



Addressing Gender Folklore

Diversity in investing, or investing in diversity?

The investment industry could learn a thing or two from honey bees. Their communication skills are impressively demonstrated by their so-called “waggle dance,” which details the distance and direction to valuable food sources. They are extraordinarily efficient and even models of utilitarianism, in how they optimize foraging efforts for the overall health and well-being of the hive. Perhaps what’s most remarkable about this group of insects is the precision with which they create



perfect geometric symmetry in the honeycombs that beautifully maximize honey storage within the hive.

Nature is replete with such examples of perfect symmetry. Even in our daily lives, human beings are obsessed with symmetry — from facial features to personality traits.¹ Lack of symmetry leads to tension, which we alleviate by achieving balance.² By our own nature, we seek a tranquil balance of yin and yang.

However, this balance does not translate to the investment industry. As a whole, the industry has been in a state of dis-equilibrium.

There is no shortage of data that illustrates the gender imbalance within the investment management industry. Our investigation into gender diversity was sparked by a related research study. In “The Folklore of Finance: How Beliefs and Behaviors Sabotage Success in the Investment Management Industry,” we examined a broad set of behaviors that influence investment decisions.³

According to that study, the models for success in the investment industry are broken. Investment professionals are failing to deliver alpha on a consistent basis, and they are failing to help investors achieve long-term goals. Could it be that gender-specific differences in investing are contributing to the industry’s failure to achieve true success? To answer this question, we must first determine whether the

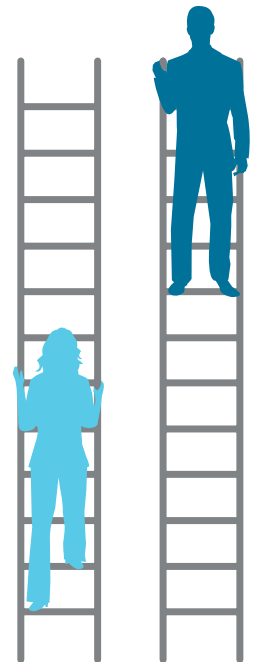
NO PARALLEL UNIVERSE

Women represent about half of the US workforce and college graduates with a business degree. Yet the percentage of women across the investment industry doesn’t come close to being proportional. The picture is roughly the same in Europe and Asia-Pacific.

Climbing up the corporate ladder, the numbers dwindle.

Only
13%

of executive officers at US firms are women, and only 4% of financial firms’ CEOs are women.*



*see endnotes 4-8

decision-making process differs between men and women. It is a difficult question to answer — not the least because, even if such differences exist, they are not static over time.

Research tells us that there are fundamental differences between the male and female brain that impact how we make everyday decisions — perhaps including investment decisions. Specifically, our brains are shaped by genes, hormones and life experiences. The first two are biological (where we have the least control); the third is environmental (where we have the most control).⁹

As our life experiences become richer and more diverse, we also change. Even the very structure of our brain changes — and hence the manner in which we think and act. Nobel Laureate Eric Kandel discovered

that new experiences actually change the anatomy, chemical composition and function of the brain.¹⁰ Experiences are literally embedded in our brain, influencing our behavior.

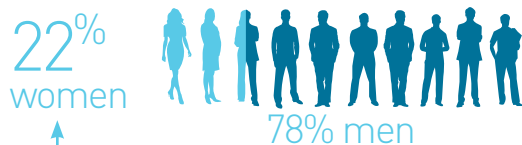
Could these biological and behavioral stimuli impact and be impacted by gender differences? And how would this apply to investment decision making? As in “The Folklore of Finance” study, here we look at a representative sample of individual investors as well as professional investors, including asset owners (pension plan sponsors, foundations, endowments and sovereign wealth funds), asset managers, intermediaries and regulators. Segmenting our research in this way allows us to compare any gender differences across the various groups. We augment this primary research with academic and industry research on the topic of gender diversity.

To begin our analysis, we review demographic results of our primary research, focusing first on professional investors and comparing our own results with those of secondary research. Next we look into gender differences in investment decision making for individual investors, and the potential consequences of a gender gap. We introduce the concept of gender folklore and consider how it may be reinforcing the gender gap. We wrap up our analysis with some thoughts on how the industry can evolve to a more balanced state.

TAKING STOCK OF THE GENDER SPLIT

From our survey of 864 investment professionals across 19 different countries, along with secondary research, we easily see a significant gender gap across the professional investment community.¹¹

Asset owners

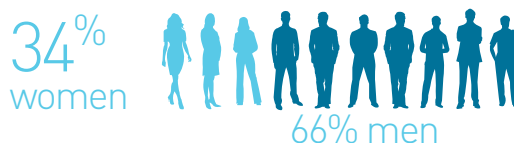


- Corporate retirement plans: 21% women, 79% men
- Government retirement plans: 26% women, 74% men
- Endowments: 37% women, 63% men¹²
- Foundations: 32% women, 68% men
- Sovereign wealth funds: 33% women, 67% men

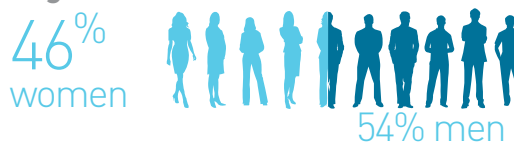
Asset managers



Intermediaries and consultants



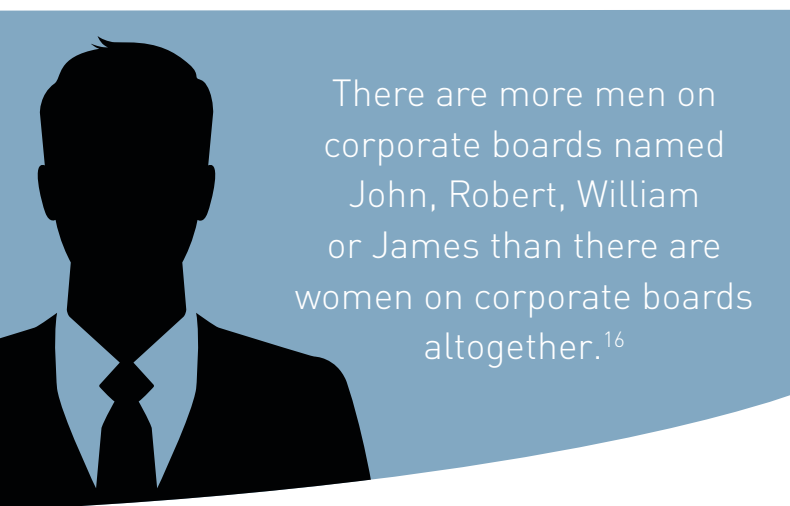
Regulators



The gender divide is even wider if we look only at individuals who are most influential in the investment industry — portfolio managers, analysts, executives and other investment professionals:¹³

- Among asset managers, only 7% of money managers are women, 93% are men.¹⁴
- Among asset owners, only 19% of investment analysts are women, 81% are men.¹⁵

With the gender gap well established, we can move on to the more interesting questions of why women are so underrepresented in the investment industry and how this disparity affects the industry, investment clients and potentially their investment returns. Does gender impact investment outcomes?



Before we take a broad brush to the gender differences in investing behavior, we look more closely at the two main groups of investors:

- 1) Professional investors
- 2) Individual investors

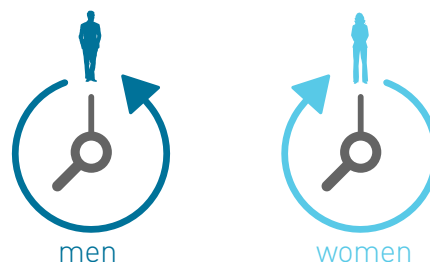
Segmenting investors in this way makes it easier to isolate the effects of gender on investing; factors such as culture, socio-economic background and education can muddy the analysis, especially for individual investors. Looking specifically at professional investors gives us a more level playing field.

TAKE IT FROM THE PROS

Our intent here is to identify the strengths and limitations of men and women as investors from several perspectives. We present a snapshot of the moment, a glimpse into the industry as it currently operates; as experiences continue to shape us and as the industry evolves, the differences we reveal today are bound to shift over time.

An interesting finding from our survey results is that female professional investors tend to be more long-term goal oriented than their male counterparts. More women in the asset owner segment (26% of all women respondents) measure success as relative to their organizations' long-term goals, as opposed to only 21% of men. This is even amid other presumably more expected options, such as "against peers" and "against benchmarks."¹⁷

When it comes to selecting an investment provider, female asset managers rank trust and reputation as the top factor, compared with men who rank past performance number one. The focus on trust and reputation is especially interesting; one of the key capabilities that investors desire from a provider is truly unbiased, high-quality advice.¹⁸



Men would focus on past performance (history), whereas women would focus on organization goals (future).¹³

We can gain even more insight into gender differences by looking at the perception of how skill is demonstrated. More women see skill as understanding the market, information or risk; for men, skill is proven by higher risk-adjusted returns. The ultimate judge of skill, however, is the investment client. Higher risk-adjusted returns will not always mean success to a client, especially when the benchmark produces negative returns; seeking to understand all the relevant information may better reflect the investment client's idea of success.¹⁹ Turning the tables, a focus on actionable tasks such as higher-risk adjusted returns should also be a coveted attribute, especially as the industry is overwhelmed with a deluge of data. We can easily see how these two different perspectives of women and men could be complementary and even work in synergy.

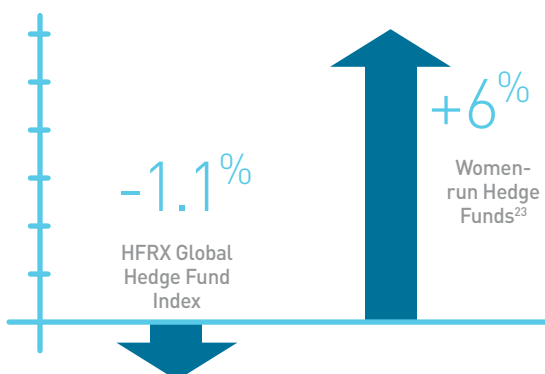


Men would use limited sets of information to arrive at decisions... women would consider all aspects and views.¹⁹

All in all, our research results tell us that women focus more on understanding, articulating and incorporating client goals (both short-term and long-term) in their decision making, while men tend to focus more on metrics and deliverables. Together, these attributes are crucially important in delivering a stellar client experience.

We can also glean some important insights by reviewing the literature focused on professional investors:

- Many studies find that female money managers are more risk averse than their male colleagues,²⁰ although a growing body of evidence speaks to the contrary.²¹ Further, studies find that women have less extreme and more consistent investment styles, they trade less than male managers, and looking at the broad universe of US mutual funds, there is no significant difference in risk-adjusted returns of male and female managers.²² With men representing roughly 90% of the industry, it may be more illuminating to highlight data on women, specifically:
 - More targeted studies find significant performance differences for female money managers. One study finds that hedge funds run by women have significantly outperformed the broader market of hedge funds. From 2007 through June 2013 (which includes the global financial crisis and post-crisis years), the HFRX Global Hedge Fund Index fell 1.1%, compared with an index of women-run hedge funds that returned 6% during that time.²³



- Another study finds that recommendations from female sell-side analysts generate slightly higher information ratios than male analysts. In this case, female analysts actually had a higher chance of being recognized as star analysts.²⁴

- The presence of men on an investment team has been shown to increase the probability of risk-seeking behavior and loss aversion.²⁵ The higher loss aversion for men may appear counterintuitive, but it simply means that men are more likely to take on additional risk to avoid losses. Most intriguing of all is the finding that neither an all-male team nor an all-female team was the most risk seeking. This reinforces the concept that team decisions are fundamentally different from individual decisions and that a better understanding of the sources of risk and return is needed, not a gender lens.
- Lastly, research shows that professional female investors' outcomes tend to remain consistent, even as the complexity of decisions increases (in terms of both the number of details and the consistency of the information). Professional male investors' outcomes tend to be less positive as the complexity of decisions increase.²⁶ This added consistency may bode well for investment firms, especially as macroeconomic conditions and regulatory environments continue to become increasingly complex and uncertain.

Overall, the research shows that women can deliver alpha while maintaining suitable risk levels. More importantly



Female investors

Professional female investors' outcomes tend to remain consistent, even as the complexity of decisions increased.



Male investors

Professional male investors' outcomes tend to be less positive as the complexity of decisions increase.

for their clients, they emphasize long-term goals. This last point could be the spark that helps the investment industry progress toward achieving true success.

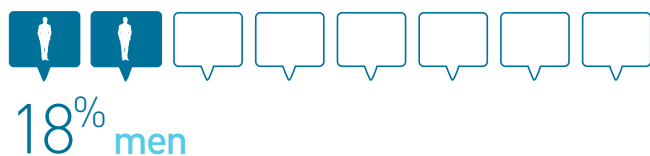
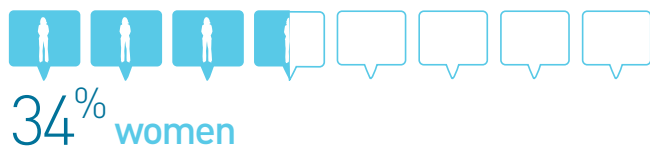
Our goal here is not to establish the supreme investing dominance of one gender or the other, nor to enter a Battle of the Sexes' Sharpe Ratios. It may even seem that some of these observations contradict each other. This lesson, a kind of gender optical illusion, is more important than any of the individual study results; the way we perceive gender differences can be strikingly different from objective reality. Before we reveal the twist to this gender optical illusion that challenges our traditionally held beliefs around male and female investment decisions, we must first look for any gender differences among individual investors.

BY THEIR OWN ACCOUNT

Research focusing on individual investors offers some interesting insights into how gender impacts investment decisions. In our own survey of more than 2,880 individual investors across 16 countries, we looked at what differentiates women and men when it comes to investment decision making.²⁷ Three factors rise to the top — decision process, personality traits and financial literacy.

- 1) Decision process:** Women are more likely to make decisions collectively — 34% of women confer with a spouse, compared with 18% of men.

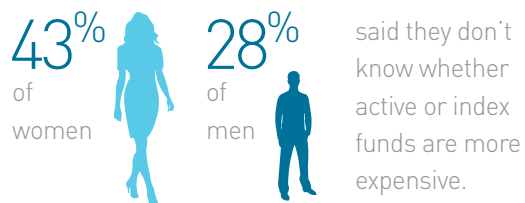
Women are more likely to make decisions collectively than men.



When it comes to attributing investment success, only 57% of women take full credit for their best investment decisions, compared with 71% of men who reported to have been the sole decider (the remainder being influenced by a family member, financial advisor or other individual).

- 2) Personality traits:** Compared with their male counterparts, female investors appear to be more long-term and goal-oriented, less risk-seeking, less overconfident and less trusting.

- Goals: Women are more long-term oriented than men.
 - When asked how they define success, women report that their top goal is being on track with long-term investing goals; for men, the top goal is outperforming the markets.
- Risk-taking: Women appear to be more risk averse, a finding that is echoed in much contemporary academic research. (see Figure 1)
- Realistic self-assessment: Women are more likely to admit what they don't know about an investment.
 - Comparing investment costs:



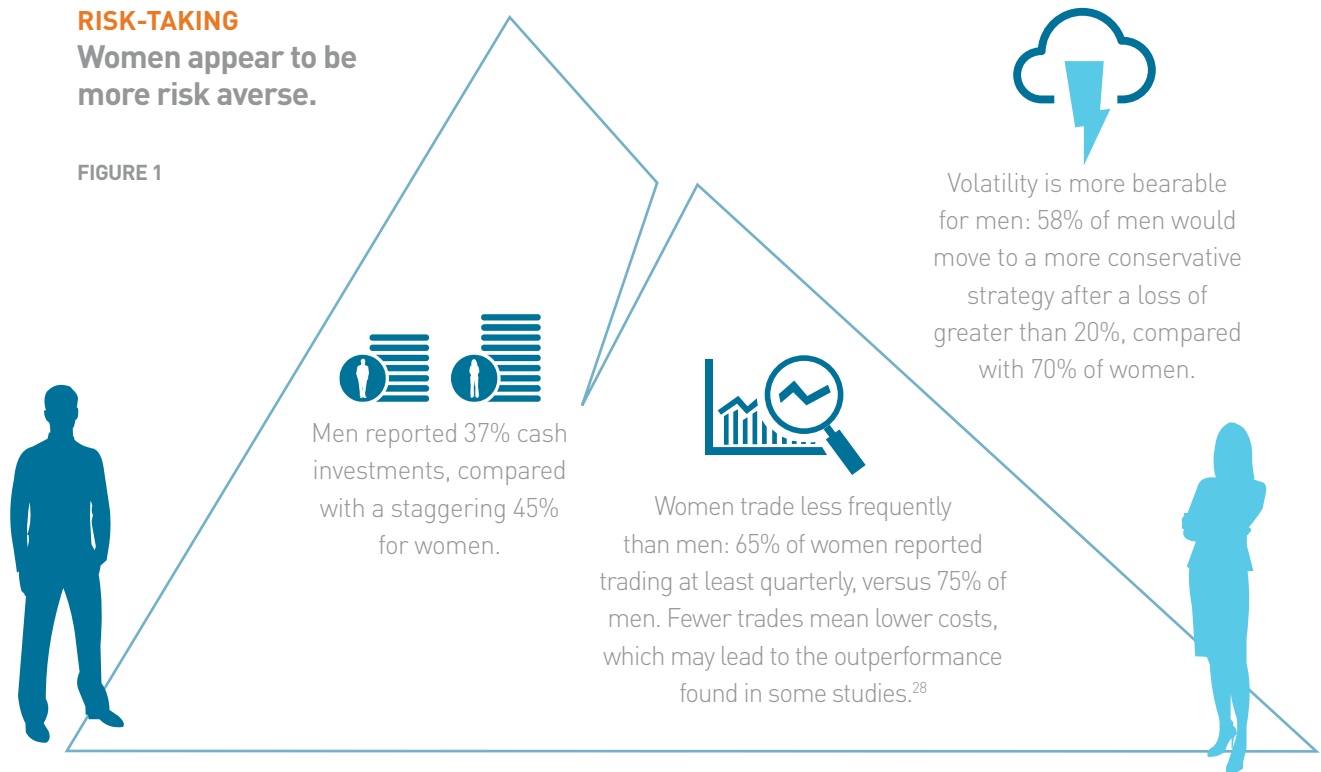
Only 15% of both men and women responded correctly that active funds are more expensive, which means that



RISK-TAKING

Women appear to be more risk averse.

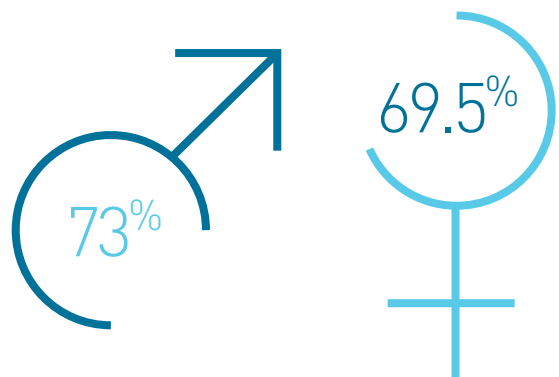
FIGURE 1



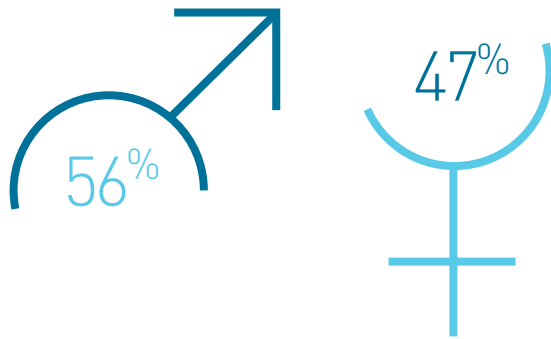
- While there is very little knowledge of fees among individual investors generally, 73% of women are aware that they do not know the level of fees paid, compared with 59% of men. The remaining male and female respondents displayed their lack of knowledge about investment fees, with estimates that climbed as high as 5,000 basis points.
- This innate confidence that men display is essential at times, especially when market uncertainty may appear overwhelming but investment decisions cannot be avoided. Taking a cue from behavioral psychology, women may be advised to “fake it till you make it.” Just the act of feigning confidence can result in a hormonal shift that leads to a greater sense of power and risk tolerance.²⁹ This might even help women in putting their 45% cash allocation to better use.
- Trust: Women take time and require evidence to establish trust.
- Women tend to be more skeptical, with only 46% believing that investment providers’ performance is a result of skill as opposed to luck, compared with 57% of men.

3) Financial Literacy: We categorize financial literacy across two dimensions — by product (for example, what is a hedge fund?) and by concept (such as, how does inflation impact savings?)

- Product literacy: Here both genders score reasonably well in our survey, with men at 73% and women at 69.5%.



- Conceptual literacy: Both genders receive a failing grade here: Men at 56% and women at 47%.



This is a very important finding on two separate levels. First, no amount of investment product knowledge will make individual investors better equipped at managing their investments unless they also gain conceptual literacy to better grasp the bigger picture. It should come as no surprise that investors spend more time reading mail-order catalogs than reading their investment statements.³⁰ Second, it's likely that an investor's educational background impacts their investment decision-making ability. For example, female representation in science, technology, engineering and math fields (or STEM) is very low, which may be a factor in the lower conceptual literacy score. This issue may be worthy of further research by investment managers and educators alike.

These stark differences among men and women should be a wake-up call for all stakeholders of the investment industry. The industry should tailor products and solutions to be more effective for a range of consumers. Simply allocating more money toward increasing financial literacy is not likely to yield the desired benefit. Improved math and analytical skills may be needed to improve investment outcomes.

This is one example of how the environment plays a powerful role in gender differences among individual and professional investors — possibly as much as biology, or even more so. For example, we see this in

some of the attributes carried over from individual to professional settings, such as women's goal-oriented nature. On the other hand, risk-seeking behavior is most contentious; there is no clear pattern, moving from individual to professional investors. There is more to gender diversity than a mere static biological component.

REVEALING THE GENDER FOLKLORE

Despite strong evidence that a more gender-balanced investment industry would be valuable to investors, why are women still so underrepresented throughout the industry? With firms' efforts in multi-asset-class solutions, big data, and other sophisticated enhancements that seem to wring out the very last basis point from every single investment position, how is it that the investment industry has overlooked such an obvious resource?


We think that folklore in the industry is at the heart of this disconnect.³¹ When we refer to folklore, we define it as in our prior research on behavioral biases, "The Folklore of Finance":

“Folklore is the literature,
knowledge, art and practice
disseminated through
behavioral example and oral
communication.”

How does the concept of folklore apply to women and investing? Consider two types of gender folklore — conscious and unconscious. The unconscious form of gender folklore is far more insidious and destructive than the conscious form.

There is no shortage of research demonstrating the presence of gender folklore, including examples of conscious folklore. Case in point, many academic studies (along with the investment industry generally) consciously characterize women as more risk averse.

But when controlling for financial knowledge and overconfidence, risk aversion tends to diminish and in some cases has even been shown to reverse.³² Authors of the study suggest that “Other affiliations such as religion, race, or culture could produce similar results.”



Data collected since 1980 shows that the effects of gender often diminish over time; as women increasingly enter fields previously dominated by men, gender differences in behavior become insignificant. This may ultimately be true of investment risk-taking for professional and individual investors.³³

- For individual investors, the folklore around gender and risk-taking may actually be harmful to a woman's wealth, especially if it sways her financial advisor. Some studies have found that advisors overestimate risk tolerance of men and underestimate that of women, which could be increasing opportunity risk for women and affecting the odds of meeting their financial goals.³⁴
- This is also where we must be mindful of the time dimension of gender folklore. Even a proven gender difference can diminish or fade away entirely over time.

The conscious folklore is just the tip of the iceberg; the subtle, unspoken and pervasive unconscious folklore around women and investing is much more difficult to address. We can point to many examples within and beyond the investment industry, including:

- Some investors exhibit a strong bias when it comes to investing, not trusting or wanting to invest in a female entrepreneur.³⁵
- Another sphere of influence for an individual investor is their financial advisor, who may be more prone to promoting funds managed by men.³⁶
- The media also plays a part in perpetuating gender folklore. Media coverage can have a huge impact on fund flows; the financial press may report less in total (or less favorably) about female fund managers than about male fund managers.³⁷
- Even across industry sectors, research shows that female managers in upper levels of organizations are stereotyped as less skilled than male managers.³⁸

These are illustrations of the optical illusion at play, which colors our perception of gender differences.

SEEING IS BELIEVING

An interesting and challenging aspect of gender folklore is that it is a self-augmenting process. There is a vicious cycle wherein existing folklore leads to behaviors that reinforce or even propagate more folklore. Social cognition research shows that people make pre-cognitive decisions that translate into cognitive biases.

We have powerful, largely unconscious tendencies to perceive and interpret people and events in terms that confirm our prior expectations — we have a need to ease the tension that results from a conflicting view. These confirmations make us more likely to notice and remember events and experiences that confirm what we expect and to overlook, ignore or even discount things that go against our expectations.³⁹ In the case of the investment industry, a stereotypical expectation of women being less skilled than men persists when both men and women look for confirming evidence and discount any evidence to the contrary. This continuous process further propagates the folklore.

Lost in translation

Gender folklore is perpetuated through language and behavior, both of which are difficult to transform. Effecting real change will require a cultural shift—reimagining the investment industry’s language and behavior to one that is inclusive of both genders.

Consider the following linguistic experiment that illustrates this challenge, as it relates to the theory of knowledge and language, and as applied to mathematics.

“Let’s try to get into a child’s shoes and learn to count, but in Japanese. Here are the first ten numbers: ichi, ni, san, shi, go, roku, shichi, hachi, kyu, ju. The first assignment is to learn this sequence by heart. You will see: it is not that easy! When you have managed to do that, pass on to the second assignment: learn how to count backwards, from ju to ichi. Once you have done that, try and calculate. How much is roku and san? Shichi minus go? Hachi divided by shi? And now a sum for you: Mother bought at the market kyu apples and gave each of shi children ni apples. How many apples are left? There is just one rule: you are not allowed to translate into English, even mentally. After a bit of practice, it becomes involuntary. Sometimes we are not even aware of it.”⁴⁰

This may be the prime reason that, despite decades of initiatives focused around gender diversity, a disequilibrium remains. These cognitive biases have become woven into the fabric of the industry, including within everyday language — that is, a language based on winning and outperforming at all costs; a language that is riddled with gender folklore and distracts us from what we should focus on: long-term goals. This inhibits free and diverse views from both men and women, which impedes successful decision making. (See “Lost in translation,” for an example of how language and behavior become intertwined over time.)

It may seem as though the hurdles blocking real change are overwhelming. However, we believe that real change is possible, and that all investors — men and women, individual and professional — can help make it happen.

BIOLOGY IS NOT DESTINY

How can we make significant strides in coping with gender folklore and close the gender gap in the investment industry? We see three important and interrelated approaches, to help break the optical illusion around gender differences:

- 1) Acknowledge and better understand the impact of gender folklore
- 2) Increase the presence of women in business-critical leadership roles
- 3) Approach the issue of gender folklore as a business problem

1. Acknowledge gender folklore exists

First and foremost is increasing awareness of how gender folklore permeates an organization and each individual's own perception. We must question our hidden assumptions and beliefs. From individual investors to the leadership of investment firms, we must all be more aware of the conscious and unconscious folklore in our everyday lives. Only after we acknowledge the existence of gender folklore can we begin to change it.

One of the primary issues we must address is why women are so underrepresented in senior management within the investment industry. Some may think that the answer lies in our biology. Men have higher levels of testosterone than women, which is correlated with a strong winner's instinct, a more egocentric persona, increased stress-resistance and greater risk-taking. We may be inclined to think that, in today's competitive world, these are qualities that will support a potential leader on his way to the top.⁴¹

However, we must not be fooled into thinking that these qualities necessarily make better leaders.⁴² This is merely another stereotype, a result of an unconscious folklore that has permeated our outlook. Men are often regarded as better leaders, and so are more often considered for leadership roles. And because of the tendency to hire people with similar traits, this folklore is self-perpetuating. Confirmation bias further reinforces this behavior; when we regard men to be better leaders than women, we gather information in support of that view and see that there is indeed a higher portion of men in leadership roles.

We can point to research that directly refutes these faulty assumptions. For example, one study shows that women actually outperform men in five out of nine qualities that are regarded to be important leadership characteristics, while men exceeded women in only two out of the nine qualities. For the remaining two qualities, men and women performed equally well.⁴³

2. Recruit more women leaders

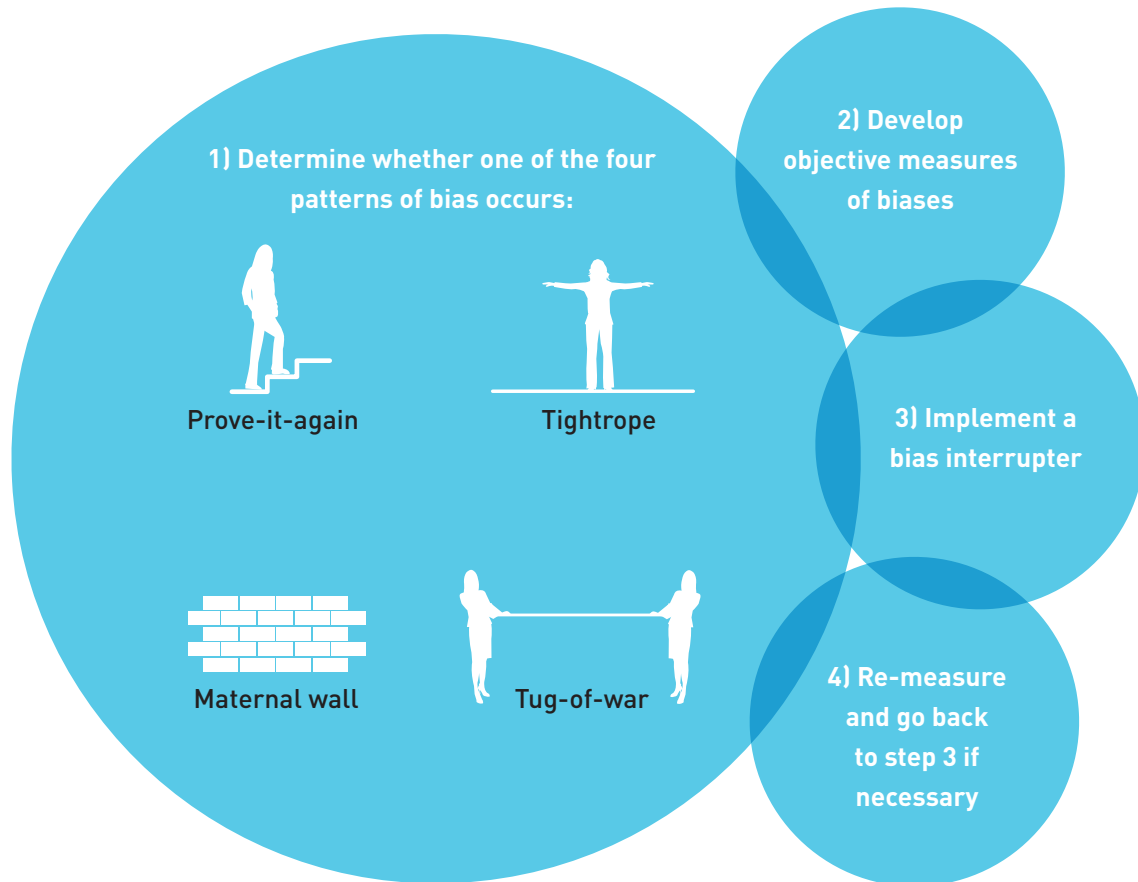
Secondly, increasing the number of women in leadership roles is a powerful way to influence experiences, thereby challenging the gender folklore and shaping a more gender-balanced industry. We are starting to see pockets in the industry in which there is greater interest in achieving gender diversity among leaders and investment professionals.⁴⁴ This may seem to contradict those who advocate for a strict meritocracy. But research demonstrates that even when a firm commits to making compensation and promotion decisions solely based on individual performance, women receive smaller bonuses than men with equivalent performance reviews.⁴⁵ As in George Orwell's *Animal Farm*, these organizations that deem all employees equal in fact still treat some as more equal than others.

There may even be a first-mover advantage for those firms that embody true diversity at the highest ranks. For example, a Credit Suisse study found that gender diversity does coincide with better corporate financial performance and higher stock market valuations.⁴⁶

3. Manage folklore as a business problem

Lastly, an applied methodology for the issue of gender diversity is to address it as any other business problem to be solved. Joan Williams, who has studied the gender gap in the information technology industry —

which has struggled to resolve deep-seated gender folklore — proposes a four-step model to neutralize gender bias.⁴⁷ Williams' bias interrupter starts with determining whether any of the four patterns of gender bias are impacting the organization:



1) Determine whether one of the four patterns of bias occurs:

- **Prove-it-again:** Tendency to have more requirements for women than for men.
- **Tightrope:** Success tends to be characterized by masculine qualities, yet women are expected to display traditional feminine qualities.
- **Maternal wall:** The bias against working mothers.
- **Tug-of-war:** When gender bias against women fuels conflict among women, as they distance themselves from other women in response to the prevailing bias.

2) Develop objective measures of biases

(for example, the proportion of routine or undervalued work assigned to women versus men).

3) Implement a bias interrupter

a change to a basic business process such as hiring, evaluation or assignments, with the goal of disrupting the bias (could be a significant change or just a tweak).

4) Re-measure and go back to step 3 if necessary

testing a different bias interrupter.⁴⁷

Effective bias interrupters can span a range of actions. For example, one study shows how simply adding the words “salary negotiable” to a job posting can reduce the gender gap in pay by as much as 45% within a male-dominated industry.⁴⁸

Addressing the gender gap as it relates to bias from this practical perspective frames it as a business issue to be resolved. It also focuses efforts where they are more likely to be effective — the lack of diversity isn’t caused by women, so while professional women’s associations, mentoring programs and other related initiatives are instrumental in coping with the bias and in raising awareness, they don’t directly address the underlying causes. Initiatives that strive to institutionalize gender diversity within the organizational culture must include all men and women.

A CATALYST FOR CHANGE

Our views on gender differences in investing are not constant — they vary as a function of our experiences, not unlike the gender differences in investment decisions that vary with factors such as knowledge and overconfidence. Given the tendency for male-dominated industries to eventually become more diversified, is it such a pressing issue after all? Indeed it is. Not only will the industry be poised for change when the gender folklore is intentionally interrupted,

but the near-term and cumulative positive impacts to organizations are undeniable.

It is our belief and hope that eventually the investment industry will no longer need to strive for gender diversity — instead, we will strive for a diversity of views and talents, devoid of all unhealthy folklore. First, we must move away from seeing a dichotomy when we look at men and women, beyond the primitive perspective that men are from Mars and women are from Venus. Perhaps the important point is that we can find a balanced, mid-way point here on Earth that builds on the strengths of both genders.

Investors are increasingly demanding a shift away from a culture of “winning at all costs” and “outperforming” to one that is more aligned with achieving their long-term goals. Just as honey bees have evolved to adapt to changes in Earth’s environment, so must the industry move forward in adapting its own waggle dance, a new lingua franca that is more inclusive and more reflective of long-term goals. Closing the industry’s gender gap will take us a long way toward meeting this goal. This means identifying and acknowledging conscious and unconscious folklore, making the commitment to take action, and having the ability to effect the change in our language as well as behavior.

Authors

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- ¹ Brenda Poppy, "Facial Symmetry is Attractive, but Not Because It Indicates Health," *Discover Magazine*, April 12, 2014. Accessed at: <http://blogs.discovermagazine.com/dbrief/2014/08/12/facial-symmetry-attractive-not-because-indicates-health/>.
- ² The study of psychology has explored this phenomenon in depth, notably with Gestalt theorists such as Fritz Heider.
- ³ State Street Center for Applied Research, *The Folklore of Finance: How Beliefs and Behaviors Sabotage Success in the Investment Management Industry*, 2014.
- ⁴ Julie Coffman, Orit Gadiesh and Wendy Miller, "The Great Disappearing Act: Gender Parity up the Corporate Ladder," Bain & Company, white paper presented at Davos, January 2010. See also: Laura Goode, *2010 Herald's Female Majority in the American Workforce*, New America Media, January 5, 2010. The author notes that women make up 49.9% of the paid US workforce, yet they earn only 77 cents for every dollar earned by men.
- ⁵ American Community Survey Reports, "Field of Bachelor's Degree in the United States: 2009," February 2012. Accessed at <http://www.census.gov/prod/2012pubs/acs-18.pdf>.
- ⁶ European Commission, "Women and Men in Leadership Positions in the European Union, 2013: A Review of the Situation and Recent Progress," October 2013. Accessed at http://ec.europa.eu/justice/gender-equality/files/gender_balance_decision_making/131011_women_men_leadership_en.pdf. Across Sweden, France, Spain and Germany, there were 61%, 41%, 32% and 32% women graduates in 1978; by 2010 there were only 17%, 7%, 6% and 2% women in executive committees across the countries, respectively. Representation of women across European financial institutions varied from 0% to 14% in 2013. For Asia-Pacific, see <http://www.kornferry.com/press/study-links-gender-diversity-in-asia-pacific-boardrooms-to-better-company-performance/>. This study found that the regional average for female representation in boardrooms stood at 9.4% (up from 8% in 2012) and that there were fewer all-male boards in most countries surveyed. However, just 24 of the 1,000 boards had four or more women, and few women were in board leadership roles, with only 3% of chair positions held by females.
- ⁷ Thirty Percent Coalition website. Accessed at <http://www.30percentcoalition.org/news>.
- ⁸ Oliver Wyman, "Women in Financial Services," 2014. Accessed at <http://www.oliverwyman.com/women-in-Lost-in-translation>.
- ⁹ William Byne, "The Sexed and Gendered Brain" in *Principles of Gender Specific Medicine*, edited by Marianne J. Legato, 2nd ed., pp. 101–112 (Amsterdam: Academic Press, 2010). See also Marianne J. Legato, *Why Men Never Remember and Women Can Never Forget*, pp. 248 (Emmaus, PA: Rodale Press, 2005).
- ¹⁰ Eric R. Kandel, "The Molecular Biology of Memory Storage: A Dialogue Between Genes and Synapses," *Science* 294, no. 5544, pp. 1030–1038 (November 2001).
- ¹¹ State Street Center for Applied Research data, 2014.
- ¹² We are relying on secondary research, as our sample size was low here. See http://www.ai-cio.com/channel/NEWSMAKERS/The_Missing_Women_of_Asset_Management.html.
- ¹³ Hilary Metcalf and Heather Rolfe, *Employment and Earnings in the Finance Sector: A Gender Analysis*, National Institute of Economic and Social Research: Equality and Human Rights Commission Research Report 17. Accessed at: http://www.equalityhumanrights.com/sites/default/files/documents/download_finance_gender_analysis_research.pdf. This finding has also been established by other researchers; for example a similar number of men and women are employed in finance and across most sub-sectors in the UK. However, women are substantially under-represented in financial services in central and inner London; this is likely to reflect lower employment in head offices.
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- ¹⁶ Jena McGregor, "There are More Men on Corporate Boards named John, Robert, William or James than there are Women on Boards Altogether" *The Washington Post*, February 25, 2015. Accessed at: <http://www.washingtonpost.com/blogs/on-leadership/wp/2015/02/25/there-are-more-men-on-corporate-boards-named-john-robert-william-or-james-than-there-are-women-altogether/>.
- ¹⁷ Center for Applied Research Survey Analysis, 2014.
- ¹⁸ State Street Center for Applied Research, "The Influential Investor: How Investor Behavior is Redefining Performance," 2012.
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- ²⁰ Alexandra Niessen and Stefan Ruenzi, "Sex Matters: Gender and Mutual Funds, Center for Financial Research," Working Paper 06-01, March 2006.
- ²¹ For example, see Matthias Gysler, Jamie Brown Kruse and Renate Schubert, *Ambiguity and Gender Differences in Financial Decision Making: An Experimental Examination of Competence and Confidence Effects*, May 2002. Accessed at: http://www.cer.ethz.ch/research/wp_02_23_paper.pdf.
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- ²⁶ Judy F. Graham, Edward J. Stendardi, Jr., Joan K. Myers, and Mark J. Graham, "Gender Differences in Investment Strategies: An Information Processing Perspective," *International Journal of Bank Marketing* 20, no. 1, 2002.
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- ²⁸ Brad M. Barber and Terrance Odean, "Boys will be Boys: Gender, Overconfidence, and Common Stock Investment," *The Quarterly Journal of Economics* 116, no. 1, February 2001.
- ²⁹ Julia Hanna, "Power Posing: Fake It Until You Make It" HBS Working Knowledge, Harvard Business School, September 20, 2010. Accessed at: <http://hbswk.hbs.edu/item/6461.html>.
- ³⁰ State Street Center for Applied Research, "The Forgotten Investor: Investors Tune out of Financial Reforms against Backdrop of Mistrust," 2014.
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- ³² Matthias Gysler, Jamie Brown Kruse and Renate Schubert, *Ambiguity and Gender Differences in Financial Decision Making: An Experimental Examination of Competence and Confidence Effects*, May 2002. Accessed at: http://www.cer.ethz.ch/research/wp_02_23_paper.pdf.
- ³³ J.E.V. Johnson and P.L. Powell, "Decision Making, Risk and Gender: Are Managers Different?" *British Journal of Management*, 5, no. 2, June 1994.
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- ⁴³ McKinsey & Company, "Gender Diversity in Top Management: Moving Corporate Culture, Moving Boundaries," *Women Matter* 2013, November 2013. The qualities mentioned were: people development, expectations and rewards, role model, inspiration, participative decision making, intellectual stimulation, efficient communication, individualistic decision making and control and corrective action.
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