

MSCI ESG RESEARCH LLC



Women on boards 2019 Progress Report

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Executive Summary

Continuing the work begun by GMI Ratings in 2009, MSCI ESG Research LLC has been reporting annually on the state of women’s representation on corporate boards. As part of this evolving series we have added other areas of interest including market- and sector-specific corporate gender diversity issues, expertise comparison and an overview of regulatory frameworks around gender diversity. In this latest report in the series, we reviewed the board and executive management structure of 2,765 companies, constituents of the MSCI ACWI Index as of October 31, 2019.

KEY FINDINGS

- Progress is still slow, but **2019 saw a noticeable uptick**: 20.0% of directors were women in 2019, up from 17.9% in 2018 and 17.3% in 2017. This 2.1 percentage-point increase in 2019 also slightly shortened the path to 30% female directorship (projected for 2027, based on the latest data). At the current pace, a 50/50 gender split among global directors might be reached by 2044.
- **57.3% of the companies subject to mandatory gender quotas had exceeded requirements** as of October 31, 2019. Italy and France had the highest percentage of companies with more females than required (among MSCI ACWI Index constituents).
- The number of companies with majority female boards doubled in 2019 compared with 2018. Yet these 22 firms accounted for fewer than 1% of the constituents of the MSCI ACWI Index as of October 30, 2019; **98.7% of the boards remained male-dominated**.
- The **information technology GICS®** sector,¹ historically lagging, had the **steepest increase** in companies with three or more female directors (28.3% in 2019 vs 15.5% in 2018).
- In **emerging markets, female directors and executives were more likely to have financial expertise** than their male counterparts: 47% vs 39%. In developed markets, we found no significant differences in professional expertise (risk or financial expertise) between male and female directors.
- **More women (22%) than men (12%) were overboarded** (serving on three or more boards) globally. Higher levels of multiple directorships among female directors may indicate overreliance on a limited pool of women directors.

¹ Sectors in this report refer to GICS sectors. GICS, the global industry classification standard jointly developed by MSCI and Standard & Poor’s.

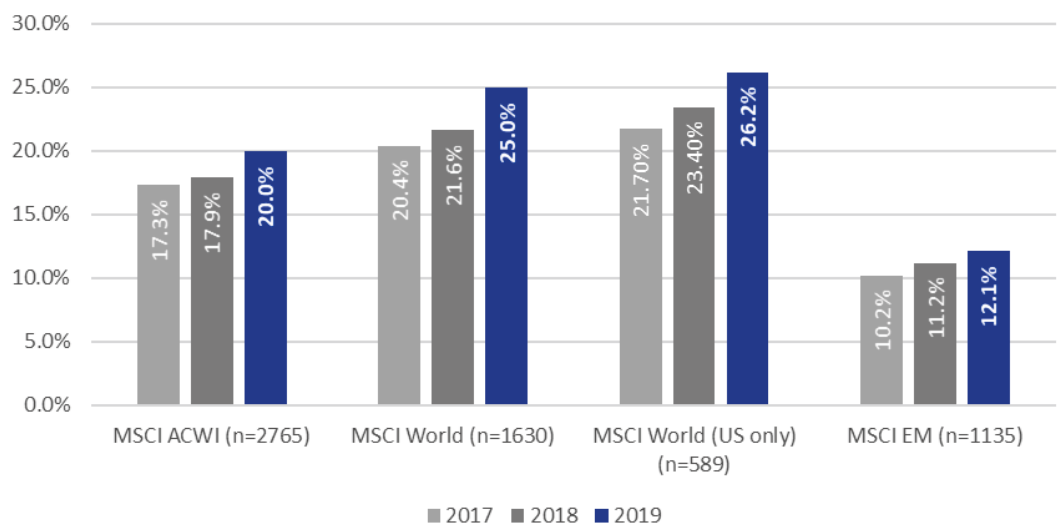
Global Overview

PICKING UP THE PACE?

Compared with incremental growth in female participation in board directorships in 2017-2018, 2019 showed a more pronounced increase in the percentage of women on boards – from 17.9% of female seats in 2018 to 20.0%, among constituents of the MSCI ACWI Index as of October 31, 2019 (Exhibit 1). This growth was primarily driven by increases in the U.S. constituents of the MSCI World Index (26.0% in 2019 vs 23.4% the previous year).

The portion of companies with **all-male boards dropped from over 22.5% in 2017 to 18.6% in 2019** for constituents of the MSCI ACWI Index. This reduction was **primarily driven by Japanese firms**: 45% of the 323 Japan-domiciled MSCI ACWI Index constituents had all-male boards in 2018, compared with 33% in 2019. **Brazilian firms also added women** to their boards: Of the 51 Brazilian firms in the peer set, 47% were all-male in 2018, compared with 29% in 2019.

Exhibit 1: Percentage of women on boards, 2017-2019

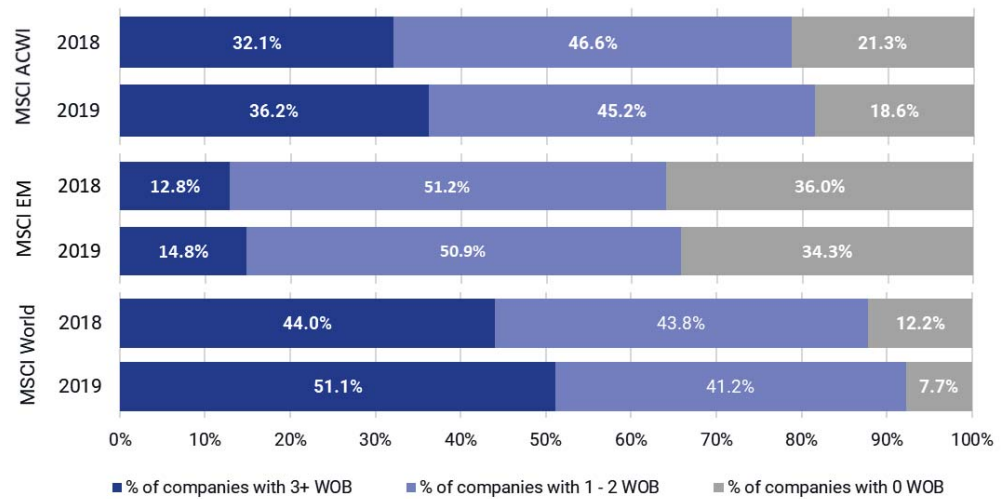


Source: MSCI ESG Research LLC

The chart shows the percentage of director seats held by women in 2017, 2018 and 2019 among constituents of the MSCI ACWI Index, MSCI World Index, MSCI Emerging Markets Index (EM) and U.S.-domiciled constituents of the MSCI World Index (index constituents as of October of each corresponding year). Both Boards of Directors as well as Supervisory Boards are considered in this assessment.

In 2019, both emerging and developed markets saw an increase in the percentage of companies adding female board directors. A large body of research suggests that having three women on a corporate board represents a “tipping point” in terms of influence.² The percentage of MSCI ACWI Index constituents that had reached this tipping point increased from 32% in 2018 to 36% in 2019 (Exhibit 2), primarily driven by Developed Markets companies as represented by the MSCI World Index. European companies had the largest portion of boards with three or more female directors in 2019 (78%).

Exhibit 2: Changes in female directorship, 2018 vs 2019

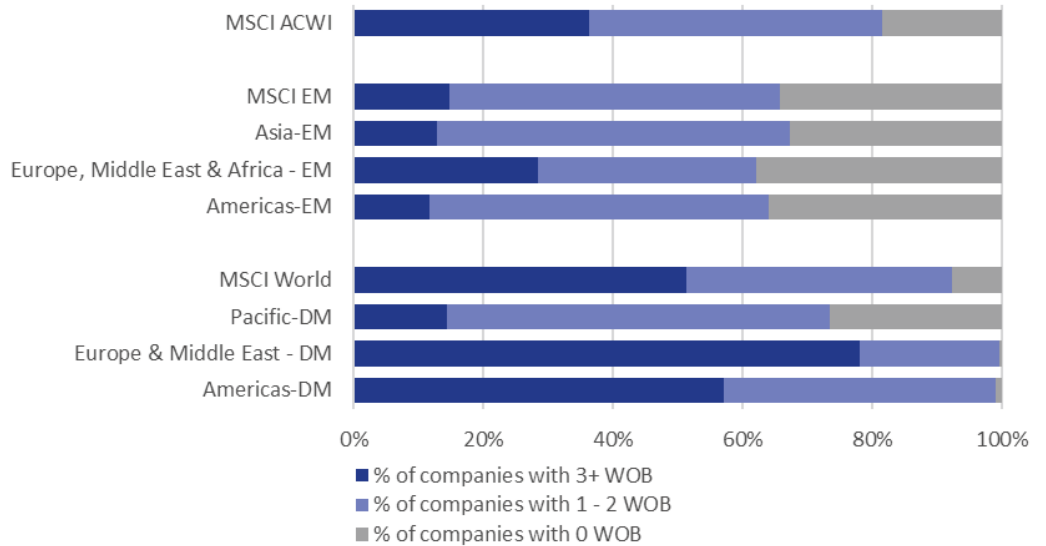


Source: MSCI ESG Research, companies' disclosure
 The chart includes constituents of the MSCI World Index and MSCI Emerging Markets (EM) Index as of October 31, 2019. Prior-year assessments of board and index composition are as of October 2018.

² Kramer, V. W., A.M. Konrad and S. Erkut. (2006). “Critical Mass on Corporate Boards: Why Three or More Women Enhance Governance.” Research & Action Report (Fall/Winter); Konrad, A. M., V. Kramer and S. Erkut. (2008). “Critical Mass: The Impact of Three or More Women on Corporate Boards.” *Organizational Dynamics*, Vol. 37, No. 2, pp. 145-164.

Exhibit 3: Percentage of companies with 0, 1-2, and 3+ women on the board, by region and index (as of October 31, 2019)

Source: MSCI ESG Research



The chart shows percentages of companies that were constituents of the MSCI ACWI Index, MSCI World Index and MSCI Emerging Markets Index (EM) as of October 31, 2019. Regions are defined based on MSCI Market Classification as of October 31, 2019. Both Board of Directors as well as Supervisory Boards are considered in this assessment.

SPOTLIGHT ON THE EXECUTIVE SUITE

While female representation on boards in Asia and emerging markets has continued to lag that of Europe and North America, the pattern is different in executive suites, especially for the position of chief financial officer (CFO). In both 2018 and 2019, a **higher percentage of Emerging Markets companies had female CFOs than in Developed Markets**. CEO numbers, in contrast, have been relatively flat in all regions. (Exhibit 4). In the U.S., the percentage of female CEOs dropped from 5.1% in 2017 to 4.9% in 2019.

Exhibit 4: Percentages of women in CEO and CFO roles, 2017, 2018 and 2019



Source: MSCI ESG Research

The chart shows the percentage of CEO and CFO positions held by women in 2017, 2018 and 2019 in companies, constituents of the MSCI ACWI Index, MSCI World Index and MSCI Emerging Markets Index (index constituents as of October of each corresponding year).

Market Trends

THE ROLE OF MANDATORY QUOTAS

Although the percentage, scope, timeline for implementation and penalties for non-compliance vary from country to country, companies domiciled in jurisdictions that had established compulsory quotas attained greater overall gender diversity at the board level, with 71.8%³ having at least 30% female directors as of October 31, 2019. Similar to the "tipping point" metric of three or more female directors on boards, 30% female representation has been a metric used by many global advocacy groups and regulators as a minimum threshold for gender diversity at the board level (for example, Thirty Percent Coalition, 30% Club, European Commission "Women on the Boards Pledge for Europe").

In contrast, non-compulsory targets were less correlated with gender diversity. Indeed, constituents of the MSCI ACWI Index in countries with voluntary quotas, and in countries without any gender-related requirements, had comparable overall board gender diversity levels as of October 31, 2019.

Among the constituents of the MSCI ACWI Index that were not required to comply with any form of elective or compulsory gender quota, only 20.3%⁴ had reached the 30% female director threshold and 23.0% had all-male boards.

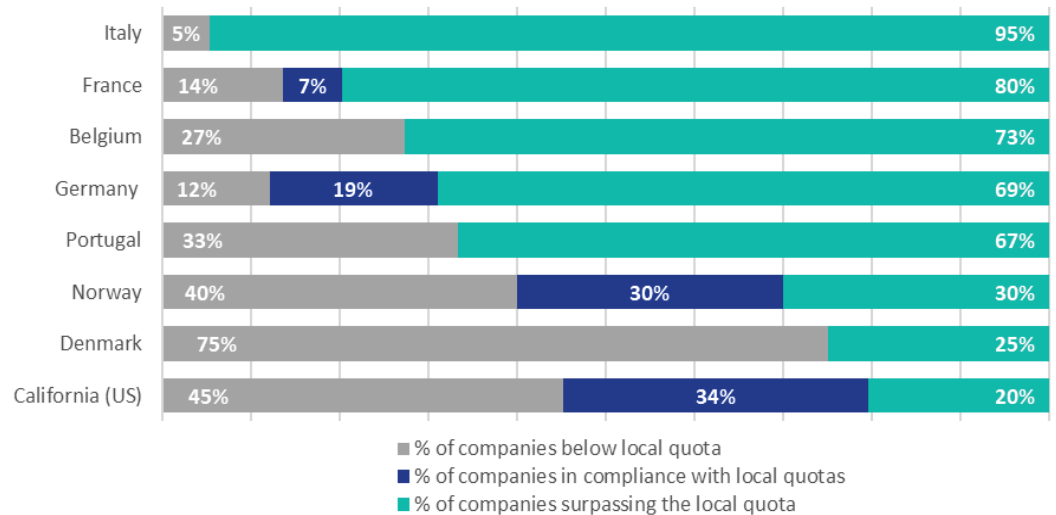
On average, in 2019, **57.3% of the companies subject to mandatory gender quotas had exceeded quota requirements** as of October 31, 2019. Italy and France had the highest percentage of companies with more female directors than required (among MSCI ACWI Index constituents).

Given the small number of countries with mandatory quotas and the limited historical data, it is beyond the scope of this paper to draw any conclusions on what may be driving companies to exceed mandatory quotas.

³ Denmark has adopted a mandatory quota and companies are subject to penalties in case of non-compliance. However, companies have the discretion to assess and establish the percentage that will be applicable to them. For the purposes of this report, 40% has been considered the prevailing mandatory quota in Denmark. Other countries and states have established specific percentages for female representation and companies may be subject to penalties in case of non-compliance.

⁴ Twelve companies incorporated in the following countries, but domiciled in other jurisdictions, have been disregarded: Isle of Man, Cyprus, Cayman Islands, Bermuda and Papua New Guinea.

Exhibit 5: Percentage of MSCI ACWI Index constituents that met or surpassed local mandatory quotas as of October 31, 2019



Source: MSCI ESG Research

Notes: Local quotas vary by country (see Appendix 4 for details). Denmark has adopted a mandatory quota and companies are subject to penalties in case of non-compliance. However, companies have the discretion to assess and establish the percentage that will be applicable to them. For the purposes of this report, 40% has been considered the prevailing mandatory quota in Denmark. In the U.S., the state of California is rolling out 2021 quotas that vary by board size. The chart includes assessment of California-domiciled companies' adherence to the forthcoming quota.

REGIONAL HIGHLIGHTS

As in 2018, with the exception of one company, all of the European constituents of the MSCI ACWI Index had female directors. This was likely due at least in part to existing and forthcoming quotas requiring a minimum number or percentage of female directors. Nine of the top 10 countries ranked by the percentage of companies with three or more female directors were in Europe (Exhibit 6).

The only outlier among European firms in 2019 was German information technology provider **United Internet**. Both in 2018 and 2019, the company had an all-male board.

Exhibit 6: Top 10 countries by percentage of companies with 3 or more women on boards (includes constituents of MSCI ACWI Index as of October 31, 2019)

Country	Quotas	# companies with 3+ WOB (2019)	% companies with 3+ WOB (2019)	% companies with 3+ WOB (2018)	Change relative to 2018
Norway	Mandatory	10	100.0%	100%	↔
Italy	Mandatory	19	100.0%	100%	↔
Belgium	Mandatory	11	100.0%	80%	↑
Portugal	Mandatory	3	100.0%	33%	↑
France	Mandatory	73	98.6%	100%	↓
Sweden	Comply or explain	28	96.6%	97%	↔
Austria	SOE*	5	83.3%	60%	↑
United Kingdom	Voluntary	83	82.2%	72%	↑
Germany	Mandatory	47	81.0%	79%	↑
South Africa	SOE*	35	79.5%	61%	↑

Source: MSCI ESG Research

The table includes companies in the MSCI ACWI Index as of October 31, 2019. Prior-year assessment of board compositions is as of October 2018. *Quotas apply to state-owned enterprises (SOEs) only.

Although there is substantial differentiation by country of domicile, in general progress toward greater gender diversity on corporate boards has been slow in emerging markets. More than one-third of the constituents of the MSCI Emerging Markets Index had all-male boards, and only 15% of companies in this peer set had three or more female directors (as compared with a 36% average for MSCI ACWI Index constituents as of October 31, 2019).

In 2019, the MSCI ACWI Index included 31 Saudi Arabian companies,⁵ all but two of which had male-only boards (Exhibit 7). Elsewhere in the Middle East, all of Qatar's companies continued to lack female representation on their boards. However, since the UAE introduced a minimum requirement of at least one female director 2012, five out of nine UAE constituents of the index had at least one woman on their board in 2019 (see Appendix for country-level details).

In the United States, despite the absence of country-level quotas, only 1% of companies had all-male boards, down from 1.9% in 2018 and 2.6% in 2017. Canadian companies looked similar – only one of the 92 companies had no female directors (1%) in 2019.

⁵ "MSCI adds Saudi Arabia, Argentina indexes to emerging markets index," Reuters, May 13, 2019: <https://www.reuters.com/article/us-markets-indexes-msci/msci-adds-saudi-arabia-argentina-indexes-to-emerging-markets-index-idUSKCN1SJ2BL>

Exhibit 7: Countries by percentage of companies with no women on boards (constituents of MSCI ACWI Index as of October 31, 2019)

Country	% of companies with no WOB	Number of companies: with zero women on boards total number of companies	
Qatar	100%	11	11
Saudi Arabia	94%	29	31
South Korea	77%	82	107
Hungary	67%	2	3
Chile	53%	9	17
Indonesia	48%	13	27
UAE	44%	4	9
Colombia	43%	3	7
Mexico	38%	10	26
Argentina	38%	3	8
Taiwan	37%	32	87
Japan	33%	108	323
Czech Republic	33%	1	3
Egypt	33%	1	3
China	32%	126	395
Hong Kong	32%	29	91
Russia	32%	7	22
Brazil	29%	15	52
Philippines	26%	6	23
Turkey	25%	4	16
Poland	21%	4	19
Greece	14%	1	7
Luxembourg	11%	1	9
Thailand	8%	3	36
Singapore	4%	1	26
Germany	2%	1	58
Australia	1%	1	67
Canada	1%	1	92
USA	1%	6	591

Source: MSCI ESG Research

The table includes constituents of the MSCI ACWI Index as of October 31, 2019.

South Korea and Japan continued to face challenges in adding women directors to boards, but the percentage of Korean and Japanese companies with no female directors dropped noticeably, from 84% and 45% in 2018 to 77% and 33%, respectively, in 2019.

Taiwan and China have not seen a significant progress in terms of board gender diversity. In 2019, 37% of the Taiwanese companies and 32% of the Chinese companies had all-male boards, an incremental improvement from 38% and 35%, respectively, in 2018.

COMPANY HIGHLIGHTS: WHO'S OUT FRONT AND WHO'S BEHIND?

As of October 31, 2019, there were 22 companies in the MSCI ACWI Index where women constituted a majority of directors, twice as many as the year before (Exhibit 8). While the increase was steep on a percentage basis, the absolute number of companies remains very small, representing only 0.8% of the index constituents by number. **Yet, 98.7% of the MSCI ACWI Index constituents had majority-male boards.**

Exhibit 8: MSCI ACWI Index constituents with majority female boards (as of October 31, 2019)

Company	Sector	Country of Domicile	# Female Directors	% Female Directors
POLSKI KONCERN NAFTOWY ORLEN	Energy	Poland	6	66.7%
KERING S.A.	Consumer Discretionary	France	7	63.6%
AUCKLAND INTERNATIONAL AIRPORT	Industrials	New Zealand	5	62.5%
H & M HENNES & MAURITZ AB	Consumer Discretionary	Sweden	6	60.0%
SODEXO SA	Consumer Discretionary	France	7	58.3%
TOTAL SA	Energy	France	7	58.3%
DIGI.COM BERHAD	Communication Services	Malaysia	4	57.1%
ETABLISSEMENTEN FRANZ COLRUYT	Consumer Staples	Belgium	4	57.1%
HEXAGON AKTIEBOLAG	Information Technology	Sweden	4	57.1%
THALES SA	Industrials	France	9	56.3%
MEDIBANK PRIVATE LIMITED	Financials	Australia	5	55.6%
VIACOM INC.	Communication Services	USA	5	55.6%
AMERICAN WATER WORKS	Utilities	USA	6	54.5%
BEIJING TONGRENTANG CO	Health Care	China	6	54.5%
CBS CORPORATION	Communication Services	USA	6	54.5%
GENERAL MOTORS COMPANY	Consumer Discretionary	USA	6	54.5%
MALAYSIA AIRPORTS	Industrials	Malaysia	6	54.5%
OMNICOM GROUP INC.	Communication Services	USA	6	54.5%
SWEDBANK AB	Financials	Sweden	6	54.5%
BEST BUY CO., INC.	Consumer Discretionary	USA	7	53.8%
BOUYGUES S.A.	Industrials	France	7	53.8%
L'OREAL SA	Consumer Staples	France	8	53.3%

Source: MSCI ESG Research

The table includes constituents of the MSCI ACWI Index as of October 31, 2019.

Polish oil refiner and distributor **Orlen** moved up to top the charts of quantity female directors in 2019 with six, accounting for 66.7% of the board. Taiwanese **First Financial Holding**, which had the highest percentage of female directors in 2018 (69.2%, with nine female directors out of 13 in total) has since reduced the portion of female directors to 46.7% (seven female directors out of 15 directors in total).

French **lcade** and Chinese firm **Xinhu Zhongbao** also both reduced the number of women directors and increased the total size of their boards (i.e., hired more male directors), and consequently no longer have female majorities.

Exhibit 9: Top 25 companies by market cap with no women on boards (as of October 31, 2019)

Company	Sector	Country	Total # directors
KWEICHOW MOUTAI	Consumer Staples	China	7
CHINA MOBILE	Communication Services	China	7
GAZPROM PAO	Energy	Russia	11
CHINA PETROLEUM & CHEMICAL CORP	Energy	China	11
NK ROSNEFT' PAO	Energy	Russia	11
SAUDI BASIC INDUSTRIES CORPORATION	Materials	Saudi Arabia	9
MEITUAN DIANPING	Consumer Discretionary	China	8
CNOOC LIMITED	Energy	China	8
NOVATEK PAO	Energy	Russia	9
INDUSTRIAL BANK CO	Financials	China	14
PT BANK CENTRAL ASIA TBK	Financials	Indonesia	5
SK HYNIX INC.	Information Technology	South Korea	9
SAUDI TELECOM COMPANY	Communication Services	Saudi Arabia	9
QATAR NATIONAL BANK	Financials	Qatar	10
PINDUODUO INC.	Consumer Discretionary	China	6
JD.COM, INC.	Consumer Discretionary	China	5
FIRST ABU DHABI BANK	Financials	United Arab Emirates	9
HANGZHOU HIKVISION DIGITAL TECH	Information Technology	China	9
JARDINE MATHESON HOLDINGS	Industrials	Hong Kong	15
AL RAJHI BANKING & INVESTMENT	Financials	Saudi Arabia	11
SAIC MOTOR CORPORATION LIMITED	Consumer Discretionary	China	7
CHINA TOWER CORPORATION LIMITED	Communication Services	China	7
ECOPETROL	Energy	Colombia	8
CHINA MINSHENG BANKING CORP	Financials	China	15
HON HAI PRECISION INDUSTRY CO	Information Technology	Taiwan	9

Source: MSCI ESG Research

The table includes constituents of the MSCI ACWI Index as of October 31, 2019.

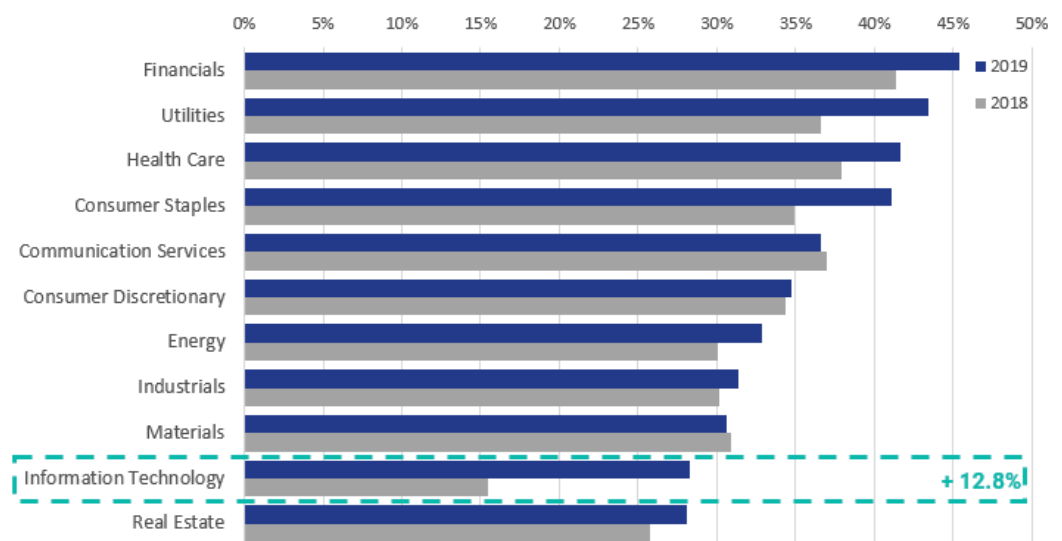
Of the constituents of the MSCI ACWI Index that had no female directors, 71% were Emerging Market firms, pointing to the slow rate of board transformation toward more gender diversity in those regions. All but one (Hong Kong-based **Jardine Matheson**) of the top 25 companies by market capitalization with all-male directorships were emerging market firms, constituents of the MSCI ACWI Index (Exhibit 9). Nearly half of these companies (12 out of 25) were domiciled in China, where the average percentage of women on boards remained low (11.6% in 2019 versus 11.2% in 2018 and 9.7% in 2017).

Of 126 constituents of the MSCI World Index with no female directors, 108 (86%) were Japanese firms and nine (7%) were China- or Hong Kong-based firms. Of the remaining nine companies with all-male boards, five were U.S.-domiciled.

Sector Trends

Information technology, a sector that has received widespread criticism over gender inequality,⁶ saw the steepest increase in both the average percentage of women on boards (17.9% in 2019 versus 14.8% in 2018) as well as in the portion of companies with three or more female directors (28.3% in 2019 versus 15.5% in 2018).

Exhibit 10: Percentage of companies by sector with three or more women on boards (constituents of MSCI ACWI Index as of October 31, 2019)



Source: MSCI ESG Research

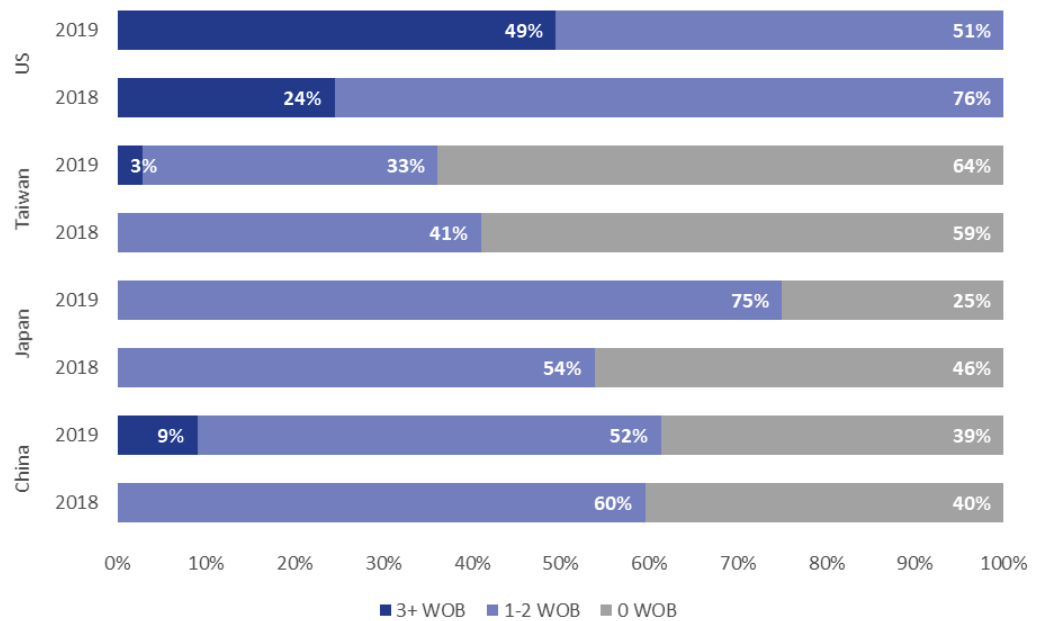
U.S.-domiciled companies represented the largest portion of the sector (34.5% of the IT sector peer set), followed by China (17.1%), Japan and Taiwan (14% each). U.S. IT companies showed the largest increase in the average percentage of women on boards from 21% in 2018 to 25% in 2019.

Approximately 45% of all U.S. IT companies were domiciled in the state of California, where a minimum requirement of at least one female director was mandated in 2019, with higher figures mandated for 2021 (see Appendix 4 for details). All of the U.S.-based companies, including California-domiciled ones, already had one or more female directors in 2018, suggesting that the steep increase in female directors this

⁶ N. Beheshti "Hi-Tech Still Isn't Getting Gender Diversity Right," Forbes, Oct. 16, 2019; "A Changing Perspective", 2019 Harvey Nash / KPMG CIO Survey

year was driven either by other types of pressure (internal or external) or by anticipation of 2021 requirements.

Exhibit 11: Female directorship among IT companies domiciled in China, Japan, Taiwan and the U.S., 2018 versus 2019

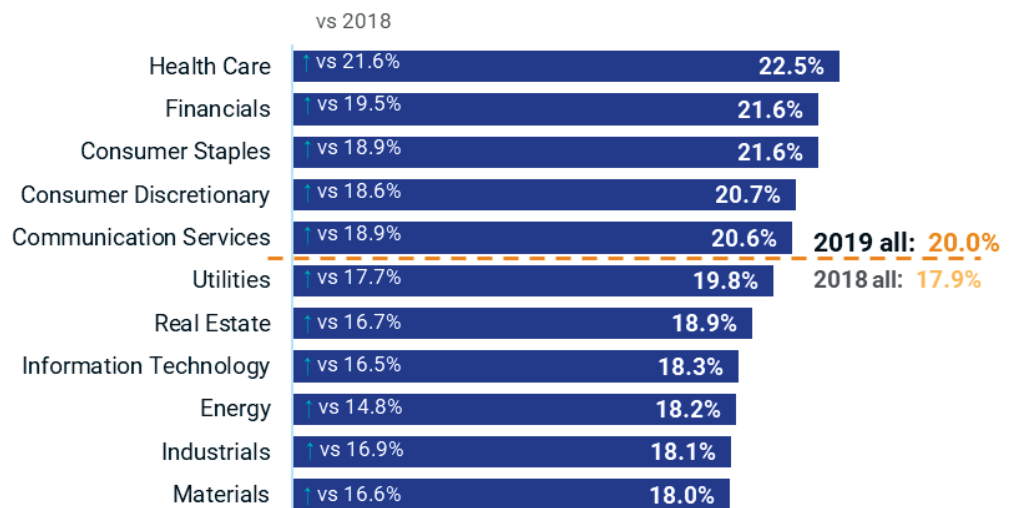


Source: MSCI ESG Research

The chart includes constituents of the MSCI ACWI Index as of October 31, 2019. Prior-year assessments of board and MSCI ACWI Index composition are as of October 2018.

Beyond information technology, the percentage of director seats held by women increased across all sectors in 2019 relative to 2018 (Exhibit 12). The same six sectors continued to fall below the overall global percentage in 2019 relative to 2018: utilities, real estate, energy, information technology, materials and industrials.

Exhibit 12: Percentage of women on boards by sector (constituents of MSCI ACWI Index as of October 31, 2019), 2019 vs 2018



Source: MSCI ESG Research

Myths and misconceptions

Misconceptions continue to persist in some quarters about the availability and qualifications of women to serve as directors. We address a few of these below with an analytical look at the data.

EXPERTISE BY GENDER

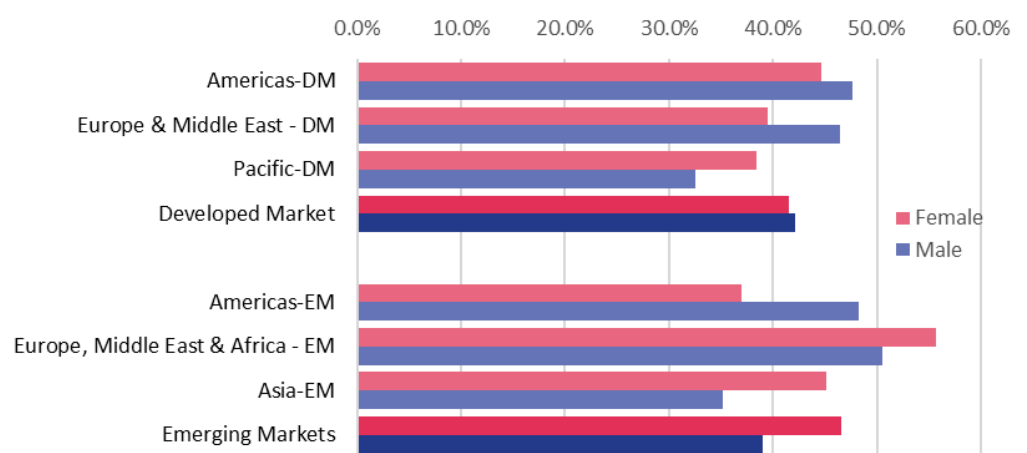
Lack of qualified women to fill director positions has been one of the most common misconceptions used to explain, if not justify, the lack in gender diversity among executives and directors.⁷

Based on the data available for 99.9% of 29,015 individual directors and C-Suite executives at companies that were constituents of the MSCI ACWI Index as of

⁷ "Time's Up: Dismantling Barriers to Gender Parity in the C-Suite," Executive Talent Magazine, Vol 12, 2018; "5 Barriers to Gender Parity in the Boardroom," Nasdaq, March 14, 2019; Crystal L. Hoyt, Susan E. Murphy "Managing to Clear the Air: Stereotype Threat, Women, and Leadership," The Leadership Quarterly, Vol. 27, Issue 3, 2016

October 31, 2019, we compared percentages of male and female directors with financial and risk expertise. While there was some variation by region, we did not find notable differences in financial expertise between male and female directors of companies domiciled in developed market countries. **In emerging markets, female directors and executives were actually more likely than their male counterparts to have financial expertise.**

Exhibit 13: Percentage of directors with financial expertise⁸



Source: MSCI ESG Research

The chart includes constituents of the MSCI ACWI Index as of October 31, 2019. Reference to MSCI Market Classification is as of October 31, 2019.

In fact, 47% of female directors and executives serving companies in emerging markets had financial expertise, compared with 39% of male directors and executives among the same peer group (Exhibit 13). The portion of executives and directors with financial expertise was the same, 42%, for male and female individuals in companies domiciled in developed markets.

Risk expertise is uncommon among both non-executive directors and senior executives, but we found no significant expertise gap between the two genders across global companies: roughly 4% of male and female executives and directors had risk expertise in developed markets, and approximately 3% for each gender in emerging markets.

⁸ MSCI ESG Research analysts review director bios on an individual basis for financial or accounting expertise as part of our corporate governance research. For U.S. companies the company's own designations regarding financial expertise are generally accepted as well as designations such as CFO, CPA, etc.

OVERBOARDING

“Overboarding” refers to when a director serves on too many boards to devote adequate time to the duties of each position. Some observers have expressed concerns that companies seeking to add women to their boards tend to pull excessively from the pool of existing directors, resulting in those women becoming overboarded.⁹ Our review of the available data suggests that **most female directors (78%) are not considered overboarded and serve on one to three boards**. However, it is true that a larger portion of women serve on three or more boards (22%) than do men (12%). This finding may imply that despite the broad availability of educated and experienced female professionals, some companies have continued to rely on a limited pool of candidates.

This dynamic was also present among companies domiciled in countries where gender quotas apply, with 18.6% and 13.5% of female and male directors, respectively, holding three or more directorships as of October 31, 2019.

⁹ S. Devillard, S. Sancier-Sultan, and Ch. Werner “Why gender diversity at the top remains a challenge,” McKinsey Quarterly, Apr. 2014.

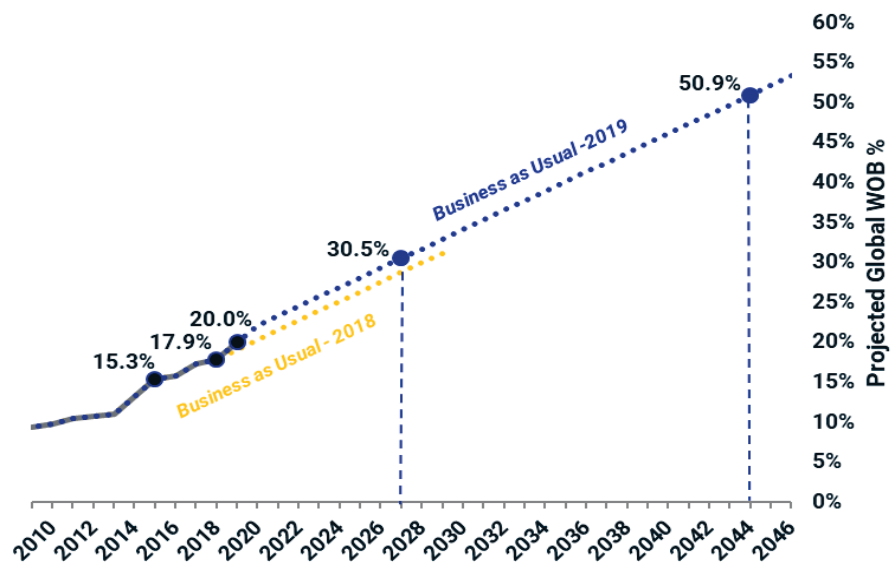
The road ahead

THE PATH TO 30% AND 50%

In 2015, MSCI ESG Research performed a scenario analysis using trends from 2009-2015 as baseline assumptions. Assuming the growth rate of women directors remained the same, it was projected that 30% female representation¹⁰ at the board level would not be reached until 2027.

In 2018, this projection was recalculated in light of a slow increase in female participation on the boards during 2015-2018 period. During this period, the percentage of seats opening up that were filled by women had declined from 16% to 12.6% per year on average. As a result, the updated estimates predicted that under a business-as-usual scenario, it would take an extra two years (i.e. until 2029) to increase female representation at the board level to 30%.

Exhibit 14: Projections for Reaching 30% and 50% Women on Boards



Source: MSCI ESG Research Business as usual indicates a constant rate of growth in the number of female directors year on year, which is based on the average growth rate of women directors in the defined period.

¹⁰ Similar to three or more female directors on boards, leading asset owners and global advocacy groups seek to have women comprise at least 30% of board seats globally (for example, Thirty Percent Coalition, 30% Club, European Commission "Women on the Boards Pledge for Europe"). This threshold has been translated into a corporate governance key metric and is used by MSCI ESG Research to identify companies with limited gender diversity at the board level across different markets. (see. M. T. Eastman, D. Rallis, and G. Mazzucchelli, "The Tipping Point: Women on Boards and Financial Performance," MSCI ESG Research, December 2016).

The uptick in the percentage of director seats held by women in 2019 moved the date to reach 30% back to 2027. It is difficult to say whether the recent trends represent a pattern shift or a short-term deviation. Any new quotas instituted by regulators could also affect the trajectory.

This year, we also extended our projection to calculate how long it might take to reach gender parity — i.e. 50% women — among the directors of these companies. If the average growth rate of women directors between 2016 - 2019 were to remain constant year over year, it could take an additional 25 years (i.e. until 2044) to reach 50/50 representation on the boards of large-cap global companies. However, given the lack of uniformity across countries, even if the 30% female directors threshold is reached by 2027, based on the current trends, it is likely to be driven by a sub-set of pro-active companies.

Appendexes

Appendix 1: Percentage of total director seats held by women, 2016-2019 (constituents of MSCI ACWI Index, in alphabetical order)

Country	2016	2017	2018	2019
Argentina	n/a	11.1%	11.1%	6.4%
Australia	26.0%	28.7%	31.5%	31.2%
Austria	20.9%	19.2%	21.2%	31.8%
Belgium	27.7%	30.4%	31.1%	36.7%
Bermuda	13.7%	12.3%	13.5%	16.9%
Brazil	5.8%	8.4%	8.0%	11.9%
Canada	22.8%	25.8%	27.0%	29.1%
Cayman Islands	n/a	n/a	n/a	0.0%
Chile	7.7%	8.2%	8.4%	8.5%
China	8.5%	9.7%	11.1%	11.4%
Colombia	13.4%	15.1%	13.2%	13.5%
Cyprus	n/a	n/a	n/a	25.0%
Czech Republic	5.1%	6.0%	7.7%	13.3%
Denmark	20.9%	23.6%	23.7%	31.9%
Egypt	5.0%	4.3%	7.7%	10.7%
Finland	30.2%	33.7%	34.5%	33.9%
France	37.6%	40.8%	41.2%	44.3%
Germany	19.5%	20.9%	22.5%	33.3%
Greece	16.2%	17.6%	14.6%	13.1%
Hong Kong	10.6%	11.3%	11.0%	12.4%
Hungary	3.1%	6.1%	9.1%	9.1%
India	12.8%	13.8%	14.0%	15.9%
Indonesia	2.8%	3.3%	3.3%	10.1%
Ireland	20.4%	19.8%	24.0%	27.0%
Isle of Man	20.0%	20.0%	15.0%	16.7%
Israel	21.8%	23.1%	24.5%	21.6%
Italy	33.1%	35.8%	35.0%	37.1%
Japan	4.8%	5.3%	6.4%	8.4%
Jersey	17.6%	37.5%	37.5%	n/a
Luxembourg	18.6%	17.5%	14.9%	21.5%

Macau	13.8%	17.2%	16.7%	17.9%
Malaysia	15.3%	20.2%	21.9%	25.3%
Mexico	7.2%	7.5%	7.3%	8.1%
Netherlands	18.9%	22.1%	24.9%	34.0%
New Zealand	29.6%	30.0%	30.2%	38.2%
Norway	39.4%	42.2%	39.6%	39.2%
Pakistan	n/a	5.2%	8.2%	9.7%
Papua New Guinea	11.1%	22.2%	33.3%	33.3%
Peru	0.0%	0.0%	14.3%	14.3%
Philippines	9.5%	10.5%	10.7%	11.9%
Poland	10.9%	11.0%	10.0%	19.9%
Portugal	9.1%	10.5%	10.5%	24.0%
Qatar	1.7%	0.9%	0.0%	0.0%
Russia	6.8%	7.0%	9.2%	10.6%
Saudi Arabia	n/a	n/a	n/a	0.7%
Singapore	11.2%	12.9%	13.7%	18.4%
South Africa	18.7%	21.4%	24.6%	27.4%
South Korea	2.4%	2.1%	2.3%	3.3%
Spain	20.6%	24.0%	23.6%	26.2%
Sweden	35.6%	37.7%	36.9%	39.6%
Switzerland	17.5%	21.3%	22.3%	24.9%
Taiwan	6.9%	9.7%	10.9%	11.2%
Thailand	12.2%	11.8%	12.7%	13.8%
Turkey	11.6%	10.8%	14.7%	17.6%
United Arab Emirates	3.1%	2.2%	3.2%	6.4%
United Kingdom	25.3%	26.8%	29.1%	31.7%
United States	20.3%	21.7%	23.4%	26.1%
MSCI ACWI Index	15.8%	17.3%	17.9%	20.0%
MSCI EM Index	9.0%	10.2%	11.2%	12.1%
MSCI World Index	19.1%	20.4%	21.6%	25.0%

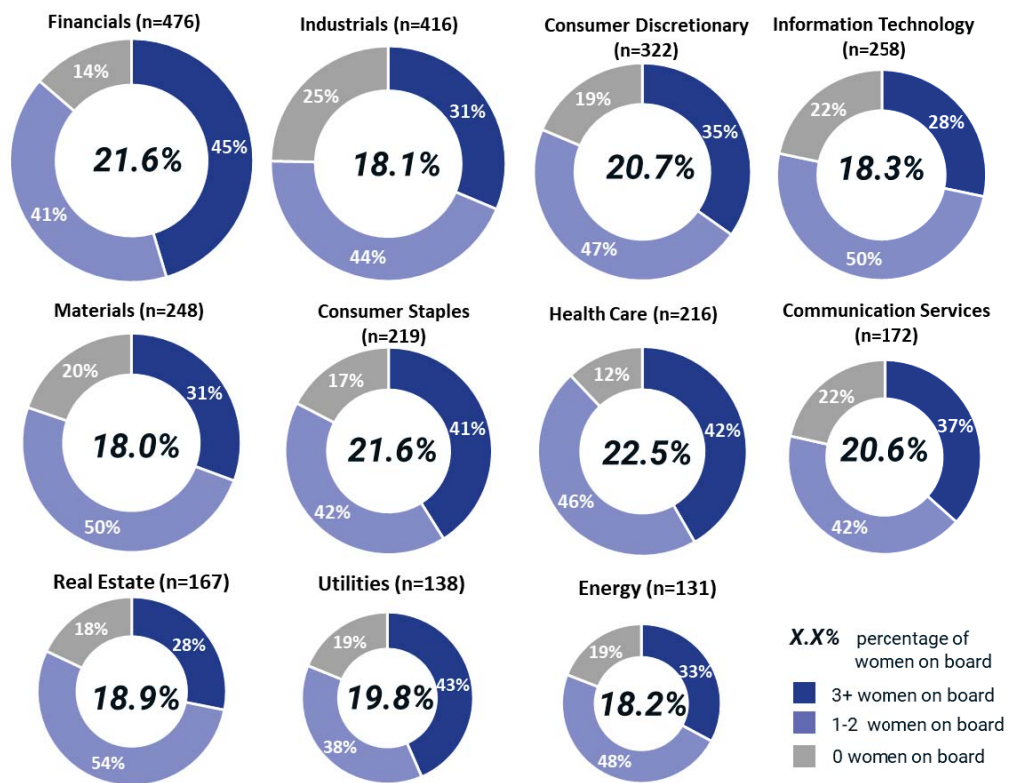
Appendix 2: Female representation on boards and in CEO / CFO positions, 2019

Country	Number of Companies (MSCI ACWI Index)	% Cos with 3+ WOB	% Cos with 1-2 WOB	% Cos with 0 WOB	% Cos with Female CEO	% Cos with Female CFO
Argentina	8	0.0%	62.5%	37.5%	0.0%	0.0%
Australia	67	58.2%	40.3%	1.5%	10.4%	22.4%
Austria	6	83.3%	16.7%	0.0%	0.0%	0.0%
Belgium	11	100.0%	0.0%	0.0%	18.2%	9.1%
Bermuda	7	14.3%	85.7%	0.0%	0.0%	14.3%
Brazil	52	11.5%	59.6%	28.8%	0.0%	5.8%
Canada	92	63.0%	35.9%	1.1%	2.2%	10.9%
Cayman Islands	1	0.0%	0.0%	100.0%	0.0%	0.0%
Chile	17	5.9%	41.2%	52.9%	5.9%	0.0%
China	395	11.6%	56.5%	31.9%	5.6%	20.3%
Colombia	7	14.3%	42.9%	42.9%	0.0%	14.3%
Cyprus	1	0.0%	100.0%	0.0%	0.0%	0.0%
Czech Republic	3	33.3%	33.3%	33.3%	0.0%	0.0%
Denmark	16	68.8%	31.3%	0.0%	6.3%	31.3%
Egypt	3	0.0%	66.7%	33.3%	0.0%	0.0%
Finland	13	69.2%	30.8%	0.0%	7.7%	7.7%
France	74	98.6%	1.4%	0.0%	6.8%	14.9%
Germany	58	81.0%	17.2%	1.7%	0.0%	13.8%
Greece	7	14.3%	71.4%	14.3%	14.3%	0.0%
Hong Kong	91	15.4%	52.7%	31.9%	3.3%	12.1%
Hungary	3	33.3%	0.0%	66.7%	0.0%	0.0%
India	80	21.3%	78.8%	0.0%	2.5%	0.0%
Indonesia	27	0.0%	51.9%	48.1%	3.7%	11.1%
Ireland	24	58.3%	41.7%	0.0%	8.3%	16.7%
Isle of Man	2	0.0%	100.0%	0.0%	0.0%	50.0%
Israel	12	25.0%	75.0%	0.0%	16.7%	25.0%
Italy	19	100.0%	0.0%	0.0%	0.0%	15.8%
Japan	323	3.4%	63.2%	33.4%	0.6%	0.6%
Luxembourg	9	44.4%	44.4%	11.1%	0.0%	11.1%
Macau	3	0.0%	100.0%	0.0%	0.0%	0.0%

Malaysia	43	37.2%	62.8%	0.0%	0.0%	27.9%
Mexico	26	19.2%	42.3%	38.5%	3.8%	7.7%
Netherlands	23	65.2%	34.8%	0.0%	4.3%	13.0%
New Zealand	7	42.9%	57.1%	0.0%	28.6%	14.3%
Norway	10	100.0%	0.0%	0.0%	10.0%	20.0%
Pakistan	3	0.0%	100.0%	0.0%	0.0%	0.0%
Papua New Guinea	1	100.0%	0.0%	0.0%	0.0%	0.0%
Peru	1	0.0%	100.0%	0.0%	0.0%	0.0%
Philippines	23	13.0%	60.9%	26.1%	0.0%	26.1%
Poland	19	15.8%	63.2%	21.1%	0.0%	10.5%
Portugal	3	100.0%	0.0%	0.0%	0.0%	0.0%
Qatar	11	0.0%	0.0%	100.0%	0.0%	0.0%
Russia	22	9.1%	59.1%	31.8%	4.5%	18.2%
Saudi Arabia	31	0.0%	6.5%	93.5%	3.2%	3.2%
Singapore	26	23.1%	73.1%	3.8%	7.7%	30.8%
South Africa	44	79.5%	20.5%	0.0%	0.0%	9.1%
South Korea	107	0.0%	23.4%	76.6%	1.9%	0.0%
Spain	22	77.3%	22.7%	0.0%	4.5%	9.1%
Sweden	29	96.6%	3.4%	0.0%	6.9%	6.9%
Switzerland	43	48.8%	51.2%	0.0%	4.7%	4.7%
Taiwan	87	14.9%	48.3%	36.8%	6.9%	27.6%
Thailand	36	25.0%	66.7%	8.3%	13.9%	38.9%
Turkey	16	31.3%	43.8%	25.0%	0.0%	6.3%
UAE	9	0.0%	55.6%	44.4%	0.0%	0.0%
United Kingdom	101	82.2%	17.8%	0.0%	7.9%	16.8%
United States	591	56.2%	42.8%	1.0%	4.9%	12.7%
MSCI ACWI Index	2765	36.2%	45.2%	18.6%	4.3%	12.5%
MSCI EM Index	1135	14.8%	50.9%	34.3%	3.8%	14.4%
MSCI World Index	1630	51.1%	41.2%	7.7%	4.6%	11.2%

Appendix 3: Sector statistics

Description: GICS Sectors are ordered by the number of companies included in each. The percentage figure in the center of each chart represents the overall percentage of director seats held by women at companies in the sector. Sections of the doughnut chart represent the percentage of firms within each sector that had reached the "tipping point" of three or more women on the board, had one or two women on the board, or had no female directors at all as of October 31, 2019. Data is for constituents of the MSCI ACWI Index.



Appendix 4: Global mandates and voluntary quotas on board gender diversity

	Market	Requirement, type	Requirement, %	Requirement, other	Year Introduced	Due Date
Gender quotas, public companies	Belgium	Mandatory	33%		2011	2017
	Denmark	Mandatory	Varied	set targets	2013	n/a
	Finland	Comply or explain		at least one	2008	n/a
	France	Mandatory	40%		2010	2016
	Germany	Mandatory	30%		2015	2016
	India	Mandatory		at least one	2013	2015
	Israel	Mandatory		at least one	1999	n/a
	Italy	Mandatory	33%		2011	2015
	Japan	Voluntary	30% of leadership positions		2014	
	Luxembourg	Comply or explain	40%		2014	2019
	Malaysia	Comply or explain	30%		2017	
	Netherlands	Comply or explain	30%		2013	2016
	Norway	Mandatory	40%		2003	2008
	Pakistan	Mandatory for new directors		at least one	2017	
	Portugal	Mandatory for new directors	20%/33.3%		2018/2020	
	Singapore	Voluntary	20%		2017	2020
	Sweden	Comply or explain	40%		2016	2020
	Spain	Mandatory (no penalties for non-compliance)	40%		2007	2015
	Turkey	Comply or explain	25%		2013	
	California (US)	Mandatory		at least one	2018	2019
California (US)	Mandatory		at least two (five member boards) at least three (six+ member boards)	2018	2021	
UAE	Mandatory		at least one	2012	n/a	
UK	Voluntary		33%	2019	2020	

	Market	Requirement, type	Requirement, %	Requirement, other	Year Introduced	Due Date
State-owned (if different than above)	Austria		35%			
	Chile		40%			
	Colombia		30%			
	Denmark		60%			
	Finland		40%			
	Greece		33%			
	Ireland		40%			
	Israel		50%			
	Quebec		50%			
	South Africa		30%			
	Switzerland		30%			
	Taiwan		33%			
Pending	EU		40%			
	Canada		40%			
	South Africa		50%			
	Brazil		40%			2022
	Korea	For SOEs				
	Switzerland	For SOEs				

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