



STATE STREET GLOBAL ADVISORS

Getting Smarter About Gender Intelligence

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GETTING
SMARTER
ABOUT

GENDER INTELLIGENCE

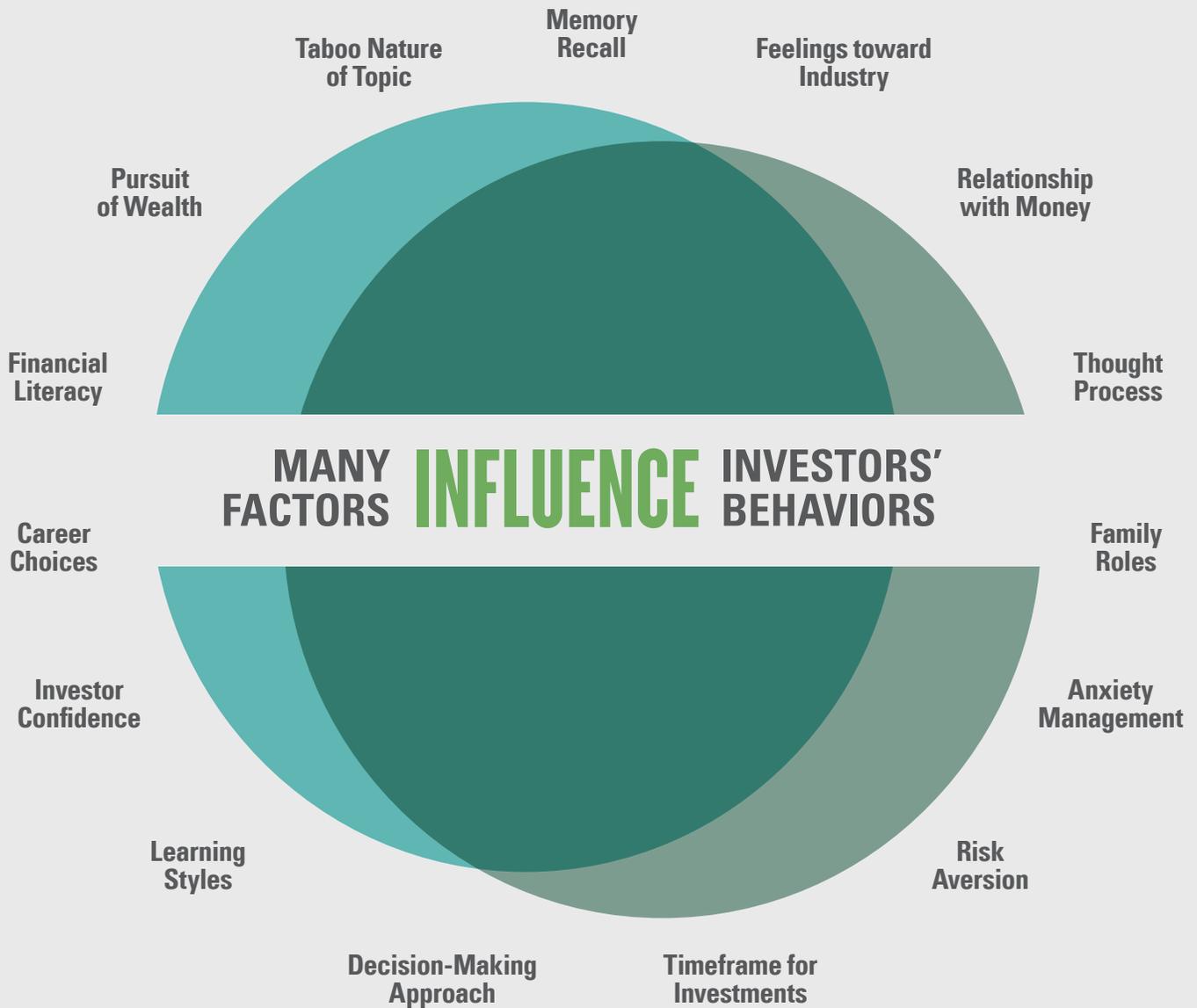


Does gender really matter when it comes to investing?

If so, what drives the differences between
men and women — is it nature or nurture
that makes us invest the way we do?



“The male brain is well equipped to focus attention on a specific issue....”



...the female brain is better able to take a more holistic, big picture view.”



Although it may be tempting to casually split the population of investors in half and size up either group with a mental checklist, life is never that simple.

And neither is investing. The financial industry needs to be smarter about the impact of gender on investment decisions. A deeper understanding of the influence of gender helps to engage all investors. Above all, we are individuals; our behaviors are not predetermined by our genes. The guiding principle here is to use observations about gender to glean insights about each individual and to better serve all investors. To do that, we need a better understanding of exactly how gender impacts financial decisions.

HARDWIRED & SOCIALIZED

Gender influences the investing experience in two ways: **biologically** and **environmentally**.

The biological component is, not surprisingly, where we have the least amount of control. Men and women differ in every biological system, including how the brain functions.¹ Our brains are shaped by genes and hormones. This biological component to gender impacts the investing experience in many ways — how we process information, how we think about risk, and how we approach investing. The environmental component, on the other hand, is determined by our life experiences. Along these lines, the differences in “traditional” male or female behaviors, can be offset — and possibly even reversed — by our own actions and attitudes. Life experiences are so powerful that they can even change the very structure of our brains.²

Both biological and environmental components influence the investor mindset through many factors, including:

Investor Confidence

Financial Literacy

Relationship with Money

Decision-Making Style

These factors influence an individual’s investment style in various ways, including:

Risk Tolerance

Time Horizon

Trading Frequency

Investment Approaches
such as index or active

Biological factors impact memory, how we react to stress, and how we deal with risk.³ There are gender differences in how information is processed, how rewards are negotiated, and how decisions are made. For example, women tend to gather more details and integrate them faster than men.⁴

Environmental factors impact perspective, confidence and motivation. This is so engrained that we aren't always aware of the impact. Social psychology research, for example, has shown that our expectations of traditional male and female roles actually perpetuate stereotypes. Boys have historically been reinforced for competitive and assertive behavior, girls for nurturing and more passive collegial activities.⁵

Layered upon the biological and environmental gender differences are the individual perceptions we have about gender. Advisors can try a thought experiment to understand how gender impacts their own client relationships by asking themselves:

-  **Are there differences between the investing goals of my male and female clients?**
-  **Are there differences in how my male and female clients approach decision making?**
-  **Are my relationships with my male clients different than those with my female clients?**

ROOTED IN RESEARCH

We should also approach these questions from a research perspective, to help advisors understand what drives the gender differences they see in their own clients. Here we look at five gender differences in financial decision making that are biologically or environmentally based.

1 INVESTING CONFIDENCE

A key environmental factor is the investor's conviction in their own abilities. Confidence can spiral into overconfidence, cautiousness can slip into indecision — either imbalance can have serious negative long-term consequences on investment performance. One landmark behavioral finance study looked at the cost of overconfidence related to excessive trading; the higher transaction fees that male investors incurred cost them 2.7% annually, compared with 1.7% for female investors.⁶ At the other end of this confidence spectrum, investors who are overly cautious and focus mainly on potential losses may fall victim to paralysis by analysis, failing to ever reach their financial goals.



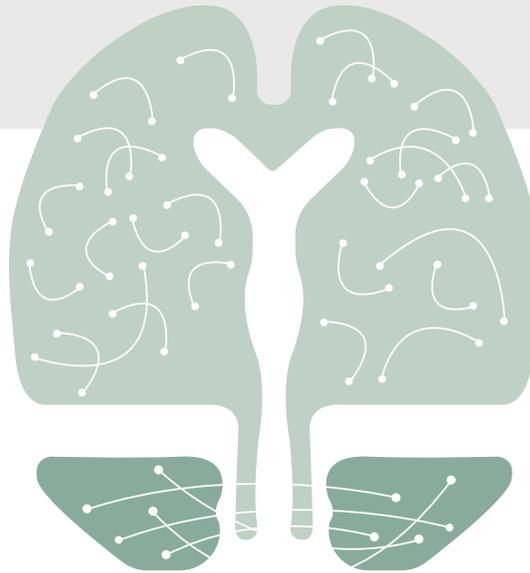
IMPACT OF TRADING ON ANNUAL NET RETURNS

Annual cost of transaction fees incurred due to excessive trading

All else being equal, men traded stocks nearly 50% more often than women. This added trading drove up the men's costs and lowered their returns. **While both sexes reduced net returns through excessive trading, men did so by 0.94% more per year.⁶**

2 BRAIN FUNCTIONING

Another biological component is the difference in how the brain traffics stress. The male brain is well equipped to focus attention on a specific issue, whereas the female brain is better able to take a more holistic, big picture view.⁷ This may be connected to the environmental components of how men and women define investment goals and success, and it also means that women may be less adaptive to stressors. Brain functioning may also explain the greater likelihood for female investors to incorporate sensory and emotional information into the decision process.⁷ The female brain has a higher density of neural connections into the hippocampus (memory center), as well as higher activity level and greater connections between the two hemispheres (linking analysis and intuition). Also, the larger language associated regions of the female brain are related to a greater focus on interpersonal communication.⁷



MEN HAVE more links **within** each hemisphere & more links **between** each region of the cerebellum **WHICH IS** structured to facilitate connectivity between perception and coordinated action⁸



WOMEN HAVE more links **between** each hemisphere & more links **within** each region of the cerebellum **WHICH IS** structured to facilitate communication between analytical and intuitive-processing modes⁸

3 HORMONE LEVELS

The higher testosterone levels in men tend to be associated with less risk aversion, because this hormone helps to buffer against anxiety.⁹ Progesterone, on the other hand, makes it more likely for women to remember stressful events in great detail.¹⁰ The result? Men will, on average, tolerate higher risk in order to achieve a higher reward.¹¹ This hormonal difference may also play out in the decision process. Women, striving to avoid regret, may take more time to gather additional information and make decisions; men are more inclined to make a decision as soon as they identify a good option and then move on to the next decision.¹²



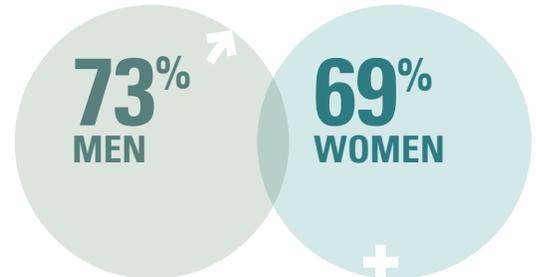
True or False:
Men's brains are bigger.

TRUE, but size isn't everything. And the difference has nothing to do with intelligence. Women have more gray matter in certain parts of their brains and more intricate and extensive communications between brain cells than men, particularly in the frontal cortex. This is the area involved in judgment and decision making: the "executive center" of the brain.¹³

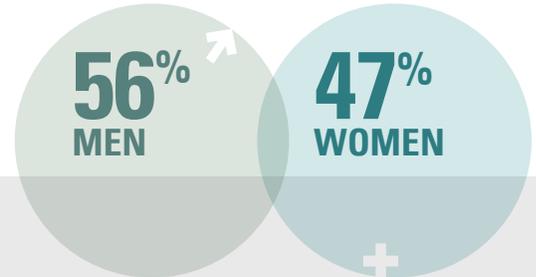
4 FINANCIAL LITERACY

Both genders score poorly when it comes to conceptual literacy (e.g., how does inflation impact savings?), with female investors slightly trailing male investors.¹⁴ Even for product literacy (e.g., what is a hedge fund?), female investors average a D+, whereas male investors earn a C.¹⁴ Both types of financial knowledge are crucial, to grasp the bigger picture and to make timely and well-informed investment decisions. This presents a great opportunity for advisors to engage all client types.

PRODUCT LITERACY SCORE¹⁴



CONCEPTUAL LITERACY SCORE¹⁴



5 DEFINITION OF GOALS & SUCCESS

The ways in which men and women define investment goals and success is another important environmental factor. Men are more likely to equate money with success and achievement.¹⁴ Women tend to view money as a means to security and independence; they are acutely aware of the gender gap in pay, the likelihood that they will outlive a spouse, and the additional years of retirement to be funded.¹⁴ The result is that female investors may take a longer-term perspective, making financial decisions aimed at achieving security for themselves and their families. Male investors tend to define their goals in terms of outperforming the markets.¹⁴ How an investor defines their



DEFINING INVESTMENT SUCCESS¹⁴

#1 indicator of success for men:

“Outperforming the market.”

#1 indicator of success for women:

“Being on track with my long-term investing goals.”

goals can significantly influence their approach to investing and their investment outcomes. Related to this are the investor’s values and perspectives — women tend to be more altruistic, and men tend to be more competitive.¹⁴

In practice, these biological and environmental components can influence gender differences in terms of how clients set and aim for investing goals, in their approach to investment decision making and in the nature of the client relationship.

The bottom line is that, while gender may influence these five components of financial decision making, individual investors will have their own unique experiences.



Help clients make the right choices based on informed discoveries — not based on self-rationalization.

APPLYING RESEARCH TO PRACTICE

True gender intelligence means understanding the ways in which biological and environmental components influence each client's decision process, how they view money, and their short- and long-term goals. Advisors can help clients make the right choices based on informed discoveries — not based on self-rationalization.

Consider how gender differences in brain functioning might apply to the investment decision process. Women tend to rely on others for investing information and are more likely to make decisions collectively.¹⁵ They are more likely to place higher value on communication that supports their decision process.¹⁶ And because they are skilled at integrating or processing that additional information, they are able to decipher even contradictory information. They are motivated to avoid risk, even if that means a longer decision process.¹⁷

Self-confidence can be enhanced or weakened by experience. Understanding the client's life experiences, and how gender may influence perception, can help advisors foster the client's self-confidence, encourage them in owning the decision-making process, and ultimately lead to connecting with clients on a more meaningful level.

Men tend to follow a more straightforward decision process, collecting their own investing information and making decisions independently.¹⁸ Factoring in emotion, both men and women are subject to emotional influences that can have positive or negative implications for their investing habits. These emotional influences are not predictors of success or failure as an investor — the outcome depends on many factors, including the investor's self-awareness of their emotional influences.

This same principle applies to the gender difference in the investment time horizon. Women tend to make investment decisions geared to their longer-term goals; men tend to focus on shorter-term tactical decisions.¹⁹ The key is in a deeper understanding of these influences and a more gender-aware perspective on the decision process. All investors may benefit from a blend of consistent, long-term strategy with efficient, shorter-term tactics.

¹ Stephan Hamann, "Sex Differences in the Responses of the Human Amygdala," *The Neuroscientist*, 2005.

² Maya Opendak, Brandy A. Briones, and Elizabeth Gould, "Social Behavior, Hormones, and Adult Neurogenesis," *Frontiers in Neuroendocrinology*, 2015.

³ Expert interview with Marianne Legato, MD, FACP, Founder and Director, Foundation for Gender-Specific Medicine at Columbia University.

⁴ William K. Darley and Robert E. Smith, "Gender Differences in Information Processing Strategies: An Empirical Test of the Selectivity Model in Advertising Response," *Journal of*

Advertising, 2013.

⁵ Lise Eliot, Ph.D., "Pink Brain, Blue Brain: How Small Differences Grow into Troublesome Gaps — and What We Can Do About It," 2009.

⁶ Brad M. Barber and Terrance Odean, "Boys will be Boys: Gender, Overconfidence, and Common Stock Investment," *The Quarterly Journal of Economics*, February 2001.

⁷ Gregory L. Jantz, Ph.D., "Brain Differences Between Genders," *Psychology Today*, February 2014.

⁸ Madhura Ingahlalkar, et al. "Sex Differences in the Structural Connectome of the Human

A MORE COLLABORATIVE & INDIVIDUALIZED APPROACH

Biological and environmental influences shape many aspects of how men and women invest, but it's the common strengths of successful long-term investors that matter most: they save more, they stick to long-term goals, they manage their emotional biases, and they never stop learning.

Understanding the influence of gender on investment decisions is not about pitting female investors against male investors; it's about fostering greater gender intelligence with all investors. This more inclusive perspective opens up opportunities for advisors to demonstrate a collaborative and individualized style to all clients and prospects. It may take more time and effort on the part of advisors to engage clients at this deeper level, but this is where the advisor can truly differentiate in the things that really matter to each individual – their values, their needs, their concerns and their goals.



It's the common strengths of successful long-term investors that matter most:

**they save more,
they stick to long-term goals,
they manage their emotional biases,
and they never stop learning.**

Brain," PNAS, January 2014.

⁹ Paola Sapienza, et al. "Gender Differences in Financial Risk Aversion and Career Choices are Affected by Testosterone," September 2009.

¹⁰ Nicole Ertman, et al. "Progesterone at Encoding Predicts Subsequent Emotional Memory," Learning & Memory, 2011.

¹¹ FINRA Investor Foundation, "Financial Fraud and Fraud Susceptibility in the U.S.," 2012.

¹² Gregory L. Jantz, Ph.D., "Brain Differences Between Genders," Psychology Today, February 2014.

¹³ Source: Marianne J. Legato, MD, FACP, "Why Men Never Remember and Women Never Forget," 2005.

¹⁴ State Street Center for Applied Research, "Addressing Gender Folklore," 2015.

¹⁵ State Street Global Advisors' "Money in Motion survey," April 2015.

¹⁶ State Street Center for Applied Research, Addressing Gender Folklore, 2015.

¹⁷ Tara Mohr, "Playing Big," 2014.

¹⁸ State Street Global Advisors' "Money in Motion survey," April 2015.

¹⁹ State Street Center for Applied Research, "Addressing Gender Folklore," 2015.

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