



Behavioral Finance in Today's Market



BLACKROCK®

Which of these four investments would you pick, if you had to pick one?



Lo, Andrew, 2017, *Adaptive Markets: Financial Evolution at the Speed of Thought* (Figure 10.3). Princeton University Press. For illustrative purposes only. Not meant to represent a specific recommendation for any security listed. Past performance is no guarantee of future results.

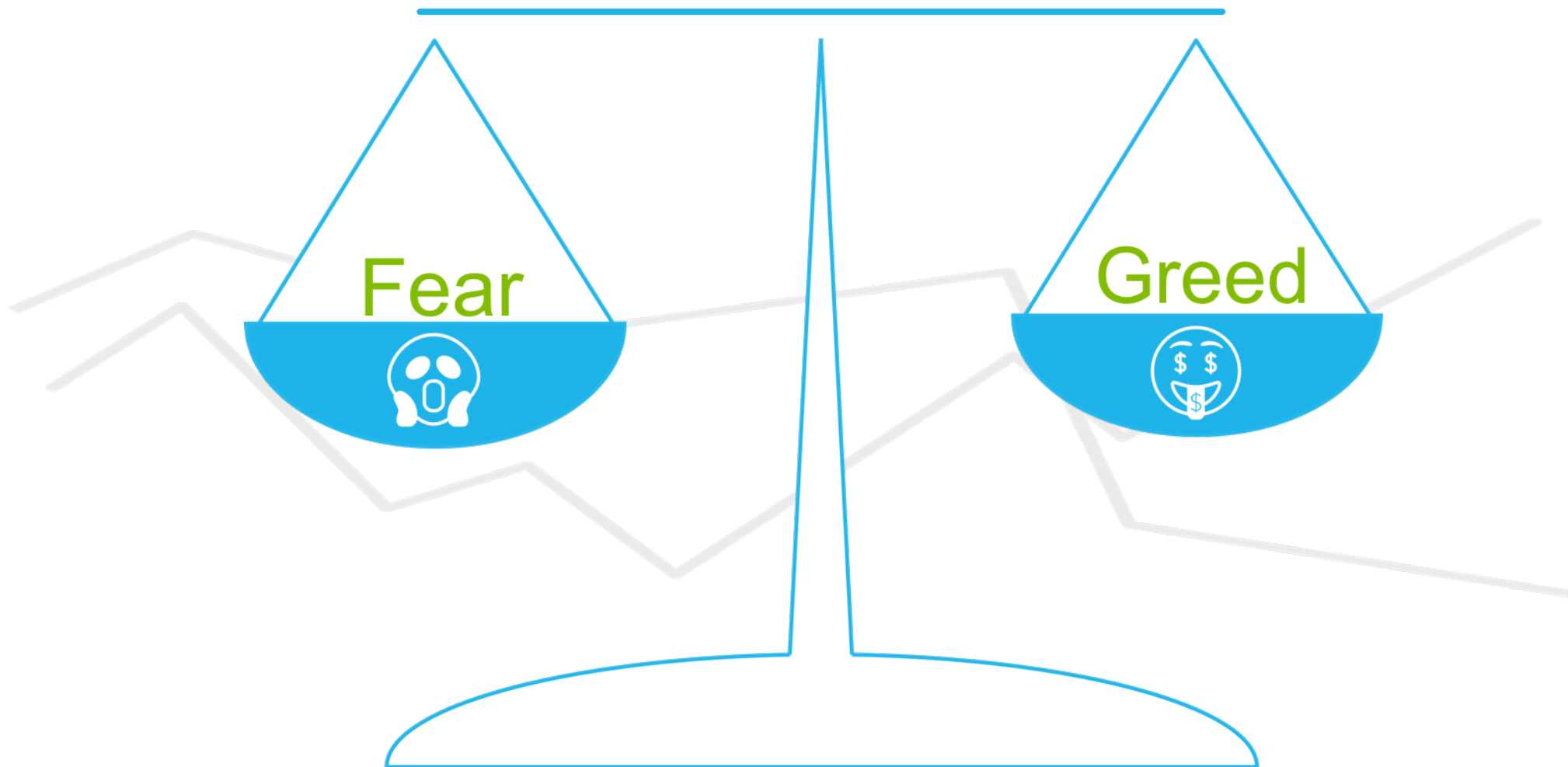


Evolution of fight or flight...

...To fear or greed



Balancing greed and fear in your investing emotions





Balancing greed and fear in your investing emotions

Source: CartoonStock.com.

Behavioral Finance Agenda



**The Greed
Emotion Today:
*"S&P Envy"***



**The Fear
Emotion Today:
*"Sideline Sitter"***




**The
Way
Forward**





The Greed Emotion Today: *“S&P Envy”*


Since 2000, a perfect market for “S&P envy”


Years	S&P 500	Diversified Portfolio
2000-2002	-37.6%	-13.28%
2003-2007	+82.9%	+57.8%
2008	-37.00%	-20.10%
2009-2017	+258.8%	+152.1%
Total Return	+157.9%	+175.5%
<i>Gr \$100K</i>	\$257,880	\$275,535

- 

“I lost money”
- 

“I didn’t make as much”
- 

“I lost money”
- 

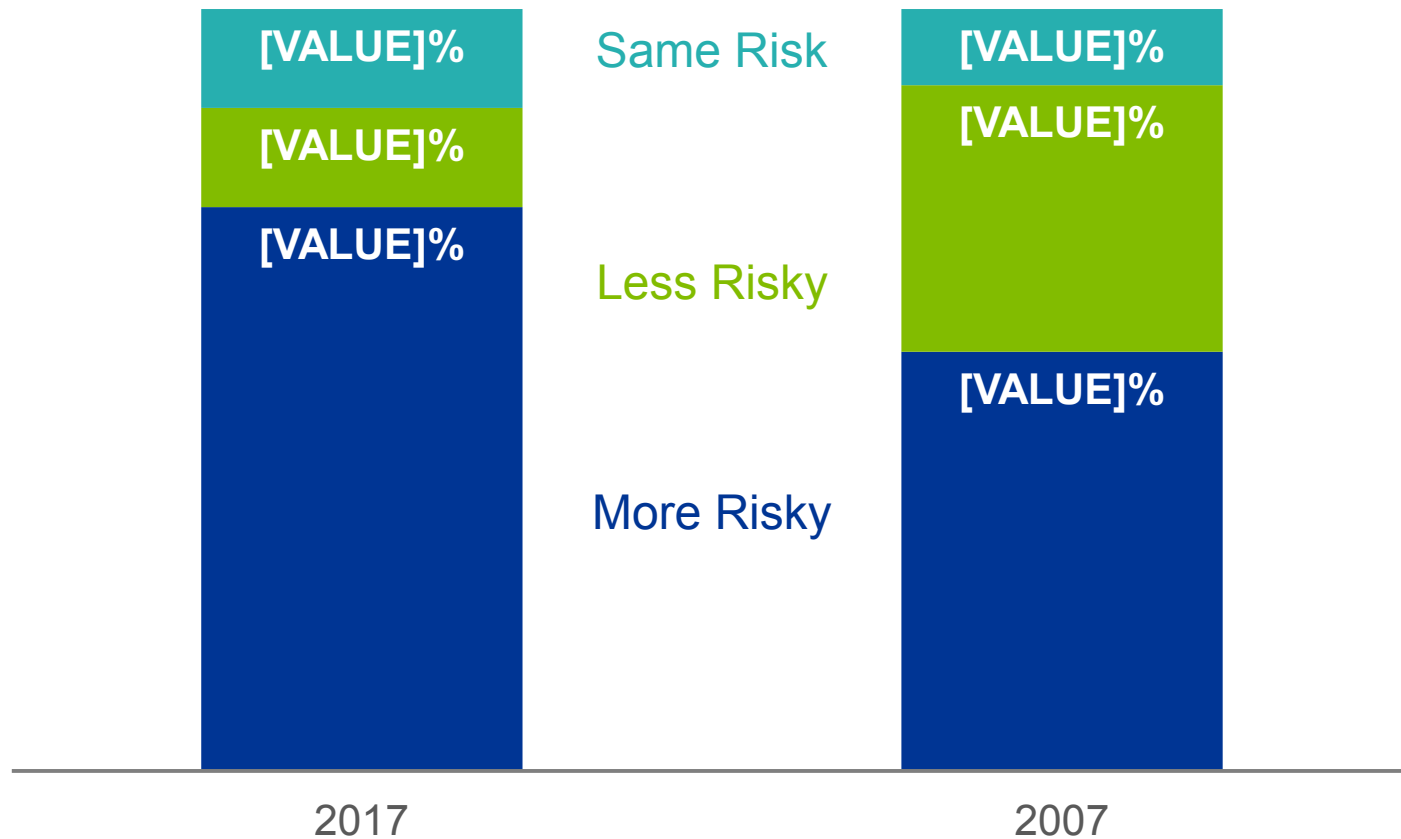
“I didn’t make as much”
- 

“Diversification wins even when it feels like its losing”

Source: Morningstar as of 12/31/16. Past performance does not guarantee or indicate future results. Diversified Portfolio is represented by 60% S&P 500 and 40% in the Bloomberg Barclays US Aggregate Bond Index. Index performance is for illustrative purposes only. You can not invest directly in the index.

S&P 500 envy can lead to more risk

Stock Mutual Fund and ETF Assets more Risky than the S&P 500 Index



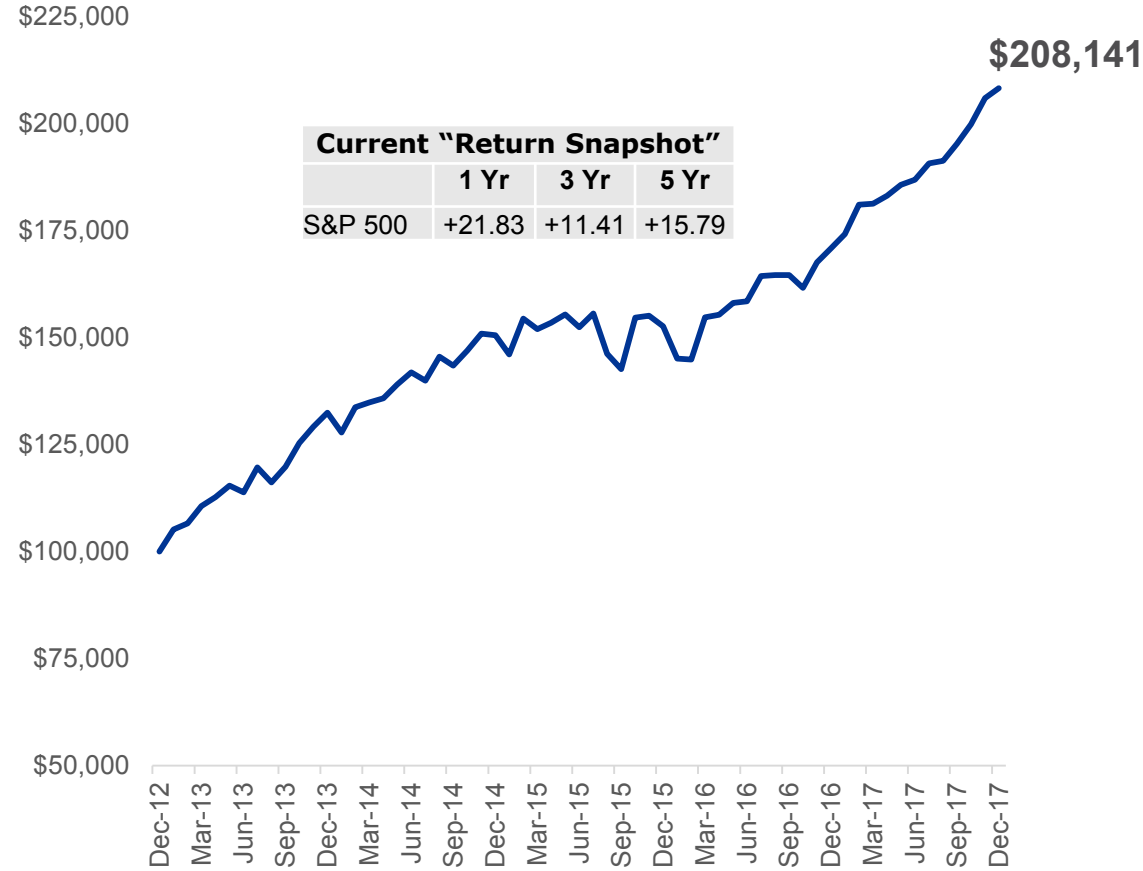
Classic Behavioral Finance Biases:
Recency
Herding
Over Confidence

Source: Morningstar Global Broad Equity Category, which includes all categories of equity mutual funds and ETFs, as of 12/31/16. Risk is represented by the 10-year (2007 – 2016) standard deviation vs. the S&P 500 Index. Past performance does not guarantee or indicate future results.

Recency Bias: Recent Performance and “Return Snapshots” can Hide Risks

The US Stocks have “Doubled your Money” Last 5 years

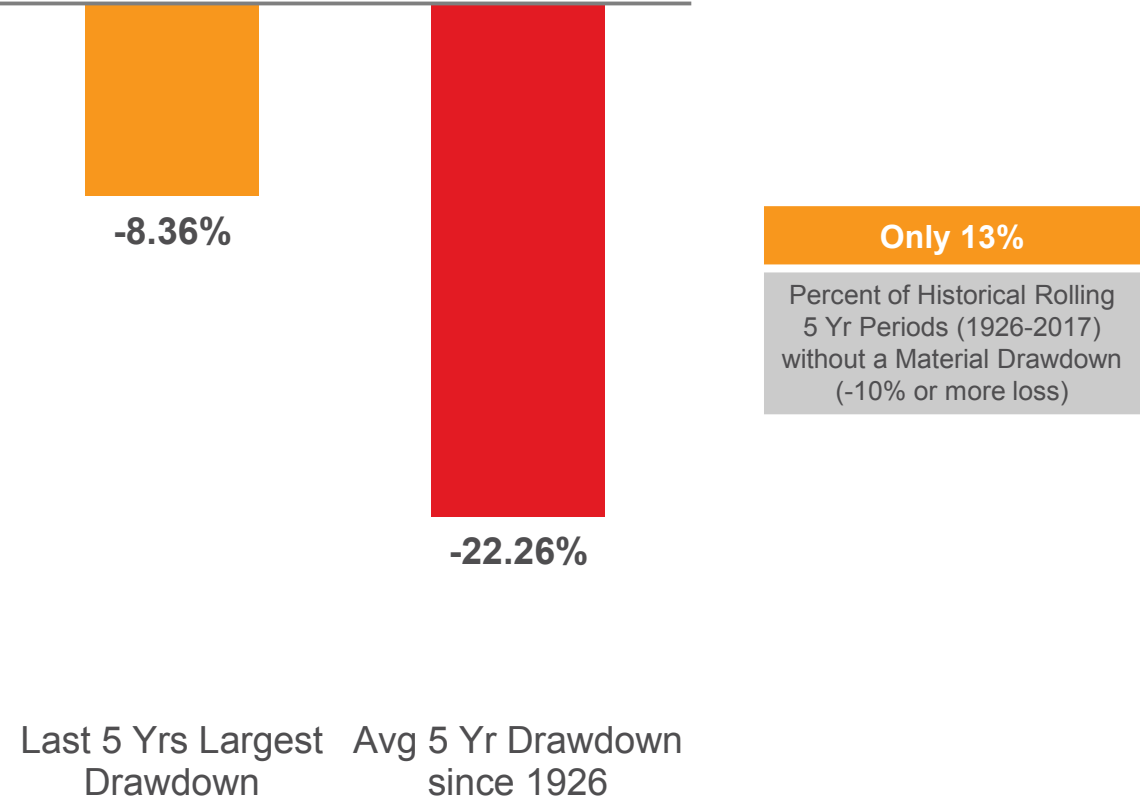
5 Year S&P 500 Index, as of 12/31/17



US Stocks have not seen a sustained -10% Drawdown

1, 3, & 5 Year Max Drawdown (month-end returns), as of 12/31/16

Max Drawdown for the S&P 500 Index (12/16)



Source: Morningstar as of 12/31/17. Past performance does not guarantee or indicate future results. Index performance is shown for illustrative purposes only. It is not possible to invest directly in an index.

The Lottery Ticket Effect

Willing to accept a high probability of loss for a small chance of earning huge returns

Lottery Tickets in the US

\$73
bl
\$223 per
person

Annual Amount Americans
Spend on Lottery Tickets

1 in 292 Million
[VAL
UE]

Odds of Winning the
Powerball

The Lottery Effect and Investing

Investors are willing to...

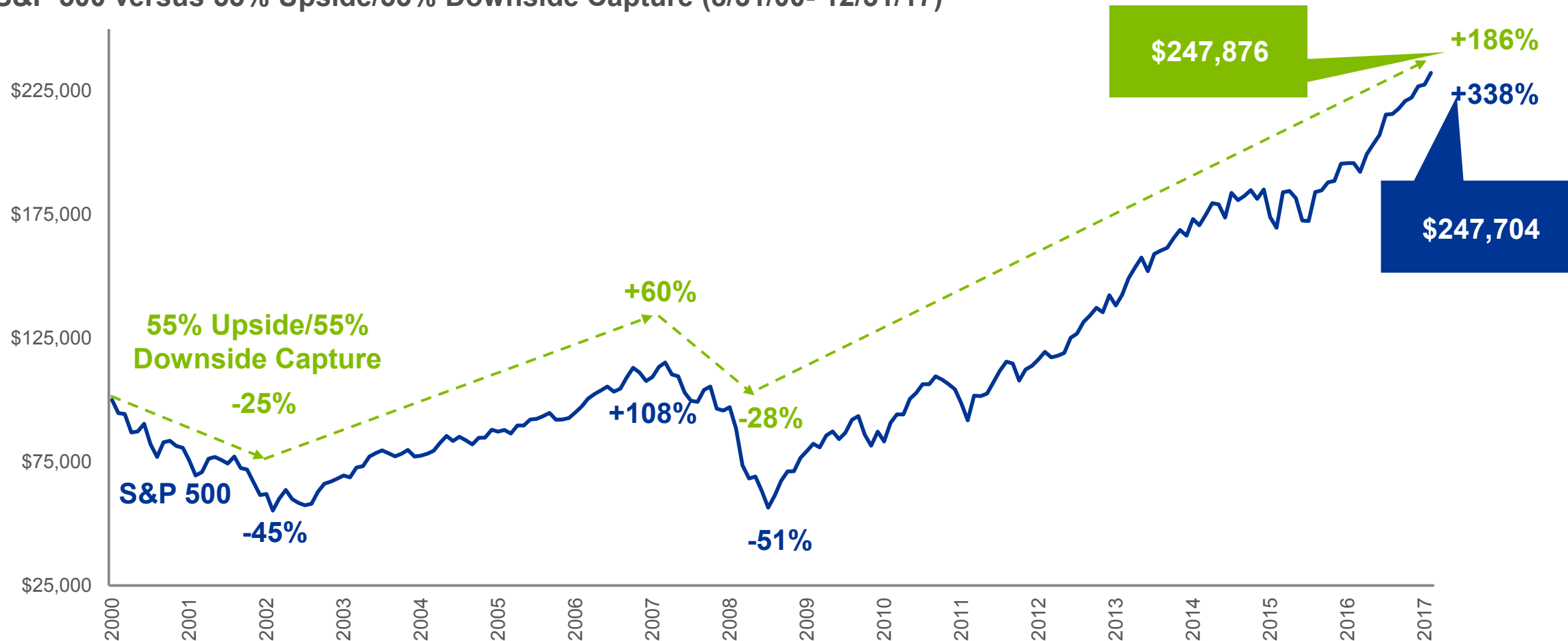
- Concentrate positions in single issue stocks
- Invest in the “next great company” regardless of price
- Invest in today’s best companies regardless of price
- Invest in the next hot fund or ETF
- Follow the “herd” into the hot new investing trend



Source: US Census Bureau and North American Association of State and Provincial Lotteries as of 12/31/17. Past performance does not guarantee or indicate future results. Index performance is shown for illustrative purposes only. It is not possible to invest directly in an index.

Curing S&P Envy: Why Limiting Volatility (Downside Risk) is so Important

S&P 500 versus 55% Upside/55% Downside Capture (8/31/00- 12/31/17)



Source: Crestmont and Morningstar as of 12/31/17. Past performance does not guarantee or indicate future results. Index performance is shown for illustrative purposes only. It is not possible to invest directly in an index.

Curing S&P Envy: All Returns are not Created Equal



[M]

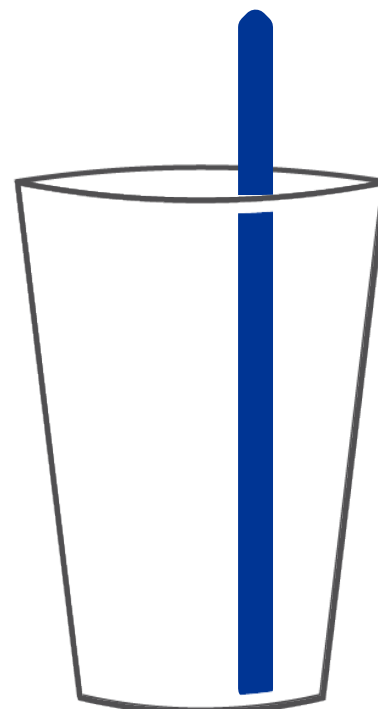
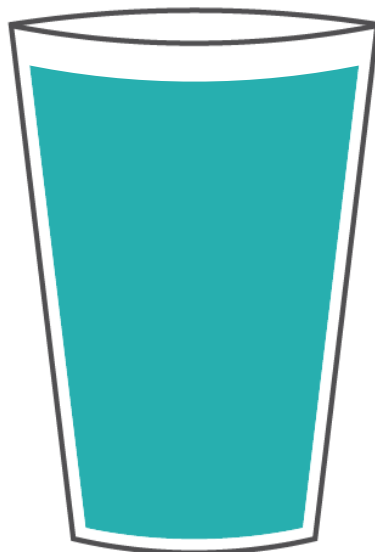

Source: BlackRock. Past performance does not guarantee or indicate future results.



The Fear Emotion Today: *“Sideline Sitter”*

Is the Glass Half Full or Empty?

69%
“half empty”

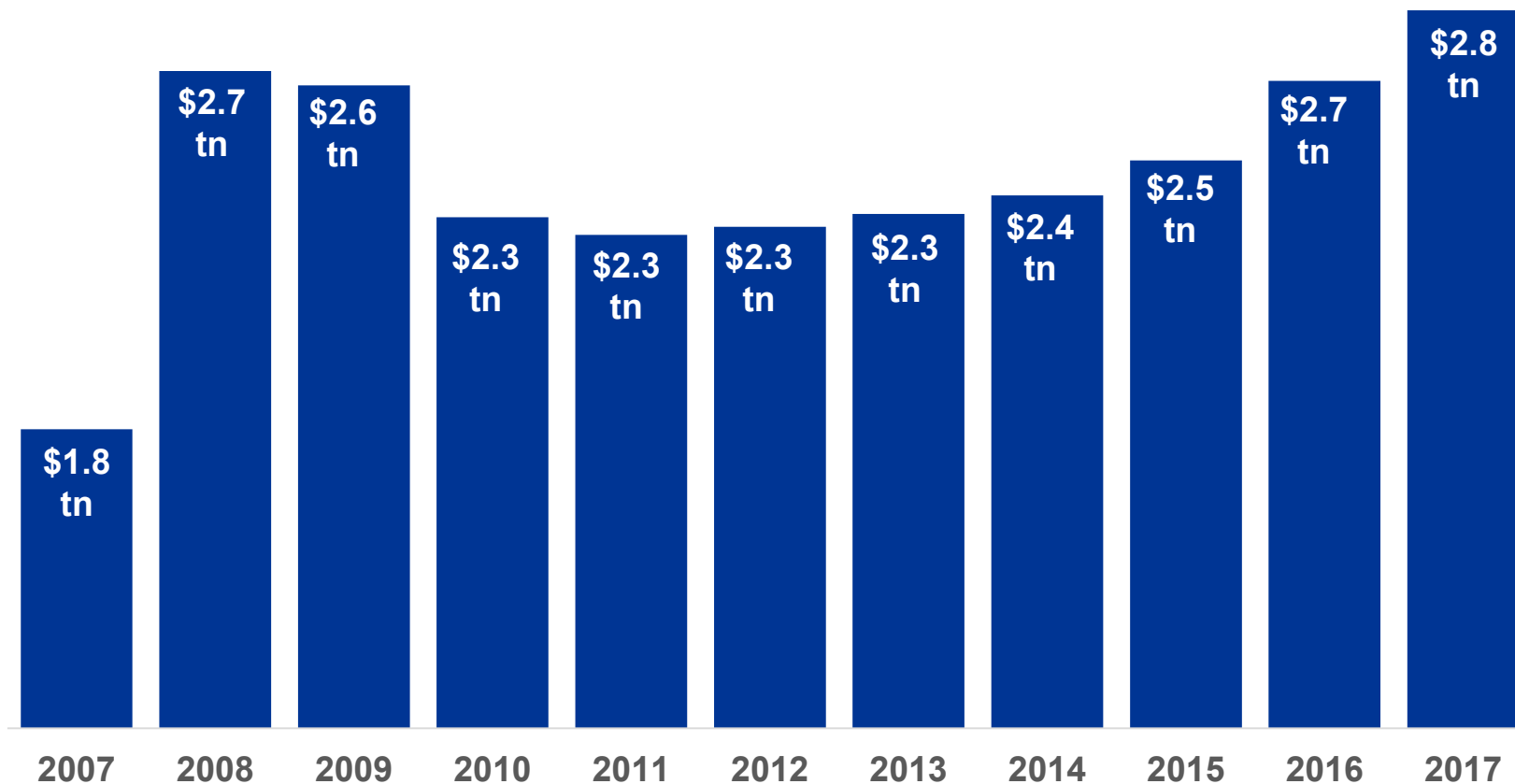


88%
“half full”

It depends on how we feel about the glass!

Cash on the sidelines is near historic levels

Assets in money market accounts



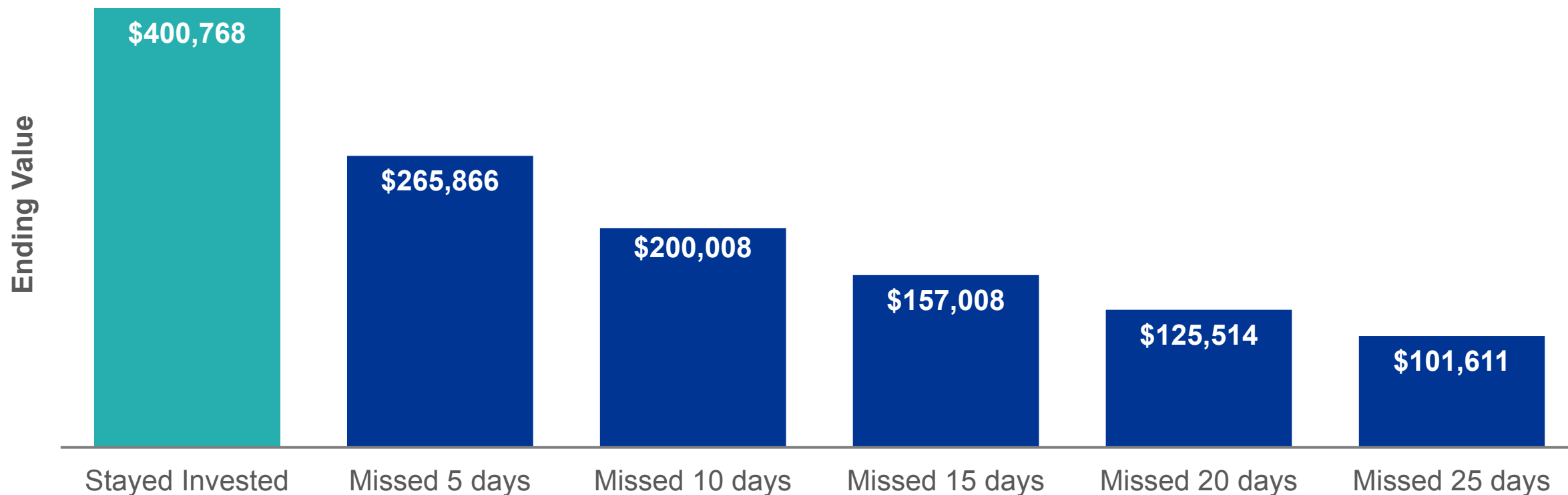
Classic Behavioral Finance Biases:
Loss Aversion
Endowment Effect
Hindsight

Source: Morningstar as of 12/31/17. Past performance does not guarantee or indicate future results.

Loss Aversion Bias: Time in the market vs. timing the market

Missing top-performing days can hurt your return

Hypothetical Investments \$100,000 in the S&P 500 Index over the last 20 years (1998-2017)

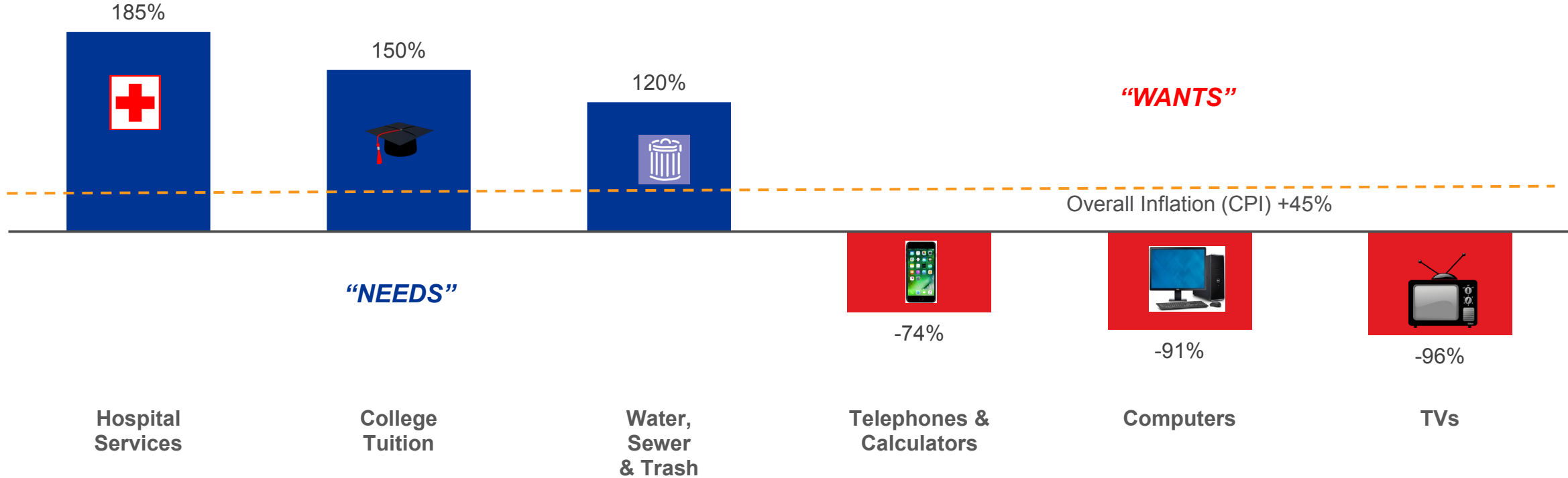


Source: Morningstar as of 12/31/17. Past performance does not guarantee or indicate future results.

The cost of sitting on the sidelines- the inflation disconnect

Erosion of Purchasing Power: “Wants” vs. “Needs”

Cumulative inflation (12/31/2000- 6/30/2018)

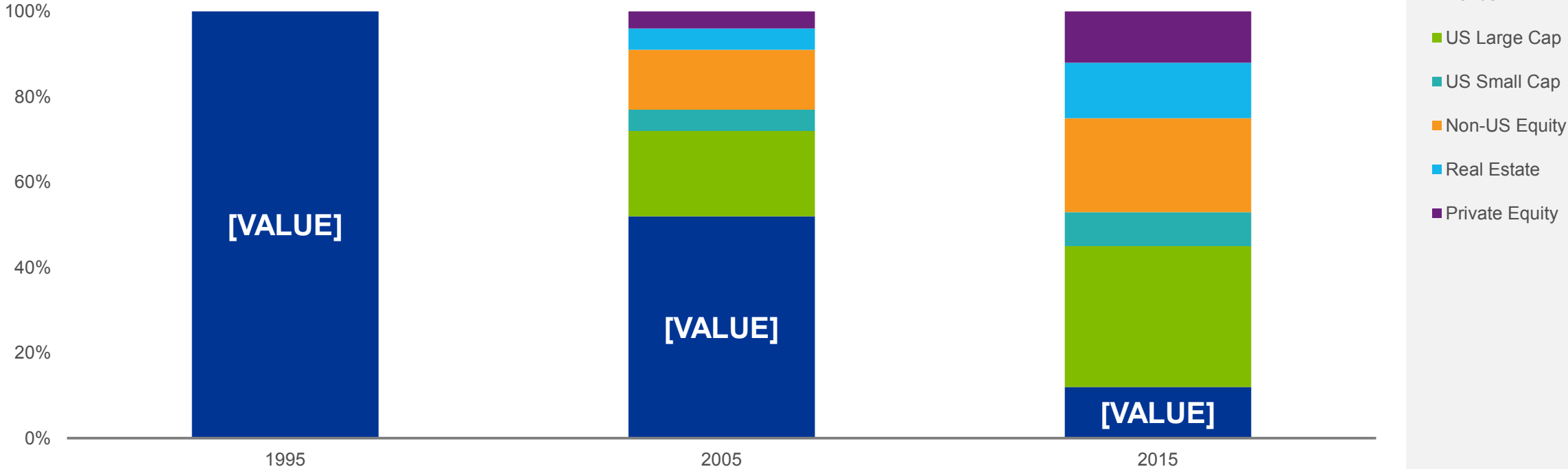


\$20k for college at the end of 2000 would cost over \$50k today (+150%)
\$300 spent on a TV at the end of 2000 would cost \$12.37 today (-96%)

Source: BLS and officialdata.org as of 6/30/18. Past performance does not guarantee or indicate future results

The Current Environment May Complicate Things

Estimated Asset Allocation Needed to Earn 7.5%



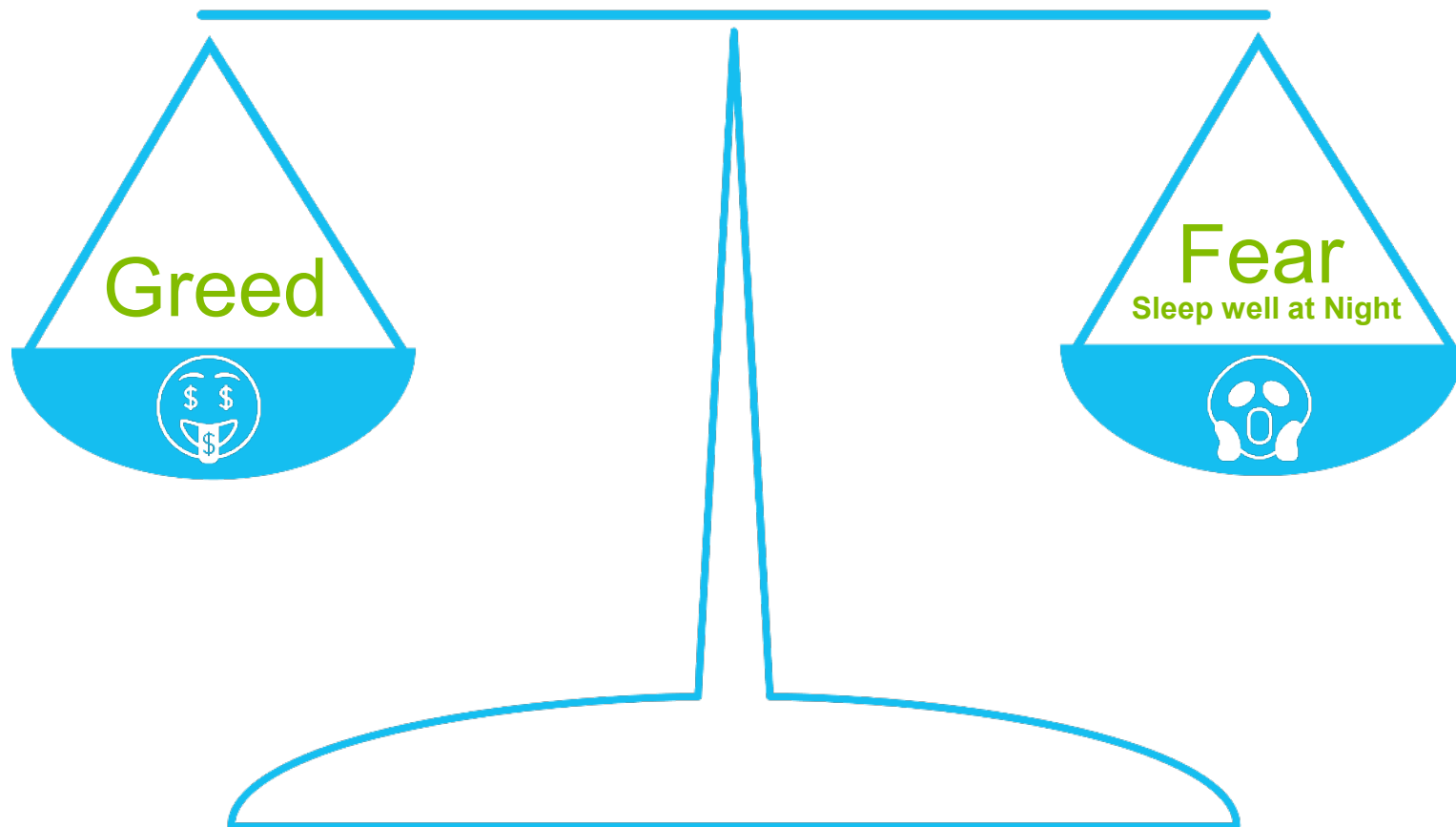
	1995	2005	2015
Return	7.5%	7.5%	7.5%
Risk	6.0%	8.9%	17.2%

Source: Callan Associates, Wall Street Journal, 5/31/2016. <http://www.wsj.com/articles/pension-funds-pile-on-the-risk-just-to-get-a-reasonable-return-1464713013>. For illustrative purposes only. Not meant as a recommended allocation. Past performance is no guarantee of future results. Bonds are represented by the Bloomberg Barclays Aggregate Bond Index, US Large Cap by the S&P 500 Index, US Small Cap by the Russell 2000 Index, Non-US Equity by the MSCI ACWI ex-US Index, Real Estate by the Callan Real Estate Database, and Private Equity by the TR Post Venture Capital Index.



The Way Forward

The Way Forward

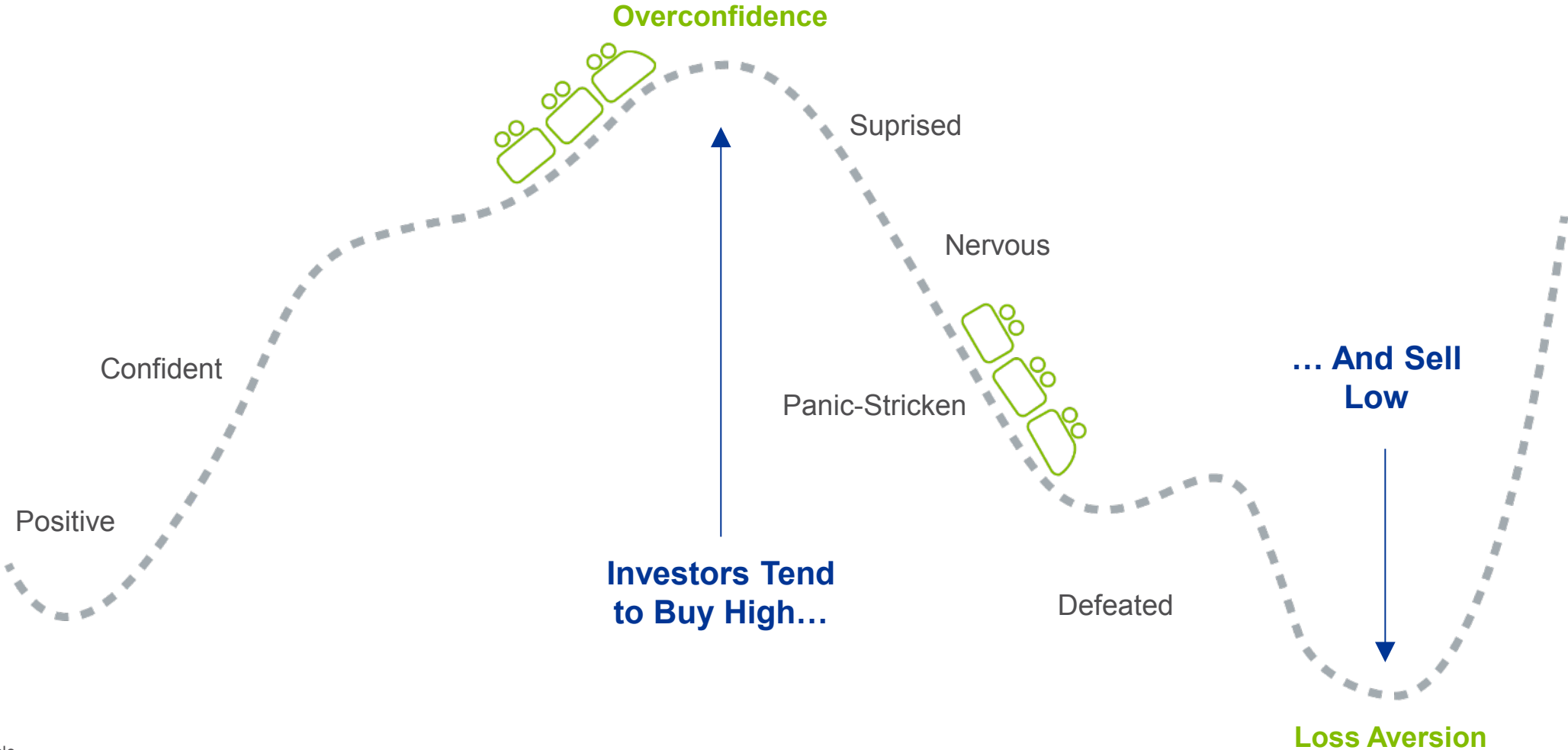


**“FINANCIAL ADVISING
is a *PRESCRIPTIVE
ACTIVITY* whose main
objective should be to
guide investors to make
decisions that serve
their best interest.”**

Kahneman and Riepe

Understand that biases may lead to mistakes

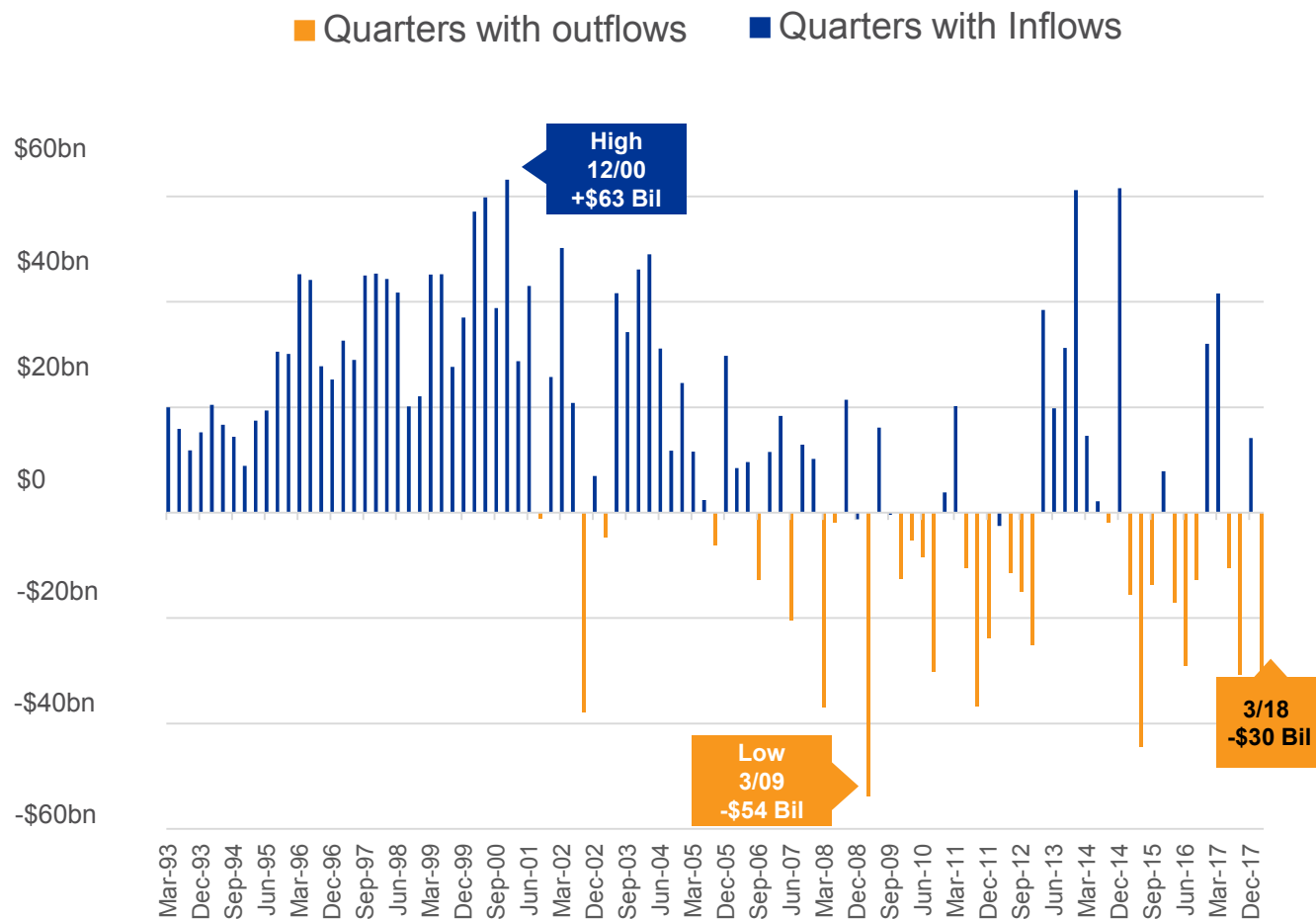
Riding the Ups and Downs of the Market



Hypothetical example.

Investors can't seem to help themselves

US Equity Fund Flows (Qrty Mutual Funds and ETFs)



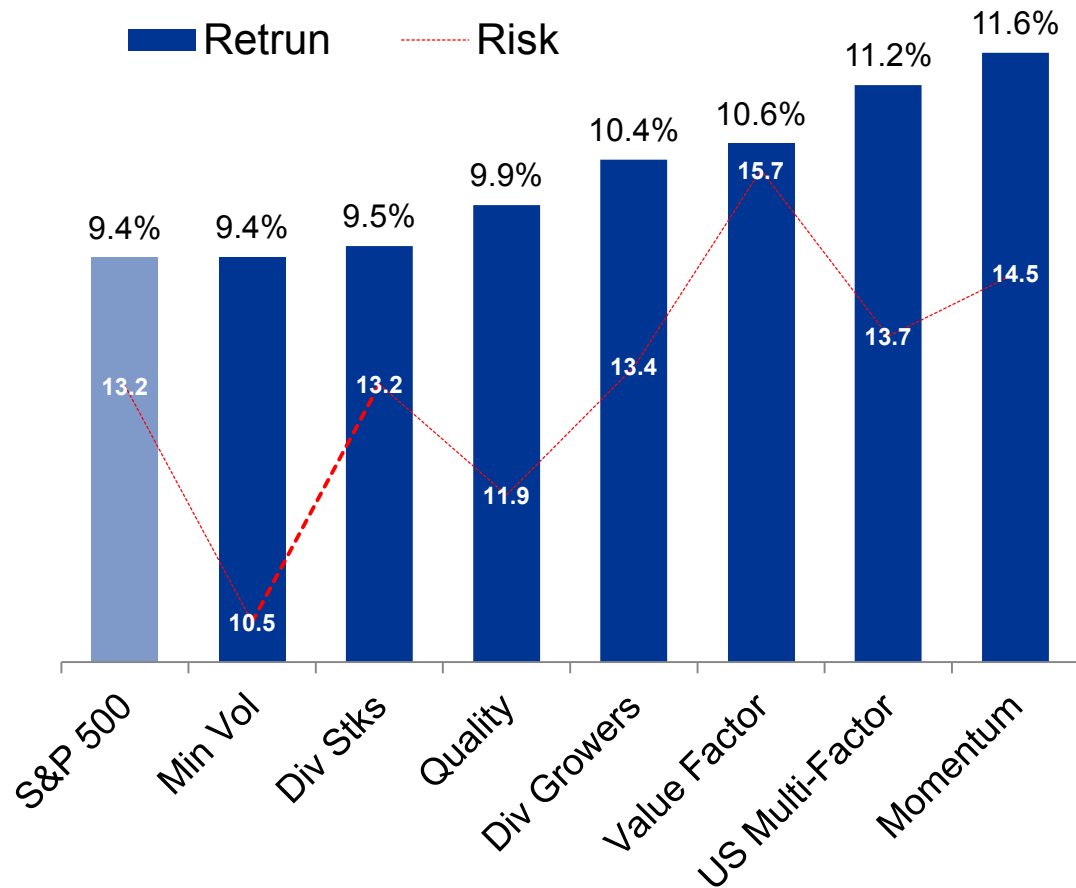
US Stock Flows and Returns



Source: Morningstar as of 3/31/18. Past performance does not guarantee or indicate future results.

Factor & Dividend strategies potentially benefit from behavioral biases

Returns Last 15 Years (6/2003-6/2018)



How they Benefit from Behavioral Biases

Minimum Volatility: The preference for lottery-like stocks with a small chance of a very high payoff, and, in turn, drives up the prices of high volatility stocks. Further, overconfident individuals may veer toward riskier securities in expressing their outsized faith in their own investing and stock picking abilities, exacerbating the anomaly.

Momentum Stocks:

- Anchoring
- Herding

Quality Stocks:

- The Lottery Effect

Value Stocks (including div and div growers):

- Recency

Source: Morningstar as of 6/30/18. Past performance does not guarantee or indicate future results. Minimum Volatility Stocks represented by the MSCI USA Minimum Volatility index, Dividend Stocks by the MSCI USA High Dividend Index, Dividend Growing Stocks by the Russell 1000 Growth Index US Quality Stocks by the MSCI USA Quality Index and Momentum Stocks by the MSCI USA Momentum Index.

Beat the biases

1

Well Diversified Portfolio is Rational, But It Doesn't Always Feel Good

2

Common Biases Are The Reason

- Greed: Over Confidence, Herding, Recency
- Fear: Loss Aversion, Endowment Effect, Hindsight

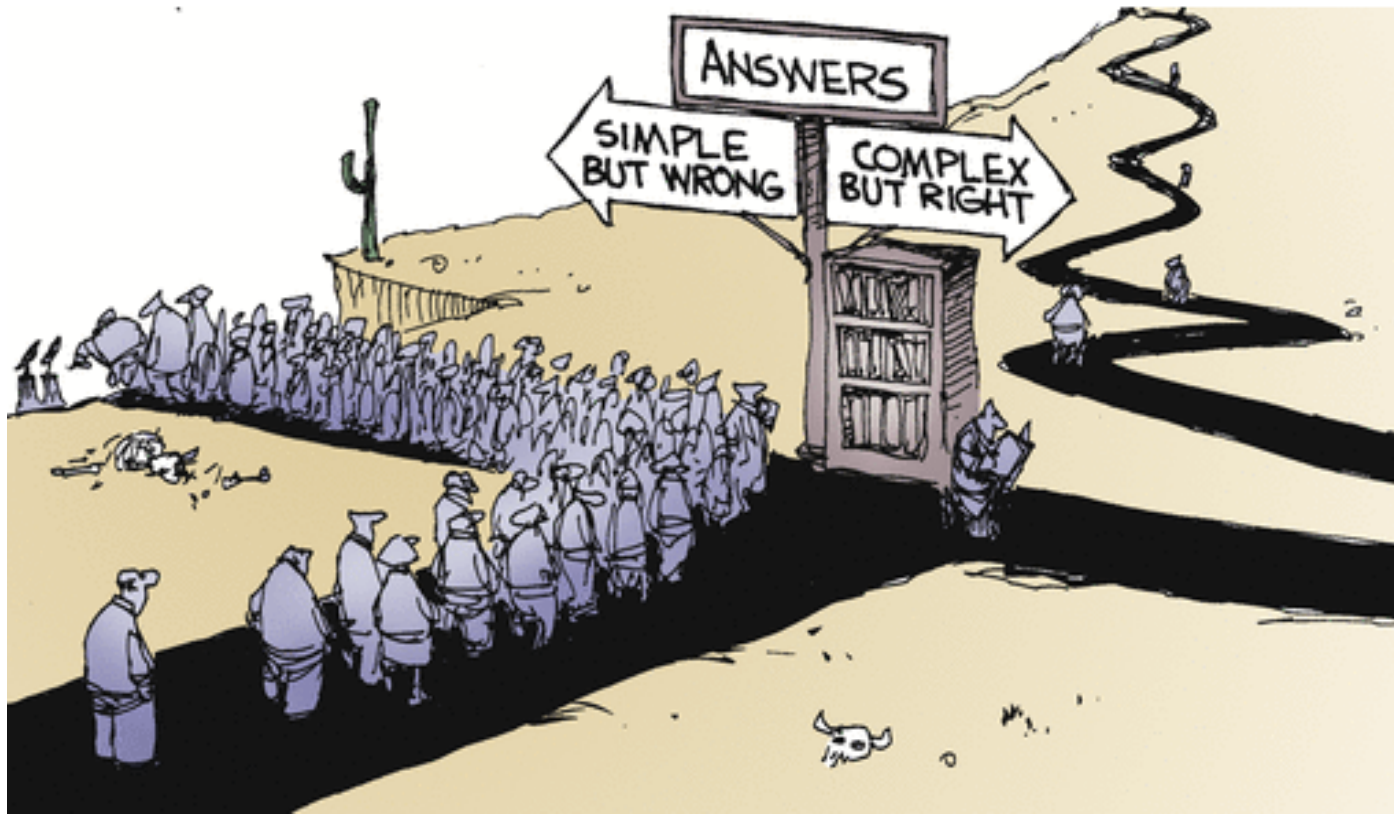
3

Work with your financial advisor to keep you in check and ensure you are reacting to the market rationally

- Be critical, even when times are good
- Be opportunistic, even when times seem bad
- Invest for the long term – don't try to time the market

Become a better investor!

Work with your advisor to make the right choices



Source: www.gocomics.com/nonsequitur.

Important notes

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