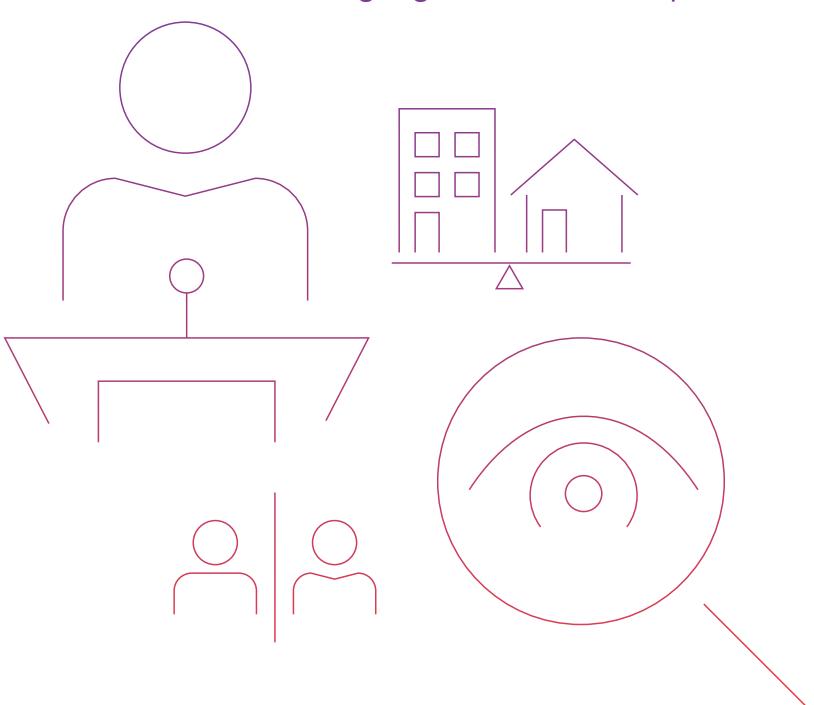


Investing inclusively:

Building shareholder value through gender diversity



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United Nations Sustainable Development Goal number five invokes both values and value to justify equal opportunity across gender. On the values side is basic fairness—the notion that a genetic assignment should not determine one's lot in life. Then there are the many links economists have established between gender equality and improved health outcomes, educational attainment, and wealth.\(^1\) Societies that tap into their population's full potential are more competitive.

In the corporate sphere, the same principles hold. All-male boardrooms, women earning less than men for the same work, and corporate cultures that tolerate sexual harassment are fundamentally discriminatory. Companies that behave in an exclusionary fashion and that fail to empower employees of all genders undermine equity and deny access.

There are also the business considerations. Increasingly, factors falling within the broad environmental, social, and governance, or ESG, framework are considered to have material financial impact on corporate results. This is certainly true of gender. Companies have found that gender-friendly policies and practices can positively affect talent acquisition and retention, customer alignment, and brand strength. The growth of the knowledge economy and the increased share of corporate value attributable to intangible assets make such linkages ever more critical.

Gender diversity has also been linked to improved decision-making. Combining people of different backgrounds results in "cognitive diversity," which enhances problem solving. McKinsey² and Credit Suisse³ have each produced research showing that companies serious about gender diversity and inclusion achieve superior financial results. They attribute these findings to cognitive diversity.

The value of female leadership has been highlighted during the COVID-19 pandemic. Countries with female executives have been relatively successful in their containment efforts. The experiences of Germany, Taiwan, New Zealand, as well as the Nordic states of Norway, Iceland, Finland, and Denmark (in contrast to neighboring Sweden) testify to qualities of humility, honesty, cooperation, and empathy in their leaders.

¹ For example, see World Bank. 2012. World Development Report 2012: Gender Equality and Development. World Bank. © World Bank. https://openknowledge.worldbank.org/han-(bd/1098//391 License; CC RV 3.0 ICO

² Diversity Still Matters. McKinsey. May 19, 2020. https://www.mckinsey.com/featured-insights/ diversity-and-inclusion/diversity-still-matters

³ The CS Gender 3000 Report 2019. Credit Suisse October 2019. https://www.credit-suisse.com/ about-us-news/en/articles/news-and-expertise/cs-gender-3000-report-7019-701910.html

- Shaw, E., Mason, C.N., Lacarte, V., and Jauregui, E. "Holding Up Half the Sky: Mothers as Workers, Primary Caregivers, & Breadwinners During COVID-19." https://iwpr.org/iwpr-issues/employment-and-earnings/holding-up-half-the-sky-mothers-as-workers-primary-caregivers-breadwinners-during-covid-19-2/
- FITUC Economic and Social Policy Brief: The Gender Wage Gap. 21 August 2018. https:// www.ituc-csi.org/brief-wage-gap
- ⁶ Equileap. Gender Equality Global Report & Ranking. 2019 Edition.

Equileap

Equileap is the leading provider of data and insights on gender equality in the corporate sector. Launched in 2016 in Amsterdam, the social enterprise aims to accelerate progress towards gender equality in the workplace. Equileap researches several thousand public companies globally using its comprehensive Gender Equality Scorecard with 19 criteria, including gender balance across the workforce, the gender pay gap, paid parental leave and anti-sexual harassment policies. Its data and indexes are used by dozens of financial institutions globally.

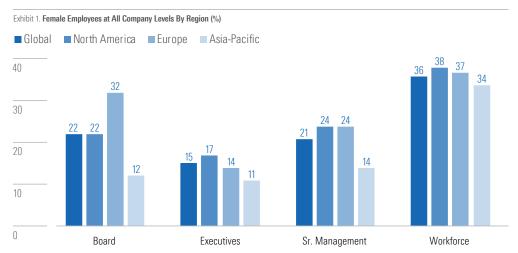
A Long Road to Travel

The global pandemic may have bolstered the status of female heads of state, but it has taken a disproportionate toll on working women. According to the Institute for Women's Policy Research, a think tank, because women are overrepresented in the industries hit hardest by COVID-19-related shutdowns, including retail, travel, and hospitality, they have constituted 60% of lost jobs in the U.S. in 2020.⁴ Worldwide, women shoulder more childcare responsibilities, so school closures have caused many to scale back on work, potentially derailing their career trajectories.

This may exacerbate the pernicious gender wage gap that persists globally. According to research by the International Trade Union Confederation, female workers earn only 77% of men's wages on a worldwide basis.⁵ At the rate the pay gap is narrowing, equal pay will not be achieved until 2069.

The gender wage differential varies in its causes and effects. Women often do not earn as much for doing the same work. Discrimination can prevent women from being hired or promoted. Unfair pay practices have far-reaching implications for women's financial security at all life stages and shifts the wealth balance away from women. Chronic and persistent underpayment prevents women, who are statistically more likely to be caregivers to family, friends, and neighbors (and also to outlive men), from saving and investing enough during their lifetimes to secure their own financial future and long-term care needs in retirement.

Equileap is a researcher focused on corporate practices related to gender diversity and equality across the globe (see sidebar). According to its prepandemic research covering 3,519 companies in 23 developed markets across the globe, only 1% of companies can claim no gender pay gap. A full 58% of companies lack policies around sexual harassment, Equileap estimates in its 2019 Gender Equality Global Report & Ranking. Female representation in workforces, boardrooms, and executive ranks across the globe falls woefully short of the 50:50 gender balance in society at large. Comparing companies across regions finds that Europe leads when it comes to women in the boardroom; North America scores best for female executives and in the workforce overall. In every area, the Asia-Pacific region lags the global average.



Source: Equileap Gender Equality Global Report & Ranking, 2019

Measuring Gender Diversity

The Equileap Gender Equality Scorecard was created in 2016 to shine a light on best practices and to encourage progress within the corporate sector on gender equality. Equileap evaluates companies' gender and diversity policies and practices across 19 criteria, within four broad categories (see diagram). The maximum score a company can achieve is 100 and scores are expressed as percentage of 100.

Exhibit 2. A Detailed Gender Equality Scorecard

Equileap monitors gender equality controversies: class actions, individual cases, and official rulings dealing with gender-based violence and discrimination



Category A: Gender Balance in Leadership & Workforce

- Board of Directors
- Executives
- Senior Management
- Workforce
- Promotion & Career Development



Category B: Equal Compensation and Work-Life Balance

- Living Wage
- Gender Pay Gap
- Parental Leave
- Flexible Work Options



Category C: Policies Promoting Gender Equality

- Training & Career
 Development
- Recruitment Strategy
- Freedom from Violence,
 Abuse, and Sexual
 Harassment
- Safety at Work
- Human Rights
- Social Supply Chain
- Supplier Diversity
- Employee Protection



Category D: Committment, Transparancy, and Accountability

- Commitment to Women's Empowerment
- Gender Audit

Source: Equilear

Transparency remains a formidable obstacle to conducting gender research. Equileap found that 98% of U.S. companies do not publish any kind of gender-segregated pay information, neither overall nor by pay bands. Says Equileap CEO Diana Van Maasdijk: "You can't change what you can't measure." Within Category A, examining the gender balance at four levels of the workforce provides insight into a company's track record of promoting women to senior management and executive levels. Looking at a company's overall gender breakdown might reveal that a company has diverse hiring practices but poor career development prospects for women.

Parental leave is a critical element assessed by Equileap (see Category B). Since women are more likely to take on parenting responsibilities, motherhood often prompts women to leave the workforce. In countries with no state-sponsored leave policies, some companies embrace parental leave policies as a matter of equity, or to attract and retain talent. Others do not. The International Labour Organization finds that while fatherhood is rewarded by companies by paying higher wages to men with children, motherhood is often a source of discrimination. Companies that offer generous paid leave and flexible work arrangements are more likely to attract and retain valuable female talent, according to Equileap.

Addati, L., Cassirer, N., and Gilchrist, K. "Maternity and Paternity at Work." International Labour Organization. May 2014.

Policies (the focus of Category C) are critical; but a company's behavior must be scrutinized. Good research on environmental, social, and governance issues looks past companies' words and assesses actions. Savvy executives know how to make the right statements, craft policies that please researchers, even finesse the numbers. But a true commitment to gender diversity and inclusion must be evident in a company's track record.

For this reason, Equileap also examines legal entanglements. Has a company experienced judgments, official rulings, or settlements regarding gender discrimination or sexual harassment? What about gender discrimination practices in marketing and advertising? Companies involved in controversies related to gender are placed on an Alarm Bell list.

Introducing Morningstar's Gender Diversity Index Methodology

Morningstar has developed a gender diversity index methodology that aims to produce a similar risk/ return profile to the broad equity market while emphasizing companies committed to gender equality. The methodology focuses on developed markets and is powered by company-specific analysis provided by Equileap.

Here we will focus on the most inclusive index variant—the Morningstar Developed Markets Gender Diversity Index. For a more detailed methodology discussion, please see the index rulebook.

Index Selection

The index derives its constituents from the Morningstar Developed Markets Large-Mid Index, which includes large- and mid-capitalization equities from the U.S., Canada, Western Europe, Israel, Australia, Hong Kong, New Zealand, Japan, and Singapore. Equities are excluded from the index if they are part of Equileap's Alarm Bell list, which flags companies embroiled in legal cases involving gender-based violence and discrimination. Companies are ineligible for 12 months after initially appearing on the Alarm Bell list. Otherwise, the index includes all members of the parent index. Constituent count is variable.

Index Weighting

The index weighting scheme balances macro consistency with an emphasis on gender equality. Thus, constituents are weighted according to both their Gender Equality score and their float-adjusted market capitalization. Companies are placed into five different groupings according to Gender Equality score. They are compared to peers within their broad region (North America, Europe, developed Asia-Pacific), in recognition of regional variation in laws, policies, and practices. For companies with identical scores, Equileap's assessment in Category A (Gender Balance in Leadership & Workforce) serves as a tiebreaker.

xhibit 3. Index Weightin	ng			
The bottom group i	is under-weighted with respe	ct to its float market-capitaliza	ation.	
Тор				Botton
Group 1	Group 2	Group 3	Group 4	Group 5

Source: Morningstar Indexes

Companies falling into the top-scoring group within their region receive an index weight 1.5 times what their market capitalization would indicate; the second group receives 1.25 times weight; the third group 1.00; the fourth group 0.75, and the bottom-scoring group 0.50.

Companies that were previously excluded because they were on the Alarm Bell list can be added at the reconstitution following their removal, albeit at low weight. The small number of constituents within the parent index that are not scored by Equileap are assigned the average score for their sectoral peers within their country. To deliver similar exposure to the broad equity market, the index's regional weights are kept identical to those of the parent index. Individual constituent weight is capped at 5%

Exhibit 4. Index Weighting in Practice: Gender Equality Leaders				
Leader	Country/Sector	Equileap Score, 2019 (%)	Parent Index Weight (%)	Gender Diversity Index Weight (%)
Johnson & Johnson JNJ	U.S./Healthcare	66	0.82	1.13
Diageo DGEAF	U.K./Consumer Defensive	74	0.16	0.22
Westpac WEBNF	Australia/Financial Services	68	0.09	0.13

Source: Equileap Gender Equality Global Report & Ranking, 2019, and Morningstar Indexes. Data as of Sept. 21, 2020.

Diageo, the British maker of Guinness, Johnnie Walker, and other alcohol brands, was the highest scoring company on Equileap's 2019 Global Gender Equality Ranking, having achieved gender balance within its executive ranks, board of directors, senior management, and workforce. The company has no pay gap and offers generous parental leave. Johnson & Johnson is one of the top scoring companies in the U.S. market; excelling in the areas of female representation, the pay gap, and polices. Westpac is one of several Australian companies scored highly by Equileap.

Reconstitution and Rebalancing

The index is reconstituted (membership reset) in December, using Equileap's gender equality scoring. The index is rebalanced (weights reset) quarterly, in March, June, September, and December. At quarterly rebalancing time, 5% security capping is enforced and securities on the Alarm Bell controversy list are removed.

Exhibit 5. Index Construction Process			
Starting universe	Security selection	Portfolio construction	
Select securities from the Morningstar Developed Markets Large-Mid Index	Securities included on Equileap's Alarm Bell controversy list are ineligiblefor the index	 Tilt security weights based on Gender Equality score Region-neutral weights with respect to benchmark Security weights capped at 5% 	Morningstar Developed Markets Gender Diversity Index

Source: Morningstar Indexes

Equileap Alarm Bell List Example:

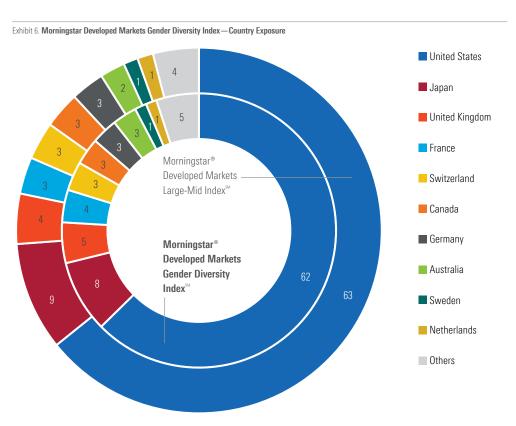
Facebook was placed on Equileap's Alarm Bell list in 2019. The trigger was Facebook's legal settlement with the U.S. Equal Employment Opportunity Commission for unlawfully discriminating on the basis of gender by targeting job advertisements on Facebook to male users only, excluding women and nonbinary users from receiving the ads. Beyond the job advertisements, Facebook has been scrutinized for whether its paid advertising allows advertisers to discriminate by gender and other categories.

A Lens into Gender Diversity Best Practices

The portfolio composition of the Morningstar Developed Markets Gender Diversity Index provides a lens into global trends around gender diversity. First, to which countries and which economic sectors does the index maintain above- and below-market exposure? As explained above, the index maintains identical regional weights to that of its parent index. As seen in Exhibit 6, country exposure is extremely similar as well. That said, the gender diversity index allocates above-market weight to both Australia and the U.K.

Based on Equileap's company-level assessments, Australia is the world's highest-scoring country. Equileap attributes the high scores to Australian legislation in place since 2012 requiring companies to publish comprehensive public reports on their gender equality performance on a yearly basis. According to Equileap, "Australia is an example of how enforced transparency can motivate improved performance over time." The U.K., for its part, is enumerated for having one of the world's highest levels of female workforce participation, along with France, Hong Kong, Switzerland, and the U.S., at nearly 40%.

Japan, by contrast, receives below-market weight in the gender diversity index. Japanese companies tend to have low female representation across all levels. With an average of 7% women on corporate boards, 2% at the executive level, 4% in senior management, and 25% in the workforce, Japanese companies fall far below all 23 countries researched by Equileap.⁹ According to an International Labour Organization report, Japan offers one of the world's most generous parental leave programs, but only 2% of new fathers in Japan took paternity leave in 2017. In Norway and Sweden, where there is a specific number of weeks "reserved" for fathers, almost all fathers take parental leave.¹⁰



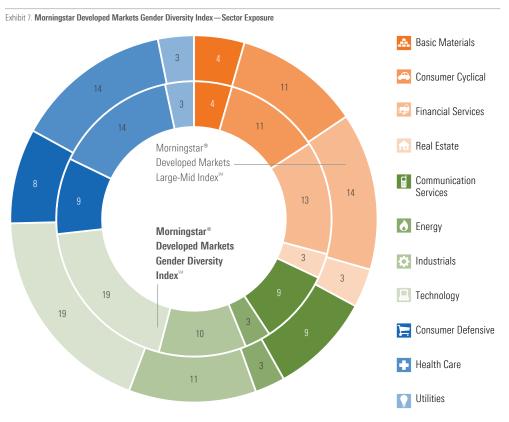
Source: Morningstar Data as of Sept. 21, 2020.

⁸ Equileap. Gender Equality Global Report & Ranking. 2019 Edition.

⁹ Equileap. Gender Equality Global Report & Ranking. 2019 Edition.

Addati, L., Cassirer, N., and Gilchrist, K. "Maternity and Paternity at Work." International Labour Organization. May 2014.

From an economic sector perspective, the index also looks similar to its broad market equivalent. The gender diversity index maintains above-market weight to the consumer defensive sector. By contrast, the financial-services sector, which has long struggled with female representation, receives below-market weight.



Source: Morningstar Data as of Sept. 21, 2020.

Gender Diversity Can Improve the Investor Experience

Examining the track record of the Morningstar Developed Markets Gender Diversity Index provides insight into how investing based on gender diversity affects risk and return. Although the index was built in 2020, historical returns have been simulated from December 2014 onwards. The backtest uses historical Equileap scores from 2017 and simulated scores from 2014 to 2016.

The experience of the Morningstar Developed Markets Gender Diversity Index suggests that companies committed to gender equality are good investments. First, the index's returns are encouraging. From December 2014 through September 30, 2020, the Morningstar Developed Markets Gender Diversity Index slightly outperforms its market equivalent. An investment of \$10,000 at the index back-test inception on Dec. 19, 2014, would have grown to \$16,125 on September 30, 2020, while the same investment in the parent index would have become \$15,900. The similarity of returns is by design. The gender diversity index holds most of the constituents of its parent; it weights its constituents partly by market capitalization, just like its parent; and it keeps its regional weights in line with the broad market.



Source: Morningstar Indexes. Data as of Sept 30, 2020.

From a risk perspective, the gender diversity index has provided a smoother ride than its broad market equivalent. From December 2014 through September 30, 2020, the index has produced a lower standard deviation of returns (a measure of volatility). This is consistent with Morningstar findings across other indexes and funds screened on environmental, social, and governance criteria.¹¹ ESG factors represent real risks that affect financial performance.

Exhibit 9. The Gender Diversity Index Has Been Less Volatile than the Market	
Index	Standard Deviation of Returns (%)
Morningstar Developed Markets Gender Diversity Index	14.06
Morningstar Developed Markets Large-Mid Index	14.19

Source: Morningstar Indexes. Time Period: 12/19/2014-9/30/2020

While the overall index's risk/return profile is encouraging, breaking down the index by Gender Equality scores better answers the question: Do companies committed to gender equality make good investments? In Exhibit 10 on the following page, we compare the performance of indexes made up only of the companies with the best Gender Equality scores to the overall gender diversity index and its parent (the broad market index). We find that companies in the top-scoring grouping outperform. This is true both in terms of absolute returns, as well as standard deviation of returns (a measure of volatility).

[&]quot; See: Bioy, Hortense and Boyadzhiev, Dimita How Does European Sustainable Funds' Performance Measure Up?' Morningstar Manager Research. June 2020 and Lefkovit Dan. Morningstar's ESG Indxes Protect on the Downside. Morningstar. Feb. 26., 2020.'

Exhibit 10. Top-Scoring Companies on Gender Equality Outperform

Index	Return (%)	Risk (%)
Morningstar Developed Markets Index (Parent)	8.35	14.19
Morningstar Developed Markets Gender Diversity Index	8.61	14.06
Group 1: Best-Scoring Companies	9.48	13.80

Source: Morningstar Indexes. Time Period: 12/19/2014- 9/30/2020

Gender Equity for Shareholder Value

The corporate sector has a critical role to play in advancing the global cause of gender equality. But gender-diversity-based investing is not just about making the world a better place; it can also have a positive impact on risk and return. The track record of the Morningstar Developed Markets Gender Diversity Index supports the view that integrating environmental, social, and governance factors into the index selection process does not undermine performance. Companies that foster gender diversity and create inclusive cultures are tapping into the potential of the full population and benefiting from the effects of cognitive diversity. They are not only advancing the cause of human rights but also maximizing shareholder value.

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

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