investopedia.com/terms/s/sp500.asp>

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When you buy a fixed index annuity, you own an insurance contract. This is not a comprehensive overview of all the relevant features and benefits of fixed index annuities. Before making a decision to purchase a particular product be sure to review all of the material details about the product and discuss the suitability of the product for your financial planning purposes with a qualified financial professional.

The annual reset allows for any interest credited on each contract anniversary to be "locked-in" and it can never be taken away due to market decreases. The interest credited is added to the accumulation value of your contract, which then becomes the guaranteed Accumulation Value "floor" that will be included in the calculation of the interest that is credited going forward, subject to any withdrawals and applicable rider fees.

Although an external index may affect your interest credited, the contract does not directly participate in any equity investments. You are not buying shares of any stock or index. The index value does not include the dividends paid on the equity investments underlying any equity index. These dividends are not reflected in the interest credited to your contract.

Guarantees are backed by the financial strength and claims-paying ability of the issuing insurance company and do not apply to the performance of the index, which will fluctuate with market conditions. Annuities are designed to meet long-term needs of retirement income. Annuity contracts typically require money being left in the annuity for a specified period of time, usually referred to as the surrender charge period. If you fully surrender your annuity contract at any time, guaranteed payments provided for in the contract and/or any rider will typically no longer be in force, and you will receive your contract's cash surrender value.

Before purchasing an annuity, read and understand the disclosure document for the early withdrawal charge schedule. The purchase of an annuity is an important financial decision. Talk to your financial professional to learn more about the risks and benefits of annuities.



The financial world can be intimidating, complex and confusing. The Navigate Series by WealthVest is a collection of tools and whitepapers designed to help you maneuver your way through the details of the modern financial landscape.

WealthVest is a financial services distribution and thought leadership company. Our mission is to help people retire with dignity and confidence, through strategic messaging and dedicated distribution of the most effective retirement products to trusted financial planners.

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