THE Frontier Line

Thought leadership and insights from Frontier Advisors

Issue 138 July 2018

# The power of gender diversity in the workplace

## The investment industry experience

FRONTIER ADVISORS

# Frontier Advisors

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*Frontier's purpose is to enable our clients to generate superior investment and business outcomes through knowledge sharing, customisation, client empowering technology and an alignment and focus unconstrained by product or manager conflict.*

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Her responsibilities at Frontier include providing consulting support to clients, involvement with investment and manager research and she is a member of the Manager Rating Committee. Natasha previously worked for National Australia Bank. She spent two years working in debt markets before moving into an institutional sales role. Natasha spent 2008 in the UK working as an Associate at Willis Towers Watson. Natasha holds a Bachelor of Commerce with Honours in Economics and a Bachelor of Arts degree from the University of Melbourne.

# What is diversity?

*In finance, diversity or "diversification" is the well accepted process of allocating capital in a way that reduces the exposure to any one particular asset or risk. A common path towards diversification is to reduce risk or volatility by investing in a variety of assets. Human diversity is the differences between people. Diversity is broad. It includes gender, age, ethnicity, education, mental health, culture, religion, disability (to name only a few) and it varies from person to person.*

The concept of human diversity in the workplace is not new. In the past, it has been viewed as a moral issue, a response to fairness and representation. But this is evolving. Today, the benefits of diversity are becoming far more understood. This paper examines the empirical evidence on gender diversity to date and then explores gender diversity in the investment management industry, including reporting on the results of a survey we conducted into Australian and global equity managers.

While diversity is more than gender alone, we believe gender is a key measure of diversity and a good place to start. We see this as our first step and hope this kind of analysis (including our survey) will evolve to include many other forms of diversity over time. We will continue to develop our research on diversity, and specifically gender diversity, and plan for it to be an important part in how we think about our research and assessment of fund managers going forward.

Image by David Cutler, Artist

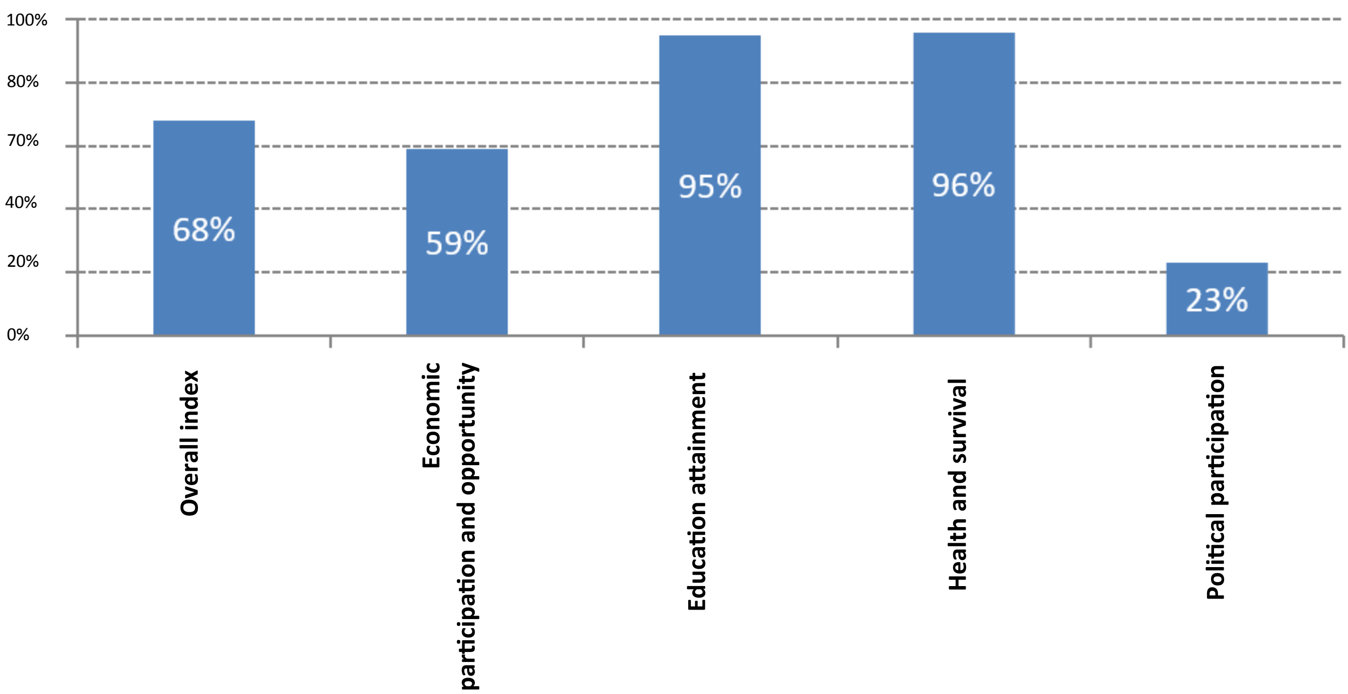
# Setting the scene

*Women make up half the world's population. So, it makes sense that businesses utilise half of the world's talent pool.*

But the gap between men and women in the workforce remains wide. Globally, on average, 54% of working-age women take part in the paid economy as compared to 81% of men[1].

A study by The World Economic Forum, using data from 144 countries, found that while the gap between men and women in health and education outcomes has narrowed (around 95%), the economic participation rate remains wide at 59%[2]. This is the lowest value measured by the Index since 2008.

## Chart 1: The global gender gap index 2016




Source: World Economic Forum, (2016) "The Global Gender Gap Report."

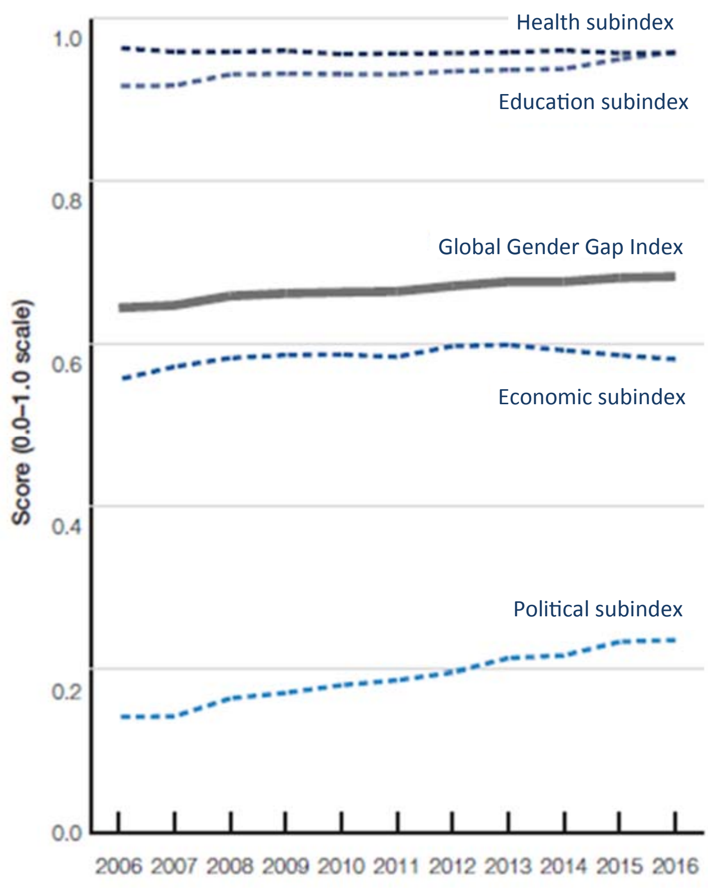
[1]World Economic Forum, "The Global Gender Gap 2016."

[2]The World Economic Forum introduced the Global Gender Gap in 2006 to track the magnitude of gender based disparities over time. The Economic Participation and Opportunity subindex contains three notions: the participation gap (the difference between men and women in labour force participation rates), the remuneration gap (ratio of estimated female to male earned income) and the advancement gap (the ratio of women to men among legislators, senior officials and managers and the ratio of women to men among technical and professional workers).

The participation of women in the workplace varies across regions with the Nordic countries and European countries such as France closing the gap to economic parity, while Middle Eastern and African countries are far behind.

However, Chart 2 shows that female economic participation on a global scale has stalled, with current forecasts to economic parity now at 170 years[3].

Chart 2: Global gender gap index from 2006 to 2016




Source: World Economic Forum, 2016

[3] World Economic Forum, "The Global Human Capital Report 2017."

# Women in the workplace

*A study by McKinsey of women in the workplace in the UK found that women tend to be concentrated in low-productivity sectors and low-paying occupations. Women tend to occupy roles such as secretarial, caring, leisure, public administration, education, health, hotels and restaurants.*

The study found that women were most under-represented in the banking and finance sector as well as insurance, manufacturing and energy sectors. Women are also less likely to hold a leadership or managerial position in all sectors with the exception of education, administration and health[4]. Women assume 75% of the world's total unpaid care, including child care, caring for the elderly, cooking, and cleaning.

There are few women in the investment profession. A study by Morningstar found that women are less likely to be a Portfolio Manager (9%) than work as a doctor (37%), lawyer (33%), accountant or auditor (63%)[5]. Similarly, a study of US fund managers found that only 9.4% of funds were managed by women[6]. This reflects the large gap between the number of women in investment related roles and the number of women represented in senior positions in other professions.

[4]McKinsey & Company, (2016) "The Power of Parity: Advancing Women's Equality in the United Kingdom."

[5]Morningstar Research Report, (2016) "Fund Managers by Gender: the Global Landscape."

[6]Adams, R, Barber, B, and Odean, Terrance, (2016) "Family, Values and Women in Finance."

# Why is diversity important?

## *Economic benefit– women play a central role in society.*

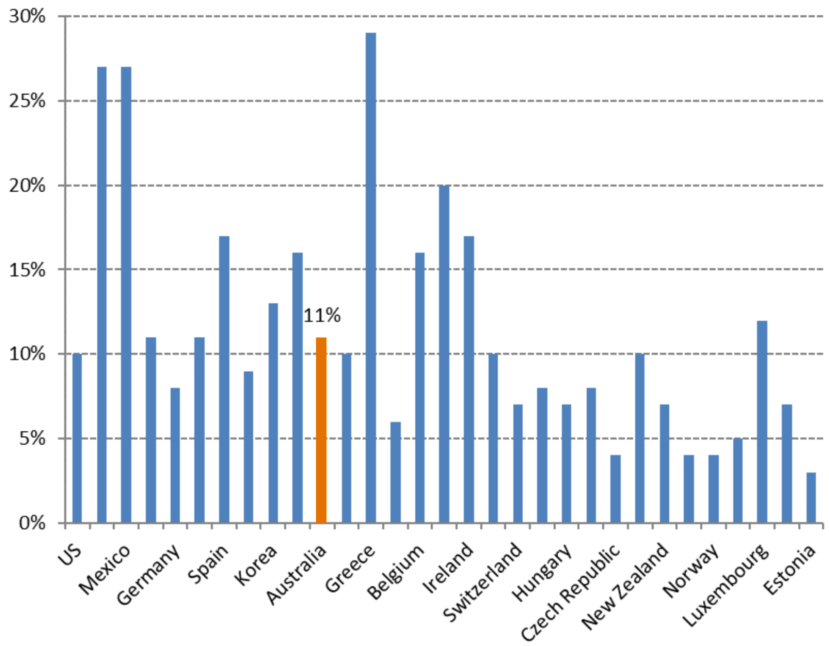
Women are consumers, decision makers and leaders in everyday life and their contribution to the workplace can have a significant impact on the economy. Many studies have shown that increasing gender diversity within the workplace can result in significant economic benefits.

A recent study by PWC of OECD countries found that economic gender parity could increase GDP in the US by 10% and by around US$130 billion or by 11% in Australia. This is shown Chart 3.

Another study by McKinsey found that increasing women's participation in the workplace could add around $28 trillion, or 26% to global annual GDP by 2025[8]. Interestingly, a study by Teignier and Cuberes found that a lack of gender diversity can be detrimental to economies. Specifically, they found that if the labour force participation of women was zero, income per capita would decrease by almost 40%[9].

Supporting this, studies have found that in areas such as East Asia and Africa, where women have limited employment opportunities, it costs the region around US$45 billion per year. While the impact of female participation in the workforce differs depending on the region, it's clear that both developed and emerging countries stand to benefit from increased gender diversity in the workplace.

Chart 3: Potential boost to GDP from increasing female participation in the workplace




Source: PWC, 2017[7]

[7] PWC, (2017) "Women in Work Index—Closing the Gender pay Gap"

[8] McKinsey Global Institute, (2015) "How Advancing Gender Equality can add $12 trillion to Global Growth."

[9] Teignier, M, and Cuberes, D, (2014) "Aggregate Costs of Gender Gaps in the Labour Market: A Quantitative Estimate", UB Economic Working Papers.

# The relationship between gender diversity and profitability

*Studies have shown there is a relationship between gender diversity and business performance.*

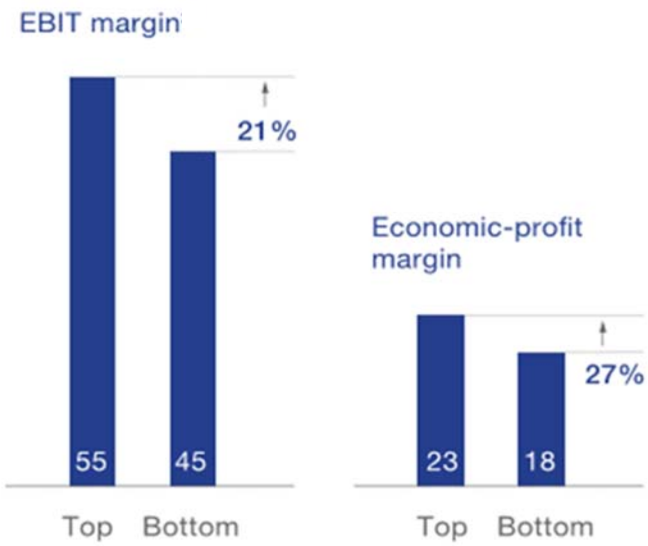
A recent estimate by McKinsey found that companies in the top quartile for gender diversity on their executive teams were 21% more likely to experience above-average profitability than companies in the fourth quartile.

The study also found these companies were 27% more likely than fourth quartile companies to have industry-leading performance on longer-term value creation[10].

Research by the organisation Catalyst compared the performance of companies with greater gender diversity to those with the lowest representation using financial measures such as return on equity, return on sales and return on invested capital. The report found that companies with a higher number of women on their boards had higher financial performance[11].

Other studies such as Lenard et al (2014) focussed on gender diversity and risk management and found that a higher percentage of women on boards was associated with lower variability of stock market returns[12]. This is echoed by Rundell (2017) who states that "diversity of thought and experience reduces risk and boosts performance because if everyone thinks the same, risks and opportunities will be missed."[13]

## Chart 4: Gender diversity and financial performance




Source: McKinsey & Co, 2018

[10]Hunt, V, Yee, L, Prince, S, and Dixon-Fyle, (2018) "Delivering through Diversity", McKinsey & Co.
[11]Catalyst Information Centre (2013) "Why Diversity Matters."
[12]Lenard, M, Yu, B, and York E, (2014) "Impact of Board Diversity on Firm Risk", Managerial Finance, Vol.40 No.8.
[13]Rundell, S (2017) "Pension Funds get cracking on Diversity."

# Improved problem solving

*There is a growing body of research which supports the view that gender diversity in the workplace improves decision making and problem solving.*

Research has shown that individuals with differences in skills play an important part in a successful investment team.

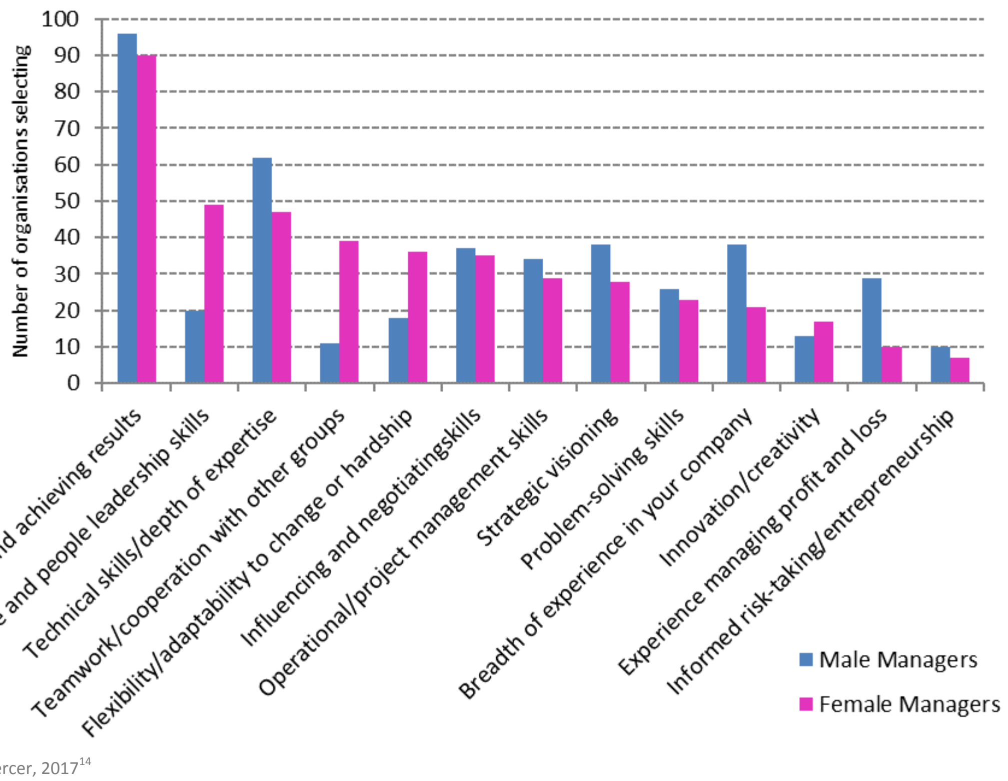
A survey of 164 companies across 28 countries asked respondents to list the strengths of their managers (as shown in Chart 5.

The results show the senior male leaders were perceived to have stronger technical skills and strategic vision, whereas the women were perceived to have far better leadership and team inclusive skills as well as being more flexible and amenable to change.

Similarly, a study in management science found that written work by groups of women typically posed different questions and engaged in different research topics than male authored studies.

Articles authored by women were more likely to adopt critical employee-centered perspectives on management, whereas male-dominated studies tended to be more prescriptive and operational in their focus[15].

Chart 5: Gender diversity and financial performance




Source: Mercer, 2017[14]

[14]Milliga, M, Levine, B, Chen, L and Edkins, K, "When Women Thrive Businesses Thrive", Mercer.

[15]Nielsen, M, Alegria, S, Börjeson, L, Etzkowitz, H, Falk-Krzesinski, H, Joshi, A, Leahey, E, Smith-Doerr, L, Woolley, A and Schiebinger, L, (2017) Gender Diversity Leads to Better Science", PNAS.

Several research papers find positive links between gender diversity and collective problem solving. A study by Scott Page and Lu Hong, 2004, found that a random group of problem solvers was able to produce better results than a group of the best individual problem solvers. They concluded that groups of diverse problem solvers can outperform groups of high-ability problem solvers.[16] This is supported by a study from the Michigan Business School (2004) which found that a team of randomly selected individuals outperforms a team comprised of the best performing individuals."[17]

In other studies, Anita Woolley et al. randomly assigned 699 participants to teams of varying sizes and asked them to solve a set of both simple and complicated tasks (e.g. visual puzzles, brainstorming, making collective moral judgments). The study found that gender plays an important role: women exhibit higher levels of social perceptiveness and teams with more women achieve greater equality in participation. It concluded that given the persistent gender gap in science, women represent an untapped potential for boosting the collective intelligence in scientific team work[18].

A study by researchers from MIT, Carnegie Mellon University, and Union College also analysed the problem solving ability of groups. They found the number of women in the group significantly predicted the effective problem-solving abilities of the group overall[19].

Gender diversity alone does not result in superior results. Chart 6 shows that while gender diversity is an important ingredient for an organisation's success, other inputs are equally as important.

In order to maximise the benefits of gender diversity, organisations also need to consider factors such as flexibility, culture, work environment, team structure etc.

## Chart 6: Gender diversity and financial performance


Source: Erik Steiner cited in Nielsen et al., (2017)[20]

[16] Hong, L, and Page, E, (2004) "Groups of Diverse Problem Solvers can Outperform Groups of High-ability Problem Solvers", www.pnas.org/cgi/doi.
[17] Ibid.
[18] Catalyst Information Centre (2013) "Why Diversity Matters."
[19] Ibid.
[20] Nielsen, M, Alegria, S, Börjeson, L, Etzkowitz, H, Falk-Krzesinski, H, Joshi, A, Leahey, E, Smith-Doerr, L, Woolley, A and Schiebinger, L, (2017) Gener Diversity Leads to Better Science", PNAS.

# Evidence of action

*As part of our manager due diligence process, Frontier meets with a range of fund managers each year. In more recent times we have started to ask fund managers about the gender diversity of their investment teams.*

We want to know how each manager views diversity and what initiatives (if any) they have in place to promote diversity. Interestingly, when discussing this with fund managers, the two most common reasons we hear for a lack of gender diversity in their investment teams are:

- an inability to find women given the lack of women who apply for investment related positions; and
- a need to hire "the best person for the role."

These views symbolise an old way of thinking about gender diversity. In the past, diversity was viewed as a social issue – an issue that was important or necessary on the basis that it was the right thing to do or a "nice to have." Today, research has found that diversity is far more than merely a box ticking exercise. It is about reducing the risk of groupthink.

Carter et al. (2003) built upon the research of Robinson and Dechant (1997) and found support for gender diversity in several ways. First, they reasoned that diversity promotes better understanding of the marketplace. Second, diversity increases creativity and innovation, as attitudes and beliefs tend to vary with demographic variables. Third, diversity produces more effective problem solving, as different views are considered when making a decision.[21]

Much has been written about the need for greater gender diversity on Boards and many global organisations are starting to step into action. Canada's $90 billion Alberta Investment Management Corporation, (AIMCo) has a policy objective "to achieve gender parity" on its 11-member board of directors, four of whom are now women.

The Dutch pension scheme, ABP, with around €400 billion in assets is addressing both gender and age diversity through targets. The California State Teachers' Retirement System is looking at its investment team, engaging with its invested companies on diversity and hosting diversity forums that bring together investment and corporate executives to discuss how to better capitalise on the abilities of a diverse workforce.

Pension funds in the UK, such as the Environmental Agency Pension Fund, have begun publishing the gender and ethnicity of its employees, and UK pension scheme NEST has set a target of 30% for its executive and director roles to be held by women by 2019.[22]

Some Australian industry super funds are also focussing on the gender diversity of their invested fund managers. HESTA has surveyed its 70 fund managers to gain more insight into the gender balance of their investment teams. Super funds are also using active ownership as a powerful tool (through engagement and voting) to have a voice in order to bring about change. AustralianSuper has stated that it will now vote against re-election of directors of listed companies if their boards have no female representation. [23] We have also seen some super funds use gender diversity as a selection criterion when appointing a fund manager. The Australian Institute of Superannuation Trustees (AIST) is also committed to improving gender diversity on superannuation boards in the profit-to-member sector and the Australian Council of Superannuation Investors (ACSI) has set a target of 30% female representation on the top 200 ASX listed company boards.

[21] Lenard, M, Yu, B, and York E, (2014) "Impact of Board Diversity on Firm Risk", Managerial Finance, Vol.40 No.8.
[22] Rundell, S (2017) "Pension Funds get cracking on Diversity."
[23] Ibid.

# Case study:

## The Future Fund, Australia's sovereign wealth fund

The Future Fund has put in place several initiatives in order to improve the gender diversity of its investment team. The organisation believes that its business and investment models rely on diversity of background, experience and thought. The catalyst for doing this was more than a moral response but a drive to make better decisions. The organisation believes that a way to improve their cognitive decision making (which is critical to their investment decisions) is through gender diversity.

The Future Fund has introduced a formal diversity and inclusion policy and has started tracking the diversity data of their teams and reporting this to the Leadership Group. In regard to recruitment, the organisation has made a conscious effort to change the way they advertise for jobs, looking at the language used, focusing on unconscious bias. They also now have at least one woman on the selection panel and include gender balance as an important part of their contracts with recruiters.

From an internal cultural perspective, the Future Fund has undertaken unconscious bias training in an effort to raise awareness which can lead to changes in behaviour.

Flexibility has played an important role. The Future Fund has invested in technology to support flexibility and strive to have formal meetings diarised between 10am to 4pm to make it easier for team members who need to pick up children. A significant observable cultural change has been that men have started to take up paternity leave (parental leave), sending a message that the benefits of flexibility are available to everyone.

Having strong role models is important which includes senior men in the organisation advocating the benefits of gender diversity. The Future Fund believes that this sends a powerful message and one that is visible for everyone to see.

In an effort to improve their inclusion in decision making, the Future Fund has made a significant effort to ensure everyone's voice is heard and the team hears diverse views within meetings. For some meetings, in an effort to reduce groupthink, team members send in views ahead of the meeting and they no longer vote going around the table but have moved to a show of hands at the same time (and will ideally move to voting on an app).

# Frontier's key observations

We sent a questionnaire to over 100 equity managers (Australian and global) requesting information about their investment teams. Questions ranged from the gender of investment team members as well as age, educational background and languages spoken. We had a good response rate at 84% but not all managers submitted a response. Some managers failed to respond altogether, while others advised they were prevented from disclosing the requested information due to their privacy protection regulations (in the US) and their internal HR policies.

This being the first year we have requested such data, we received 44 responses from international equity managers and 40 responses from Australian equity managers. A number of managers included data for every team member in the organisation, including those with roles outside the investment team (Executive Assistant, Client Relationship Manager, Human Resources, Marketing etc.). Data for both genders holding these roles has been excluded from our research as the results in this paper focus on the gender diversity of equity teams working in the investment landscape.

# Women in finance – Australia and global representation

The investment teams surveyed vary in size and gender balance. Generally speaking, the smaller the investment team, the less likely the team is to include a woman.

Interestingly, the representation of women in Australia at around 14% is much lower than the 22% representation of women in the global investment teams surveyed.

The chart below shows the total number of men and women in the investment teams of the equity managers we surveyed. It shows that women account for less than one quarter of investment teams.

A study by Morningstar in 2015 found a similar result with 11% of Portfolio Managers in Australia being women, compared to around 30% in Singapore and 26% in Hong Kong and Spain[24].

Chart 7: Gender diversity in the investment teams survey


Source: Frontier Survey

[24]Morningtonstar Research Report, (2016) Fund Managers by Gender: the Global Landscape

When we looked at the Australian equity managers in greater detail we found that almost half the managers surveyed had no women in their investment teams at all (as seen in Chart 8.)

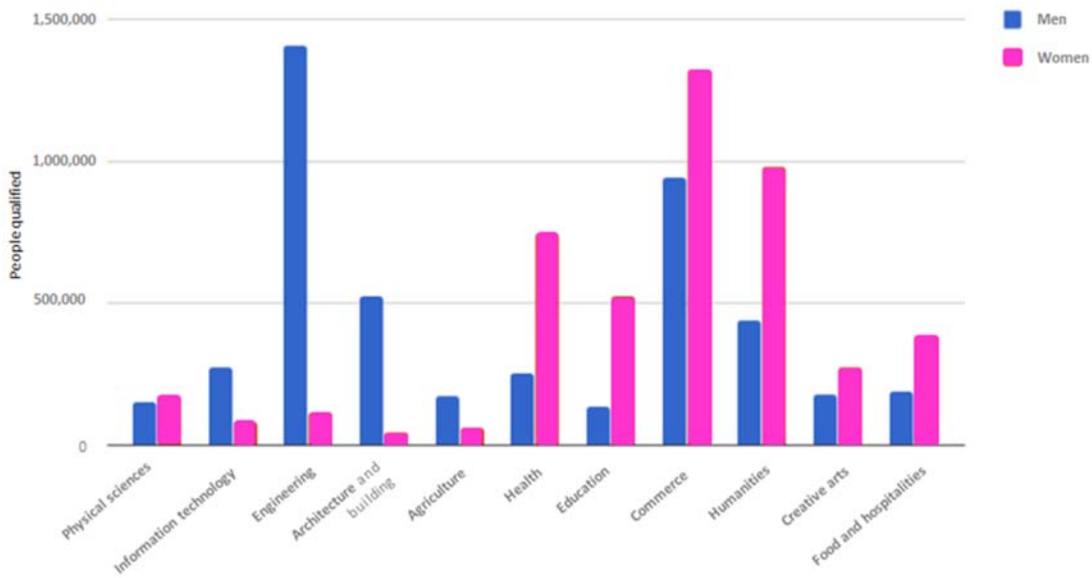
We then wanted to understand if there was a link between the lack of women in investments and the number of women studying investment related studies at university.

## Chart 8: Australian equity managers surveyed with no women in their investment teams


Source: Frontier diversity study

Surprisingly, when we look at undergraduate degrees in Australia, women outnumber men in health, education, creative arts and humanities, as well as commerce. This only makes our results even more concerning as it shows that there is a stark disparity between the number of women completing finance related degrees (such as commerce) and those working in the fund investment space.

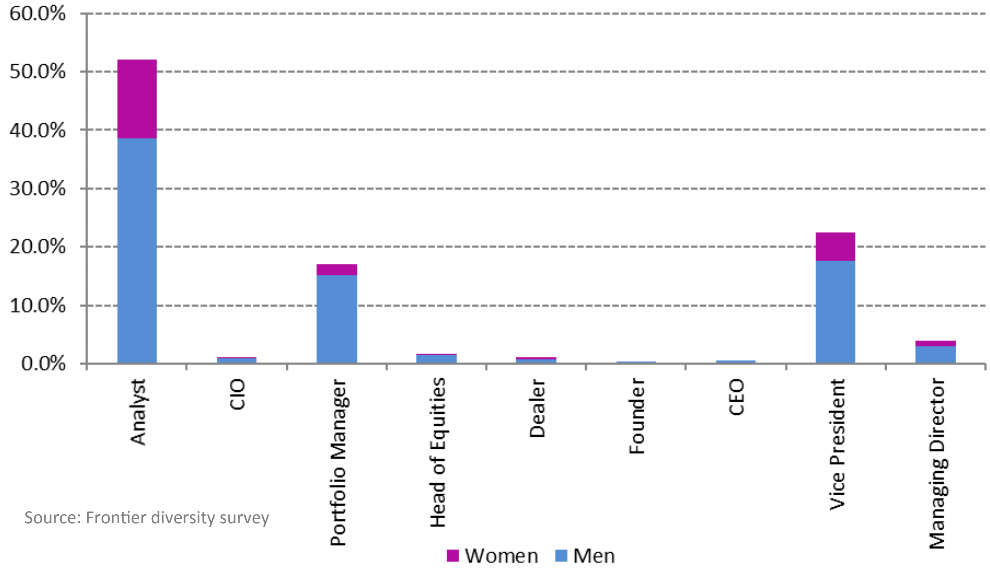
## Chart 9: Undergraduate degrees




Source: Conrad Liveris, ABS 6227

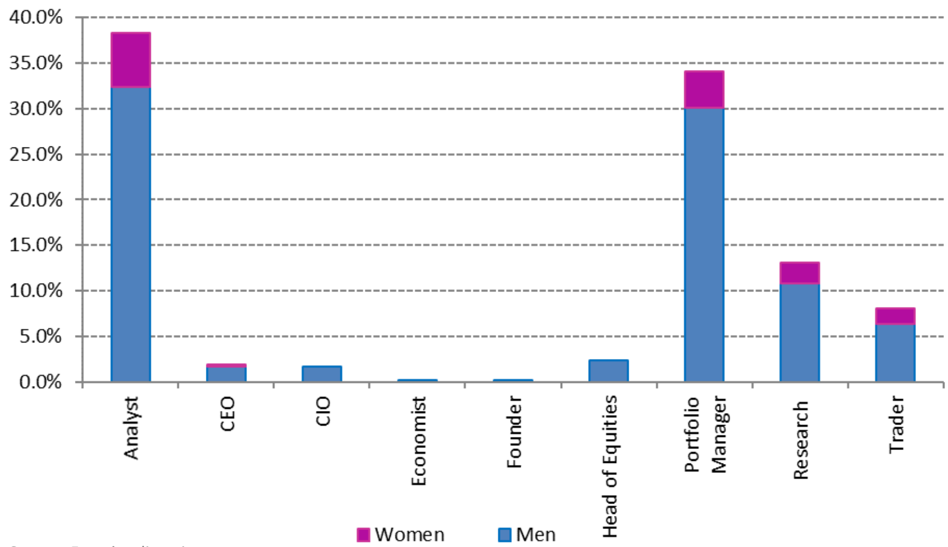
Looking at our survey data in more detail shows the breakdown of men and women in different roles within the investment space.

## Chart 10: A breakdown within investment teams of surveyed global equity managers




Source: Frontier diversity survey

## Chart 11: A breakdown within investment teams of surveyed Australian equity managers



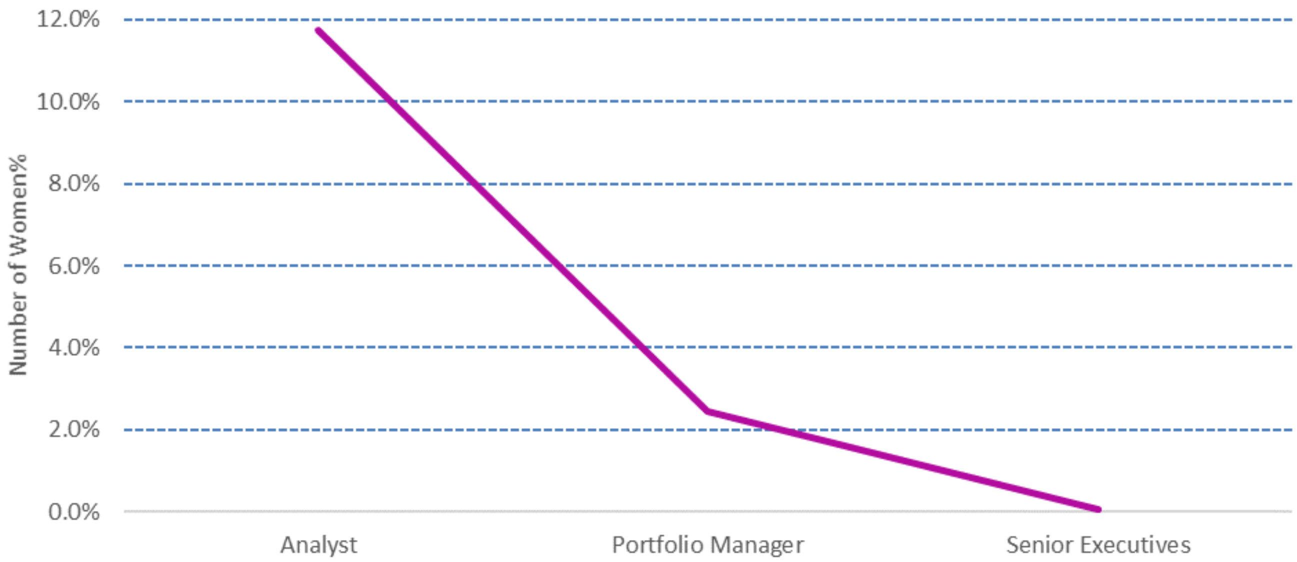

Source: Frontier diversity survey

Both in Australia and globally, we find the largest representation of women is at the junior/entry finance level with a total of 13% of women working as Analysts on a global perspective versus around 6% in Australia[25].

Our data shows that as seniority increases, the level of female participation decreases such that women only make up around 2% of Portfolio Managers, and are not even represented at the Head of Equity, CIO or Founder level (as can be seen in Chart 12).

This is supported by research undertaken by State Street who found that women represent only one fifth of the senior investment roles at large investors (pension funds, endowments) and only around 7% of senior roles at investment fund managers[26]

## Chart 12: The percentage of women in different investment roles at our surveyed equity managers (Australia and global managers)




Senior Executive includes CEO, CIO, Founder and Head of Equities.

Source: Frontier's Diversity Survey

[25] We note that this data will include individuals who have chosen to be career Analysts

[26] Rundell, S, (2017) "Pension Funds get cracking on Diversity."

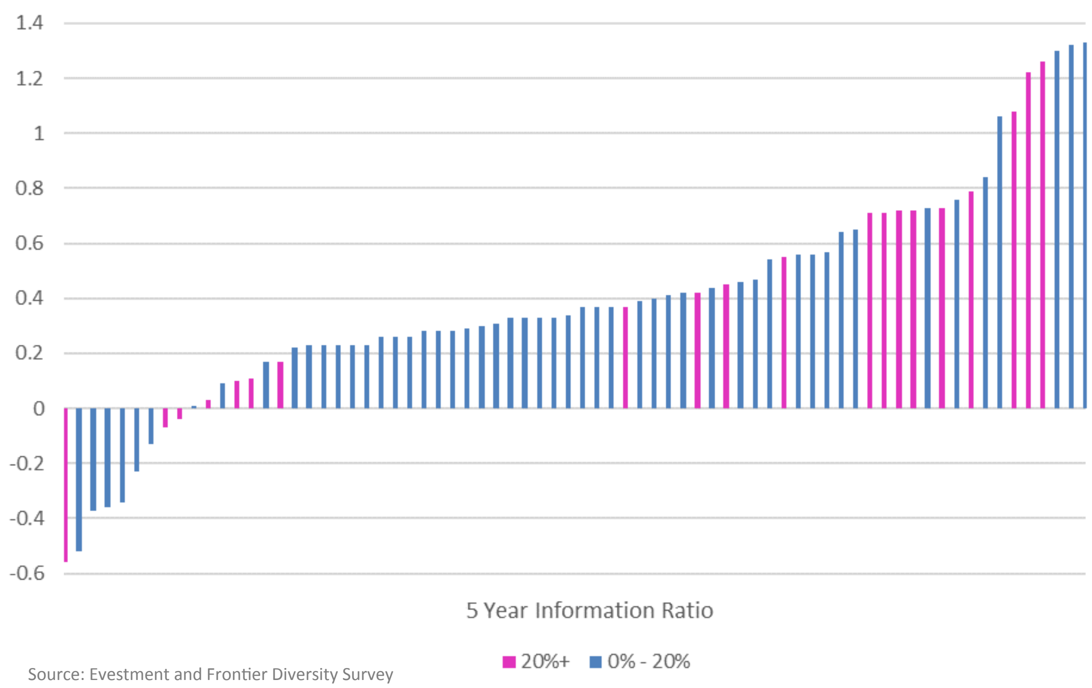
# Gender diverse teams and performance

We then tested the thesis that more gender diverse investment teams result in better risk adjusted returns. We used five-year return data along with the gender diversity data from the surveyed equity managers. The data is not without its limitations. As this is the first time we have conducted this survey, our sample set is relatively small. This will improve as we continue to gather data over time. We have also had to make a number of assumptions. We have assumed that the investment team in place today (i.e. the size of the team and the number of women in the team) is the same investment team throughout the five-year period. It also does not account for other variables which influence investment decisions such as asset allocation, the final decision maker(s), funds under management and other diversity factors (e.g. experience, background etc.). With this in mind, we still believe the results are promising and show we are moving in the right direction.

Chart 13 shows the Five-year Information Ratios (a measure of risk adjusted returns) of the surveyed equity managers. We have grouped the investment teams by the number of women in each investment team such that we have two buckets, investment teams with 0% to 20% female representation and teams with above 20% female representation. We have chosen these groupings because research has shown that with any minority group, more than one person is needed to make an impact. There is a need for 20% to 30% representation of a minority group to bring about change[27].

We have ranked the surveyed managers from lowest Information Ratio to highest. The chart shows that while there are not many managers that fall into the 20%+ bucket, the majority of these managers have displayed better risk adjusted returns (represented by the pink bars clustered around the highest ranked Information Ratios).

## Chart 13: Five-year information ratio of the surveyed Australian and global equity managers




Source: Evestment and Frontier Diversity Survey

[27] According to 30percentclub.org, one woman is not enough: 30% is the proportion when the contributions of a member of a minority group are valued in their own right. Research has shown that a critical mass of three or more women can cause a fundamental change in the boardroom and enhance corporate governance.

Chart 14 showing the five year median Sharpe Ratio (a measure of risk adjusted returns) as well as the five year median Information Ratio of the surveyed equity managers (Australian and global managers).

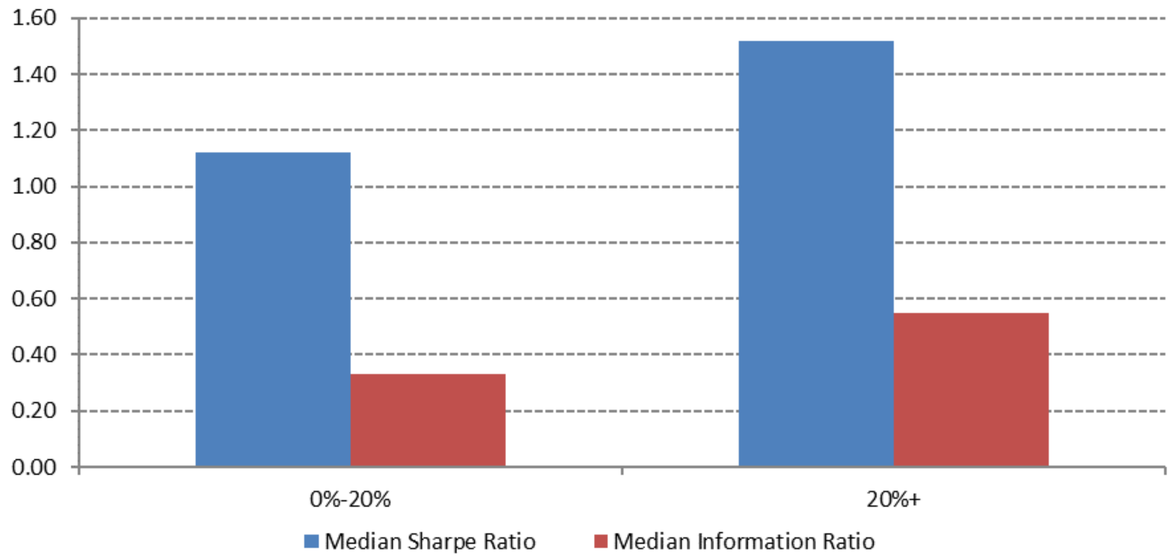
We have kept the groupings the same as in the previous chart (investment teams with 0% to 20% female representation and teams with more than 20% female representation, 20%+).

This shows that the risk adjusted returns (as measured by the Sharpe Ratio and the Information Ratio) of the equity managers surveyed improves as the gender diversity of the investment teams increases.

The managers with the highest female representation (20%+ bucket) exhibit the highest five-year median Sharpe Ratio (the blue bars). Similarly, the most gender diverse investment teams (20%+ bucket) also have the highest five-year median Information Ratio (depicted by the red bars).

Note we have shown the one and three year Shape Ratios in the Appendix of this paper.

Chart 14: Five-year median Sharpe Ratio and five-year median Information Ratio of the surveyed Australian and global equity managers




Source: Evestment and Frontier Diversity Survey

# The final word...

This report marks the first stage of our commitment to research and analyses the value of diversity in funds management with a specific focus at this stage on gender diversity.

Gender diversity brings differences and new perspectives. It challenges the status quo and creates a dynamic environment which results in superior decision making and problem solving abilities. Through diversity, investors can create dynamic, different, challenging, new and expansive thinking. Ultimately, diversity is a means of mitigating risk – the risk of groupthink.

Our research (along with other studies) has shown that women are under-represented in the finance profession, both in Australia and around the globe.

Not only are there few women in investment teams but the number of women decreases as the positions increase in seniority (of the managers we surveyed, there were no female Head of Equities or CIOs and only a small number of female Portfolio Managers.)

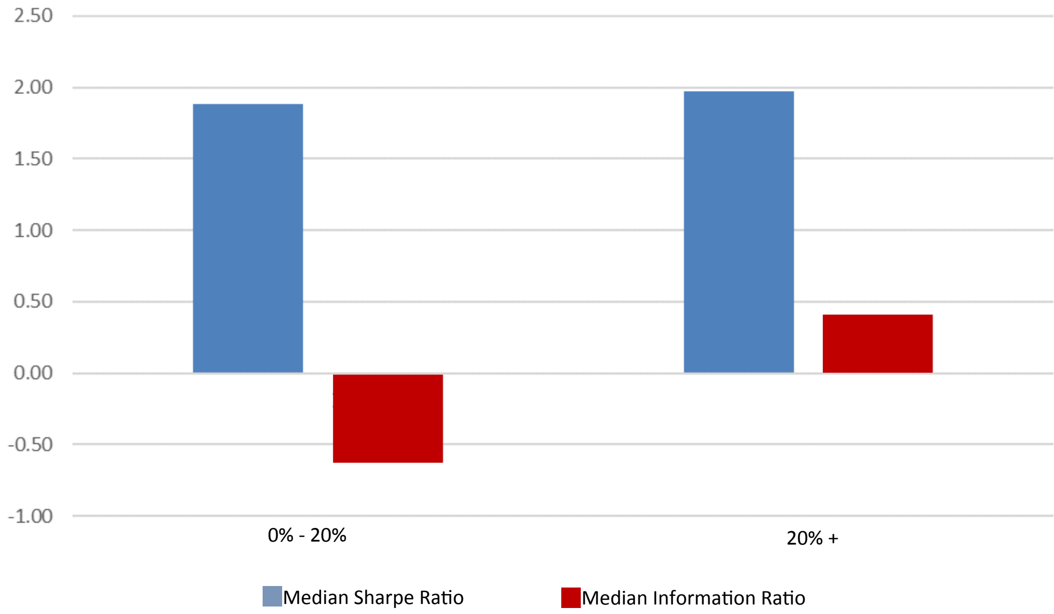
Our analysis of surveyed managers has also shown that investment teams with greater gender diversity have delivered superior risk adjusted returns for their investors. Many investors already believe this and are taking action of their own. These results are encouraging and we hope they will inspire organisations to think more about the value of gender diversity and its importance in the investment workplace. Going forward, we will use our data and results to form a basis for continued benchmarking of organisations on their progress to improve gender diversity of their investment teams.

*Encouraging greater diversity is not only the right thing to do: it allows organisations to derive an “innovation dividend” that leads to smarter, more creative teams, hence opening the door to new discoveries[28].*

[28] Nielsen, M, Alegria, S, Börjeson, L, Etzkowitz, H, Falk-Krzesinski, H, Joshi, A, Leahey, E, Smith-Doerr, L, Woolley, A and Schiebinger, L, (2017) Gender Diversity Leads to Better Science”, PNAS.

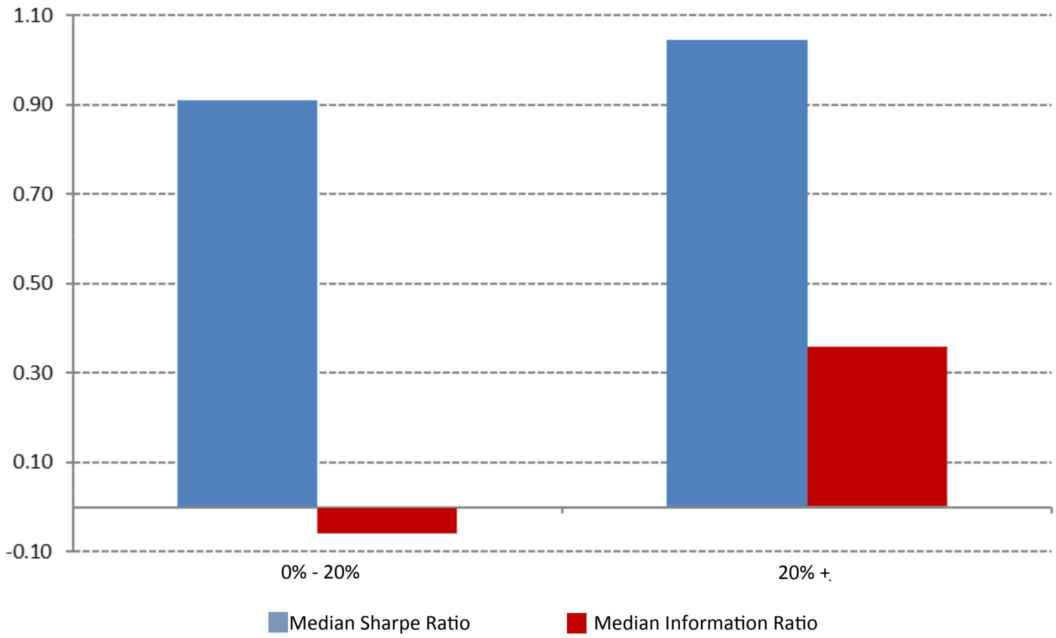
# Appendix

Chart 15: One year median Sharpe Ratio and one year median Information Ratio of the equity managers' survey




Source: Evestment and Frontier Diversity Survey

Chart 16: Three year median Sharpe Ratio and three year median Information Ratio of the equity managers' survey




Source: Evestment and Frontier Diversity Survey

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