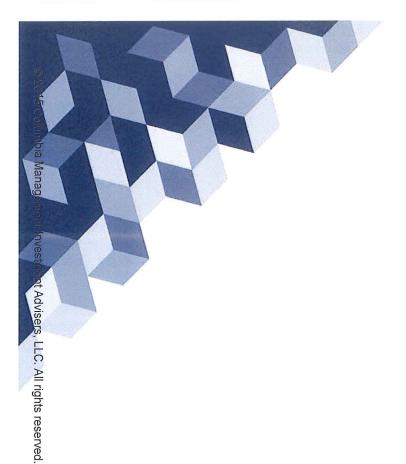


COLUMBIA THREADNEEDLE INVESTMENTS

Your success. Our priority.

An Analysis of Investor Behavior

Speaker and title:



Value proposition



LEARNING CENTER KNOWLEDGE + KNOW-HOW

IT'S NOT JUST ABOUT KNOWLEDGE, IT'S ABOUT KNOW-HOW.

Financial expertise combined with practical tools and guidance to help you gain new clients and assets

For more than a decade, the Learning Center has consistently and persistently delivered business, gather new assets and create repeatable business practices advisors, providing them with not only the "knowledge" but the "know-how" to close new high-end, high touch consultations on over 100,000 retirement cases. We work with elite

way down the path of success program is designed to not only provide the tools but also assist you at each step of the timely technical information, actionable sales ideas, marketing seminars and workshops, real-time sales support and top of the line continuing education courses. This value-add The Learning Center provides exclusive access to our key partners to a unique blend of

Investor psychology: The human brain

COLUMBIA THREADNEEDLE INVESTMENTS

Reptilian brain

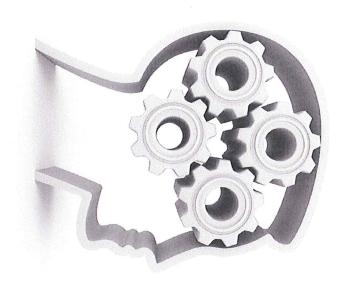
Autonomic responses (heartbeat, breathing)

Mammalian brain

Visual response to fear (fight or flee)

Cortical brain

Controls speech/critical thinking



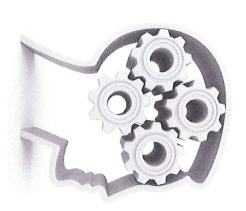
Source: IMCA Conference, 2004.

Investor psychology: The human brain



Prefrontal cortex

- Analytical "logic"
- Reflective
- Slower
- Serial
- Effortful
- Deliberately controlled



Amygdala

- Experiential "gut"
- Reflexive
- Fast
- Associative
- Effortless
- Difficult to control/modify



Investor psychology: Cognitive biases

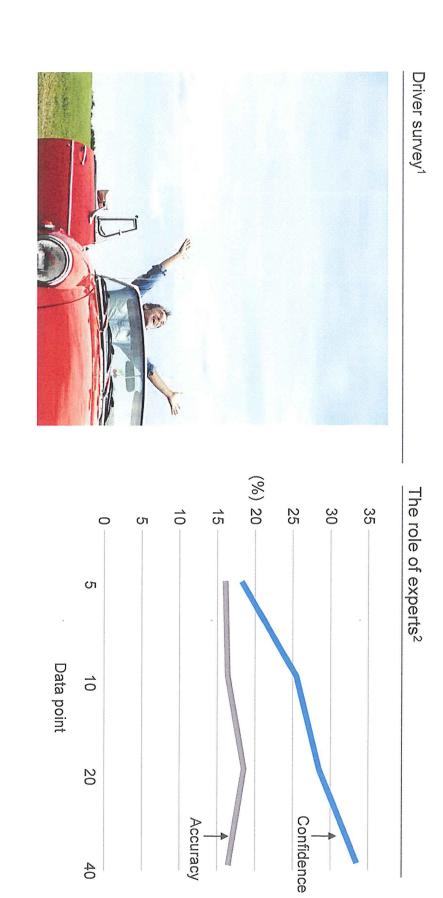
	Biases	ses	
Self-deception (Limits of learning)	Heuristic simplification (Information processing errors)	Emotion/affect	Social
Overoptimism Illusion of control Illusion of knowledge	Representativeness	Mood	Imitation
Overconfidence	Framing	Self-control (Hyperbolic discounting)	Contagion
Self-attribution bias	Categorization	Ambiguity aversion	Herding
Confirmation bias	Anchoring/salience	Regret theory	Cascades
Hindsight bias	Availability bias		
Cognitive dissonance	Cue competition		
Conservatism bias	Loss aversion/ prospect theory		

Source: DrKW Macro Research
Reprinted with permission from "Just One Thing: Twelve of the World's Best Investors Reveal the One Secret You Can't Overlook, Wiley Publishing, 2011.

Investor psychology: Overconfidence and optimism



An example of overconfidence/optimism



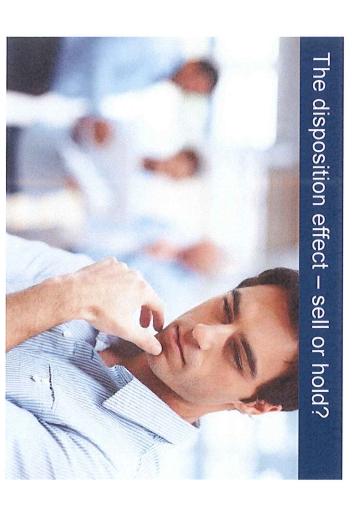
¹ Source: "Aspects of Investor Psychology," Journal of Portfolio Management, Summer 1998.

² Source: Slovic, 1973

Reprinted with permission from "Just One Thing: Twelve of the World's Best Investors Reveal the One Secret You Can't Overlook, Wiley Publishing , 2011.

Investor psychology: Aversion to loss





Prospect theory choices

Potential gains: Choose between

- A. Guaranteed \$24 gain
- B. 75% chance of \$025% chance of \$100 gain

Potential losses: Choose between

- Guaranteed \$75 loss
- 75% chance of losing \$10025% chance of losing \$0

Hindsight, regret

Which would you regret more?

Waiting two hours for a flight because:

- A. Weather/mechanical delays
- B. Missed your flight by two minutes

Investor psychology: Framing



An example of framing

Are anecdotes more important than antidotes?

Option A

Treatment with 50% effectiveness

07 -

Percent of subjects choosing the treatment

Option B		Base	Base rate	
	90%	70%	50%	30%
Positive anecdote	88	92	93	78
Neutral anecdote	82	81	69	29
Negative anecdote	39	43	15	7

Source: Angela K. Freymuth and George F. Ronan, "Modeling Patient Decision-Making: The Role of Base-Rate and Anecdotal Information," Journal of Clinical Psychology in Medical Settings 11, no. 3 (2004): 211-216

Reprinted with permission from "Think Twice: Harnessing the Power of Counterintuition," Michael J. Mauboussin, Harvard Business Press, 2009.

Investor psychology: Anchoring



An example of anchoring

Group 1

Estimate within five seconds the product of multiplying the following set of numbers:

1 x 2 x 3 x 4 x 5 x 6 x 7 x 8 x 9

Group 2

Estimate within five seconds the product of multiplying the following set of numbers:

 $9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$

Investor psychology: Pattern-seeking



An example of pattern-seeking/reference points

Coin toss





Source: "Aspects of Investor Psychology," Journal of Portfolio Management, Summer 1998.



Investor psychology: Representativeness

An example of representativeness:

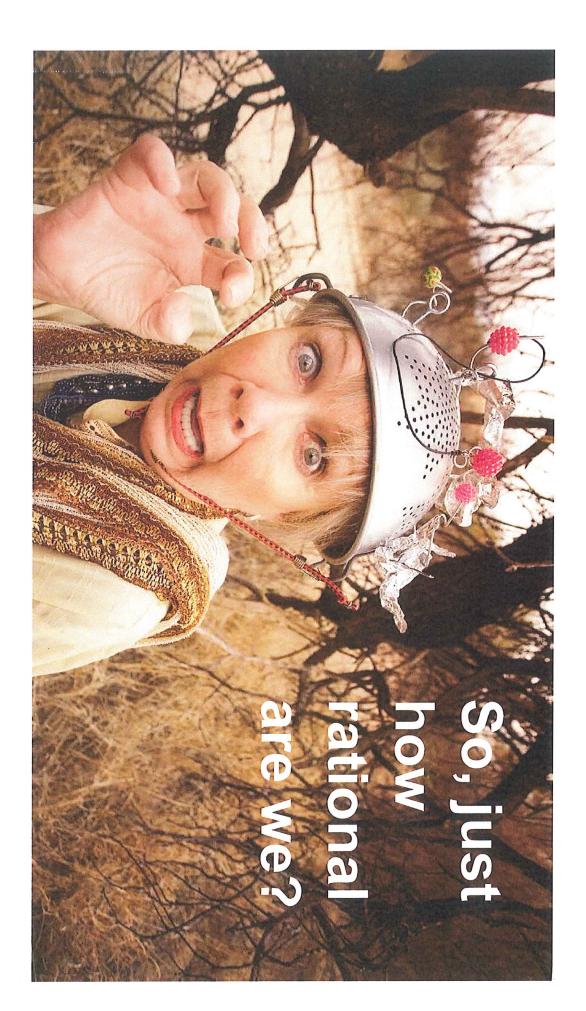
Susan is quiet, scholarly and passionate about social issues. She graduated from Stanford with a focus on English literature and environmental studies.

Which of the following three cases is most probable?

- A. Susan is a librarian.
- B. Susan is a librarian and a member of an environmental organization.
- C. Susan works in the banking industry.

Investor behavior





COLUMBIA THREADNEEDLE INVESTMENTS

Investor results: Harry's take

"I should have computed the historic covariances of the asset classes and drawn an efficient frontier.

Instead...

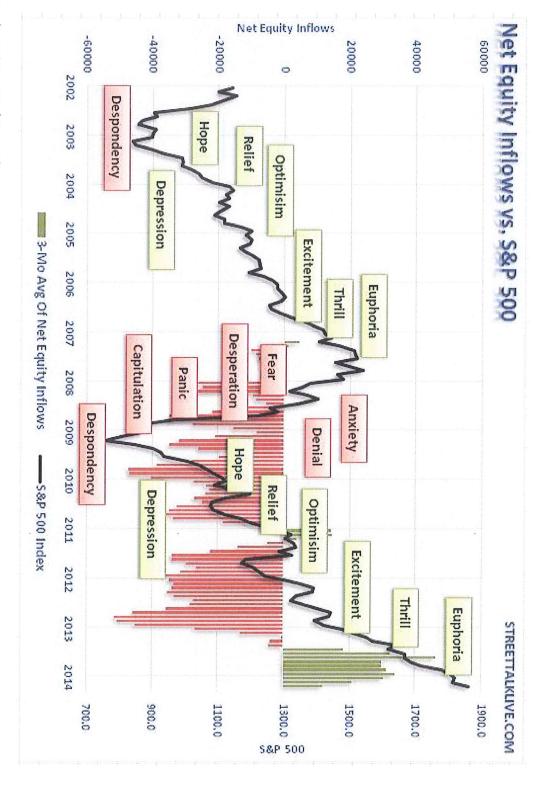
I split my contributions fifty-fifty between bonds and equities."

-Harry Markowitz

Nobel Memorial Prize in Economic Sciences Founder of Modern Portfolio Theory

Investor psychology: An investor's Achilles' heel



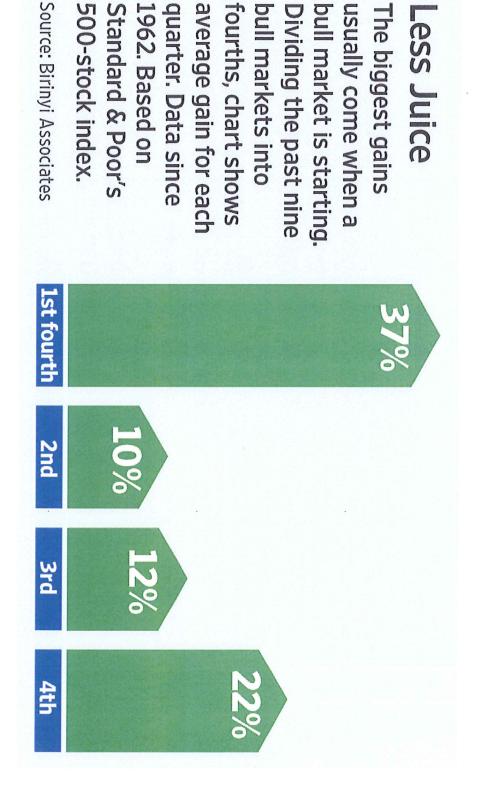


Past performance does not guarantee future results
The S&P Index is an unmanaged index of 500 widely held common stocks. The S&P 500 covers 80% of the U.S. market and encompasses more than 100 different industry groups. It is not possible to invest directly in an index.

Investor results: Historical bull market cycle



Biggest gains are in early bull market



Source: "Bull Looks Long in the Tooth," Wall Street Journal, February 1, 2010. Used with permission from Dow Jones & Company. Past performance does not guarantee future results.

Investor psychology: Common investor mistakes



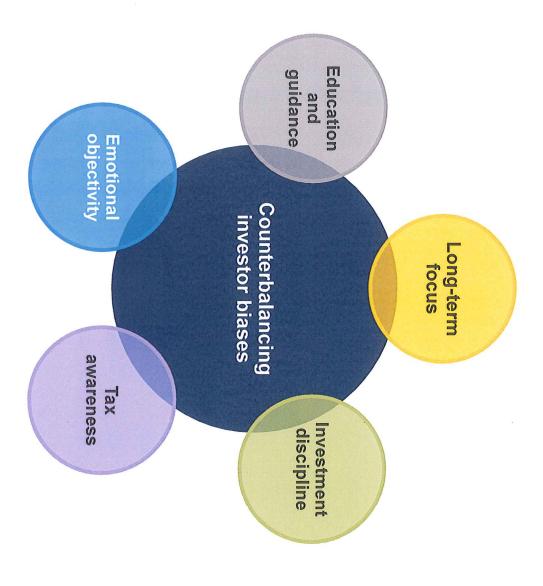
High-net-worth investor's top five investing mistakes

25%	Failing to diversify	-
22%	Investing without a plan	N .
20%	Making emotional decisions	ω
16%	Failing to review a portfolio	4.
14%	Fixating on previous returns	O
		物をあるがなか

Source: deVere Group Survey (880 Global HNW clients w/ at least \$1MM in investable assets) Past performance does not guarantee future results.

Investor psychology: Advisor value





Investor psychology: Final thought



worst enemy - is likely to be himself." "The investor's chief problem - and even his

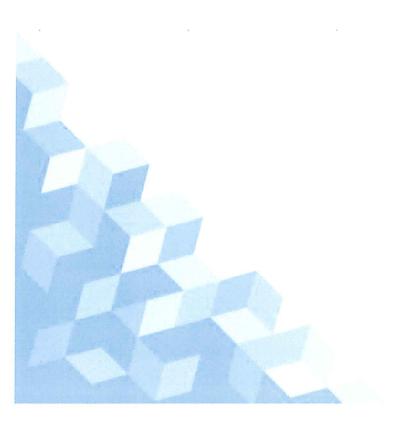
—Benjamin Graham Father of Modern Security Analysis

LEARNING CENTER KNOWLEDGE + KNOW-HOW



Your success. Our priority.

Q&A



Important disclosure



party industry consultants, are not affiliated with Columbia Management Guest speakers from the Retirement Learning Center or PLAN SPONSOR Institute, third-

Please consult a tax or legal advisor for individual needs avoiding penalties and taxes. Columbia Management does not provide tax or legal advice. This material is for educational purposes only. It cannot be used for the purposes of

member FINRA. Advisory services provided by Columbia Management Investment Securities products offered through Columbia Management Investment Distributors, Inc., Advisers, LLC.

the Columbia and Threadneedle group of companies Columbia Threadneedle Investments (Columbia Threadneedle) is the global brand name of

02110-2804 Columbia Management Investment Distributors, Inc., 225 Franklin Street, Boston, MA

Not FDIC insured • No bank guarantee • May lose value

© 2015 Columbia Management Investment Advisers, LLC. All rights reserved.