ROBECOSAM 20 Years

We are Sustainability Investing.

Does corporate gender equality lead to outperformance?

Executive summary

Gender equality from a corporate perspective encompasses issues of workforce diversity as well as equal pay and career opportunities. Analysis of a unique gender based dataset collected by RobecoSAM and based on criteria identified in collaboration with the EDGE Certified Foundation[1] confirms that there is inequality across all industries in terms of gender representation, pay and promotion. Our work is consistent with the growing body of academic research that finds that gender diversity and equality contribute to better corporate performance and investment returns.

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Sustainability Investing Research

www.robecosam.com

[1] www.edge-cert.org

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1 Gender issues gain significance

Corporate gender diversity, i.e. a representative balance of men and women in the workforce, is becoming an increasingly relevant issue for corporations. The evidence that gender diversity contributes to better corporate performance is credible and growing. Corporations around the world have made it a top strategic priority to increase diversity and a growing number of countries are promoting greater female representation at senior management level through either mandatory or voluntary standards.

We consider gender 'equality' to be a broader issue than 'diversity', encompassing pay equity and equal access to career advancement opportunities for men and women at all levels of the organization, as well as the relative gender proportions in the workforce. Some countries are starting to introduce legislation addressing gender inequality in the workplace, such as the UK's announcement in July 2015 to require companies with 250 employees or more to publish the gap between average female earnings and average male earnings.

As gender equality becomes a more significant issue for companies, it naturally becomes a possible material issue for investors to consider. In this paper, we analyze data from the largest companies (by market capitalization) companies around the world to evaluate the gender equality landscape in the context of the whole organization and between major industry groups, and we explore the link with share price performance.

2 Academic research supports the materiality of gender diversity

Existing research on gender diversity in corporations tends to find that a gender-balanced workforce supports corporate performance in terms of either the share price, profitability, or risk reduction. Among U.S. companies, a higher proportion of women on the board of directors has been found to contribute to lower variability of stock market return.[2] The higher the percentage of female directors on the board, the lower the volatility of corporate performance.[3] Major studies by consultants Catalyst[4] and McKinsey[5] have both found correlations between gender diversity at senior management level and the financial performance of large global companies.

However, most research has focused on the impact of gender diversity at board level rather than across the organization. Board information is the most widely available and reliable data for companies of all sizes, sectors and regions. The few studies that have looked beyond board level typically focus on evaluating smaller units such as sales teams or smaller companies,[6,7] yet these studies are finding a correlation between gender diversity (as well as diversity in general) in the workforce and other factors considered critical to corporate success such as productivity and innovation.[8] The impact is not uniform though; a common theme throughout published research is that the influence of gender varies depending on the region, industry, size of company and even the prevailing business environment.[9,10]

[2] Lenard, M.J., Yu, B., York, E.A., and Wu, S. (2014). "Impact of board gender diversity on firm risk." Managerial Finance, 40 (8). Lenard et al, 2014. Impact of board gender diversity on firm risk
[3] Smith, N.; Smith, V.; Verner, M. (2005). "Do women in top management affect firm performance? A panel study of 2500 Danish firms." IZA Discussion Papers, No. 1708
[4] Catalyst (2004). "The Bottom Line: Connecting Corporate Performance and Gender Diversity", Catalyst, New York.
[5] McKinsey (2007). "Women Matter: Gender diversity, a corporate performance driver." McKinsey & Company, Inc.
[6] Wegge, J., Roth, C., Neubach, B., Schmidt, K., and Kanfer, R. (2008). "Age and gender diversity as determinants of performance and health in a public organization: The role of task complexity and group size." Journal of Applied Psychology, 93(6):13011313. Research in Germany found that gender diverse working groups of non-management level employees perform better than groups dominated by either males or females.
[7] Hoogendoorn, S., Oosterbeek, H., van Praag, M.(2011). „The Impact of Gender Diversity on the Performance of Business Teams: Evidence from a Field Experiment." Tinbergen Institute Discussion Paper, No. 11-074/3. Research in the Netherlands found that undergraduate business students performed better in teams with equal gender mix than in male-dominated teams.
[8] Forbes Insights, (2011). "Global Diversity and Inclusion: Fostering Innovation Through a Diverse Workforce." Forbes, New York.
[9] Ali, M., Kulik, C. T., & Metz, I. (2011). "The gender diversity–performance relationship in services and manufacturing organizations." The International Journal of Human Resource Management, 22(07), 1464-1485. A quantitative analysis of data from Australian organizations confirms that the industry context can strengthen or weaken the effects of gender diversity on company performance.)
[10] Triana, M. D. C., Miller, T. L., & Trzebiatowski, T. M. (2013). "The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change." Organization Science, 25(2), 609-632. Research found that the pace of strategic change can be positively or negatively influenced by gender diversity (at board level) depending on the degree of stress that the company is under.

3 RobecoSAM research on gender diversity and equality

RobecoSAM believes that a gender diverse workforce at all levels of the organization with equality of opportunity for both should support business performance, and therefore financial performance, over time. We analyze a unique dataset collected through the RobecoSAM Corporate Sustainability Assessment ("CSA") to evaluate whether it supports this view.

RobecoSAM has been collecting data on material sustainability factors through its annual questionnaire since 1999. The gender-related data points include the number of women on executive boards, the proportion of women in the total workforce and at junior and senior management level, and the average pay for women and men at junior and senior management and non-management level. These criteria were identified in collaboration with the EDGE Certified Foundation as being key indicators of workplace gender equality.

Despite the inclusion of gender related indicators in the GRI framework, few companies regularly report such detailed labor KPIs publicly. The sensitive nature of gender data, especially pay-related, compounds the problems that investors already face in gathering consistent non-financial corporate indicators. In 2015, 864 companies responded directly to the RobecoSAM questionnaire. While not all provided the full set of data requested, either because they do not monitor all the KPIs or do not want to disclose them, the resulting dataset is more comprehensive than any other publicly available source of corporate gender equality data.[11]

[11] On average, 57% of participating companies provided pay gap data for some or all of the seniority levels, while just 4% of non-participating companies publicly disclose such data in their financial or sustainability reporting.

4 Analysis

In this paper, we look primarily at three issues:

1. The proportion of women in the workforce compared with the proportion of women in management positions

2. The proportion of women at junior (first-line) management level compared with top management level (maximum two levels from the CEO), as a proxy for the retention rate of female talent

3. The average pay gap between men and women at non-management and management level

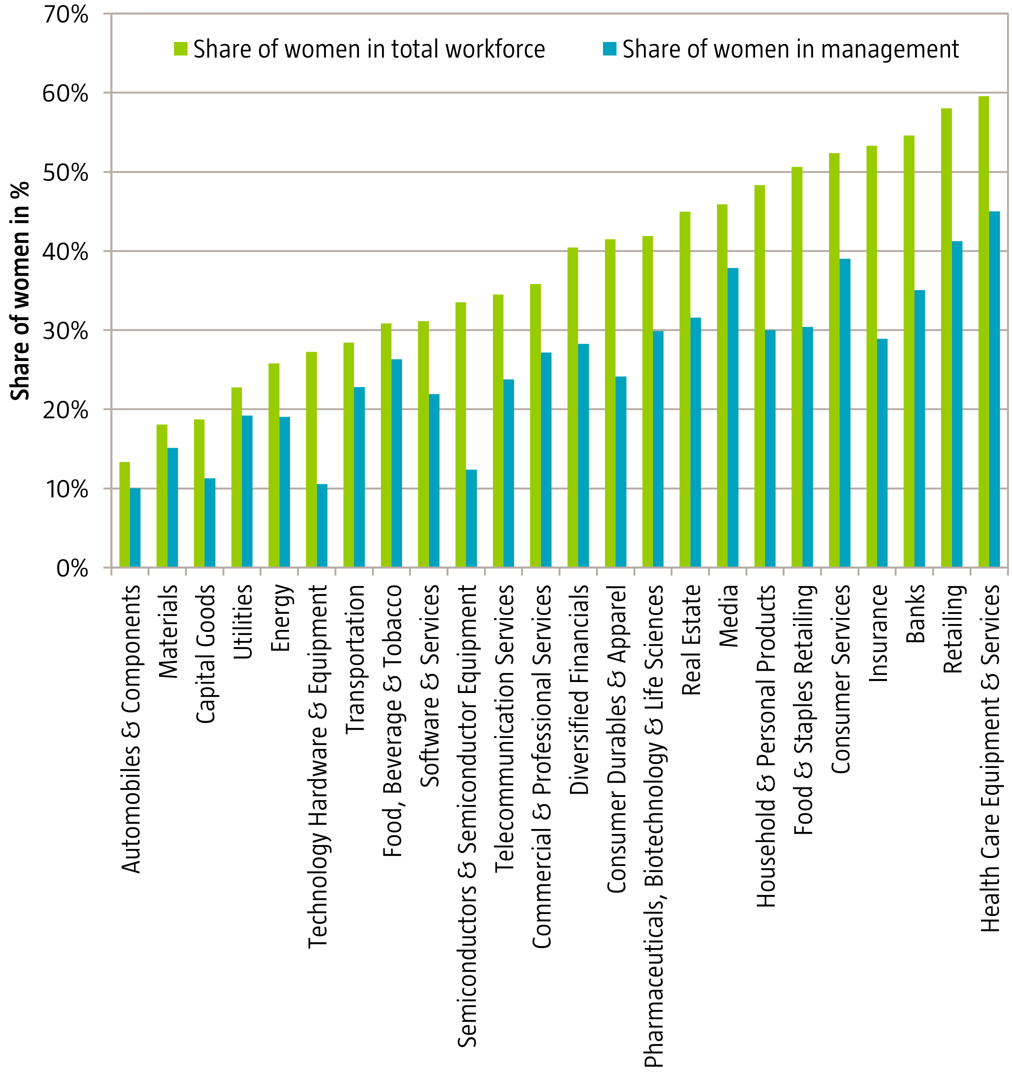
For each data point we take the average value over the last three years for each company assessed and calculate an average value for the industry group after excluding any outliers. We use a regression analysis to identify potential correlations between the data points and then discuss what this means for companies and how investors can use the information as an input to investment decisions.

Finally, we evaluate the effectiveness of a 'Gender Score' calculated by RobecoSAM based on these factors, as well as other employee satisfaction and welfare criteria collected through the CSA, to investigate the relationship between gender equality and stock returns. For this we adopt a portfolio approach, constructing high gender equality and low gender equality portfolios and analyzing the relative past performance.

4.1 Women are underrepresented in management roles in all industries

Figure 1 illustrates the average female share of overall workforce and at management level by sector. Three observations can be made. The first two are as expected – firstly, in every industry women have a lower representation at management level than they do in the workforce; and secondly, the higher the proportion of women in the overall workforce the higher the proportion of women in management (a strong positive correlation confirmed by the regression analysis in figure 2).

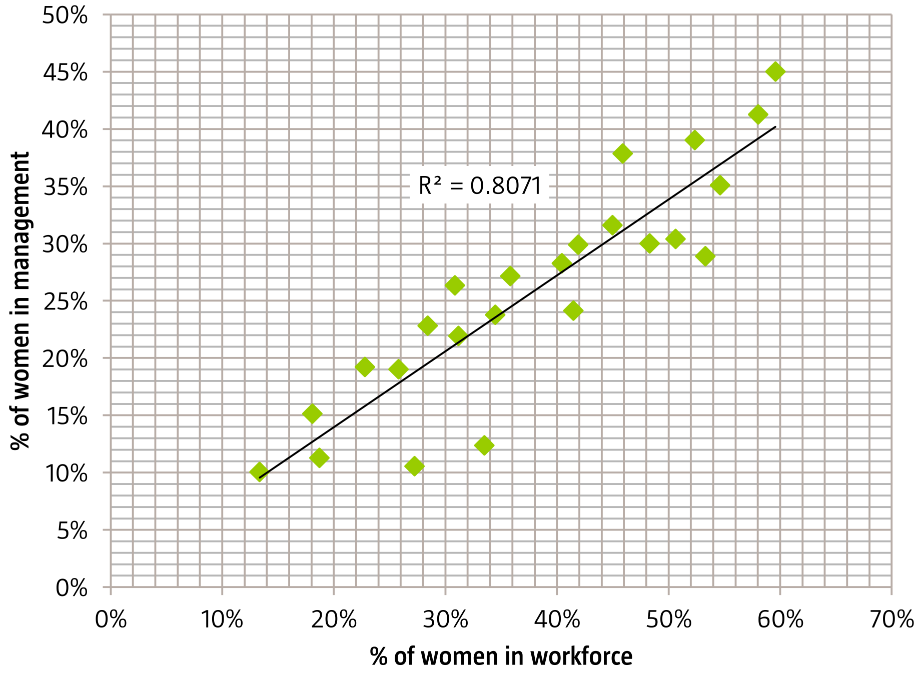
Figure 1: Industry average proportions of women in the workforce and at management level



Source: RobecoSAM

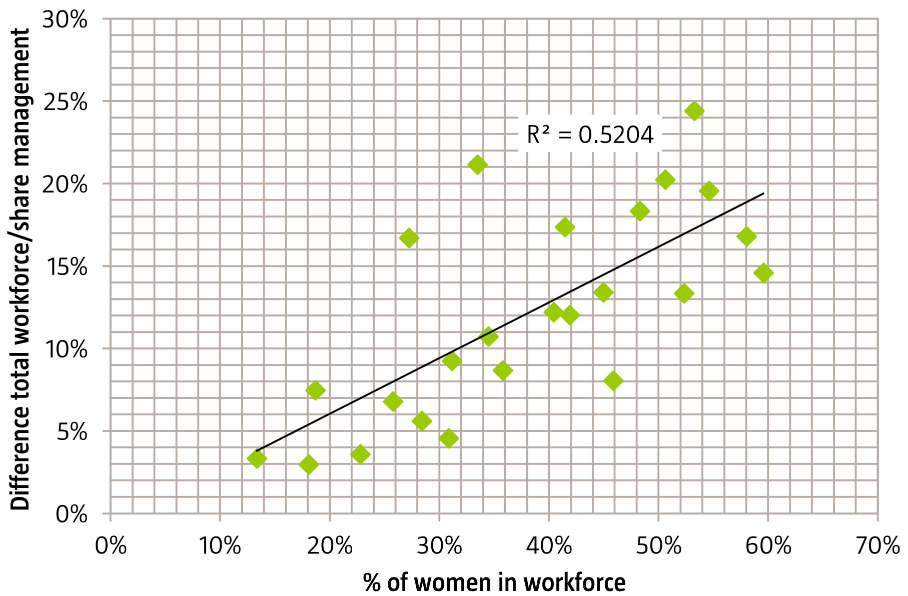
The third observation is that there appears to be a smaller difference between the proportion of women in the workforce and the proportion of women in management in the industries with a smaller share of women overall. A regression analysis (figure 3) also finds a positive correlation with an R squared coefficient of over 50%. This suggests that industries with a smaller share of women in their workforce promote a higher proportion of these women to management positions.

Figure 2: Industry average proportion of women at management level strongly correlated with proportion of women in the workforce



Source: RobecoSAM

Figure 3: Larger disparity between the proportions of women in the workforce and at management level in industries with more women in the workforce



Source: RobecoSAM

A possible reason is the type of roles women are employed in, i.e. in some industries larger numbers of women are more likely to be employed in support roles with limited career progression prospects. Other possible influences could be industry culture, or local cultural norms that influence the choice of industries that women work in, but confirming the reasons would need further research.

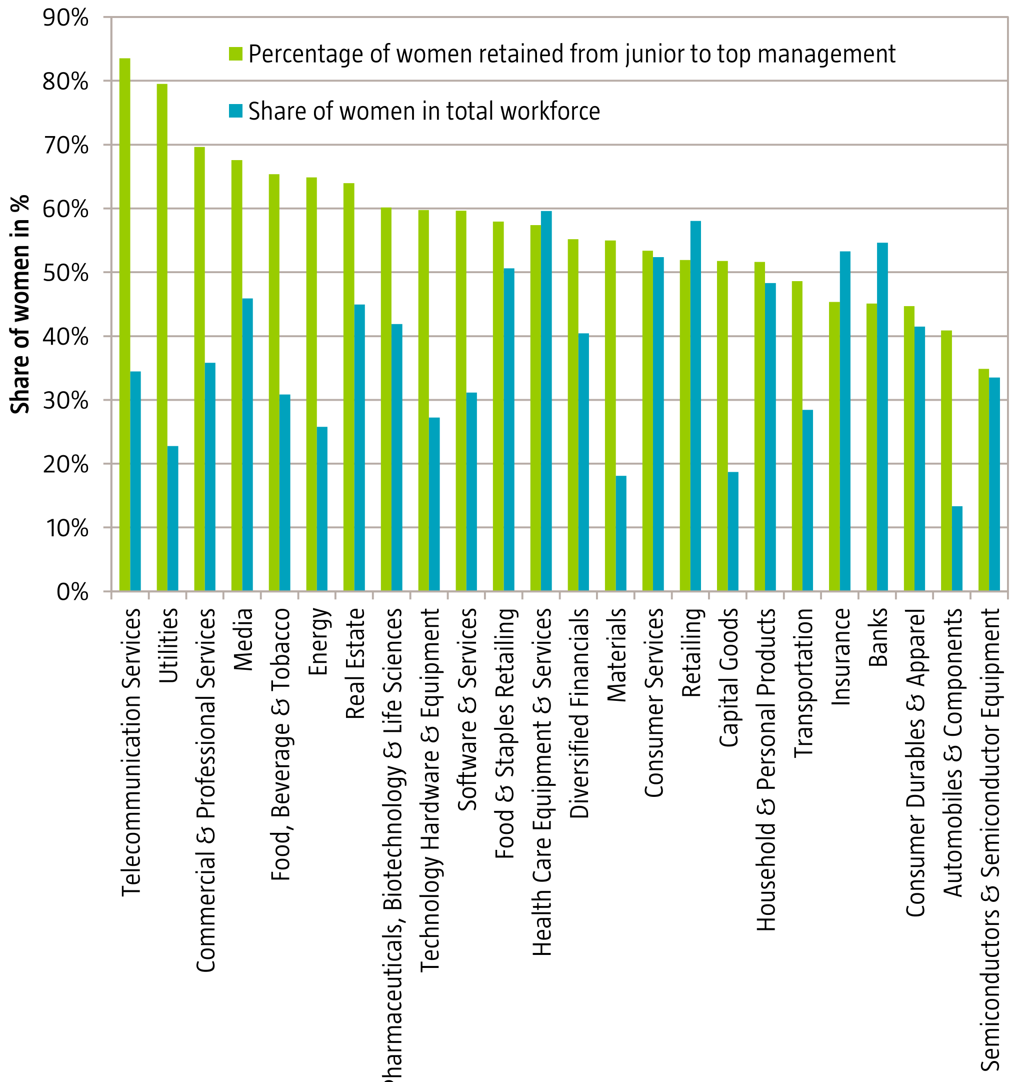
This data represents the proportions of women at a single point in time rather than the actual retention rate of female talent over time (either through promotions or external hires), and a longer term study would be needed to confirm whether the difference persists over the course of a typical career cycle. However, we believe that it is unlikely that there has been a recent change in the recruitment rate of women into the workforce that would make this an unrealistic proxy. Academic evidence,[12] as well as the experience of the EDGE Certified Foundation in working with companies to actively reduce the gender gap, indicates that the pace of change is extremely slow.

[12] Bertrand, M., Black, S., Jensen, S. and Lleras-Munay, A. 2014. "Breaking the Glass Ceiling? The Effect of Board Quotas on Female Labor Market Outcomes in Norway". Unpublished.

4.2 Retention rate of female managers is lower than for male managers

Next, we compare the proportion of junior female managers with the proportion of senior female managers. We find a wide disparity between industries in the progression of women from first-line management to top management, ranging from less than 40% retention to over 80% (figure 4), though all industries have a lower proportion of women in top management roles than in junior management roles, i.e. the retention rate for female managers is lower than for male managers. However, in contrast to the transition from operational level to management level, we do not detect a signification correlation between the female retention rate from junior to senior management and the proportion of women in the overall workforce.

Figure 4: Female retention rate from junior to top management



Source: RobecoSAM

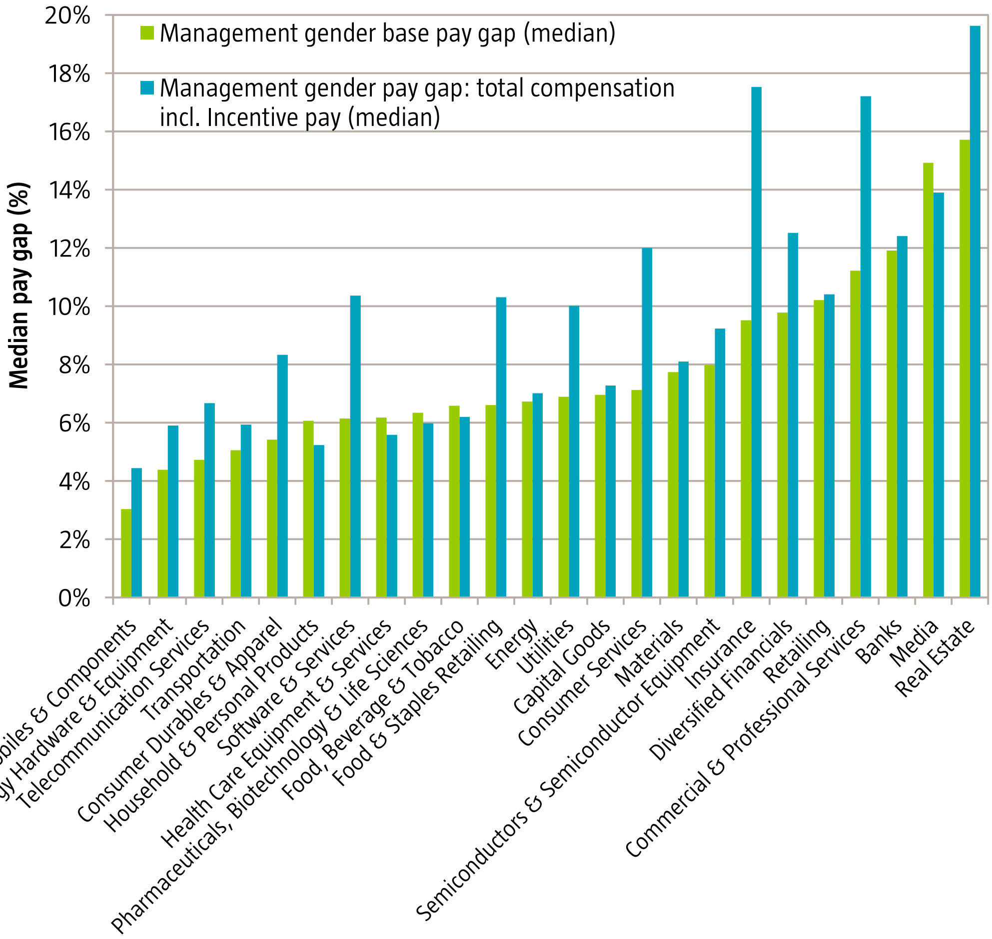
Again, we are using the current difference between the proportions of women at different levels within the organization as a proxy for the retention rate. A longer term study would be needed to confirm whether the difference persists over the course of a typical career cycle. The proportion of female managers in support managerial functions compared with those in managerial functions with direct profit and loss responsibility may impact the overall retention rate; while again corporate and national culture may be a factor influencing whether women are leaving the workforce or else reaching a 'ceiling' in their career earlier than men are.

4.3 Gender pay gap across all employees in all sectors

Finally, we compare the average pay for women and the average pay for men at non-management and management level. As expected, we find that in all industry groups and for both managers and employees, women on average earn less than men. This corroborates other academic studies that have explored the gender pay difference and they tend to attribute the lower average base pay for women to differences in training, career interruptions, and weekly hours (often associated with parenthood).[13]

The second, more interesting trend is that in the majority of industry groups (19 out of 24) the pay gap at management level is greater taking bonuses into account than it is on base salary alone (figure 5). While a gap in base pay appears to be structural and may be influenced by other factors such as the distribution of men and women in support versus profit generating roles, management incentives are more likely to be discretionary so a widening pay gap here raises the possibility that women in management roles are being consistently under-rewarded.

Figure 5: Management bonuses exacerbate the pay gap



Source: RobecoSAM

[13] Bertrand, M., Goldin, C., and Katz, L.F. (2010). "Dynamics of the Gender Gap for young Professionals in the Financial and Corporate Sectors." American Economic Journal: Applied Economics 2: 228–255

5 Implications for companies and investors

The CSA data demonstrates not only that a gender gap is still prevalent in the workplace in all industries, but that this gap is embedded across whole organizations and in both promotion and remuneration decisions. While there are of course individual exceptions, the extent of the differences and the fact that they occur in every industry is a wake-up call to company management that they should be paying attention to female retention rates and actual remuneration practices, not only policies. Retaining talent of both genders, particularly at junior management level from where future business leaders are likely to emerge, is a competitive advantage, not only from a resource perspective but also from a cost perspective. Correspondingly, companies that are better able to manage their gender diversity are better positioned to outperform.

6 RobecoSAM Gender Score

As gender issues become more material to companies, they become a potentially valuable indicator for investors to consider when making investment decisions. Consequently, RobecoSAM has constructed an investment 'Gender Score' to rank companies based on their performance on a range of key labor and gender-related criteria:

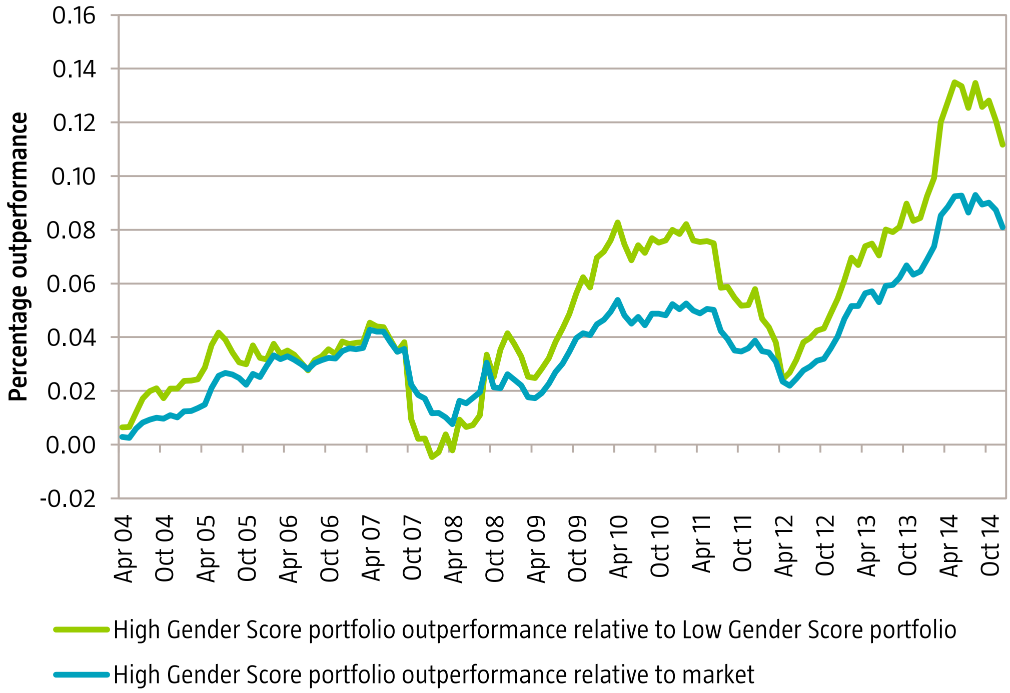
- diversity among executives, management and workforce (28%);
- diversity consideration in the board nomination process (12%);
- retention of female talent (24%);
- equality of remuneration (16%);
- approach to employee health, safety, well-being and satisfaction (20%).

We use a portfolio approach to evaluate whether the Gender Score is a useful predictor of investment performance. Based on the score we rank all companies in the investment universe[14] and divide them into two portfolios – high gender equality and low gender equality – while controlling for the effects of industry, region, and market capitalization. Analyzing the return spread between the two, we find that the high gender equality portfolio outperformed the lower gender equality portfolio by 11% over the period 2004-2014. In addition, the high gender equality portfolio outperformed the market[15] over this time while the low gender equality portfolio underperformed.

The strength of the outperformance varies between regions and industries. Notably the relationship between the Gender Score and performance appears stronger in Europe than in North America, and has been consistently stronger in some industries, such as Healthcare (figure 7) and Utilities, than in others, for example, Consumer Staples. From this we infer that the gender score is a useful tool for identifying potentially attractive investment opportunities, but must be used in combination with other indicators to make an investment decision.

[14] All companies for which RobecoSAM has a Gender Score in any given year. At the start of the period this is around 500 companies; in 2014, around 1,000.
[15] Represented by the total universe of around 4,000 stocks that were at some point over the period assessed by RobecoSAM. Comparable in scope to MSCI World.

Figure 7: Top-ranked companies based on the RobecoSAM Gender Score outperform

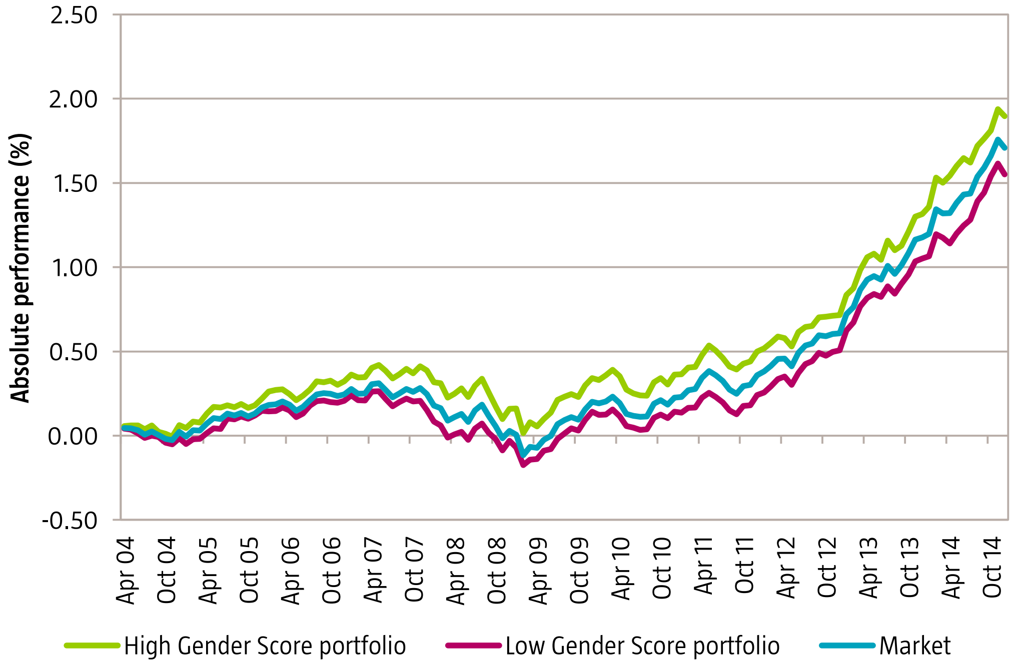


Source: RobecoSAM

For additional details on how the High Gender Score and Low Gender Score portfolios were constructed, please refer to the Appendix.

The graph does not represent returns of an actual portfolio. It depicts the returns of High Gender Score portfolios and Low Gender Score portfolios as rated by RobecoSAM. During the time period shown RobecoSAM did not manage any High Gender Score or Low Gender Score portfolios. Results are shown gross of fees. Results would be reduced by application of fees and expenses incurred in the management of the account. Returns shown do not represent the results of actual trading but were achieved by retroactive application of a model with the benefit of hindsight. If the strategy had been in existence during this time periods, actual results could have been different, and potentially lower than the hypothetical results that are presented.

Figure 8: High Gender Score portfolio in Healthcare sector has consistently outperformed the market and Low Gender Score portfolio



Source: RobecoSAM

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7 Conclusions

The insights provided by the RobecoSAM data highlight that gender inequality is still a reality in every industry, despite ongoing work in many countries to promote greater diversity and equality. We believe that gender diversity supports corporate outperformance through access to a bigger talent pool, a reputation as a more attractive employer for skilled people, higher retention of top talent, and more motivated employees. Evaluation of the RobecoSAM Gender Score supports this view and suggests that companies with a more diverse and equal workforce are indeed better positioned to outperform. However, the dynamics of the interaction between gender and other factors are complex and further research would be needed to better understand the drivers and the underlying reasons.

Over 15 years of assessing companies on sustainability factors RobecoSAM has found that a process of competitive benchmarking provides an incentive for many companies to improve their performance on factors that long-term investors consider important. By levelling the playing field for men and women in a career context, corporations can promote equality in a broader social context as well as enhance their own performance. Similarly, investors who take these factors into account can also play a role in driving social change as well as enhancing their own returns.

It is important to note, however, that gender-based differentials are more material in some sectors and companies than in others. From an investor's perspective, the data points and trends we identify in this paper therefore provide indicators that can be used as input to an assessment of management quality and company competitiveness, or in an initial screen to identify well-positioned companies as a starting point for an investment strategy that also includes consideration of other relevant financial and non-financial factors.

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Appendix

To construct the portfolios, the assessed universe is split into buckets by sector (10 GICS sectors), region (Americas, Europe, Asia-Pacific, Emerging Markets) and market cap(small, medium, large), for a total of 120 buckets. Within each bucket, stocks are ranked according to their RobecoSAM Gender Score. The top ranked 50% are allocated to the High Gender Score portfolio, and the bottom ranked 50% are allocated to the Low Gender Score portfolio.

Portfolio construction:
To minimize the allocation, for each bucket within each portfolio, the market cap weights for the missing companies are redistributed across the companies selected for inclusion in the portfolio follows:

As an example, assume the bucket consisting of all large cap Financials based in the Americas represents 18% of the total market cap and consists of only four companies:

Portfolio	Companies ranked by Gender Score	Current company market cap
High Gender Score companies	Bank 1	10%
	Bank 2	5%
Low Gender Score companies	Bank 3	2%
	Bank 4	1%
Total bucket market cap		**18%**

Companies are allocated to the High and Low Gender Score portfolios as follows:

High Gender Score portfolio (Americas large cap Financials bucket)

	Current market cap	Redistributed weight	Final weight in the portfolio
Bank 1	10%	+ 2%	12%
Bank 2	5%	+1%	6%
Total	**15%**	**+3%**	**18%**

The missing 3% market cap is redistributed to the companies selected for inclusion in the High Gender Score portfolio in this bucket, while maintaining the same market cap proportions for the selected companies. Final overall bucket weight remains unchanged at 18%.

Low Gender Score portfolio (Americas large cap Financials bucket)

	Current market cap	Redistributed weight	Final weight in the portfolio
Bank 3	2%	+10%	12%
Bank 4	1%	+5%	6%
Total	**3%**	**+15%**	**18%**

Similarly, for the Low Gender Score portfolio, the missing 15% market cap weight is redistributed to the companies selected for inclusion in this portfolio bucket, while maintaining the same market cap proportions for the selected companies. Final overall bucket weight remains unchanged at 18%.

Portfolios are rebalanced monthly, and performance is calculated in USD, total return.

About RobecoSAM

Founded in 1995, RobecoSAM is an investment specialist focused exclusively on Sustainability Investing. It offers asset management, indices, engagement, voting, impact analysis, sustainability assessments, and benchmarking services. Asset management capabilities cater to institutional asset owners and financial intermediaries and cover a range of ESG-integrated investments (in public and private equity), featuring a strong track record in resource efficiency theme strategies. Together with S&P Dow Jones Indices, RobecoSAM publishes the globally recognized Dow Jones Sustainability Indices (DJSI). Based on its Corporate Sustainability Assessment, an annual ESG analysis of 2,900 listed companies, RobecoSAM has compiled one of the world's most comprehensive databases of financially material sustainability information.

RobecoSAM is a member of the global pure-play asset manager Robeco, which was established in 1929 and is the center of expertise for asset management within the ORIX Corporation. As a reflection of its own commitment to advocating sustainable investment practices, RobecoSAM is a signatory of the UNPRI and a member of Eurosif, ASrIA and Ceres. Approximately 130 professionals work for RobecoSAM, which is headquartered in Zurich. As of March 31, 2015, RobecoSAM had assets under management, advice and/or license in listed and private equity* of approximately USD 10 billion. Additionally, RobecoSAM's Governance & Active Ownership team** had USD 82 billion of assets under engagement and USD 50 billion of assets under voting.

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