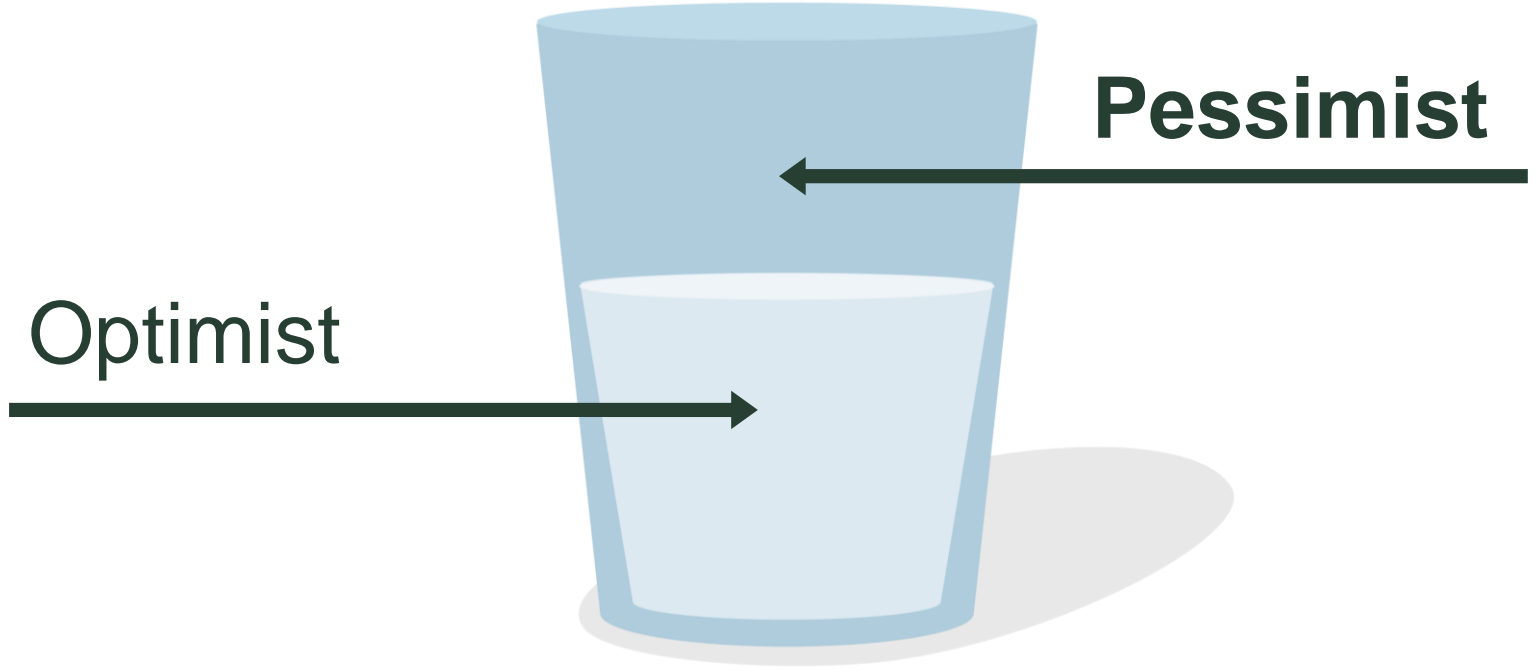

Behavioral Finance: How Human Tendency Affects Investment Returns

For Investment Professional Use Only.



Optimist

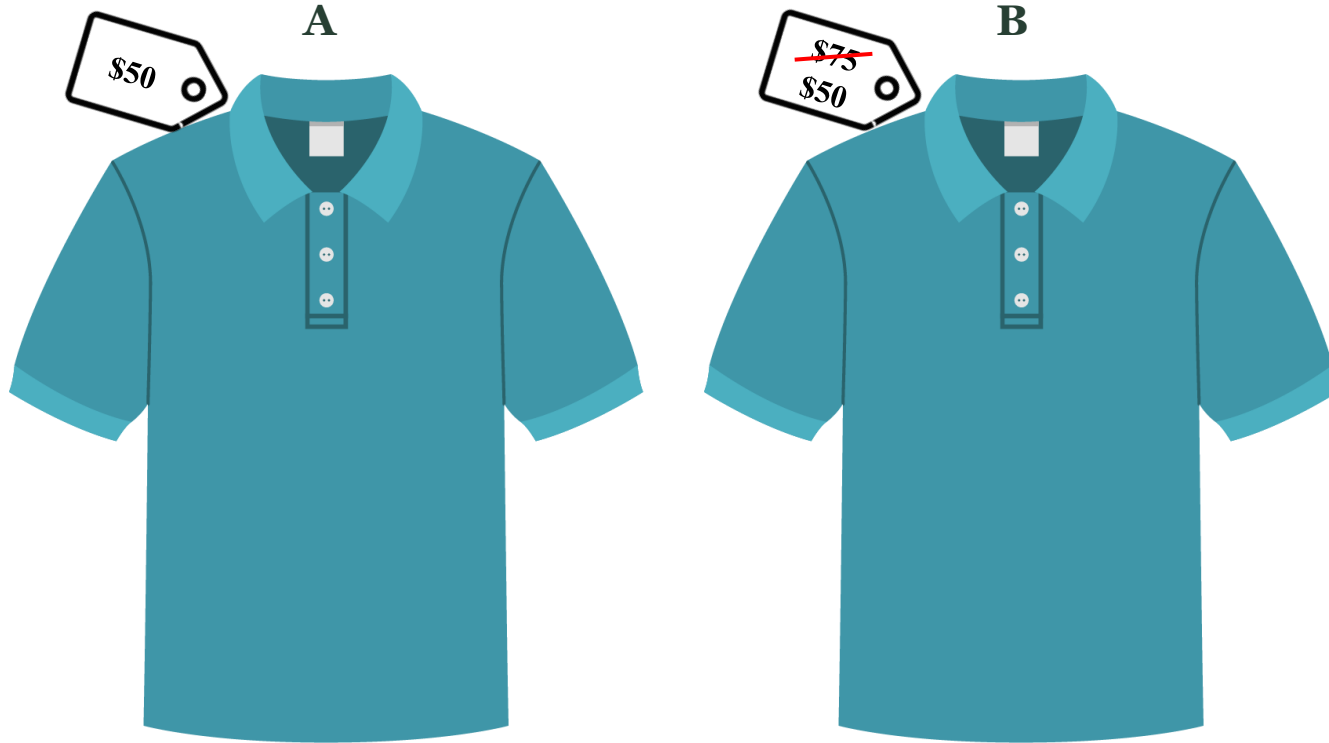
Pessimist

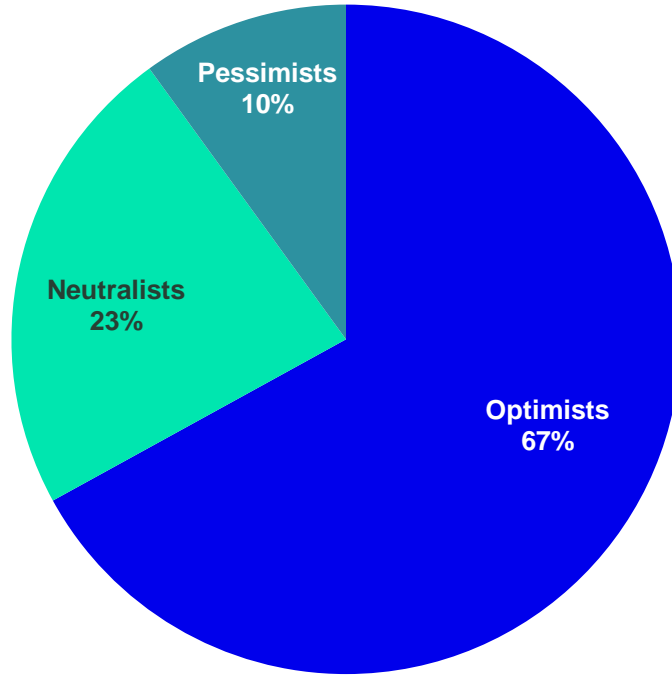
Anchoring Bias | Ang-ker-ing bahy-uhs |

Noun

1. The tendency to rely too heavily on a singular piece of data or information when making a decision
2. when someone fails to appropriately adjust to new information because they are anchored to an original reference point

Which Would you Buy?



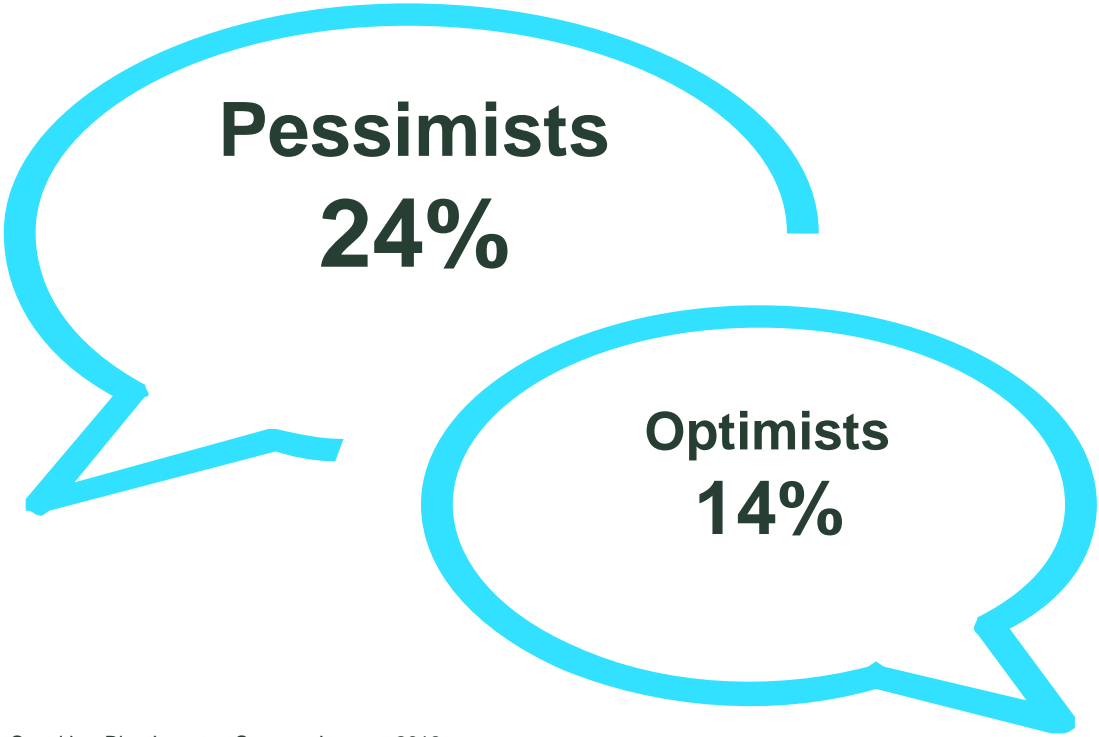


Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019. The Life Orientation Test (LOT –R) was used in the survey to assess the individuals' differences in generalized optimism versus pessimism. Out of 1,000 respondents, findings reported 67% are optimists, 23% are neutralists, and 10% are pessimists. See page 25 for survey criteria.

“ I think pessimists require more effort and more time of the advisor, in terms of hand holding, constantly reassuring and communicating.”

— Utpal Dholakia
George R. Brown Professor of Marketing at Rice University

Communicate with Advisor Once a Week or More



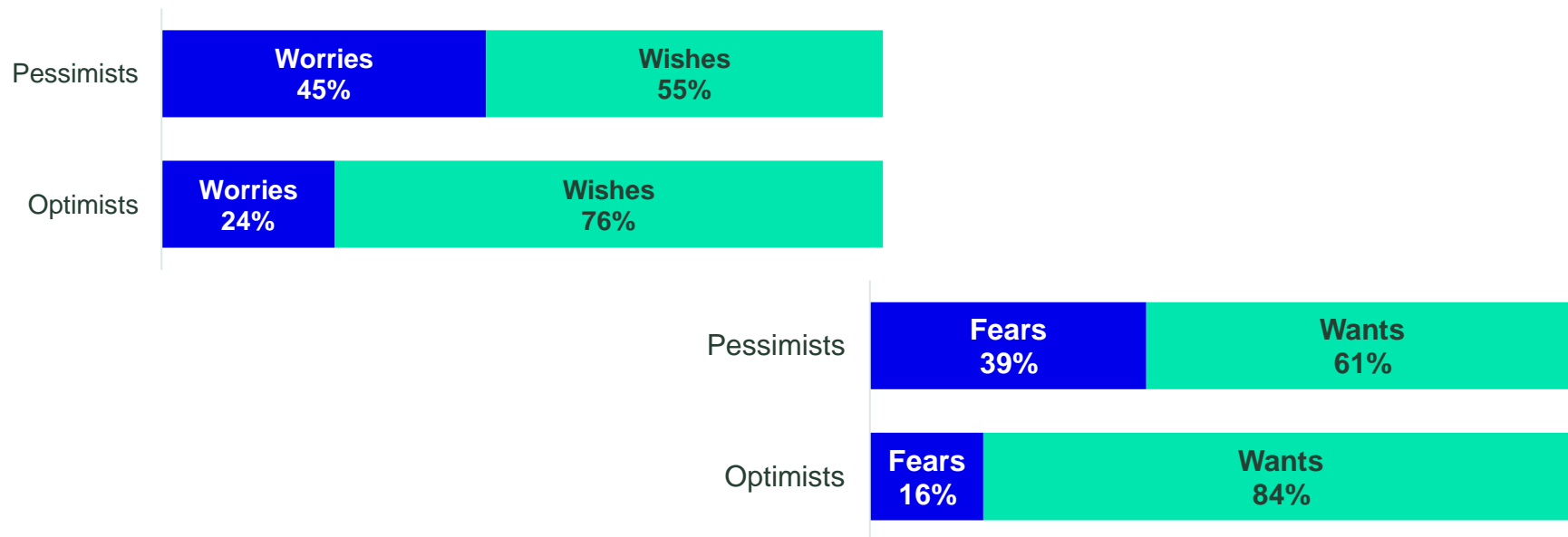
Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.

Pessimists Focus...



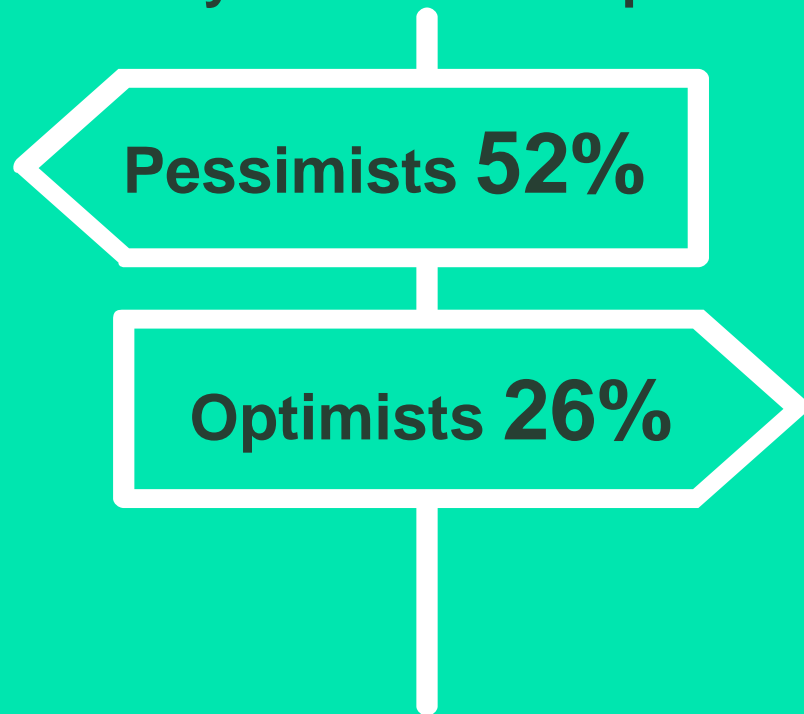
...on negative anchors.

What are Communications with your Advisor about more Often?



Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.

“Anxious” when there is short-term volatility and losses in portfolio



“Pessimists will under-weight the positive outcomes and over-weight the negative outcomes of their investments.

— Francesco Rocciolo,
University of Rome III, Department of Business Studies

Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.

Overall Satisfaction with Advisor



Pessimists
75%



Optimists
91%

Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.



“ Optimistic clients are much better to work with. The advisor does not have to do as much hand holding. Also, optimists tend to bounce back quicker after an adverse event.

— Utpal Dholakia
George R. Brown Professor of Marketing at Rice University

“Accepting” of Fluctuations in the Value of your Portfolio



Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.



“
I know there are going to be peaks and troughs in the market, but I’m in it for the long game.”

Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019

Optimists Focus...



...on positive anchors.

Which are you more Likely to Invest in?



Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.

“

Optimists distort the distribution of the bulk outcome of their investments. They will assign a weight that is larger and not rational to the probability of their investment success.

**— Francesco Rocciolo,
University of Rome III, Department of Business Studies**

“Confident” in Achieving Long-term Financial Goals

Optimists
88%



Pessimists
67%

Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019.

For the Optimist in particular, if the stretch goal is set too high and he or she fails to achieve it, they become demotivated and potentially experience a worse outcome than their Pessimist peer.

Why This Matters



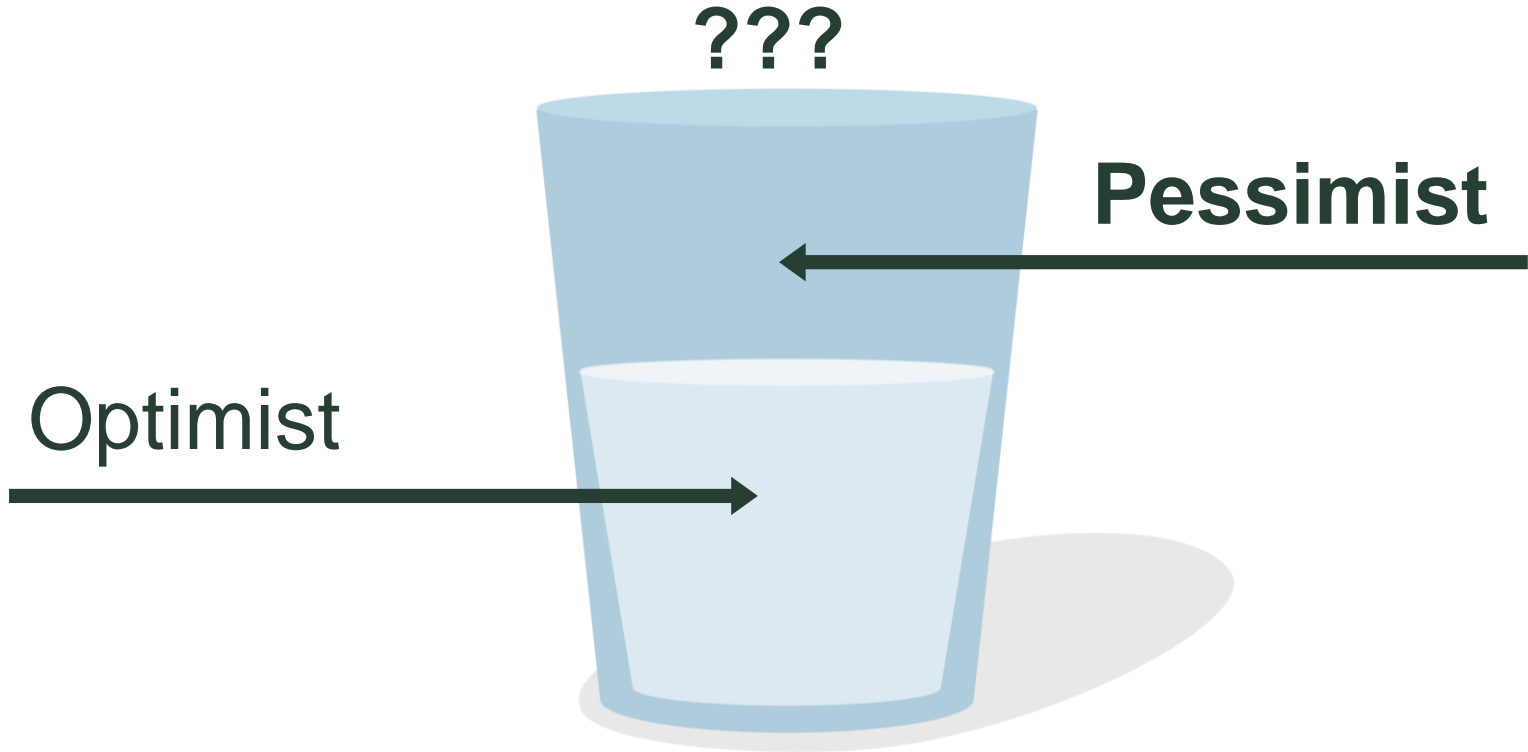
“Look at the 52-week high, the potential is much greater.”

— **Optimistic** Australian Investor



“I inherited money from my parents that I still haven’t invested.”

— **Pessimistic** Australian Investor



Qualities of Optimistic Investors

- Realize that not all options will succeed but are sure that not all will fail, too
- Ready to learn from mistakes and improve over time with hands-on experience rather than trying to learn the rules while out of the game, as in the case of a strong pessimist
- Less prone to giving up after a setback as they take each scenario as a learning opportunity rather than an all-or-nothing battle

Qualities of Pessimist Investors

- May abandon a successful investment at the expense of mitigating negative emotions even when the odds are in their favor
- Are risk-averse and perfectionists: Need to know every step the investment will take before committing their dollar. May lose out on more opportunities than optimistic investors.
- Tend to over-rely on historical data more than projections. Thus, even when the market is on an upward trend, a pessimist may still be hesitant to invest if the past is unclear.

Appendix

Research Methodology

Research Data Segmentation: Demographics

Research Snapshot: Investor Purpose, Attitudes and Definitions of Success

Important Disclosures

Research Methodology

State Street Global Advisors' Cognitive Bias Study, January 2019

Online Survey

- Fielded among a sample of 1,014 individual investors: 506 in Australia and 508 in the United States.
- Investors had to be the sole or shared decision-maker for their households' finances and investments, have at least \$500,000 in investable assets, and use a financial adviser.
- Quotas were established to reflect a fair distribution across a range of gender and age.
- The Life Orientation Test (LOT-R), developed by social psychologists C.S. Carver, M.F. Scheier¹, and S.C. Segerstrom², was used in the survey to assess the individuals' differences in generalized optimism versus pessimism.

Investor Interviews

- Telephone interviews with eight individual investors from Australia.
- Investors had to be the sole or shared decision-maker for their households' finances and investments, have at least \$500,000 in investable assets, and use a financial adviser.

Expert Interviews

- Telephone interviews with three subject matter experts who focus their research efforts on decision-making as it relates to the financial markets, and who have written papers on the impact of optimistic and/or pessimistic tendencies.

¹ Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research*, 16, 201–228; Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem) — A reevaluation of the life orientation test. *Journal of Personality and Social Psychology*, 67, 1063–1078.

² Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review*, 30, 879–889.

Demographics

Gender

	Males (%)	Females (%)
Optimists	64	71
Neutralists	25	21
Pessimists	10	8

Age

	Millennials (%)	Gen X (%)	Boomers (%)	Silent Gen (%)
Optimists	51	60	80	81
Neutralists	37	27	14	13
Pessimists	12	14	6	6

Source: State Street Global Advisors Cognitive Bias Investor Survey, January 2019. See page 25 for survey criteria.

Investor Purpose

- Investors are outcome oriented. The bottom-line matters, but measures of success are against specific life goals such as saving for education or retirement readiness.

	TOTAL RESPONDENTS (%)
It's important that my adviser understands my financial needs and goals	91
My long-term goal(s) is the reason I invest	84
I have identified the primary intent for my wealth	81
I make financial decisions based on what I want my money to do for me	77
I define success as reaching my long-term goal(s)	76
I am confident in my level of financial and investment knowledge	62
I want to be involved in the day-to-day decision making regarding my finances and investments	60
I am optimistic about the future of the financial markets	54
I react and make financial decisions based on the markets, economies and policymakers	44
I feel that I may not have enough wealth to accomplish what I would like to	33

Source: State Street Global Advisors Cognitive Bias Study, 2019; Q: Please indicated how much you agree or disagree with the following statements?

Investor Attitudes

Holistic planning is becoming co-planning, creating a more interactive and real time experience; evolving from an advisor-driven to client-driven process

- While competence and expertise are valuable, an advisor's most valuable role is guiding clients toward purpose and meaning

	TOTAL RESPONDENTS (%)
My financial adviser understands my financial needs and goals	87
My financial adviser has a deep knowledge of financial markets and planning	84
I am confident in my financial adviser's ability to guide me on withdrawal strategy and tax efficiency	81
I consider my financial adviser my wealth management partner	77
I trust my financial adviser completely	76
My financial adviser's only responsibility is to construct my portfolio to match my risk tolerance	52

Source: State Street Global Advisors Cognitive Bias Study, 2019; Q: Please indicated how much you agree or disagree with the following statements?

An Objective-Driven Investment Strategy

The value-conscious investor is focused on the long-view — planning and consistency. Sound fundamentals help improve outcomes and separate successful investors from the rest.

- Investors are more likely to look at their overall portfolio than their individual investments when evaluating their investment success
- When evaluating their investment success, investors are more likely to look at their year-over-year performance than performance from last month
- Investors are more likely to look at percentage growth decline rather than performance versus the market, as well as a portfolio with positive return potential rather than a portfolio that does not lose value when evaluating their investment success.

	TOTAL RESPONDENTS (%)
Preference Pairing 1	
Overall Portfolio	89
Individual Investments	11
Preference Pairing 2	
Year-Over-Year Performance	92
Performance from Last Month	8
Preference Pairing 3	
Percentage Growth/Decline	78
Performance versus the Market	22
Preference Pairing 4	
Portfolio Has Positive Return Potential	84
Portfolio Does Not Lose Value	16

Source: State Street Global Advisors Cognitive Bias Study, 2019;
Q: Please indicated how much you agree or disagree with the following statements?

Investment Success Drivers are not Just about Alpha

Personal accountability plays a role

	TOTAL RESPONDENTS (%)
Hard work	77
Staying positive	66
Learning from mistakes	60
Having specific goals	57
Family values	55
Never giving up	55
Personal ambition	48
Taking risks	34
Being generous	33
Always being prepared for the worst	33
Networking — building relationships	29
Having a successful mentor	26

Source: State Street Global Advisors Cognitive Bias Study, 2019; Q: Which do you look at more when evaluating your investment success?

Important Disclosures

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