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# The Gender Investing Gap: A Global Viewpoint

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**The Gender Investing Gap: A Global Viewpoint**

**by**

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## I. Introduction

The gender investing gap refers to the disparities in investment participation and outcomes between men and women and has become a topic of increasing concern in recent years. This gap is frequently discussed in the acquisition and trading of stocks, but it is also prevalent in bonds, mutual funds, and other financial instruments. The consequences of this gap for women include a reduction in savings and accumulation of assets (Thomas & Spataro, 2018, p. 532) along with decreased financial security and lower savings for retirement (Nofsinger & Shank, 2020). These repercussions are further exacerbated because women live longer than men. The economic costs of the gender investing gap are astounding. If women around the world invested at the same rate as men, there would be $3.22 trillion more available for investment and $1.87 trillion more invested into socially and environmentally responsible companies (BNY Mellon, 2021, p. 5). Addressing the gender investing gap is crucial for promoting gender financial equality and ensuring that women have equal access to financial opportunities and resources worldwide.

The term "gender investing gap" is common in news articles, financial reports and popular culture but is absent from academic literature. This phenomenon is more often described as female participation in the stock market, or the lack thereof. Furthermore, I found little academic research that studied this lack of participation in a way that accounted for the complexity and intertanglement of the explanatory variables that I repeatedly saw in my own review of the literature. The most comprehensive study on the lack of female participation in the stock market was a literature review from 2013 that gathered 27 sources about the topic and presented their conclusions (Kaur & Vohra, 2013). This paper will include more recent literature to determine an updated state of the field.

While reading any available literature that mentioned gender, finance, stock markets, and investing, I noticed that the "lack of female participation in the stock market" was commonly associated with other gender gaps. For that reason, this literature review is written through the lens of five gender gaps that are related to and possibly perpetuating the gender investing gap. The gender gaps in the finance sector, financial inclusion, financial literacy, pay and confidence are the five studied in this paper, but it is certain that there are others that deserve an analysis in further research. Finally, given the global and pervasive nature of these disparities, the publications reviewed will transcend geographical boundaries and aim to offer a comprehensive perspective on this problem.

## II. Literature Review

### *Gender Gap in the Finance Sector*

The gender gap in the financial sector is the disparity between men and women working in the professional finance industry. A study published in 2016 surveyed 135,000 people in 151 countries that held a Chartered Financial Analyst (CFA) membership. They found that only 18% of members were female (Adams et al., 2016, p. 1). The initial hypothesis of this study was that the number of women considering a career in finance was limited by the conflict between the time commitments required by the finance industry and the traditional gender roles that women are expected to fulfill in their families and communities. This hypothesis demonstrated a selection effect whereby women who opted for a career in finance tended to be less inclined towards conformity or traditional roles and more focused on achievement than both women in general and men in finance (p. 1).

To test for this selection effect, the values of the CFA members were compared to the general populations' values in more than 100 countries using the Schwartz 11-item values inventory test. This test is designed to measure the importance that individuals place on different value categories. This particular study focused on tradition, conformity and achievement, and found that women in the general population valued achievement less and tradition and conformity more than men in the general population, whereas the opposite held true when comparing women and men in finance (Adams et al., 2016, p. 4). Adams and contributors cited research that found all women, no matter their career, bore a disproportionate amount of housework and child care, so time-consuming careers such as finance were avoided. This is one suggested cause of the gender gap seen in the finance industry (p. 2). It should be noted that this study recognizes that tradition-oriented females may avoid a career in finance because it is seen as a traditionally male-dominated role, but this hypothesis could not be tested from their research (p. 4).

To explore how this gender gap in professional finance has perpetuated the gender investing gap seen in the general population, we can look at a more recent report published in 2021 by The Bank of New York and Mellon (BNY Mellon) called "The Pathway to Inclusive Investment" (BNY Mellon, 2021). They surveyed 8000 women and men across 16 markets and 100 asset managers managing $60 trillion (p. 2). The report concluded there were three barriers to increasing female participation in investing and the finance industry: The Engagement Crisis, The Income Hurdle, and The High-Risk Investment Myth (p. 8). The Engagement Crisis referred to the investing industry's failure "to reach, appeal to, and engage women to the same degree as men" (p. 9). Only one in ten women felt they "fully understand investing", and only "28% feel confident about investing some of their money" (p. 9). Compared to making financial decisions about savings, property, or pensions, investing is where women felt the least confident. This confidence varies across the globe, as seen in the "Women's investment confidence map" below (p. 10).


The variation in global confidence levels could be attributed to a country's age demographics and their overall culture and education surrounding investment. Women in India had the highest investment confidence at 47%, and 50% of Indian women were educated by their parents about investing, however only 32% of women were educated across the 16 markets. The survey also found that younger women are more confident in investing by 15% compared to older women.

The BNY Mellon report on inclusive investing cited another facet contributing to the gender investing gap called “The High-Risk Investment Myth” (BNY Mellon, 2021, p. 13). Globally, “45% of women say that investing in the stock market…is too risky for them” (p. 13). While the stock market does not come without risk, money left in a savings account will be eroded by low-interest rates or inflation, said Iona Bain, a UK finance expert. The BNY Mellon report blatantly placed responsibility onto the professional finance industry for the lack of female education and inclusion in investing. The report recognized that there was “a tendency to use financial jargon and overcomplicated investment language in order to foster a sense that the investment customer is part of an exclusive club” (p. 21). 31% of females said this diverted their interest in investing. UK finance expert Holly Mackey stated, “The language is quite technical and jargony-it’s that risk concept-the very word ‘risk’ is wrong-it isn’t risk, it’s ‘uncertainty.’ Risk is doing something silly. That will put women off whatever age they are” (p. 21).

Bain said, “If women feel like they can’t be part of the system, then that’s an issue for the system as well as for women themselves” (BNY Mellon, 2021, p. 20). The disparity in female customer inclusion was evident when 86% of asset managers “admit that their default customer is a man”, and 73% said “that their organization’s investment products are primarily aimed at men” (p. 21). If an industry does not target a demographic group in its strategy, marketing and products, that group will naturally be excluded from the industry itself. In some industries this exclusion is sensible, but every person, no matter the demographic, should enjoy the benefits of having financial knowledge and aid that is suitable to their communication styles and preferences.

*Gender Gap in Financial Inclusion*

Financial inclusion refers to the effort to provide access to financial products and services, such as bank accounts, loans, and insurance, to individuals and businesses who are typically excluded from the mainstream financial system (The World Bank, 2022). This includes populations that are underserved or disadvantaged, such as low-income households, small businesses, rural communities, women and minorities. The goal of financial inclusion is to promote economic development, reduce poverty, and enhance social welfare by expanding access to financial resources and opportunities.

Elsevier, a Dutch academic publishing company, published a paper by Hanan Morsy in 2020 called “Access to finance - Mind the gender gap”. Current empirical research had only explored what determined overall access to finance, but this had not yet been looked at through a gendered lens (Morsy, 2020, p. 1). To explore this, three survey rounds in 2011, 2014, and 2017 from the Global Findex database were used. Each survey round collected interviews from 150,000 randomly selected people above the age of 15 from 141 countries. They found significant gender gaps in access to financial institutions and resources in the majority of the countries. When broken into income groups, 98%, 68%, and 29% of the high, middle and low income countries, respectively, had a gender ratio of above 80% (4:5 women to men) for opening a formal bank account (p. 15). This showed that countries earning a higher income had smaller gender gaps in this area of personal finance. However, the gender gap for having a business account was higher in the high income countries than the low income countries.

Out of the 141 countries used in the survey, significant gender gaps were seen in the following categories: 82% in access and usage of a formal bank account, 86% in the use of a business account, 82% for savings in a financial institution, 82% in obtaining loans, 81% in credit card use and 77% in debit card use (p. 15).

It was found that there was also variation in the gender gaps when the countries were broken into geographical groups. For example, "only 14 percent of the Middle East Countries and less than 5 percent of South Asian countries have a female-to-male ratio above 80 percent in having a credit card" (Morsy, 2020, p. 15). This greatly differs from 73 percent of East Asia and Pacific having a gender ratio above 80 percent for having a credit card, which is relatively good. Furthermore, when the geographical groups are broken down into countries, there are vast differences found. For example, in the Middle East "the female-to-male ratio for having an account is over 90 percent in Iran, Islamic Republic, and Kuwait", but it falls to 40 percent in Morocco (p. 15). The female-to-male ratios for the indicators of financial accessibility can also greatly vary within one country. In Japan there is no gender disparity in having a formal account, but the ratio drops to 60% for getting a loan (p. 15).

Though every country had its own set of laws, cultures, religion and history that ultimately affected women's financial access and inclusion, in countries where foreign-owned banks had a smaller market share, state-owned banks dominated the banking system, credit information was less accessible through public and private credit registries, and there were significant gender disparities in educational attainment, women were at a higher risk of being excluded from the formal financial sector (Morsy, 2020, p. 18).

Upon conducting research, I discovered a significant gap in the literature with regards to a comprehensive global perspective on the correlation between financial inclusion and stock market participation. However, an in-depth analysis of the research conducted in Ghana and China can shed light on this relationship.

In 2018, data was collected from 1,966 households located in all 10 regions of Ghana to study the relationship between financial literacy, financial inclusion and individual participation in the stock market (Akakpo et al., 2022, p. 1). The five indicators used to measure financial inclusion related to access and usage of formal accounts, and it was found that males were more financially included than females (p. 13). The only financial inclusion indicator that negatively correlated with males was the usage of a savings account (p. 15). Furthermore, the only indicator that had a significant correlation with stock market participation was the use of a savings account, but the correlation was negative (p. 29). The reason for this can be attributed to the advantages of using an account for saving, such as the convenience and flexibility of accessing funds when needed, as well as the availability of banking packages. Moreover, those who saved using an account were more likely to have access to bank offerings. On the contrary, a regional analysis shows that investment in stocks through financial inclusion was expected to be high in Greater Accra, Western, Brong Ahafo, and Upper West Region because these areas had a positive and significant correlation with stock market participation (p. 30), but there was not more insight given on why this is the case.

A study conducted in China, which gathered data from the China General Social Surveys and the China Digital Inclusive Finance Development Index in 2013, 2015, and 2017, researched how investment participation affected happiness in areas where financial inclusion was being developed (Xu & Sun, 2022). Gender was used as a control variable and was not tested to find its relationship with financial inclusion and stock market participation (p. 4), but the authors did discover that financial inclusion positively correlated with investing participation (p. 7).

Further research should be done on a country and global level to study the relationship between financial inclusion, gender and stock market participation to reach a conclusion.

Investing in diversified risk portfolios will most likely increase an individual's wealth over time, so it is important to advocate for investment on this individual level. If for some reason, as in the case of the Ghana study, financial inclusion is decreasing stock market participation, strategies should be implemented to create the opposite effect in this relationship.

*Gender Gap in Financial Literacy*

Financial literacy is the ability to understand and effectively manage one's financial affairs. A study done by the Global Financial Literacy Excellence Center analyzed and discussed the worldwide gender financial literacy gap using data from the 2015 Standard & Poor's Ratings Services Global Financial Literacy Survey. The motive of this research was to look at the gender gap from a global viewpoint because previous research on financial literacy was restricted to a single country. The survey included four questions covering basic financial concepts, and if three out of four questions were answered, respondents were considered financially literate.

It was found that worldwide 35% of men were financially literate compared to 30% of women (Hasler & Lusardi, 2017, p. 4). In the BRICS economies, the gender gap was 5%, while in the G7 economies, the gender gap was 8%. Though the G7 countries' adult population was 27% more literate than the BRICS countries, the gender gap still persisted (p. 5). The countries with the largest gender gaps included Canada, Australia, Italy, Indonesia, and Brazil.

Financial literacy was linked to better planning and decision-making. Hasler and Lusardi concluded that because "women face unique financial challenges due to lower income during their working lives, interrupted employment histories, and longer life expectancies than men...improving women's financial literacy is key to promoting their financial security" (p. 17).

Although there is a lack of comprehensive research on a global scale examining the relationship between the gender gap in financial literacy and the gender investment gap, we can analyze conclusions from research conducted in Japan and Europe.

In comparison to the U.S. and Europe, Japanese households keep a smaller portion of their assets in the stock market, but the households that do invest keep a high percentage (55%) of their assets in the stock market (Yamori & Ueyama, 2022, p. 1). The purpose of this study was to find if low financial literacy was the cause of low stock market participation in Japan because previous studies done in the Netherlands, Europe and China found that financial literacy was positively correlated with stock market participation (p. 1). Data was collected from the Survey on Wealth Building, Securities, Investment, and Financial Literacy from 500 respondents who owned stocks or mutual funds and 500 respondents who did not (p. 2). Respondents were asked to answer 19 questions about financial literacy, and the authors verified that a lack of financial literacy resulted in low stock market participation in Japan, even after addressing endogeneity (p. 3). The authors considered a case of reverse causality where investing in the stock market could cause someone to be more financially literate, but after testing this for endogeneity, financial literacy was still concluded to increase the probability that an individual would participate in the stock market (p. 3).

In relation to gender, the study found that after "considering financial literacy level and endogeneity" no gender differences in stock market participation were found (Yamori & Ueyama, 2022, p. 1), meaning that financial literacy helped to explain the gender gap in stock market participation. While females may be less financially literate than males, an increase in education to improve female financial literacy could help close the gender investing gap.

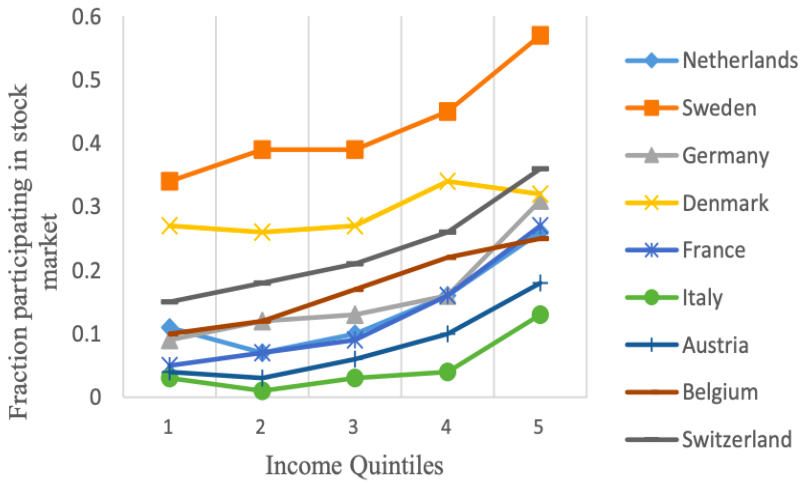
Another study done by Thomas and Spataro used data from the Survey of Health, Ageing and Retirement from nine European countries to assess how financial literacy and human capital were related to stock market participation. This study, like the Japan study, found a positive correlation between financial literacy and participation in the stock market, seen in the graphs below  (Thomas & Spataro, 2018, p. 535).


With the gender gap in financial literacy being significant and prevalent in most countries in the world and its proven connection to greater participation in the stock market, it can be concluded that closing this gap could help close the gender investing gap.

*Gender Pay Gap*

The gender pay gap refers to the difference in earnings between men and women in the workforce, and it considers the disparity between the earnings of men and women in the same job or with the same level of education, experience and qualifications. This gap exists in most countries around the world and is a "measurable indicator of inequality between women and men" (Bureau for Employers' Activities, 2020, p. 3). The International Labour Organization (ILO) estimates that globally, women receive 20% lower pay than men (p. 1). Even though 172 countries have legislated to ensure the equality of treatment between men and women by ratifying the ILO Equal Remuneration Convention, the World Economic Forum has estimated that it will take 202 years to close the global gender pay gap. The gap is persistent from high-income to low-income countries, and reaches a high of 45% in Sierra Leone (low-income). The high income countries have an average gap of about 25%, the upper-middle 20%, the lower-middle 15% and the low-income 27% (p. 1-2). According to this publication, there are several factors that contribute to the gender pay gap. These include women being underrepresented in leadership positions, working fewer hours than men, taking more time off from work, a lack of female participation and education in STEM fields, and the devaluation of roles that are predominantly filled by women (Bureau for Employers' Activities, 2020, pp. 5-6).

A study in China using data from 2005 to 2010 studied multiple variables' effects on stock market participation and found that "the level of participation is predominantly determined by the income factor" (Gao et al., 2019, p. 1). A survey of 1,300 individuals in Sweden done to measure the relationship between financial literacy and stock market participation also found income to be a statistically significant variable in predicting stock market participation. The study found that women participated significantly less than men but that gender gap decreased by more than half when controlling for income, education, and age (Almenberg & Dreber, 2011, p. 8). Lastly, the study by Thomas and Spataro done in nine European countries referenced in the above section on financial literacy illustrated the positive correlation between income and stock market participation in the graph below (Thomas & Spataro, 2018, p. 536).




Along with the other gender gaps explored in this paper, there is little research studying income as the central explanatory variable of stock market participation, though it is repeatedly used in studies and found to be statistically significant. This could be because income is viewed as an obvious variable in stock market participation, as the fact is that if an individual has a higher level of income, they will have more disposable income to invest. Given this attitude towards income, it should also be obvious that reducing the gender pay gap would increase the level of female participation in the stock market. This idea is further accelerated as the BNY Mellon's *The Pathway to Inclusive Investing Report* attributes "The Income Hurdle" as a reason to why women aren't investing at the same rate as men (BNY Mellon, 2021, p. 11). Women commonly believed that they needed a minimum income amount to start investing. This amount ranged from $500 in India to $6,000 in the United States. By closing the gender pay gap and increasing overall income for women, they will have more money and more confidence to invest in the stock market.

*The Confidence Gap*

The "confidence gap" is a term used to describe the disparity in confidence levels between individuals, particularly between men and women. Previous research accredited females as being less likely to hold stocks and/or bonds to their higher risk-aversion and lower financial literacy, but a study done in 2020 looking at 13 countries researched the possibility that a lack of self-confidence could be the cause of this phenomenon (Cupák et al., 2020, p. 1). Contributors used survey data from the International Network on Financial Education to look at financial knowledge, attitudes and behavior and controlled for financial literacy, risk aversion, and financial confidence (p. 2). The study found that besides Finland and Spain, confidence explained the risky asset gap more than financial literacy, but risk attitude still remained to be an explanatory variable. This paper concluded that self-confidence was a statistically significant variable in explaining the "risky asset gender gap", and that society should address gender roles and norms as a potential cause of this disparity in self-confidence to help close the investing gap (p. 3).

While the previous study attributed the cause of the gender investing gap to disparities in confidence, the chapter "Do Men and Women Invest Differently?" found in *The Biology of Investing* explored biological traits specific to each sex that led to differences in overall decision-making (2020). Nofsinger and Corey cited various studies in their book that proved biological differences in men and women created differences in their behavior. Testosterone was discovered to be four times higher in men than in women, and testosterone positively correlates with risky behavior. In an investment game conducted in 15 different countries it was consistently found, despite the diverse environments the experiment was conducted in, that women chose to invest less and keep more of their money when presented with a risky stock option, proving their risk aversion (Charness & Gneezy, 2011). To control for lack of financial knowledge, a survey of 649 fund managers in the United States, Germany, Italy and Thailand still found that female fund managers were more risk-averse even when controlling for confidence (Beckmann & Menkhoff, 2008, p. 14). The studies cited in this chapter by Nofsinger and Corey concluded that risk-aversion had a significant effect on investing behavior even when controlling for disparities in confidence.

A study done by the University of Michigan collected survey results and analyzed 2,049 individuals. The model for this study tested how confidence regulated the relationship between risk-tolerance in an individual and the risk level of portfolios (p. 1) and found that "the positive association between investment risk tolerance and portfolio risk is moderated by the level of confidence in financial knowledge" (p. 7). With all other variables controlled, if two individuals had the same level of risk tolerance but one person was less confident than the other, that individual's portfolio would be more likely to contain less risk.

Contrary to the four other gender gaps discussed in this paper, women having lower levels of confidence has been found to positively affect their investing results. A well-known financial behavior study published in 2001 researched the impact of gender and overconfidence on trading decisions from more than 35,000 retail investor portfolios (Barber & Odean, 2001, p. 1). They found that men traded their portfolios 45% more than women due to overconfidence and this reduced men's earnings more than women because of trading costs. In conclusion, women's lower levels of overconfidence positively affected their investment returns.

## III. Analysis

*How can the gender investing gap be closed?*

By finding a connection between the five gender gaps explained above and the gender investing gap through academic literature and financial reports, it can be argued that closing the gender gaps in the financial sector, financial literacy, financial inclusion and pay may ultimately lead to closing the gender investing gap. This analysis will incorporate policy recommendations drawn from relevant studies, as well as insights that have been developed as a result of the literature review.

The BNY Mellon report concluded that if the financial industry aligned their products with women's underlying motivations and communicated their products without overcomplicated language, this would help close the gap in female investment (BNY Mellon, 2021, p. 22). Specifically, an increase in offerings that facilitate ESG (Environmental, Social and

Governance) investing would attract more women to the stock market and help these companies grow and have a greater impact around the world (p. 16).

The survey also found that the finance industry should prioritize female employee recruitment which would facilitate female customer recruitment. US Millenial money expert and author Stephanie O'Connell stated, "If we have women in key positions across these organizations, then the culture and the language that forms the industry will be different, and much more aligned to a female demographic. That would solve many of the issues that discourage women from investing" (BNY Mellon, 2021, p. 23). Furthermore, the male advisors should be properly trained on how to communicate with females in an inclusive way. These improvements in the professional finance industry will boost the acquisition of female customers. Decreasing exclusivity in the financial sector would increase ESG investments by $1.87 trillion (p. 3) and would increase overall investments by $3.22 trillion (p. 5). Because of these significant monetary benefits, increasing female participation in the stock market should be accomplished through seeking out female customers through female employee recruitment and marketing tactics that attract women.

The study in China on financial inclusion and happiness recommended that "the development of inclusive finance should continue to be vigorously pursued to increase residents' participation in investment" (Xu & Sun, 2022, p. 7). To increase financial inclusion, government policy should be improved to avoid the inequitable distribution of wealth throughout geographic regions and demographics. In 2015, China's state council implemented the *Plan for Advancing the Development of Financial Inclusion (2016-2020)* to create monetary, tax and supervision policies to increase financial inclusion in China (Chen & Yuan, 2021, p. 4), and since, financial inclusion in China has greatly improved. One negative outcome that Xu and Sun found in their study was that while this increase in financial inclusion led to an increase in investment participation, it caused a decrease in happiness amongst citizens (2022, p. 7). Furthermore, the impact of these policies differed significantly across regions.

The global study by Morsy about the gender gap in financial access suggested that "governments – and international organisations – could support women's financial inclusion by focusing on investing in women's and girls' education and fostering their educational attainment" (Morsy, 2020, p. 18). It was also clear from this study that state-owned banks were not fostering equal financial inclusion, so reducing barriers for foreign bank entry and increased government monitoring of state banks could increase female financial inclusion. The Japan study on financial literacy and low stock market participation concluded that an increase in financial education would increase investor participation (Yamori & Ueyama, 2022, p. 1), which aligned with the two previous studies' conclusions. Furthermore, greater access to digital financial resources could be a widespread tool to educate women and improve their access to financial services. Efforts to reduce this gap in financial inclusion should be continued as there is a positive correlation between financial inclusion, financial literacy and investing participation, but globally, policymakers and financial institutions should consider the inequitable distribution of resources as a potential outcome of policy implementation for financial inclusivity.

In regards to the gender pay gap, the International Labour Organization gave multiple suggestions to companies to help close this gap. Companies should base pay on the position itself rather than the employee's previous pay, conduct gender pay reviews regularly, and make equitable salary offers to both genders. They can also make jobs more flexible, prevent unconscious gender bias in performance reviews, evaluate job titles and contents to adjust corresponding pay and share results with relevant organizations and companies (Bureau for

Employers' Activities, 2020, p. 8). The Cambridge Journal of Economics studied literature from the UK, Europe and Australia and also found that litigation is effective in resolving gendered pay injustices, but it must be accompanied by other methods and conditions such as collective bargaining, centralization of the wage setting environment and support from trade unions to create widespread change throughout a country to close the pay gap (O'Reilly et al., 2015, 306-307). At times litigation has created negative costs such as cuts in males' pay and financial instability of public sector employers (p. 306). Even with these costs, companies and governments should implement these practices so that women and society can enjoy the monetary benefits of closing the gender pay gap. PricewaterhouseCoopers, one of the largest professional services firms in the world, found that fully closing the gender pay gap in the 38 countries in the Organisation for Economic Co-operation and Development (OECD) could increase women's earnings by $2 trillion (Bureau for Employers' Activities, 2020, p. 7). This is estimated to increase the GDP in these countries by $6 trillion. Closing the gender pay gap should be greatly prioritized to increase females' income for investment and overall global wealth.

## IV. Conclusion

This literature review has examined the gender investing gap through the lens of five other gender gaps that have a significant global presence. The gaps are prevalent in both developing and developed countries alike and need to be addressed to improve the financial situations for women around the world.

Researchers should conduct studies to find best practices that improve female financial access and inclusion that lead to more opportunities for them to make educated investments and grow their wealth. While global research in these realms is helpful, each country has unique barriers to these resources, including exclusive laws, lack of technology and historical discrimination against women. Because of the complex development of these barriers, country-specific strategies to overcome them should be implemented for the betterment of women's lives and their economies as a whole.

Companies in the finance sector should create specified resources and programs for women. Though there are often no legal barriers restricting women from using the current services, creating a space for them to learn about investing and to take action will decrease the nuanced exclusivity felt from the investing industry.

For women in countries that face little to no barriers to investing, they should be empowered to use investing as a tool to become more confident in their financial situations throughout their lives and especially in retirement. With the collaboration of governments, companies and women globally, it is possible to close the gender investing gap to give women a greater presence in the financial markets. This will not only promote gender equality but also create a more diverse and innovative economy that yields benefits for all.

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