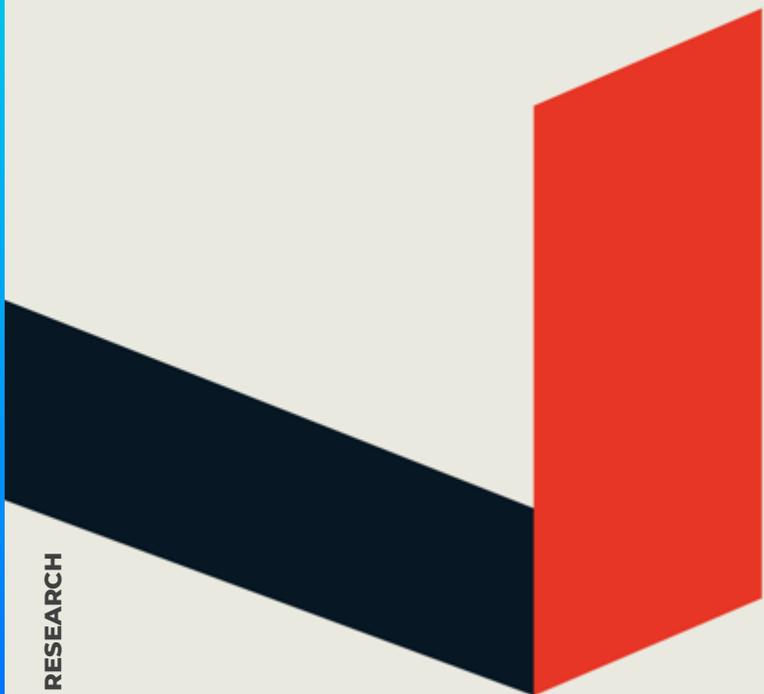


More than a buzzword

Assessing the financial and transparency effects of corporate gender diversity

By Daniel Getler, CFA, Min Low, and Emily Matthews



More Than a Buzzword

Assessing the financial and transparency effects of corporate diversity

Introduction

In recent years, gender diversity has increasingly been recognised as an important issue in the workplace. Using S-Ray® data, supported by academic and industry research, we assess the effects of gender diversity on global public corporations¹. In particular, we examine whether more diverse companies demonstrate better financial performance and greater non-financial transparency.

To focus on gender diversity specifically, we examine a composite of quantitative metrics used within our ESG Diversity Feature that are focused on the percentage of women at various levels of the company, including the board, management, and overall employees. These metrics capture the current diversity of the company rather than stated policies. While corporate gender diversity also encompasses the inclusion of non-cisgender individuals, we focus our discussion on women in the workplace due to data availability constraints. We hope to expand this research to include non-binary individuals as more data becomes available.

Corporate Diversity Trends

Gender diversity is increasingly a major topic of discussion among corporations. This year alone has seen several large companies announce that a female CEO will take the reins in 2021. These include Citigroup, the first major Wall Street bank to take this step²; Wellington Management, one of the world's largest independent investment management firms³; and Mercedes-Benz Canada, which has appointed a female to lead the company as both President and CEO⁴.

“This year alone has seen several large companies announce that a female CEO will take the reins in 2021.”

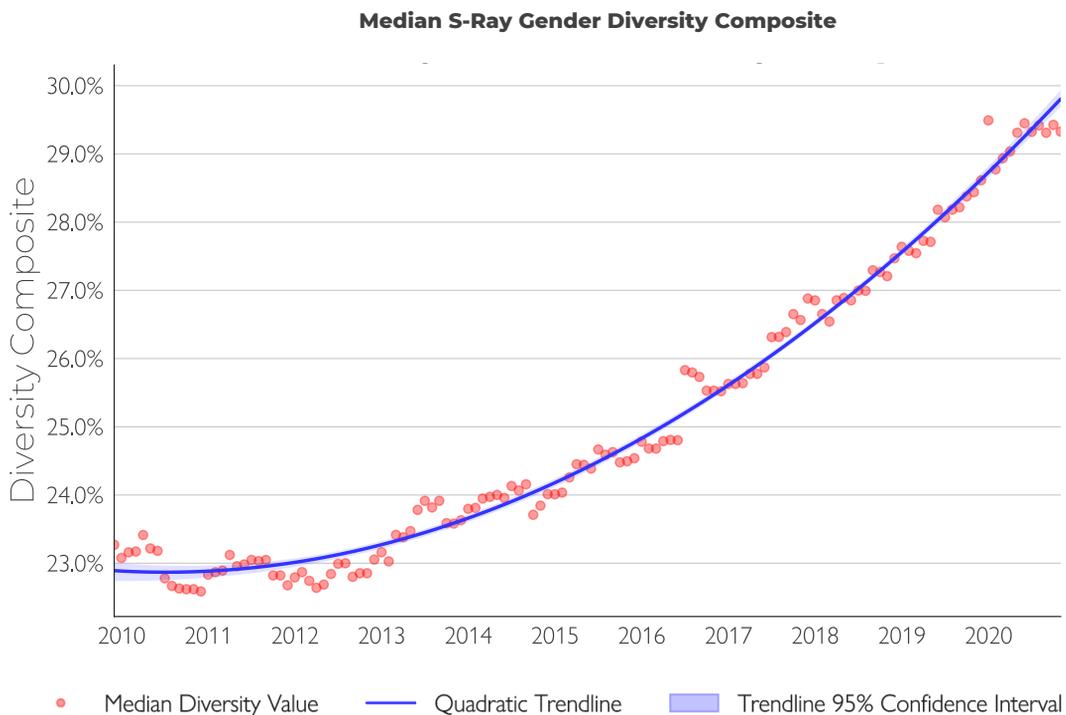
1. The scope of the analyses is the Arabesque S-Ray Global All-Cap Universe, which closely resembles the Global All-Cap indices of major index providers. Methodology and constituents are available upon request.

2. Jolly, 2020

3. Wellington Management, 2020

4. Mercedes-Benz Canada, 2020

Turning to the data, we see that these are not one-off cases. There has been a sharply increasing trend in gender diversity over the studied period (December 2009 – November 2020). We theorize below on the reasons for that increase. However, it should be noted that the median company has a diversity value below 30%⁵. There is still progress to be made.



There are several potential exogenous factors that may have contributed to this trend. An analysis of the U.K. Labour Force Survey data found that women's increased participation in the workplace can partly be explained by increasing educational levels. Furthermore, the societal expectations of a woman's role has changed: women today are less restricted by their marriage and family commitments than ever, as observed by the increasing number of working mothers⁶.

There have also been several regulatory developments regarding gender diversity over the period studied. Many countries in developed markets - including Norway, Spain, France, and Italy - have enacted quotas at the board level to improve gender diversity⁷. Countries in Asia Pacific are also following Europe's lead. The Companies Act of 2013 in India mandates that listed companies have at least one female director⁸. In the United States, many states currently require companies to have at least one female director, with increasing quotas coming over the next two years⁹.

5. The median of the gender diversity composite metric, which accounts for gender diversity at varying levels of an organisation, is 29.3% as of 30 November, 2020.

6. Roantree & Vira, 2018

7. Valls Martinez, Cruz Rambaud, & Parra Oller, 2019; Bennouri, De Amicis, & Falconieri, 2020

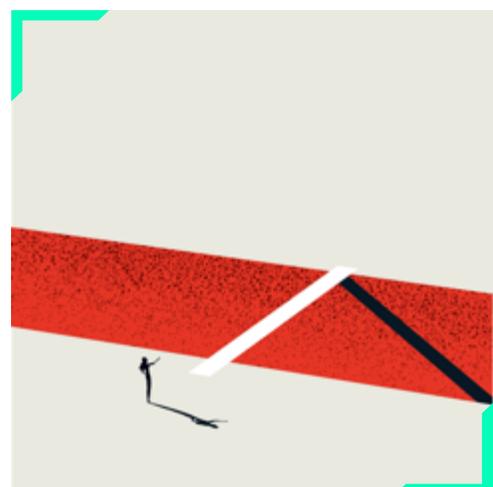
8. Verma, 2018

9. Hatcher & Latham, 2020

Finally, the United Kingdom has set a voluntary 2020 target¹⁰ of 33% female board representation in the FTSE 350 companies. While this is met collectively, 41% of companies do not individually meet this target¹¹.

These regulatory pressures are not all entirely governmental: some influential companies have also implemented policies to drive diversity forward. For instance, Nasdaq has proposed new listing rules related to board diversity and disclosure wherein companies listed on their exchanges will be required to have at least one female director and one underrepresented minority and/or LBGTQ+ director, and to disclose this data in a standardized fashion¹². Additionally, Goldman Sachs will require at least two diverse board members for any US or European company for which they underwrite an IPO¹³.

The growing sustainable investing landscape is also a likely contributor to the positive trend in diversity. ESG assets under management in the U.S. grew from \$3.7 trillion to \$12 trillion between 2012 and 2018, and could potentially account for fifty percent of institutionally managed assets by 2025¹⁴. Globally, ESG assets under management exceed \$30 trillion.¹⁵ Most notably, there has been substantial growth in thematic and impact investing specific to gender-related issues. Public investment products with a gender lens have grown exponentially from \$100 million AUM in 2014 to \$3.4 billion in 2019¹⁶. This trend is seen in venture capital, private equity, and private debt as well, where there has been a 138% increase in funds focused on gender issues over the last three years¹⁷.



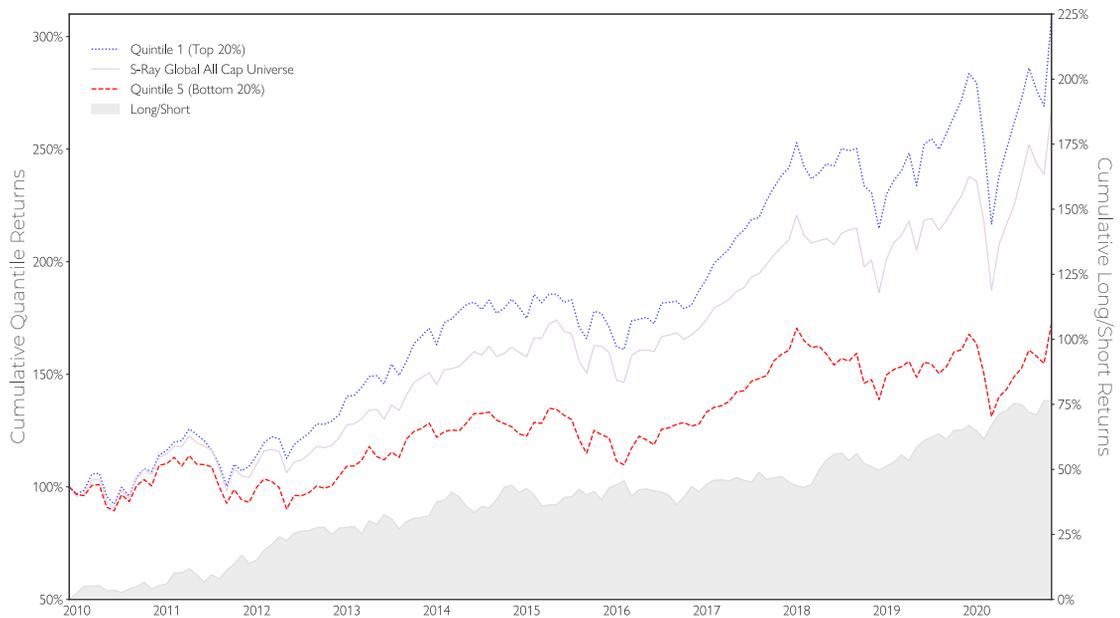
Public investment products with a gender lens have grown exponentially from \$100 million AUM in 2014 to \$3.4 billion in 2019.

Gender diversity and financial performance

While increasing regulations and the growth of ESG investing are some of the external factors relating to the increase in corporate gender diversity, there are notable internal benefits to companies with greater gender diversity. Over the period of this study, more gender diverse firms outperformed the universe, while less gender diverse firms underperformed. Therefore, the gender diversity “factor” return, calculated by evaluating a portfolio that goes long the most gender diverse quintile and short the least gender diverse quintile¹⁸, is positive as well.

10. Instead of a gender diversity quota, UK companies are encouraged to increase their board gender diversity in accordance with a voluntary target set in the Hampton-Alexander Review.
 11. Department for Business, Energy & Industrial Strategy, 2020
 12. Nasdaq, 2020
 13. Goldman Sachs, 2020
 14. Collins & Sullivan, 2020
 15. Global Sustainable Investment Alliance. (2018). 2018 Global Sustainable Investment Review.
 16. Enyart, 2020
 17. Biegel & Hunt, 2020

Returns to Diversity Quintiles



In addition to absolute outperformance, we can see that gender diverse firms also had greater risk-adjusted returns than those with poor gender diversity, as indicated by the Sharpe and information ratios.

Diversity Portfolio Statistics¹⁹

	Annualized Return	Annualized Volatility	Sharpe Ratio	Tracking Error	Information Ratio	Name Turnover
Quintile 1	10.38%	14.43%	0.72	3.30%	0.37	60.23%
Quintile 5	4.78%	14.24%	0.34	4.98%	-0.81	93.86%
Universe	9.06%	14.31%	0.63	---	---	26.08%
Long/Short	4.98%	6.31%	0.79	---	---	60.21%

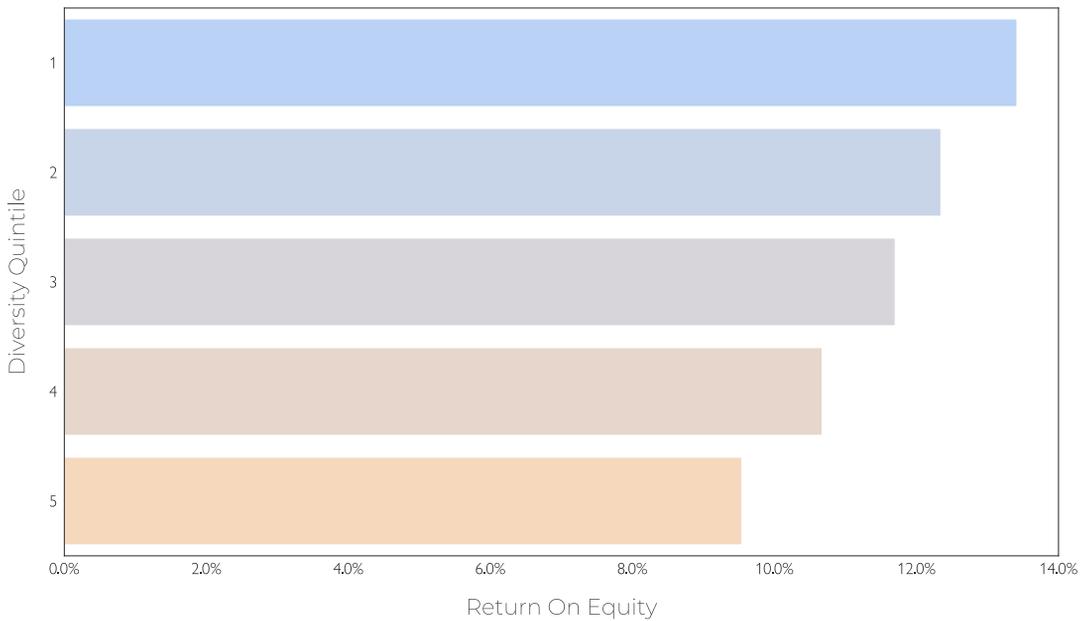
Furthermore, firms with greater gender diversity tend to have higher profitability and higher valuation multiples, shown here by the median return on equity and price to book ratios. In fact, not only does the most (least) diverse quintile have the highest (lowest) valuation and profitability, but these relationships are monotonically decreasing: quintile 1 is higher than quintile 2, which is higher than quintile 3, and so forth.

“Over the period of study, more gender diverse firms outperformed the universe, while less gender diverse firms underperformed.”

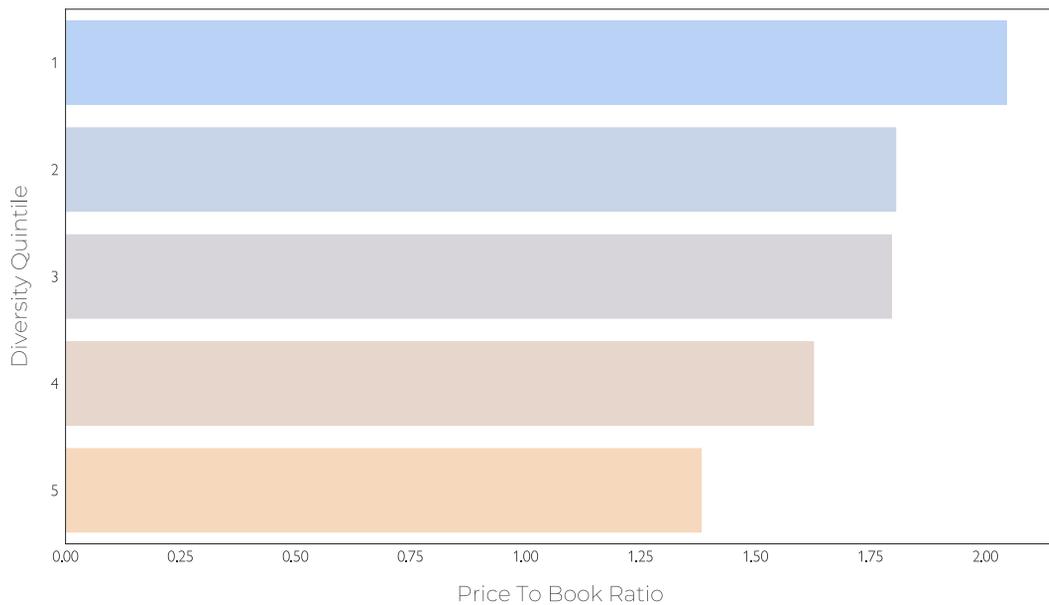
18. Gender diversity quintiles are calculated intra-industry. In each period, the stocks in each FactSet RBICS industry are sorted by their score on the gender diversity composite. The top 20% of stocks in the industry comprise the top quintile portfolio, while the bottom 20% comprise the bottom quintile. The quintile portfolios are then weighted using each stock's weight in the benchmark. This serves to mitigate the effects of inter-industry differences and more accurately capture the returns to diversity by measuring the performance of firms that are more (less) gender diverse relative to their industry peers.

19. Metric definitions are listed in Appendix A.

Median Return On Equity By Diversity Quintile



Median Price To Book Ratio By Diversity Quintile

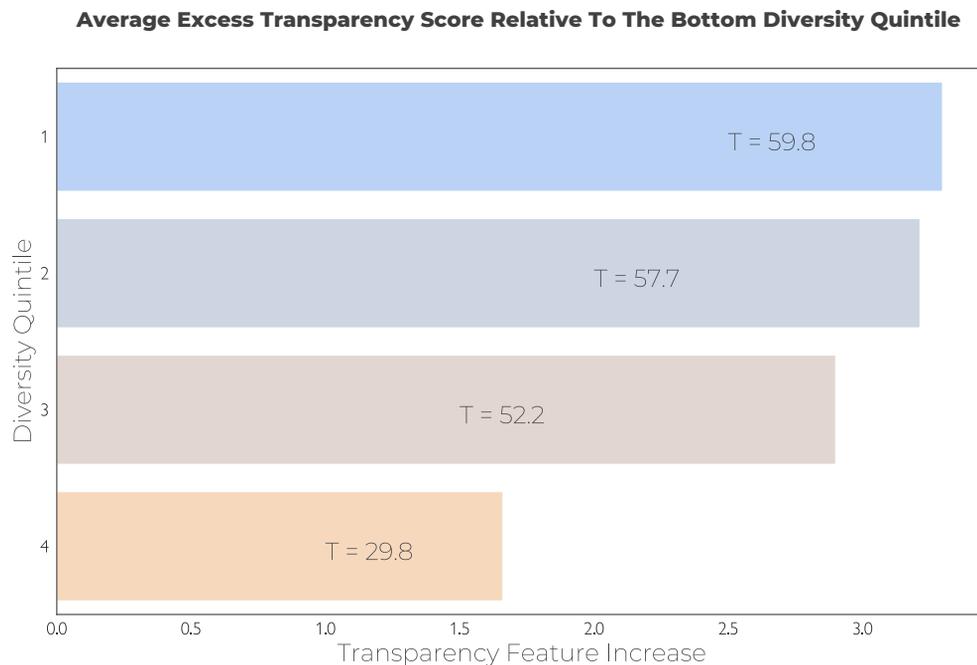


These findings are consistent with previous academic and industry research, which indicate a positive relationship between gender diversity and financial performance. These include: a 2019 Credit Suisse study, which found that companies with a higher percentage of females on the board and within management outperformed²⁰; a study that found positive linear relationships between technology and financial companies' female employment and their stock prices²¹; and an analysis by McKinsey that shows that firms in the top quartile on executive gender diversity had higher EBIT and EP margins while the least diverse were more likely to underperform financially²².

20. Credit Suisse Research Institute, 2019
 21. Kwok, 2020
 22. Hunt, Prince, Dixon-Fyle, & Yee, 2018

Gender diversity and transparency

In addition to financial outperformance, we find that gender diversity has a positive relationship with corporate transparency. Not only is corporate transparency pertinent to investors' assessments of risk, it can also increase brand loyalty among consumers²³. ESG transparency in particular has been found to have a positive correlation with financial performance²⁴. The S-Ray ESG Transparency feature assesses a company's level of disclosure and considers aspects such as disclosures relating to director compensation and articles of association as well as reporting standards and external verification. As the graph below shows, there is a statistically significant increase in average transparency as gender diversity increases²⁵.

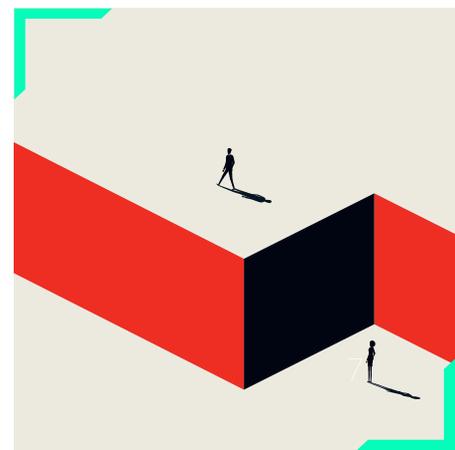


“ESG transparency in particular has been found to have a positive correlation with financial performance.”

23. Transparency International UK, 2020

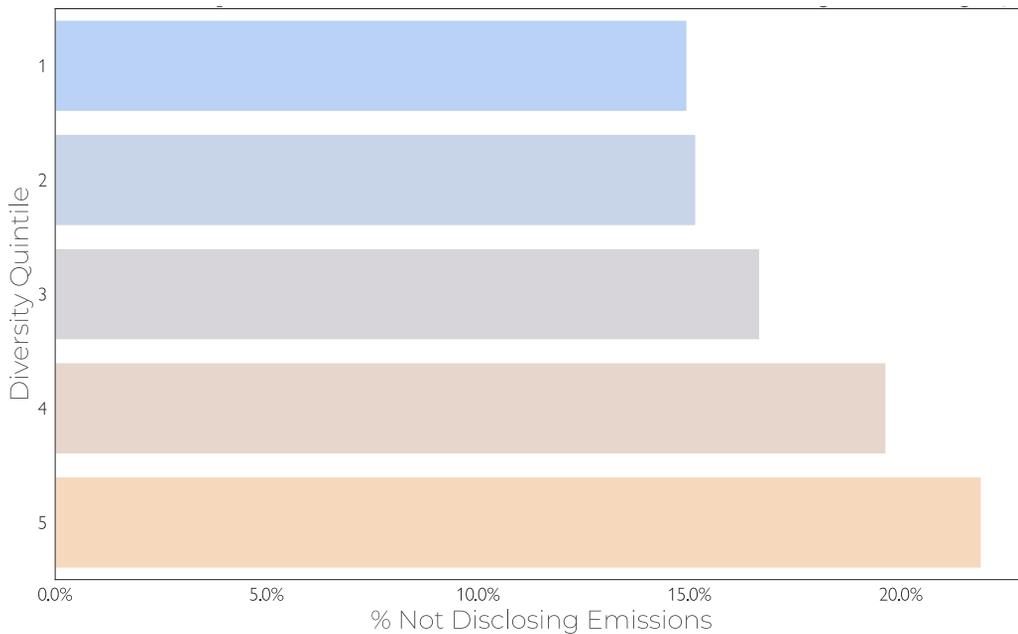
24. Kashyap, Menisy, Caiazza, & Samuel, 2020

25. Calculated by regressing the S-Ray ESG Transparency values on a matrix of categorical variables representing the diversity quintiles 1-4. The graphed values - the coefficients to each dummy variable - represent the average increase in the Transparency value for companies within that quintile relative to companies in the bottom quintile. The T-statistic is a measure of the statistical significance of these differences, where anything greater than approximately 2 is significant.



In a concrete example of this transparency, gender diverse companies are substantially more likely to disclose greenhouse gas emissions data. S-Ray’s Temperature Score measures the extent to which corporations across the world are contributing to the rise in global temperature. Companies’ greenhouse gas emissions are translated to a score based on sector-specific emissions pathways, ranging from 1.5°C to >2.7°C. A score of 3°C, however, indicates that the company does not disclose emissions in line with the Greenhouse Gas (GHG) Protocol²⁶. The graph below shows the percentage of companies within each gender diversity quintile that have a 3°C Score, and thus have either missing or inadequate emissions disclosures.

Percentage Of Companies That Do Not Disclose Emissions By Diversity Quintile



Again, these findings are corroborated by multiple academic research studies. Among the relationships studied were positive and significant correlations between the diversity of the board and the quality of the firm’s sustainability reporting²⁷, the level of greenhouse gas emissions disclosure²⁸, the accessibility of corporate governance disclosures on company websites²⁹, and financial reporting transparency³⁰.

“Gender diverse companies are substantially more likely to disclose greenhouse gas emissions data.”

26. GHG Protocol requires that emissions are reported separately for Scope 1 and Scope 2, and in units of tCO₂e.
 27. Al-Shaer & Zaman, 2016
 28. Al-Qahtani & Elgharbawy, 2020
 29. Nel, Scholtz, & Engelbrecht, 2020
 30. Janahi, Millo, & Voulgaris, 2020

Conclusion

Clearly, gender diversity is an increasingly important issue for corporations as we transition towards a more equitable society. While the increased regulatory and societal pressures have pushed companies to increase their gender diversity, we have shown that gender diversity also positively benefits a company by improving both financial performance and non-financial transparency. In this case, the well-worn axiom of sustainable investing proves true, and companies can in fact do well by doing good.



Appendix A: Metric Definitions

Annualized Return: The geometric average return, expressed in units of return/year. For monthly returns, the formula is

$$r_{\text{Ann}} = \left(\prod_{i=1}^n [1 + r_i] \right)^{12/n}$$

Annualized Volatility: The standard deviation of returns, expressed in units of return/year. For monthly returns, the formula is

$$\sigma_{\text{ann}} = \sqrt{\frac{12}{(n-1)} \sum_{i=1}^n (r_i - \bar{r})^2}$$

Tracking Error: The standard deviation of active returns, expressed in units of return/year. For monthly returns, the formula is

$$\text{TE}_{\text{ann}} = \sqrt{\frac{12}{(n-1)} \sum_{i=1}^n \left((r_{i,p} - r_{i,b}) - \overline{(r_{i,p} - r_{i,b})} \right)^2}$$

Information Ratio: The ratio of active returns to tracking error. The formula is

$$\text{IR} = \frac{r_{\text{ann,port}} - r_{\text{ann,bmk}}}{\text{TE}_{\text{ann,port,bmk}}}$$

Name Turnover: The average number of names newly added or sold completely from the portfolio per year, expressed in units of names/year. For monthly rebalancing, the formula is

$$\text{TO} = \frac{12}{n} \sum_{i=1}^n \frac{\min(\text{nms}_{i,\text{liq}}, \text{nms}_{i,\text{new}})}{(\text{nms}_{i,\text{tot}} + \text{nms}_{i+1,\text{tot}}) / 2}$$

Sharpe Ratio: The ratio of annualized returns less the risk-free rate to the annualized standard volatility. In this analysis, the risk-free rate has been fixed at 0%. The formula is

$$\text{SR} = \frac{R_{\text{ann}}}{\sigma_{\text{ann}}}$$

Bibliography

- Al-Qahtani, M., & Elgharbawy, A. (2020). The effect of board diversity on disclosure and management of greenhouse gas information: evidence from the United Kingdom. *Journal of Enterprise Information Management*, 33(6), 1557-1579. doi:10.1108/JEIM-08-2019-0247
- Al-Shaer, H., & Zaman, M. (2016). Board gender diversity and sustainability reporting quality. *Journal of Contemporary Accounting & Economics*, 12(3), 210-222. doi:10.1016/j.jcae.2016.09.001
- Bennouri, M., De Amicis, C., & Falconieri, S. (2020). Welcome on board: A note on gender quotas regulation in Europe. *Economics Letters*, 190, 109055. doi:10.1016/j.econlet.2020.109055
- Biegel, S., & Hunt, S. M. (2020). Project Sage 3.0: Tracking Venture Capital, Private Equity, and Private Debt With a Gender Lens. Wharton Social Impact Initiative. Retrieved from <https://socialimpact.wharton.upenn.edu/research-reports/reports-2/project-sage-3/>
- Collins, S., & Sullivan, K. (2020). Advancing environmental, social, and governance investing. Deloitte & Touche LLP. Retrieved from <https://www2.deloitte.com/us/en/insights/industry/financial-services/esg-investing-performance.html>
- Credit Suisse Research Institute. (2019). The CS Gender 3000 in 2019: The changing face of companies. Credit Suisse.
- Department for Business, Energy & Industrial Strategy. (2020). Women make up more than a third of all board members across the FTSE 350 for the first time. Retrieved from <https://www.gov.uk/government/news/women-make-up-more-than-a-third-of-all-board-members-across-the-ftse-350-for-the-first-time>
- Enyart, J. (2020). Gender Lens Investing in Public Markets: It's More Than Women at the Top. Glenmede. Retrieved from <https://www.glenmede.com/our-ideas/gender-lens-investing-public-markets-more-than-women-at-top>
- Goldman Sachs. (2020). Goldman Sachs' Commitment to Board Diversity. Retrieved from <https://www.goldmansachs.com/what-we-do/investing-and-lending/launch-with-gs/pages/commitment-to-diversity.html>
- Hatcher, M., & Latham, W. (2020). States are Leading the Charge to Corporate Boards: Diversify! Harvard Law School Forum on Corporate Governance. Retrieved from <https://corpgov.law.harvard.edu/2020/05/12/states-are-leading-the-charge-to-corporate-boards-diversify/>
- Hunt, V., Prince, S., Dixon-Fyle, S., & Yee, L. (2018). Delivering through Diversity. McKinsey&Company.
- Janahi, M., Millo, Y., & Voulgaris, G. (2020). CFO gender and financial reporting transparency in banks. *The European Journal of Finance*. doi:10.1080/1351847X.2020.1801481
- Jolly, J. (2020, September 10). Citigroup becomes first big Wall Street bank to be run by female CEO. *The Guardian*. Retrieved from <https://www.theguardian.com/business/2020/sep/10/citigroup-wall-street-bank-female-ceo-jane-fraser>
- Kashyap, R., Menisy, M., Caiazza, P., & Samuel, J. (2020). Transparency versus Performance in Financial Markets: The Role of CSR Communications. NBEA 2020 conference. Retrieved from <https://arxiv.org/ftp/arxiv/papers/2008/2008.03443.pdf>
- Kwok, R. (2020). Yes, Investors Care About Gender Diversity. *KelloggInsight*. Retrieved from <https://insight.kellogg.northwestern.edu/article/women-in-tech-finance-gender-diversity-investors>
- Mercedes-Benz Canada. (2020, November 16). Mercedes-Benz Canada Announces Eva Wiese as first female President and CEO. Toronto, ON, Canada. Retrieved from <https://media.mercedes-benz.ca/releases/release-cc1ed2d4aedf3744e4a64183c5048b76-mercedes-benz-canada-announces-eva-wiese-as-first-female-president-and-ceo>
- Nasdaq. (2020). Nasdaq to Advance Diversity through New Proposed Listing Requirements. Retrieved from <https://www.nasdaq.com/press-release/nasdaq-to-advance-diversity-through-new-proposed-listing-requirements-2020-12-01>
- Nel, G., Scholtz, H., & Engelbrecht, W. (2020). Relationship between online corporate governance and transparency disclosures and board composition: evidence from JSE listed companies. *Journal of African Business*. doi:10.1080/15228916.2020.1838831
- Roantree, B., & Vira, K. (2018). The rise and rise of women's employment in the UK. Institute for Financial Studies.
- Transparency International UK. (2020). Open Business: Principles and guidance for anti-corruption corporate transparency. Transparency International UK.
- Valls Martinez, M. d., Cruz Rambaud, S., & Parra Oller, I. M. (2019). Gender policies on board of directors and sustainable development. *Corporate Social Responsibility and Environmental Management*, 1539-1553. doi:10.1002/csr.1825
- Verma, P. (2018, November 15). India first developing country to have quota mandating at least one woman director on board of listed companies: Report. *The Economic Times*. Retrieved from <https://economictimes.indiatimes.com/news/company/corporate-trends/india-first-developing-country-to-have-quota-mandating-at-least-one-woman-director-on-board-of-listed-companies-report/articleshow/66633533.cms?from=mdr>
- Wellington Management. (2020, September 1). Jean Hynes to Succeed Brendan Swords as Chief Executive Officer of Wellington Management. Boston, MA. Retrieved from <https://www.wellington.com/en/ceo-succession-plan-press-release/>

ARABESQUE S-RAY RESEARCH

Get in Touch

For all enquiries regarding Arabesque S-Ray's Products and Services, or to talk to one of our advisors, please contact s-ray@arabesque.com or call [+44 \(0\) 20 3946 3731](tel:+44(0)2039463731).