Australian Government

Workplace Gender Equality Agency

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Curtin University

GENDER EQUITY INSIGHTS 2020

DELIVERING THE BUSINESS OUTCOMES

BCEC | WGEA Gender Equity Series

Authorship

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This paper uses de-identified data from the Workplace Gender Equality Agency's compliance reporting and benchmarking dataset. The findings and views reported in this paper are those of the authors and should not be attributed to the Workplace Gender Equality Agency.

About the Bankwest Curtin Economics Centre

The Bankwest Curtin Economics Centre is an independent economic and social research organisation located within the Curtin Business School at Curtin University.

The Centre was established in 2012 through the generous support of Bankwest, a division of the Commonwealth Bank of Australia. The Centre's core mission is to deliver high quality, accessible research that enhances our understanding of key economic and social issues that contribute to the wellbeing of West Australian families, businesses and communities.

The Centre's research and engagement activities are designed to influence economic and social policy debates in state and Federal Parliament, regional and national media, and the wider Australian community.

Through high quality, evidence-based research and analysis, our research outcomes inform policy makers and commentators of the economic challenges to achieving sustainable and equitable growth and prosperity both in Western Australia and nationally.

The Centre capitalises on Curtin University's reputation for excellence in economic modelling, forecasting, public policy research, trade and industrial economics and spatial sciences. Centre researchers have specific expertise in economic forecasting, quantitative modelling and economic and social policy evaluation.

About the Workplace Gender Equality Agency

The Workplace Gender Equality Agency is an Australian Government statutory agency created by the Workplace Gender Equality Act 2012.

The Agency is charged with promoting and improving gender equality in Australian workplaces.

We work collaboratively with employers providing advice, practical tools and education to help them improve their gender performance. Our staff are workplace gender equality specialists and provide industry-specific advice.

We also work with employers to help them comply with the reporting requirements under the Workplace Gender Equality Act 2012. This reporting framework aims to encourage measures that improve gender equality outcomes and has been designed to minimise the regulatory burden on business.

The Agency uses the reporting data to develop educational benchmark reports based on six gender equality indicators.

The benchmark reports can be customised by industry and organisation size and enable employers to identify areas for focus, develop informed strategies and measure performance against peers over time.

We are committed to promoting and contributing to understanding, acceptance and public debate of gender equality issues in the workplace. We work collaboratively with employers, business, industry and professional associations, academics and researchers, equal opportunity networks and women's groups and regularly speak at private and public events on workplace gender issues.

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FOREWORD WGEA

If I told you, as a business leader that there was one simple action that that you could implement in your business to add value to your organisation and bolster your financial performance regardless of the size of your firm or the industry in which you operate, I KNOW that you would act immediately!

This report provides you with exactly the action you must take.

Our partnership with the Bankwest Curtin Economics Centre (BCEC), now in its fifth year, provides us with a deeper understanding of our own world-leading dataset, and this year, the findings are remarkable.

This significant report reveals tangible proof of a proposition that our Agency has long suspected as true: that having more gender balanced leadership in an organisation improves the business bottom line.

In fact, the report goes beyond this and measures the impact gender balanced leadership has in an organisation. We can now quantify the additional worth generated for a company by increasing female representation in key decision-making roles. For example, an increase of 10 percentage points or more in female representation on Boards leads to a 4.9% increase in company market value – this equates to about AUD $78.5 million. In anyone's language, that is good business and cannot be ignored by any responsible CEO or Board.

To many of us, this is hardly surprising. At the Agency, we have always known that gender equality makes good business sense; that it is not just the right thing to do, but also the smart thing to do.

So, it is both reassuring and exciting to see the hard numbers and evidence, gleaned from our world leading dataset make a sound business case for gender balanced leadership.

I know that for many organisations, there is still a long way to go. In our dataset, representation of women on Boards is still too low and and has barely moved in the six years we have been collecting data. In fact, one third of these Boards still have no female representation at all. I am flummoxed as to why this is still the case.

My hope now is that CEOs and executives of organisations that are yet to start on their workplace gender equality journey, or those looking for inspiration to further drive the momentum towards gender equality, will use this report to invigorate their enthusiasm and derive better financial outcomes and benefits for the companies they lead.

The findings in this report mean that, if you are a business leader, you no longer have an excuse for avoiding action. Workplace gender equality is an imperative - for your employees' wellbeing, for your company's improved financial standing, for value-added shareholder returns and for the improved economic prosperity of our nation at a time when it is needed most. You need to act now.

Libby Lyons
Director, Workplace Gender Equality Agency

FOREWORD BCEC

For five years the **BCEC|WGEA Gender Equity Insights series** has been providing new insights into what works when it comes to progressing more gender equitable workplaces across Australia.

Through the Gender Equity Insights series, we have been able to understand not only how things have changed over time, but what policies and actions can make change happen faster.

We now have the data that shows that undertaking a gender pay gap audit, reporting to executives and introducing policies that support combining work and family will make a big difference in driving more equitable outcomes in our workplaces.

We also know that greater gender diversity in leadership roles plays a key role in creating more equitable workplaces. More women in leadership can also deliver additional benefits to a workplace – greater profits, and greater productivity.

This report shows the evidence is clear. Appointing more women as CEOs, in top-tier management positions and as Board members can deliver huge returns to Australian companies listed on the ASX.

Our findings in this latest report show that there is a significant causal relationship between companies increasing the share of female leaders and their subsequent financial performance.

Yet while female representation on Australian company boards has improved over the last six years, women are still curiously underrepresented in the key decision making positions of CEO or board Chair. And many companies still have no representation of women at all in their Boards and in the senior leadership ranks.

Australian companies still have some way to go to achieve a better gender balance in key decision making roles. So how long before we see greater gender balance among our company leaders?

This report shows that appointing more women to key leadership positions is not just a matter of fairness – it makes business sense as well.

And there is a huge pool of untapped leadership talent that can bring new ideas, new management styles and business innovations to the table.

Companies should be seriously asking themselves why they don't have more women in their leadership ranks. This is particularly important as we look to rebuild our economy and broaden business and employment opportunities in a post COVID-19 environment.

We hope that the findings in this report series provide you with new insights and hard evidence to drive change in Australia's workplaces.

Professor Alan Duncan
Director, Bankwest Curtin Economics Centre
Curtin Business School, Curtin University

EXECUTIVE SUMMARY

More women at the top means better company performance, greater productivity and greater profitability.

Leadership has never been more important as we navigate our way through the COVID-19 crisis and towards an economic recovery that workers, families and businesses are depending on.

The business case for increasing the number of women in senior leadership positions has long been argued, with greater diversity of thought delivering new ideas, new management styles and ultimately better business outcomes. Now, more than ever, it is a compelling case.

The Bankwest Curtin Economics Centre (BCEC) has partnered with the Workplace Gender Equality Agency (WGEA) to build an evidence base that further supports the business case for gender equality.

In this fifth report in the *BCEC|WGEA Gender Equity Insights* series, we find a strong and convincing ***causal relationship*** between increasing the share of women in leadership and subsequent improvements in company performance. This relationship is present when increasing women's representation on boards, increasing the share of women in the most senior leadership tier of the company and when appointing a female CEO.

Taking advantage of the longitudinal nature of the WGEA reporting data, we are able to assess just how much influence women in leadership have on company performance.

This has been done using sophisticated econometric panel data techniques that relate prior changes in female leadership shares to subsequent company performance outcomes.

Our methodology takes into account other firm characteristics that influence business performance, intrinsic differences between individual companies as well as business cycle effects.

The findings in this report provide clear support for the business case. More women at the top means better company performance, greater productivity and greater profitability.

Key Findings

There are more women in senior leadership, but more need to follow

More women are holding senior leadership roles across Australian companies than ever before. However, women still remain grossly underrepresented as key decision makers.

Women are least likely to be the Chair of the Board – a position that can often hold as much accountability and influence as the CEO. In 2019, only 14.1% of Board Chair positions were held by women.

Board membership is gaining greater momentum with women constituting around 30% of Board members. However, 29.8% of companies have no female representation on their Board. A similar proportion of companies have no women in their key management teams.

The larger the market value, the more likely it is for a woman to be at the helm. One in eight ASX50 companies – the top fifty organisations in Australia by market value - have a female CEO. Around a third of those members serving on ASX50 Boards are women, and nearly three in ten top-tier managers in ASX50 companies are women. In comparison, one in eleven ASX200 companies and just one in thirteen companies outside the ASX200 have a female CEO.

More women in leadership drives better company financial performance

Increasing the representation of women on Boards and as key decision makers within companies leads to higher company performance across a suite of measures including indicators of profitability and productivity.

Using Tobin's Q – an indicator of the value a company is offering to its shareholders – as a key performance indicator, and translating this into an equivalent measure of company market value added, we find that:

- an increase of **10 percentage points or more** in female representation on the **Boards** of Australian ASX-listed companies leads to a **4.9% increase in company market value**, worth the equivalent of AUD $78.5 million (or USD $52.6 million) for the average company;
- an increase of **10 percentage points or more** in the share of female **Key Management Personnel** leads to a **6.6% increase in the market value** of Australian ASX-listed companies, worth the equivalent of **AUD $104.7 million** (or USD $70.2 million) for the average company;
- the appointment of a **female CEO leads to a 5.0%** increase in the market value of Australian ASX-listed companies, worth the equivalent of **AUD $79.6 million** (or USD $53.3 million) on average.

Increasing the number of women in senior leadership leads to a greater likelihood of companies outperforming their sector on six key profitability and performance metrics. These include return on equity, earnings before interest and tax (EBIT), sales per worker, return on assets, Tobin's Q and dividend yield.

Comparing company performance across these metrics in combination reveals that female leadership can have a demonstrable impact on a number of profitability and productivity outcomes simultaneously. We find that:

- an increase of **10 percentage points or more** in female representation on the Boards leads to a **6.0% increase** in the likelihood of outperforming their peers on three or more metrics;
- an increase of **10 percentage points or more** in the share of female Key Management Personnel leads to a **5.8% increase** in the likelihood of outperforming the sector on three or more metrics;
- the appointment of a female CEO has driven a **12.9% increase** in the likelihood of outperforming the sector on three or more metrics.

Reducing the number of women in top management tiers reduces company financial performance

Companies that reduced the share of women in top management tiers over time were more likely to underperform relative to their peers, compared to companies that either increased the share of women or saw no change.

Companies that reduced the share of women as key managers by 10 percentage points or more faced a reduction in market value of 2.9%, worth the equivalent AUD $46 million (USD $30.8 million) on average.

The business case for more women in senior leadership

This report provides new evidence that the case for greater gender equity is not just an issue of fairness and the 'right thing to do' – it is supported by strong causal evidence that more women in leadership leads to better company performance, greater productivity and greater profitability.

An increase of 10ppts or more in female representation on Boards leads to a 4.9% increase in company market value, worth the equivalent of AUD $78.5 million on average.

INTRODUCTION

This 2020 report makes an important contribution to the evidence that increasing the share of women in leadership leads to subsequent improvements in company performance.

For five years the **BCEC|WGEA Gender Equity Insights series** has been providing new insights into what works when it comes to progressing more gender equitable workplaces across Australia.

The 2020 Gender Equity Insights Report is based on the world-leading Workplace Gender Equality Agency (WGEA) dataset which covers more than 4.3 million employees or over 40% of employees in Australia.

Using these data, we have been able to uncover the steps that organisations have taken to narrow their gender pay gap, to progress more women into leadership positions and keep them there.

The longitudinal nature of the WGEA data - ***where information about the same company is captured annually*** – has meant that we are able to observe the outcomes of organisations' actions, policies or changes in leadership. This has provided invaluable insights into what works in creating more gender equitable workplaces.

Our previous research showed that the simple act of undertaking a pay gap audit often leads to companies taking steps to correct the pay gaps that they see in their organisation and review their performance pay processes as a result[1].

Companies that took these actions were also more likely to narrow their gender pay gap over time compared to otherwise similar companies that took no action.

These actions were three times more effective when implemented alongside a process of reporting to the executive or the Board. Gender pay gaps close when leaders see the numbers and there is accountability at the top.

In the 2019 report, we captured the impact workplace policies have on progressing women in senior leadership positions[2]. Unsurprisingly, policies that support combining work and family make a big difference.

Flexible workplace policies, employer provided on-site childcare and employer funded paid parental leave at full replacement wage all have a significant impact on retaining female workers – especially those in leadership roles.

Employer-funded paid parental leave schemes covering 13+ weeks effectively halves the share of managers who resign during parental leave compared to those with access to only the Australian Government scheme which is paid at the minimum wage.

And workplaces that provide on-site childcare reduce the chance of losing female managers during parental leave by almost one-fifth.

These findings offer practical solutions that organisations can put in place to create not only a more equitable workplace with greater female leadership, but potentially a more productive and profitable workplace as well.

And here in this latest report we test this proposition – ***Do more women leaders deliver better company performance?***

A number of studies have looked to answer this question. Some have found a convincing relationship between female leadership and company performance [3].

For example, a 2012 study by Cristian Deszo and David Ross follows the same companies over fifteen years and finds that female representation in top management roles improves the performance of firms that are innovation focussed, leading to added economic value of over US $40 million.

1 BCEC|WGEA Gender Equity Insights 2018.

2 BCEC|WGEA Gender Equity Insights 2019.

3 See for example Deszo & Ross 2012; Ali, Kulick and Metz 2011; Adams & Ragunathan 2015; Gomez, Lafuente & Vaillant 2017.

Another study by Jorge Moreno-Gómez, Esteban Lafuente and Yanci Vaillant finds that more women in top management positions lead to improved business performance, while more women in the boardroom drives greater shareholder value.

Other research has found no significant links between gender diversity and company financial performance. Analysing the S&P500 companies over a five year period between 1998 and 2002, Carter *et al* (2010) finds no significant positive relationship between gender diversity and company performance.

Studies can vary substantially, depending on the company performance metric used, the country and industry context, data availability and the technical application.

Within the Australian context, there has been some evidence that female leadership is associated with greater company performance, but causation is often challenging. The most recent study to test this relationship is a 2018 McKinsey study, which shows a statistically significant correlation between women in leadership and companies that outperform their peers . However, as the authors themselves attest, they cannot definitively assert causality.

Gender Equity Insights 2020: Delivering the Business Outcomes fills an important knowledge gap. It extends and strengthens the evidence base that currently exists around female leadership and company performance, productivity and profitability.

But more than this, it ***identifies a causal relationship between the two*** by taking advantage of the Workplace Gender Equality Agency data and its unique characteristics and applying sophisticated statistical methods that relate prior changes in female leadership shares to subsequent company performance outcomes.

This new evidence base is an important step towards not only delivering more gender equitable workplaces, but understanding what that means for Australian businesses.

Australian Workplace Gender Equality Data

In 2012 the Australian Government legislated the Workplace Gender Equality Act, which has the primary objective to improve and promote equality for both women and men in the workplace.

Under the Act, non-public sector organisations with more than 100 employees are required to report annually against six gender equality indicators.

These include the representation of women in leadership, equal remuneration between women and men and policies and actions they are taking in respect of these gender equality indicators.

This legislation has resulted in the collection of a unique and extensive data set.

The Workplace Gender Equality Agency data collection covers more than 4.3 million employees – which equates to more than 40% of the Australian workforce.

"ACHIEVING GENDER BALANCE IN ORGANISATIONAL GOVERNANCE STRUCTURES IS BOTH REFLECTIVE OF, AND CAN LEAD TO BROADER RECOGNITION OF EQUITY AND DIVERSITY IN CORE BUSINESS VALUES."

WOMEN IN LEADERSHIP

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WOMEN IN LEADERSHIP

Among all leadership positions, women are least likely to be the Chair of the Board – a position that can often hold as much accountability and influence as the CEO.

The business case for increasing the number of women in leadership has long been argued. In its simplest form, female representation in senior leadership positions speaks to basic considerations of gender equity. More broadly, there is growing evidence of the additional social and economic benefits of achieving greater gender balance in the workplace.

Companies with greater female representation are more likely to be stakeholder-orientated and as a result have stronger corporate social responsibility measures in place[4]. They are less likely to be involved in fraudulent behaviour in any given year[5] and more likely to promote collaborative and innovative behaviour through their management styles.

Achieving gender balance in organisational governance structures is both reflective of, and can lead to broader recognition of equity and diversity in core business values. There is also an increasing body of evidence that demonstrates improved gender diversity leads to better decision-making and business outcomes[6].

In this special investigation we test the relationship between gender balance in senior leadership roles and company performance further. We do this by taking advantage of changes we can observe in the gender composition of leadership structures within a firm and link these to subsequent changes in company performance.

Women in Company Leadership Roles

Women have increased their presence in senior management and leadership roles over time, but remain under-represented in top company positions (Table 1).

Among all leadership positions, women are least likely to be the Chair of the Board – a position that can often hold as much accountability and influence as the CEO. The latest WGEA data confirms that only 14.1% of Board Chairs are women, with very little change over the last six years (+2.2ppt).

TABLE 1

Share of women in CEO, Board and Management Positions, 2014 to 2019

	Share of women						Change from 2014 to 2019 (ppt)
	2014	2015	2016	2017	2018	2019	
All	35.8%	36.1%	36.8%	37.3%	37.5%	37.8%	+2.0
Chief Executive Officers	15.7%	15.4%	16.3%	16.5%	16.8%	17.1%	+1.4
Board Chairs	11.9%	14.2%	12.9%	13.6%	13.7%	14.1%	+2.2
Board Members	25.3%	25.2%	26.6%	27.2%	28.1%	29.3%	+4.0
Managers	33.1%	33.7%	34.7%	35.7%	36.3%	36.7%	+3.6
KMPs	24.6%	25.9%	27.1%	28.1%	29.0%	30.2%	+5.6
Executive Managers	25.8%	26.8%	27.6%	28.0%	29.0%	30.0%	+4.2
Senior Managers	29.0%	30.2%	31.2%	32.1%	32.4%	33.1%	+4.1
Other Managers	36.3%	36.7%	37.6%	38.6%	39.3%	39.4%	+3.2
Non-Managers	36.6%	36.6%	37.3%	37.7%	37.7%	38.1%	+1.5
Professionals	41.9%	42.3%	43.4%	43.2%	43.2%	43.6%	+1.7
Technicians and Trades Workers	7.9%	7.9%	7.9%	8.4%	9.1%	9.3%	+1.4
Community Services Workers	60.7%	58.1%	57.4%	57.8%	57.7%	57.6%	-3.1
Clerical Workers	71.3%	70.8%	71.1%	70.5%	70.4%	70.2%	-1.1
Sales Workers	46.2%	45.3%	45.5%	46.2%	46.4%	45.9%	-0.3
Machinery Drivers and Operators	9.3%	9.3%	10.1%	10.0%	10.2%	10.9%	+1.7
Labourers	20.1%	22.5%	23.4%	23.4%	22.9%	23.6%	+3.5

Notes: Analysis is restricted to full-time workers.
Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

4 See for example Adams, Licht, & Sagiv 2011; Matsa & Miller, 2014; Galbreath 2011.

5 Capezio and Mavisakalyan 2015.

6 Deszo & Ross 2012.

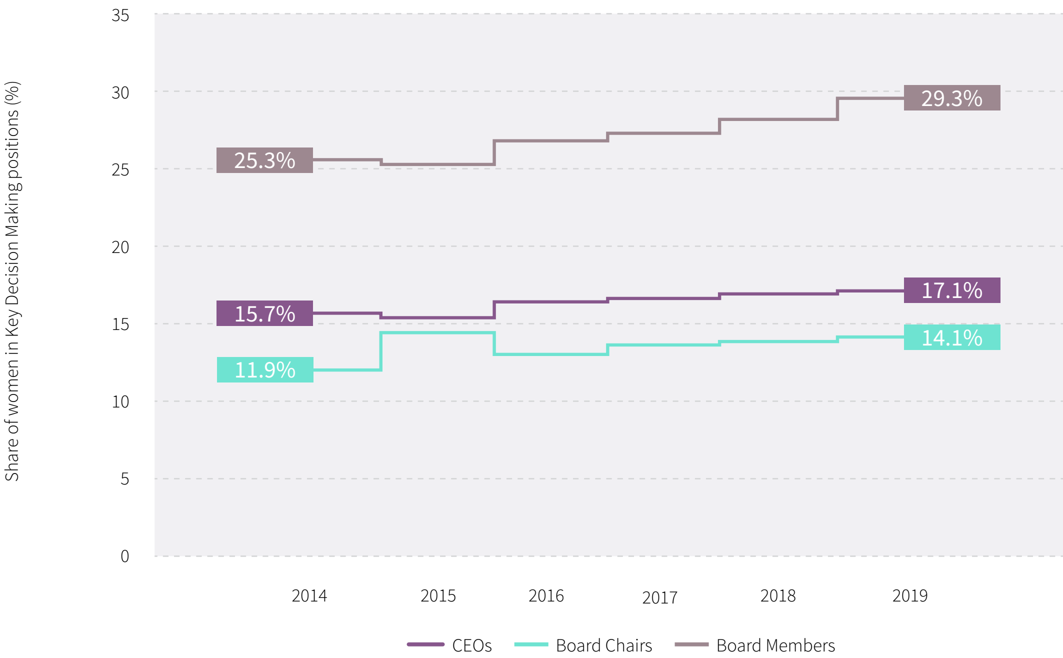
Among management tiers, women are more likely to hold lower level line management roles than senior leadership positions. In 2019 39.4% of all full-time ‘other managers’ were women. This decreases to only 30.2% when reaching the top management tier – Key Management Personnel. However, changes over time are strongest as the management level increases. The share of women Key Management Personnel has grown the fastest by 5.6ppts, followed by Executive Mangers (+4.2ppts), Senior Managers (+4.1ppts) and Other Managers (+3.3ppts). These results are promising and suggest that we are likely to see a more balanced gender composition among higher level management positions sooner.

A graphical representation of changes in the share of women in senior leadership positions illustrates just how slow progress has been, especially among CEO positions and Board Chairs (Figure 1). Board membership is gaining greater momentum, but women still remain grossly underrepresented within these important leadership positions.

Board membership is gaining greater momentum, but women still remain grossly underrepresented within these important leadership positions.

FIGURE 1

Share of women as CEOs, Board Members & Chairs, 2014 to 2019



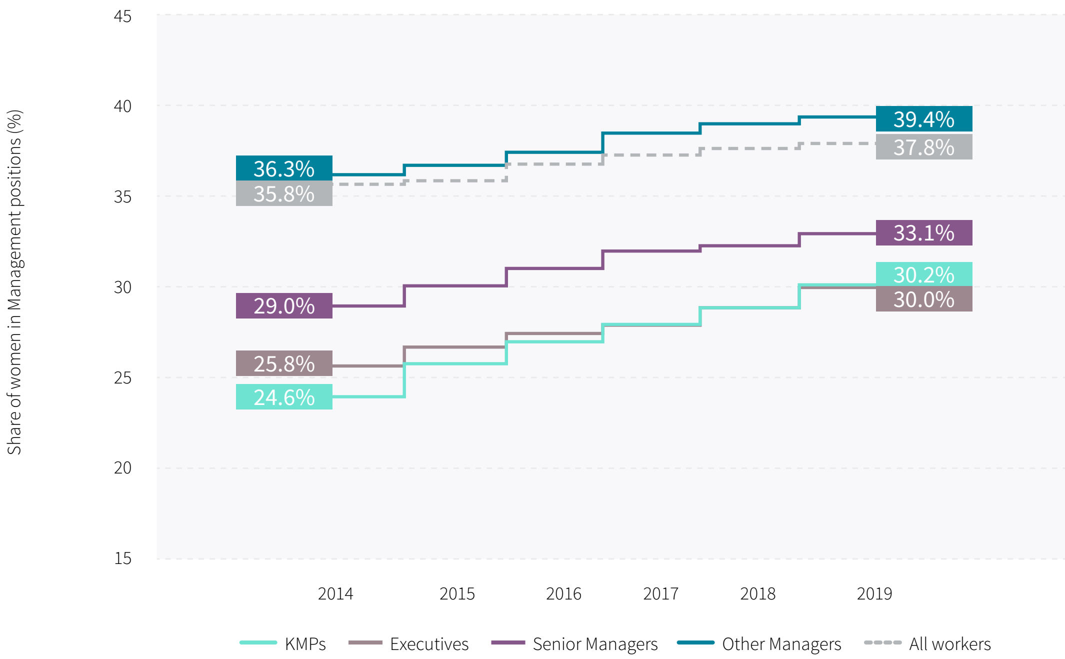
Notes: Analysis is restricted to full-time workers.
Source: Bankwest Curtin Economics Centre | Authors’ calculations from WGEA Gender Equality data 2014 to 2019.

The rate of progression of women in senior leadership positions below CEO and Board Chair over the last six years is illustrated in Figure 2. Women's representation across most management tiers has seen reasonable progress over the period, increasing by an average of 1-2 percentage points annually.

When considered alongside the much slower rate of change at the CEO and Board Chair level (Figure 1), this does suggest that something of a 'glass ceiling' still remains for women seeking access to the highest echelons of corporate leadership.

FIGURE 2

Share of women in management positions, 2014 to 2019



Notes: Analysis is restricted to full-time workers.
Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

"BOARD MEMBERSHIP IS GAINING GREATER MOMENTUM, BUT WOMEN STILL REMAIN GROSSLY UNDERREPRESENTED WITHIN THESE IMPORTANT LEADERSHIP POSITIONS."

WOMEN IN LEADERSHIP AND INDUSTRIES

Women's representation on Boards and in Key Management roles in Australia varies substantially across industries. To capture this variability we break down the share of women on Boards and in Key Management positions by industry sector using the following categories:

- no female members
- up to a quarter of members are women
- over one quarter and up to a half of members are women
- more than half of members are women

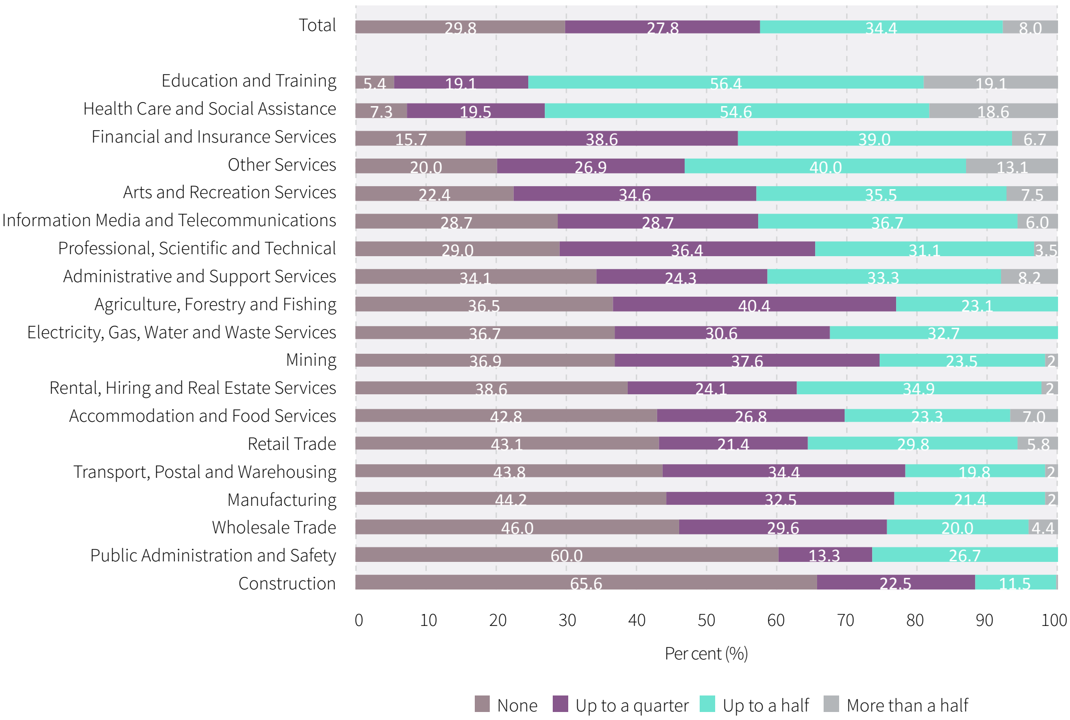
Overall 29.8% of organisations that reported to WGEA in 2019 had no female representation on their Board (Figure 3). Women made up no more than a quarter of Board members for 27.8% of companies. For around one-third (34.4%) of firms, the share of women on Boards lies between one quarter and one half, while only 8% of organisations have Boards comprising more women than men.

The gender composition of Boards aligns closely with the representation of women and men within each sector. For example, the female-dominated Health and Education industries have the highest proportion of Boards with more women than men. Around 20% of firms within these sectors have Boards with more women than men. These sectors also have a high proportion of firms where between one quarter and one half of members are women.

29.8% of companies have no female representation on their Board.

FIGURE 3

Share of women as Board Members & Chairs by industry 2019



Notes: Up to a half = over one quarter and up to a half. Australian government departments at both Federal and State level currently do not report to WGEA, reducing the representativeness of the Public Administration and Safety sector.
Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

Two-thirds of firms in the Construction sector have no women on their Boards.

27.5% of companies have no women in their key management teams.

At the other end of the spectrum is the Construction sector, where two-thirds of organisations have no female representation on their Boards. This may be considered reasonable representation if we compare this to the share of women working in Construction overall, which is around 20% for companies reporting to WGEA. But this may not be the optimal outcome for these companies.

Other sectors that perform poorly in this area include Retail Trade and Accommodation and Food Services. In these sectors over 40% of firms have no female representation on their Board, yet their workforce consists of more than 50% women.

On the other hand, Mining could be considered to be punching above its weight, where over 20% of companies in the sector have Boards that comprise of between one quarter and one half women. This compares to a workforce that comprises 15% women overall.

Similar patterns exist among Key Management Personnel, with women and men more likely to hold senior management positions in sectors that have a greater share of their sex in the workforce overall (Figure 4). These patterns are not as stark as Board membership and companies tend to do slightly better in creating more gender diverse senior leadership teams within their organisation.

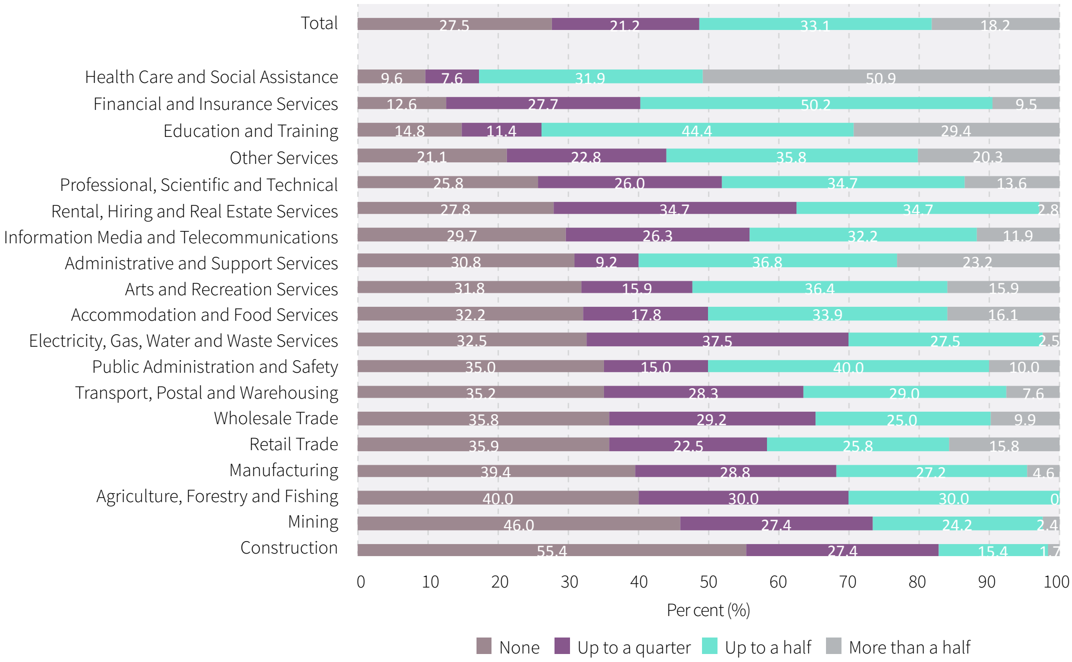
Overall, 27.5% of organisations across all sectors have no female key management personnel. Around 20% of firms have up to a quarter of women in their senior leadership teams and just over 33% of companies have leadership teams where women make up between one quarter and a half of the group. Just under 20% of firms have key management personnel teams where women outnumber men.

Almost 51% of companies in the Health Care sector have key management teams where women outnumber men. This compares to the workforce overall, which is 71% female. The Education and Training sector has the second highest proportion of companies with a leadership team where the majority are women.

Over half of companies in the male-dominated Construction sector have no women in their key management personnel teams. Mining, Agriculture and Manufacturing also have a high proportion of firms with no female representation in their key management personnel ranks.

FIGURE 4

Share of women as Key Management Personnel by Industry 2019



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Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

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DOES COMPANY SIZE MATTER?

What is the relationship between company size - as measured by market capitalisation - and the share of women in leadership roles? Do larger companies have more women at the top? In short, yes.

Here we compare companies listed on the Australian Securities Exchange (ASX) and their market capitalisation value with the share of female leadership over the last six years including CEO's, Board Membership and Key Management Personnel.

Companies are grouped into ASX categories based on their market capitalisation size. Market value is the value of a company's outstanding shares. For example, the ASX50 represents the 50 largest companies in Australia by market cap.

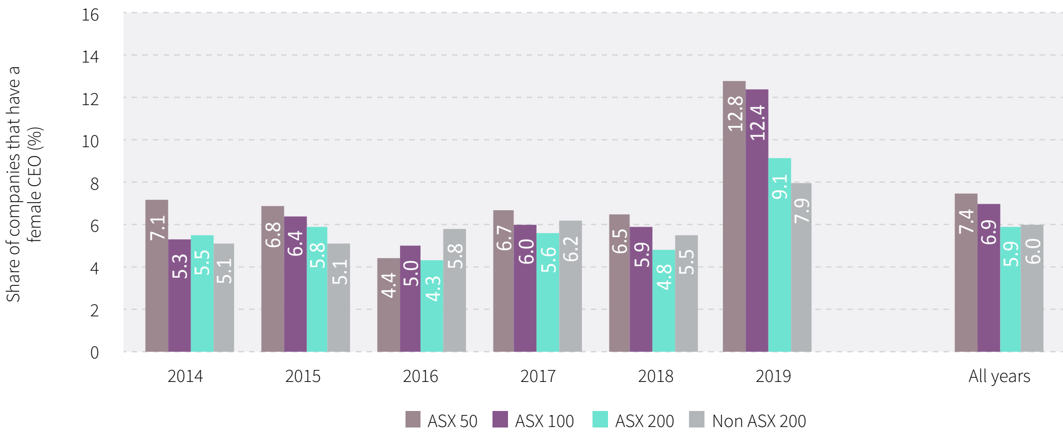
Women holding the position of CEO is far less common than other senior leadership roles, but there is a demonstrable pattern between women led companies and company size. This trend is more pronounced in 2019 where 12.8% of ASX50 companies had a female CEO. While this share represents only six companies it is more than double the number of non ASX200 companies with a female CEO.

As the market capitalisation falls, so too does the likelihood there will be a female CEO. Only 9.1% of companies in the ASX200 and 7.9% of companies outside of the ASX200 had a female CEO in 2019.

The larger the market capitalisation, the more likely there is a woman at the helm.

FIGURE 5

Share of companies that have a female CEO by market capitalisation size, 2014 to 2019

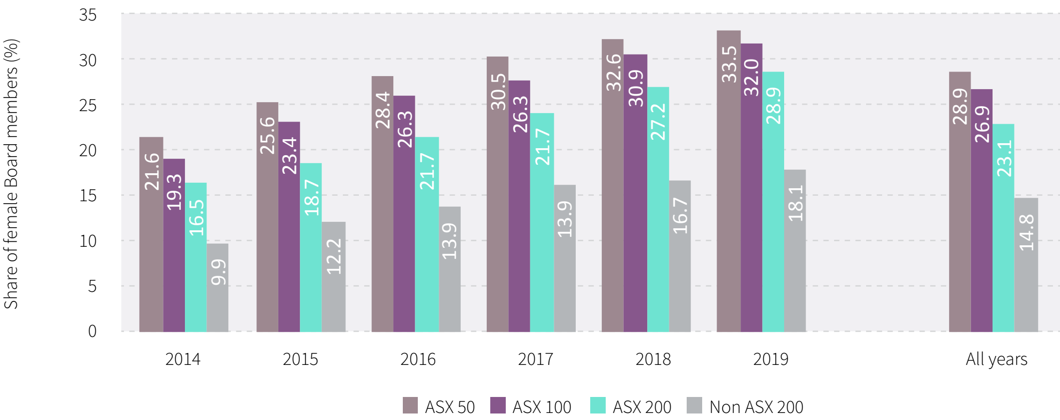


Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

ASX50 companies are more likely to have a female CEO, one-third female board membership and a higher share of women in their top-tier management team.

FIGURE 6

Share of women as Board Members & Chairs by market capitalisation size, 2014 to 2019



Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

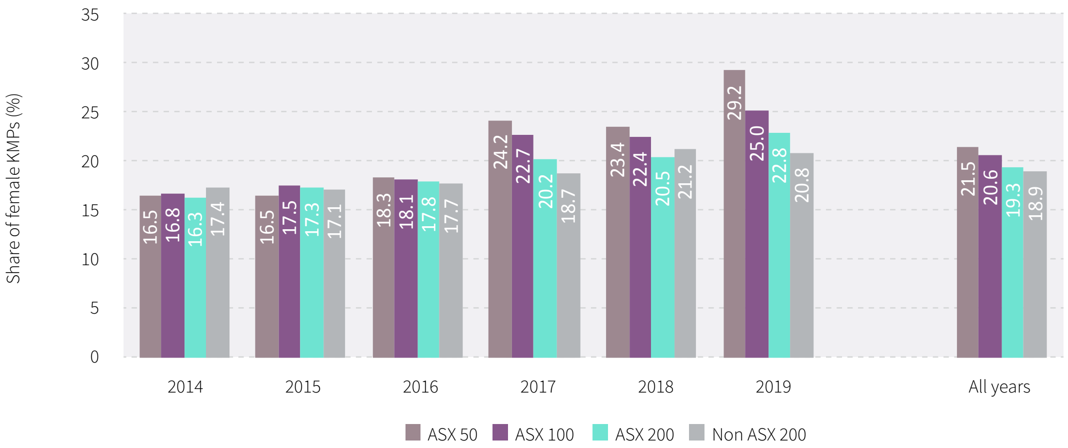
The share of women on company Boards has been increasing over time, but particularly among ASX200 companies where female Board members have risen from just 16.5% in 2014 to 28.9% in 2019 (Figure 6). This progress aligns with a call from the Australian Institute of Company Directors in 2015 to achieve 30% women on Boards across all ASX200 companies by the end of 2018.

A subset of the ASX200 – the ASX50 has also seen significant improvement and currently has the highest share of women on Boards at 33.5%.

Smaller cap companies that sit outside the ASX200 have the lowest share of women Board members at 18.1% in 2019, but this still represents almost double the level five years ago, where only 9.9% of board members were women.

FIGURE 7

Share of women as Key Management Personnel, 2014 to 2019



Source: Bankwest Curtin Economics Centre | Authors' calculations from WGEA Gender Equality data 2014 to 2019.

Between 2014 and 2016 there was little difference between the share of female key management personnel and company size (Figure 7).

However, since 2017 there has been a clear pattern that shows the larger the company market capitalisation, the greater share of female top-tier managers. ASX50 companies in 2019 had an average share of 29.2% of women in their top management teams. This compares to an average of 20.8% for companies outside the ASX200.

GENDER DIVERSITY AND COMPANY PERFORMANCE

A number of indicators can be used to judge a company's performance. These range from financial indicators, through to engagement with corporate social responsibility, strength of governance structures and the level of entrepreneurship and innovation a firm can deliver. Many of these indicators are inextricably linked.

In this report we focus primarily on indicators of profitability and productivity measured with orthodox company performance indicators. These include return on equity, earnings before interest and tax (EBIT), sales per worker, return on assets, Tobin's Q and dividend yield. Detailed information about each indicator can be found in the technical notes.

To capture efficiently the patterns of company performance, we develop a new composite measure that compares company performance with industry benchmarks across each of these six metrics.

For each component performance measure, we define companies to be outperforming the sector when the corresponding metric is in the top quartile within the relevant industry sector. These companies are considered to be outperforming relative to their peers.

Similarly, we define companies to be underperforming if they are in the bottom quartile of their industry sector for each company performance metric.

The composite performance measure is then defined as a situation in which a company either outperforms or underperforms their sector on three or more component metrics.

Our composite performance measure is defined as a situation in which a company either outperforms or underperforms their sector on three or more component indicators.

"WHEN THERE ARE MORE WOMEN ON BOARDS, COMPANIES ARE MORE LIKELY TO OUTPERFORM THEIR SECTOR ACROSS THREE OR MORE INDICATORS."

HOW WELL DO COMPANIES PERFORM AT A SINGLE POINT IN TIME?

Here we assess company performance measures relative to the share of women on Boards and in Key Management positions across Australian companies at a single point in time. Company performance is judged on whether a firm performs in the top or bottom 25% of all companies within its sector across a number of profitability and performance indicators.

The share of companies that outperform and underperform their sector on three or more company performance metrics relative to the share of women on Boards is shown in Figure 8. And the analysis shows a very clear pattern - companies are more likely to outperform their sector across three or more indicators when there are more women on their Board.

Around one-fifth of firms in which more than a third of its Board membership are women will be out-performing their peers, compared to only 8% of firms that have no female Board membership. This pattern is consistent across all years of WGEA reporting data.

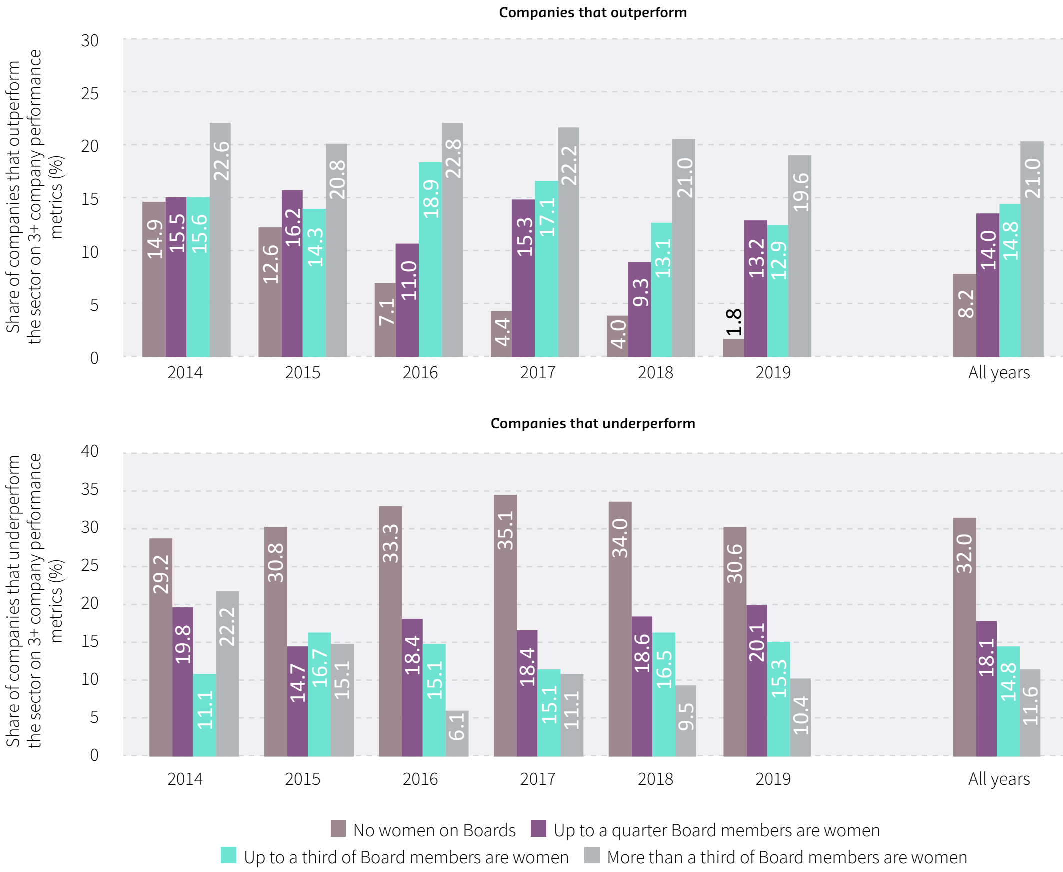
In contrast, companies that have no women on their Board are far more likely to be underperforming on three or more indicators than companies that have greater female membership on their governing body. Almost one-third of companies that have no women on their Board will be underperforming relative to their peers. This compares to only around 10% of companies where more than one-third of Board members are women.

Around one-fifth of firms in which more than a third of its Board membership are women will be outperforming their peers, compared to only 8% of firms that have no female Board membership.

Companies that have no women on their Board are three times as likely to be underperforming compared to those that have at least one-third female membership.

FIGURE 8

Share of companies that outperform and underperform sector performance benchmarks: by share of **women on Boards**



Note: Detailed information about each financial reporting indicator can be found in the Glossary & Technical Notes.
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2019, Morningstar.

The greater the share of women in key management positions, the more likely a company is to outperform their peers.

A similar pattern is evident among firms when assessing the proportion of women in the top senior management positions – Key Management Personnel. These managers are responsible for overseeing one of the firm's major functions reporting directly to the CEO and include chief operating officers, chief financial officers and heads of talent. The greater the share of women in key management positions, the more likely a company is to outperform their peers across three or more performance measures. The lower the share of women, the more likely a company is to underperform relative to their peers.

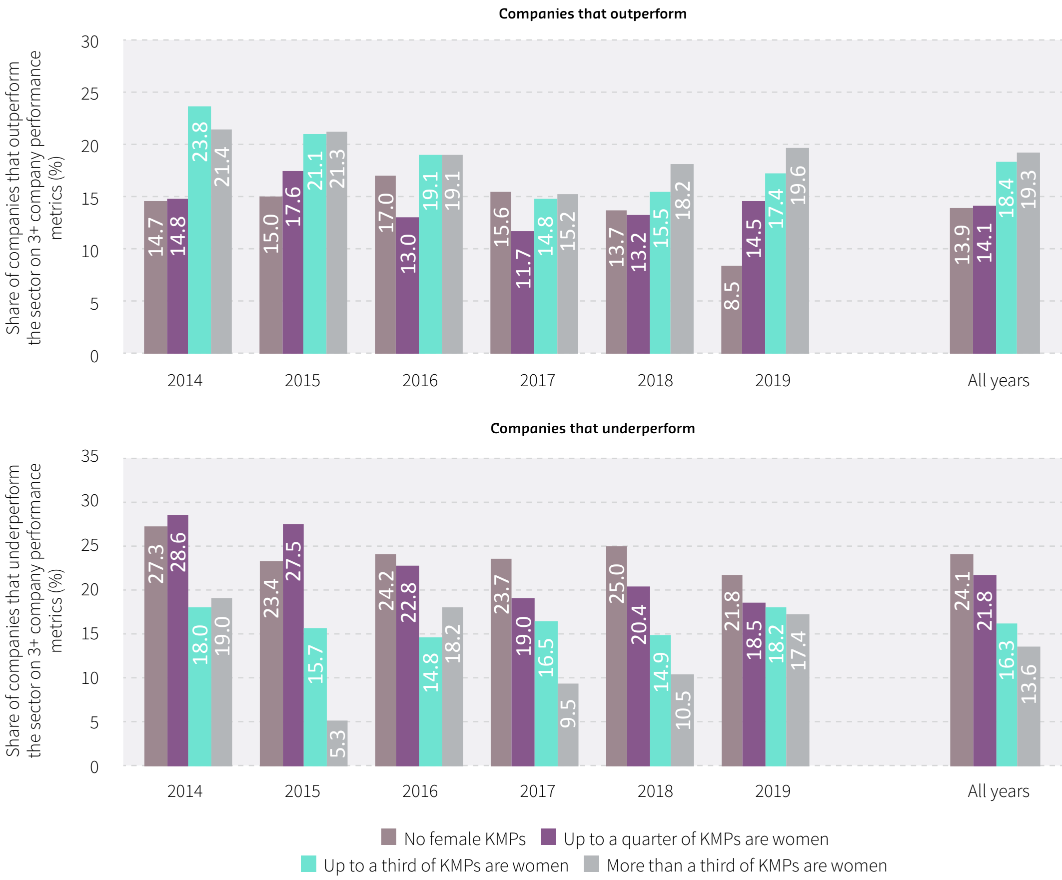
Almost one in five companies with more than a third of key management positions held by women will outperform their peers, compared to only 13.9% of firms that have no female representation in their senior management ranks. These patterns hold over time, with the strongest difference in performance in 2018/2019 financial year. In this period, companies with over a third of female key management personnel were more than twice as likely to outperform their peers as those with no female top-tier managers.

Similarly, companies that have no female key management personnel are more likely to underperform relative to their peers, with this pattern continuing over the last six years, but narrowing in 2019.

Across all years around one-quarter of companies with no female key management personnel were also underperforming, compared to only 13.6% of companies where more than one-third of the senior management team were women.

FIGURE 9

Share of companies that outperform and underperform sector performance benchmarks: by share of **female KMPs**



Note: Detailed information about each company performance indicator can be found in the Glossary & Technical Notes.
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2019, Morningstar.

WHAT HAPPENS TO COMPANY PERFORMANCE WHEN YOU CHANGE THE SHARE OF WOMEN IN LEADERSHIP?

The previous analysis compared company performance against the share of women in leadership at a single point in time– but what about changes? How are they connected?

Here we assess company performance measures relative to changes over time in the share of women on Boards across Australian companies currently listed on the Australian Securities Exchange (ASX). Companies are judged as outperforming if they are in the top quartile within their sector for each metric and underperforming if they are in the bottom quartile.

In general, there is a higher likelihood of companies outperforming their peers when the number of women on their Board increases (Figure 10). This relationship holds across the suite of company performance measures tested.

More than a third of companies that saw an increase in the share of women on their Board were outperforming other firms on profitability as measured by EBIT. This compares to 29.5% of firms that reduced the share of women on their Board over time, and 35.6% in companies where the share of women on Boards remained broadly the same.

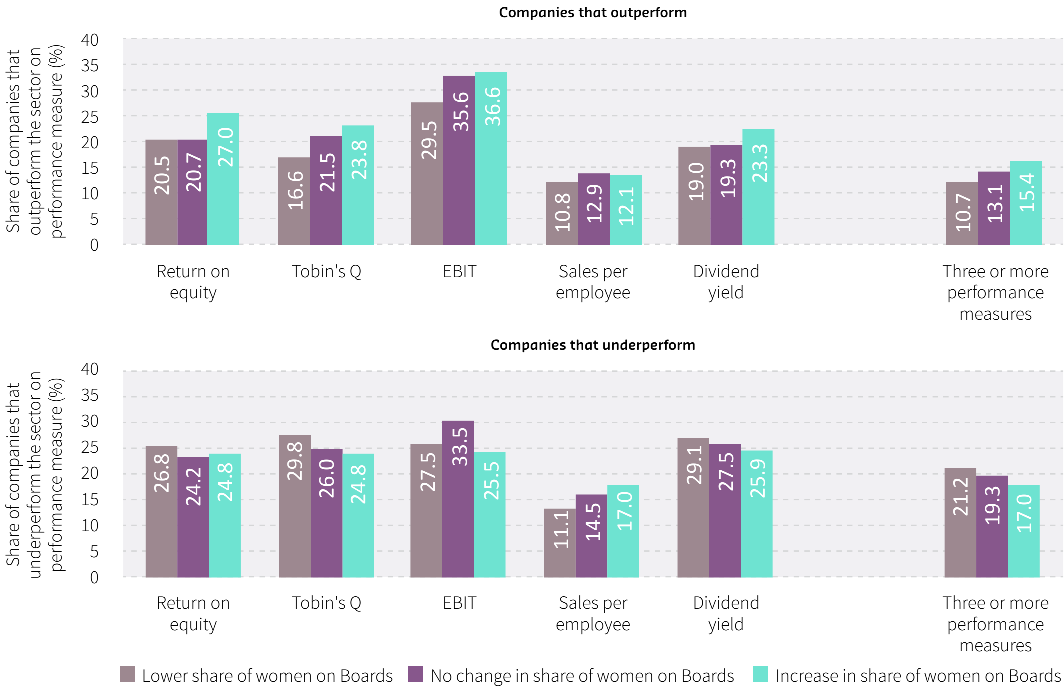
Firms that increased their share of women on Boards were also more likely to outperform their peers on other measures of profitability including return on equity, Tobin's Q and dividend yield. The relationship between increasing the share of women on boards and sales per worker is not as strong.

On measures of three or more performance indicators – firms that increased the share of women in their Boardroom were more likely to outperform those that either saw no change or a reduction. In contrast, lowering the share of women on Boards is generally associated with a higher likelihood that a firm will underperform on three or more metrics relative to their peers.

There is a higher likelihood of companies outperforming their peers when the number of women on their Board increases.

FIGURE 10

Share of companies that outperform and underperform sector performance benchmarks: by company performance indicator and **change** in share of **women on Boards**



Note: Detailed information about each company performance indicator can be found in the Glossary & Technical Notes.
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2019, Morningstar.

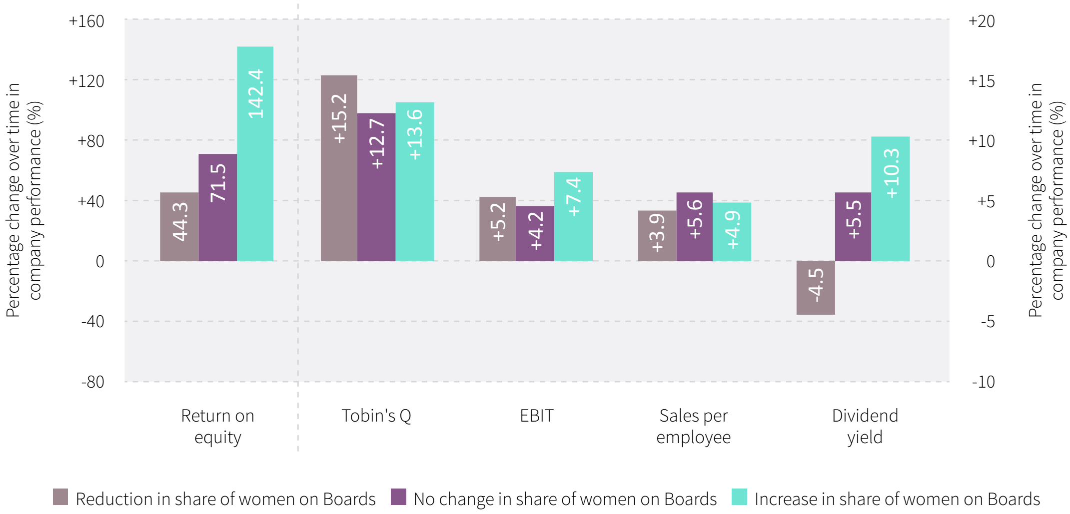
Increasing the share of women on Boards corresponds to an increase in return on equity of 142.4% - double the growth rate of performance of companies that saw no change in the share of women on their Board.

Taking the analysis a step further, we assess both the **change in women on Boards** alongside the **change in company performance (Figure 11)**. Increasing the share of women on Boards over a period of two years corresponds to a change in the return on equity of 142.4% for these companies. This is double the rate of growth in this company performance metric when compared to companies that saw no change in the share of women on their Board.

Dividend yields also performed better among companies that increased female Board membership, increasing by 10.3% on average. This compares starkly to companies that experienced a reduction in female Board membership – with dividend yields falling by 4.5% over time. More mixed results are observed for Tobin's Q and sales per worker.

FIGURE 11

Percentage **change** in company performance indicators: by **change** in share of **women on Boards**



Note: Changes in company performance indicators and female representation are measured over a two-year time interval.
Detailed information about each financial reporting indicator can be found in the Glossary & Technical Notes.
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2019, Morningstar.

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Of companies that reduced the share of female key management personnel, 21.1% were underperforming relative to their peers on three or more indicators. This compares to 16.9% of companies that increased the share of female key management personnel.

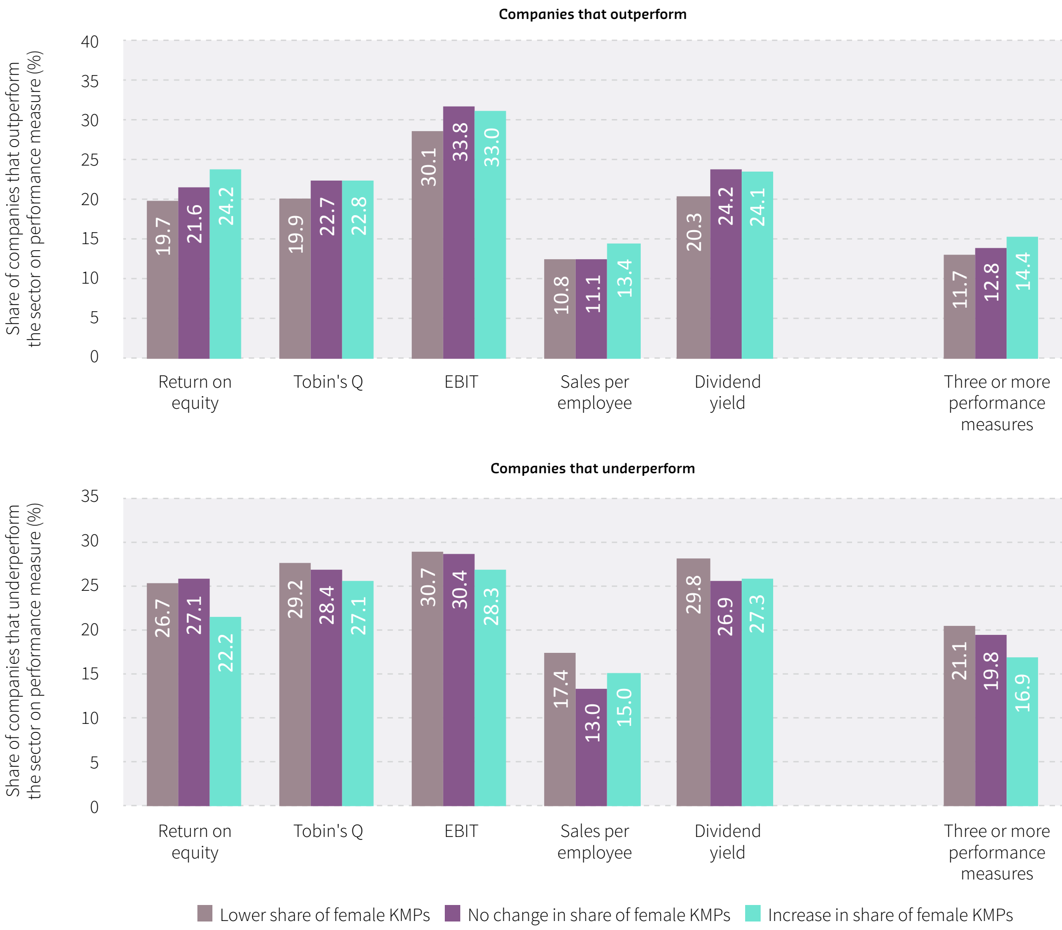
Turning to the impact of female leadership within a company's senior management tiers, Figure 12 shows the share of companies that outperform or underperform peer benchmarks by the change in the share of female key management personnel.

A similar, yet more subtle relationship is observed, where an increase in the share of female key management personnel is associated with companies being more likely to outperform their peers. Return on equity and sales per employee have the strongest relationship. Results for Tobin's Q, EBIT and dividend yield are similar to companies that saw no change in their female leadership, but higher than those that reduced the number of women in senior management.

Companies that reduced the share of women in their top management tier over time were more likely to underperform relative to their peers, compared to companies that either increased the share of women or saw no change.

FIGURE 12

Share of companies that outperform and underperform sector performance benchmarks: by company performance indicator and change in share of female Key Management Personnel (KMPs)



Note: Detailed information about each company performance indicator can be found in the Glossary & Technical Notes.
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2019, Morningstar.

Again, we relate the ***change in the share of female key management personnel*** to the ***change in company performance (Figure 13).***

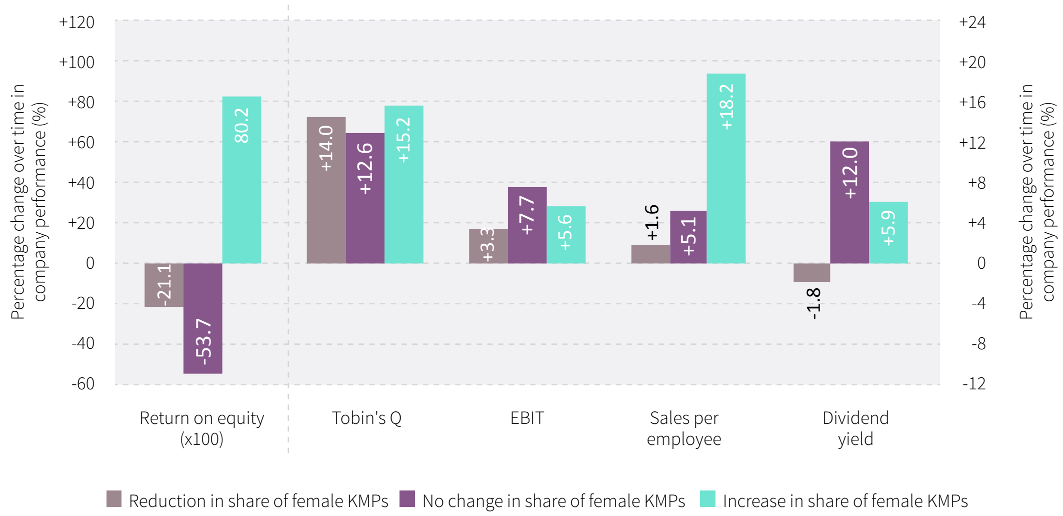
Increasing the share of women key management personnel over time corresponds to a change in the return on equity of 80.2% for these companies. This compares to negative results for companies that saw either a reduction in the share of female KPMs or no change at all.

Sales per employee among firms that increased the share of women top-tier managers grew three times higher than those firms that had no change at all – 18.2% compared to 5.1%. Companies that reduced the number of women in key management positions saw almost no growth in their sales per worker when compared to their peers. This suggests that female top-tier managers may have a greater focus on productivity gains when entering into these positions.

Tobin's Q performed marginally better among companies that increased female KMPs, increasing by 15.2%. EBIT and dividend yield was highest among companies that saw no change in the number of women in their senior leadership team.

FIGURE 13

Percentage change in company performance indicators: by **change** in share of female Key Management Personnel (KMPs)



Note: Changes in company performance indicators and female representation are measured over a two-year time interval.
Detailed information about each company performance indicator can be found in the Glossary & Technical Notes.
Source: Bankwest Curtin Economics Centre | WGEA Gender Equality data 2014 to 2019, Morningstar.

"SALES PER EMPLOYEE AMONG FIRMS THAT INCREASED THE SHARE OF WOMEN TOP-TIER MANAGERS GREW THREE TIMES HIGHER THAN THOSE FIRMS THAT HAD NO CHANGE AT ALL – 18.2% COMPARED TO 5.1%."

FEMALE REPRESENTATION AND BUSINESS OUTCOMES: ARE THEY STATISTICALLY LINKED?

FEMALE REPRESENTATION AND BUSINESS OUTCOMES: ARE THEY STATISTICALLY LINKED?

Are we able to ensure that the direction of any causality runs ***from*** greater female representation in leadership ***to*** improved business outcomes, and not the reverse?

How does female representation on company Boards or within senior tiers of management influence business performance? The findings reported earlier provide some important evidence of a positive association between gender diversity in leadership and improved business outcomes.

It would be tempting to use these findings alone to conclude that greater female representation drives better business outcomes. However, we must also recognise the possibility that better company performance may not be driven directly by the influence of women in leadership, but by other differences between firms that also vary coincidentally with female representation.

Such caveats speak clearly to the notion that correlation in itself does not demonstrate causality.

There may also be a concern that the direction of causality might run in reverse, with better performing companies having a greater opportunity to pursue strategies that drive greater equity in leadership.

So can our empirical approach be further strengthened to reveal any causal link that may exist between female representation and business outcomes?

And are we able to ensure that the direction of any causality runs ***from*** greater female representation in leadership ***to*** improved business outcomes, and not the reverse?

LINKING FEMALE REPRESENTATION TO BUSINESS OUTCOMES: MODELLING STRATEGY

To this end, we apply *multivariate regression* methods to separate the specific association between female leadership and company performance from other factors that may be contributing coincidentally to improved business outcomes[7].

As with the descriptive analysis presented earlier, we drew data from the Morningstar data company reports repository and matched by ASX codes to the subset of companies in the WGEA dataset that were also listed on the Australian Securities Exchange (ASX).

There are a number of critical design features that need to be addressed when seeking to identify a causal association between female representation and company performance.

The first requirement is the ability to control for other firm characteristics that may influence business performance; the second is the ability to control for intrinsic differences between individual companies in their approach and attitude towards gender diversity in leadership; and the third is the ability to strip away business cycle effects that have a common effect on performance across sectors of the economy.

The fourth requirement is the need for company performance to be compared appropriately against benchmarks within their industry sector.

Companies may operate in sectors that differ systematically both in the share of women in leadership, and in business performance expectations – think Mining and Health, for example. If company performance is not compared to relevant industry benchmarks, a spurious correlation would emerge between company performance and female representation that has little to do with the influence of women in leadership, and far more to do with the gendered patterns of women in leadership across industry sectors, as shown earlier in Figure 4.

And the most important requirement is the ability to relate *prior* changes in female representation to *subsequent* changes in business outcomes. This goes to the heart of the strategy to identify a causal association between the two, and not just the degree but also the direction of causality.

Our descriptive analysis pointed to a positive association between business performance and changes in female representation, both on company boards (Figure 10) and among Key Management Personnel (Figure 12).

If the greater representation of women in leadership positions can be shown to influence subsequent company performance (measured against appropriate benchmarks, and with comprehensive controls for other potential factors), then this provides evidence of the causal effect we're testing for. And if the reverse is found not to be the case, then the direction of causality can also be determined.

A technical description of our modelling approach is provided in the Technical Notes at the end of this report.

The most important requirement is the ability to relate *prior* changes in female representation to *subsequent* changes in business outcomes.

7 Regression is a statistical approach that provides a basis for modelling multiple associations between explanatory factors and an outcome of key interest (eg. company performance). A description of the benefits, limitations and assumptions for this modelling method is provided in the Glossary section of this report.

HOW TO MEASURE COMPANY PERFORMANCE?

Two measures of company performance are used to explore the relationship between female representation and business outcomes in this section of the report:

- Company wealth and profitability:
  The first performance indicator is a well-regarded measure of company wealth and profitability known as **Tobin's Q** – the ratio of market capitalisation plus total debt to total asset value[8].

- Composite measure of company performance:
  The second indicator is constructed by comparing company performance with industry benchmarks across six metrics – Tobin's Q, Return on Assets, Return on Equity, Sales per Employee, EBIT (Earnings before Income and Tax), and Dividend Yield. Companies are considered to outperform the sector when the company performance metric is above the 75th percentile within the relevant industry sector. The composite performance instrument captures those companies that outperform the sector on three or more of the six component metrics[9].

Further definitions of business performance can be found in the Glossary to this report.

We use panel regression methods to relate prior changes in female leadership shares across different roles to subsequent outcomes for each measure of company performance. In the modelling reported here, we include leadership changes in the previous two years among the factors that influence current business performance[10].

The time taken for changes in female representation to lead to any subsequent change to business outcomes (the 'lag structure') can be adjusted within the general model specification.

8 Tobin and Brainard 1976; Kaldor 1966.

9 This instrument expands on an approach used in the 2018 McKinsey & Co report *Delivering through Diversity*.

10 The two-way panel fixed effects model is equivalent to a first-differenced regression specification that relates changes in outcome over time to changes in explanatory characteristics. Additional regressions conducted by the authors also explicitly include changes in company performance in a two-way panel fixed effects specification. These generate the same empirical findings to those reported here.

LINKING FEMALE REPRESENTATION TO BUSINESS OUTCOMES: SPECIFICATION

A range of measures of gender diversity in leadership are included in each regression to capture the potential influence of female representation on business outcomes. These include the shares of women appointed to senior leadership positions at CEO, KMP, Executive Manager and Senior Manager level as well as the overall shares of female workers within an organisation.

We assess whether – and to what degree – company performance is affected by any changes in female representation at leadership level, using the approach laid out above. Specifically, we include measures that capture *changes* in the shares of female KMPs and Board members over time, as well as changes in the presence of a female CEO and the presence of a female Board Chair.

Other time-varying controls include a series of financial indicators that potentially relate to company performance, such as *capital intensity* – the ratio of capital expenditure to total assets in the last period; *financial leverage* – the ratio of total debt to total shareholder's equity; the *age of capital stock* – the ratio of depreciation to property, plant and equipment (PP&E); and the number of people employed by the company[11]. Similar financial indicators have appeared in a number of research studies on this topic[12].

11 Time-invariant characteristics such as company age or GICS industry sector cannot be separately identified from individual company fixed effects and time effects, and hence don't explicitly appear among the control variables in the regressions of company performance reported in this study. See the Glossary to this report for further details of the modelling strategy used.

12 Deszo and Ross 2012; Hunt, Prince, Dixon-Fyle and Yee 2018 (McKinsey & Company).

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LINKING FEMALE REPRESENTATION TO BUSINESS OUTCOMES: KEY FINDINGS

Table 2 presents a summary of the key impacts on business performance of changes in female representation in the senior leadership structure of Australian ASX-listed companies. These findings are drawn from the full series of panel regression estimates shown in Table 3.

For the first series of projections, we translate the estimated impact of changes in female leadership representation on the value of Tobin's Q into an equivalent added company market value, expressed in dollars (both AUD and USD).

This leads to the following key findings:

- an increase of **10 percentage points or more** in female representation on the Boards of Australian ASX-listed companies leads to a **4.9% increase in company market value**, worth the equivalent of **AUD $78.5 million** (or USD $52.6 million) for the average company;
- an increase of **10 percentage points or more** in the share of female Key Management Personnel leads to **6.6% increase in the market value** of Australian ASX-listed companies, worth the equivalent of **AUD $104.7 million** (or USD $70.2 million) for the average company; and
- moving to a female CEO has led to **5.0% increase in the market value** of Australian ASX-listed companies, worth the equivalent of **AUD $79.6 million** (or USD $53.3 million) on average.

TABLE 2

Estimated impact on company performance of increasing or decreasing female leadership

Change in female representation	Impact on value of company: Change in Tobin's Q	Change in Market Value (AUD$m)	Sig.	Change in Market Value (USD$m)	Percentage change	Impact on company performance: % change in likelihood of sector outperformance on three or more measures	Sig.
From moving to female CEO	0.112	79.6	**	53.3	5.0%	12.9%	**
From increasing female Board representation	0.110	78.5	***	52.6	4.9%	6.0%	**
From increasing female KMP representation	0.147	104.7	***	70.2	6.6%	5.8%	**
From reducing female Board representation	-0.061	-43.4		-29.1	-2.7%	2.5%	
From reducing female KMP representation	-0.065	-46.0	*	-30.8	-2.9%	1.7%	

Notes: Projections are presented at the average company market value and average value of common equity for Australian ASX-listed companies. Estimates are flagged as statistically significant (Sig.) at 1% (***), 5% (**) and 10% (*).
Source: Bankwest Curtin Economics Centre | Authors' estimates from WGEA Gender Equality data 2014 to 2019.

Companies that reduce the share of female key mangers by 10ppts+ leads to a reduction in market value of AUD $46 million on average.

And how do changes in female representation affect the likelihood that companies will outperform their sector on three or more key business performance metrics?

- an increase of **10 percentage points or more** in female representation on the Boards leads to a **6.0% increase** in the chance of outperforming the sector on three or metrics;
- an increase of **10 percentage points or more** in the share of female Key Management Personnel leads to a **5.8% increase** in the chance of outperforming the sector on three or metrics; and
- moving to a female CEO has driven a **12.9% increase** in the chance of outperforming the sector on three or metrics.

These results provide compelling evidence of a statistically significant association between increased female representation and positive business outcomes for Australian ASX-listed companies.

And importantly, the regression methodology used in this research, together with a credible identification strategy, means that these associations can legitimately be claimed as causal.

Reducing the share of women on Boards and as key management personnel has a negative impact on market value. However, the findings for a reduction in the share of women on Boards were not statistically significant. Companies that reduce the share of women as key managers by 10 percentage points or more leads to a reduction in market value of 2.9%, worth the equivalent AUD $46million (USD - $30.8million) on average.

And what may be driving these findings?

There are several possible explanations. A greater representation of women in senior leadership and Board positions brings a greater diversity of thought and strategy in targeting business growth and value to shareholders.

It may also be that companies have been better able to optimise the performance of those occupying leadership positions by drawing on a broader pool of talent, both within and outside the organisation. We discuss these drivers more fully in the Summary and Discussion.

Among the additional control variables, capital intensity features as a strong and significant driver of company performance in all sets of regressions. We also find that a 10% increase in the maturity of capital stock is associated with an increase of around 7% in the likelihood that a company will outperform the sector on a combination of performance metrics.

Female Board Chairs are likely to be associated with companies that deliver stronger business performance, while companies with a high overall share of female workers are less likely to outperform the sectors on three or more measures - potentially signifying organisations where profitability and growth are less of an imperative, for example in education or in the health services sector. Overall employee counts have less of an effect on either of the two (scaled) measures of performance.

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TABLE 3

Fixed-effects regressions of company performance, 2014 to 2019

	Wealth and profitability of company		Outperforming sector on 3+ performance measures	
	Tobin's Q	Tobin's Q (with lag)	Outperform	Outperform (with lag)
Regressors				
Lagged dependent variable				
Tobin's Q [t-1]	-	0.231 ***	-	-
Outperform sector [t-1]	-	-	-	-0.100 ***
Firm size (relative to 100-249 employees)				
Firm size: 250 to 499 employees	0.076	0.096	0.023	0.016
Firm size: 500 to 999 employees	0.084	0.115	0.013	0.017
Firm size: 1000 to 4999 employees	-0.023	-0.025	-0.009	-0.002
Firm size: 5000+ employees	-0.027	-0.031	-0.082	-0.081
Firm financial indicators				
Capital intensity - CAPEX/ASSETS[t-1]	-2.559 ***	-1.282 ***	-2.339 ***	-2.366 ***
Financial Leverage - DEBT/EQUITY[t-1]	0.001	-0.001	0.000	0.000
Age of capital stock - DEPRECIATION/PPE[t-1]	0.131	0.148	0.705 **	0.757 **
Gender composition of workforce				
HasFemaleCEO[t] -HasFemaleCEO[t-1]	0.112 *	0.152 **	0.129 **	0.127 **
HasFemaleBoardChair[t-1]	0.157 ***	0.063	0.106 ***	0.115 ***
Share of female Executives	-0.015	-0.025 *	0.240 *	0.240 *
Share of female Senior Managers	0.040	0.046	0.308 **	0.313 **
Share of female workers	1.225	1.347 *	-1.059 **	-1.072 **
Share of female KMPs [base=zero]				
Up to 25%	0.007	0.058	0.004	0.009
25% to 33%	0.204 ***	0.241 ***	0.171 ***	0.171 ***
More than 33%	0.033	-0.003	0.052	0.054
Share of female Board members [base=zero]				
Up to 25%	0.076	0.045	0.044	0.037
25% to 33%	0.059	-0.052	-0.016	-0.020
More than 33%	0.082	-0.067	-0.015	-0.020
Change in KMP gender representation [base = no change]				
Lower share of female KMPs	-0.065 *	-0.033	-0.025	-0.028 *
Higher share of female KMPs	0.147 ***	0.114 ***	0.058 **	0.058 **
Change in Board gender representation [base = no change]				
Lower share of female Board members	-0.061	-0.074 **	-0.017	-0.025
Higher share of female Board members	0.110 ***	0.101 ***	0.060 **	0.069 **
Constant	0.211	0.067	0.387	0.408
Time effects included				
2016	-0.016	0.009	0.022	0.020
2017	-0.007	0.052 *	0.008	0.009
2018	0.054	0.115 ***	-0.037	-0.038
2019	0.159 ***	0.127 ***	0.102 ***	0.094 ***
Firm fixed effects included	YES	YES	YES	YES
N	1,286	1,274	1,444	1,444
R-squared	0.160	0.200	0.148	0.155

Notes: Parameters are flagged as significant (sig.) at 1% (***), 5% (**) and 10% (*).
Source: Bankwest Curtin Economics Centre | Authors' estimates from WGEA Gender Equality data 2014 to 2019.

"AN INCREASE OF **10 PERCENTAGE POINTS OR MORE** IN THE SHARE OF FEMALE KEY MANAGEMENT PERSONNEL LEADS TO **6.6% INCREASE IN THE MARKET VALUE** OF AUSTRALIAN ASX-LISTED COMPANIES, WORTH THE EQUIVALENT OF **AUD $104.7 MILLION** (OR USD $70.2 MILLION) FOR THE AVERAGE COMPANY."

SUMMARY AND DISCUSSION

SUMMARY AND DISCUSSION

"As I have said many times, if it had been Lehman Sisters rather than Lehman Brothers, the world might well look a lot different today."
Christine Lagarde, Chair and Managing Director, International Monetary Fund.

The results of this research report strengthen the business case for gender equality and provides important new evidence of the benefits of promoting gender diversity in company leadership.

Increasing gender equality in the workplace and promoting female leadership is not only the 'fair' and 'right thing to do,' but it links to overall economic performance.

Equity principles should remain the core imperative driving companies to build more gender diverse environments – but the business case shown in this report is clear.

More women in key decision making positions delivers better business performance.

Appointing a female CEO, improving Board diversity and increasing the share of women in the top management ranks will deliver greater company performance, profitability and productivity.

Taking advantage of the longitudinal nature of the WGEA reporting data and using sophisticated econometric techniques, we are able to relate prior changes in female leadership shares to subsequent company performance outcomes.

This methodology also controls for other firm characteristics that influence business performance such as capital intensity, financial leverage, debt to equity and the age of capital stock, as well as intrinsic differences between individual companies and business cycle effects.

We show that increasing the representation of women across each of the key leadership roles in a company – CEOs, Board members and the senior leadership team– delivers added company market value of between AUD $52m and AUD $70m per year for an average sized organisation.

Companies that increase the share of women leaders are also systematically found to outperform their sector across a range of performance measures.

While our research provides statistical evidence of the link between female leadership and company performance, why do companies perform better with more women as key decision makers?

Why do gender diverse companies perform better?

One of the key arguments for increasing the number of women in senior leadership positions is that greater gender diversity will increase the cognitive variety or 'brainpower' in the room[13]. Researchers have argued that greater cognitive variety leads to superior knowledge stocks, a wider array of solutions to problems, and deeper debates leading to more effective decisions[14].

Gender diversity encourages innovation in the workplace and can have a positive impact on workplace culture.

It makes sense that increasing the talent pool and taking into account the experiences and views of a broader group will ultimately lead to better decisions.

Women have also been shown to follow different management strategies and techniques, and there is evidence to show that these lead to companies functioning more efficiently.

For instance, women tend to work more collaboratively and run businesses more democratically[15]. This management style promotes sharing of key information and greater collaboration, leading to enhanced decision making and better business operations[16].

13 Robbins (1974); Dezso and Ross (2012); Klein (2017); Adams and Ferreira (2009); Oppong (2014).

14 Matsa and Miller (2013).

15 Dezsö and Ross (2012); Eagly and Johnson (1990).

16 Daily and Dalton (2003); Dezsö and Ross (2012); Moreno-Gómez *et al.* (2018).

Another mechanism through which more women in leadership positions will lead to better company performance is that women tend to be more stakeholder-orientated, which leads to firms having stronger corporate social responsibility[17].

Companies with stronger corporate social responsibility have been found to perform better in times of crisis, as they are more likely to retain the trust of their stakeholders[18].

The famous 2015 "Lehman Sisters" study by Renee Adams and Vanitha Ragunatham questioned whether or not the global financial crisis would have occurred if Lehman Brothers had been Lehman Sisters.

By examining the effects of gender diversity on 300 large US banks over a period of four years spanning the global financial crisis they found that banks which were more gender diverse generally performed better. This was due to the stakeholder-orientation of its female directors, and their strong corporate social responsibility measures.

What does this mean for policy and practice?

Recent research on the performance of companies suggests that a 30% share of women in leadership represents the required critical mass to help erode homogeneity on Boards and, ultimately, promote better governance[19].

Only 16% of ASX 201-500 Australian companies have achieved or surpassed this figure compared with 28.9% of companies in the ASX 200.

The representation of women on Australian company boards has gained momentum over the last six years - around 30% of Board positions are now held by women, with the Australian Securities Commission 2018 target no doubt playing a role in this progress.

However, we still have some way to go - nearly 30% of companies still have no female representation on their Boards, and a similar share have no women in their key management teams.

And women still remain manifestly underrepresented in the key decision making positions of CEO or board Chair. Australia should not have to wait another 80 years for a woman to be as likely as a man to hold a company CEO position.

Policies are in place to enforce quotas or targets in women's Board representation in many countries across the world, with 30% or 33% as the baseline[20]. Some countries have taken even stronger action, legislating for a share of at least 40%[21].

But lifting the share of women in leadership can only happen if companies focus on the goal of achieving gender equity in progression and commit to specific actions to drive change.

The research findings in this report demonstrate clearly that workplace gender equality is not just a matter of fairness but a commercial imperative.

The case is compelling - more women as key decision makers will deliver higher dividends for a company.

17 Adams *et al.* (2011); Matsa and Miller (2014); Guiso *et al.* (2004); Lins *et al*. (2015).

18 Lins *et al.* (2015).

19 Joecks, Pull and Vetter (2013).

20 This includes Germany, Belgium, Italy and the Netherlands.

21 This includes Canada, France, Norway, Finland and Iceland.

"WORKPLACE GENDER EQUALITY IS NOT JUST A MATTER OF FAIRNESS BUT A COMMERCIAL IMPERATIVE."

"INCREASING THE TALENT POOL AND TAKING INTO ACCOUNT THE VIEWS AND EXPERIENCE OF A BROADER GROUP WILL ULTIMATELY LEAD TO BETTER DECISIONS."

GLOSSARY AND TECHNICAL NOTES

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About the WGEA Gender Equality Data Collection

This report uses the 2013-14, 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 WGEA Gender Equality datasets, which are a unique data collection within Australia.

The dataset came to existence through the introduction of the Workplace Gender Equality Act 2012, which was legislated to promote and improve gender equality in remuneration and employment within Australian workplaces. The Act requires relevant employers to report annually against a number of Gender Equality indicators. The dataset is effectively a Census of all private businesses that have 100 or more employees and can be considered population level data.

The first reporting year of the WGEA data was 2013-14. The WGEA Gender Equality dataset is based on approximately 4,600 reports submitted annually on behalf of more than 11,000 employers in accordance with the Act. The dataset captures approximately 4 million employees – which equates to approximately 40% of all employees in Australia.

The WGEA Gender Equality data collection does not cover public sector organisations, and is therefore likely to demonstrate different patterns because of this, particularly when assessing the characteristics of these organisations within industry groupings that have a large public sector presence. It also does not cover small businesses and a significant proportion of medium sized businesses that have less than 100 employees.

Measuring Company Performance

There are a number of indicators that can be used to assess a company's performance. These range from financial indicators, through to corporate social responsibility, strength of governance structures and the level of entrepreneurship and innovation a firm can deliver. Many of these indicators are inextricably linked. In this report we focus primarily on measures of productivity and profitability as measured through orthodox financial indicators.

Dividend Yield

Dividend yield is the ratio of a company's annual dividend compared to its share price. More mature companies tend to pay higher dividend yields.

$$\textit{Dividend Yield} = \frac{\textit{Share Price}}{\textit{Annual Dividend}}$$

Tobin's Q – Wealth & Profitability of a Company

Tobin's Q is an indicator of the wealth position of the major providers of funds to a firm – primarily shareholders. It is measured by the market value of securities issued divided by the book value of assets, with various adjustments applied. If Tobin's Q is >1 then the market value of the shareholders and creditors investment is greater than the historical cost of the asset. This suggests a firm is doing well in creating value for its shareholders.

$$\textit{Tobin's Q} = \frac{\textit{Total Market Value}}{\textit{Total Asset Value}}$$

Earnings Before Interest and Taxes - Profitability

Earnings Before Interest and Taxes (EBIT) is a measure of a company's profitability and is synonymous with operating profit.

Return on Assets – Profitability and Efficiency

Return on assets (ROA) represents the amount of earnings a company can achieve for each dollar of assets it controls and is a good indicator of a firm's profitability. A higher return on assets indicates greater asset efficiency and profitability.

$$ROA = \frac{\textit{Net Income}}{\textit{Total Assets}}$$

Return on Equity - Profitability and Efficiency

Return on equity (ROE) measures how well a firm uses reinvested earnings to generate additional earnings. ROE is calculated by dividing net income by shareholder equity. ROE provides a general indication of how effectively a company is using assets to generate profits.

$$ROE = \frac{\textit{Net Income (After tax)}}{\textit{Shareholder Equity}}$$

Sales per Worker – Labour Productivity

Sales per worker assesses the quality and efficiency of a firm's workforce and is a key productivity metric. Firms with higher sales per worker are generally more efficient than those with lower figures.

$$\textit{Sales per Worker} = \frac{\textit{Total Sales}}{\textit{No. Employees}}$$

Regression methodology

- This report uses multivariate regression methods to capture the impact of female representation on company performance

- The dependent variables include Tobin's Q as a measure of company wealth and profitability, and a binary measure based on outperformance against sector benchmarks on three or more performance metrics.

- Each model is estimated using two way fixed effects regressions on a matched panel of WGEA reporting data and Morning Star data;

- Lagged or differenced explanatory variables for changes in female leadership are included among the regressors as an identification strategy for the causal effects of female representation on company performance, including:
  - Levels and changes in the shares of female KMPs and Board members between *t-1* and *t*;
  - Change in the presence of a female CEO between *t-1* and *t*;
  - Presence of female Board Chair at time *t-1*

- Lagged dependent variables are included among the control variables, as a further device to capture state dependence and lagged effects in each company performance outcome.

- Time-varying controls include:
  - capital intensity – the ratio of capital expenditure to total assets in the last period;
  - financial leverage – the ratio of total debt to total shareholder's equity;
  - age of capital stock – the ratio of depreciation to property, plant and equipment (PP&E);
  - the number of employees, the share of female employees, and the share of female executive managers and senior managers

- Time-invariant characteristics such as company age or GICS industry sector are not separately identifiable from individual company fixed effects and time effects, and hence don't explicitly appear among the control variables.

"THE CASE IS COMPELLING - MORE WOMEN AS KEY DECISION MAKERS WILL DELIVER HIGHER DIVIDENDS FOR A COMPANY."

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"EQUITY PRINCIPLES SHOULD REMAIN THE CORE IMPERATIVE DRIVING COMPANIES TO BUILD MORE GENDER DIVERSE WORKPLACES."

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2016

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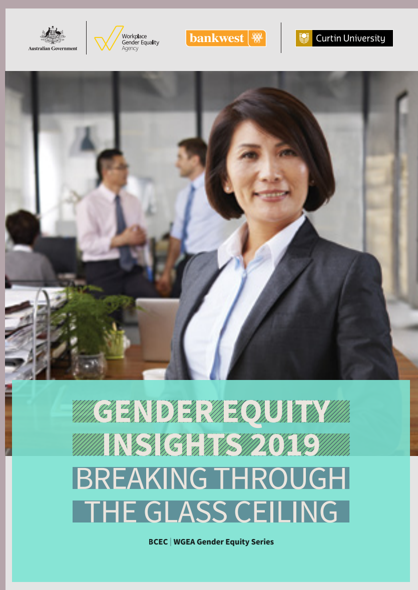
2018

2019



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