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THE TIPPING POINT: WOMEN ON BOARDS AND FINANCIAL PERFORMANCE

Women on Boards Report 2016

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December 2016

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EXECUTIVE SUMMARY

A growing body of research shows that having three women on a corporate board represents a "tipping point" in terms of influence, which is reflected in financial performance. Our analysis from last year looked at a snapshot of global companies in 2015 with strong female leadership, finding that they enjoyed a Return on Equity of 10.1% per year versus 7.4% for those without such leadership (Lee et al., 2015), though a causal link was not established.

This year, we analyzed U.S. companies over a five-year period (2011-2016). U.S. companies that began the period with at least three women on the board experienced median gains in Return on Equity (ROE) of 10 percentage points and Earnings Per Share of 37%. In contrast, companies that began the period with no female directors experienced median changes of -1 percentage point in ROE and -8% in EPS over the study period. As with the previous study, a causal link was not established.[1]

Such superior performance from companies with at least three female board members may derive from better decision-making by a more diverse group of directors, as some studies hypothesize. But outperformance may also be tied to greater gender diversity among senior leadership and the rest of the workforce, which historically has correlated with reduced turnover and higher employee engagement.

Globally, we found that large multinational companies with three or more women directors had nearly twice the average percentage of women among their senior leadership as companies with no female directors; such companies were four times as likely to have a female CEO as firms with fewer than three women directors. In Japan, which has imposed new gender diversity reporting requirements, having even a single female director corresponded to a higher percentage of women among middle and senior management, new hires and the workforce at large.

[1] Past performance is not indicative of future results, which may differ materially. Please also refer to the disclaimers at the end of this paper regarding historical data.

INTRODUCTION: THE GLOBAL CONTEXT

- Globally, women held 15.8% of all directorships as of September 26, 2016, up from 15% last year, based on an examination of MSCI ACWI Index constituents.
- Among developed-market MSCI World Index constituents, women held 19.1% of all directorships (up from 18.1% last year), with women at U.S.-domiciled constituents holding 20.3% of directorships (up from 19.1% in 2015).
- Female directors held only 9% of board seats at MSCI Emerging Markets Index constituents (up from 8.4% in 2015).
- Norway (39.4%), France (37.6%), and Sweden (35.6%) had the highest percentage of board seats filled by women.

Progress in increasing gender diversity on corporate boards and senior executive ranks remains slow outside of markets with mandatory quotas,[2] despite growing research indicating that companies with greater representation of women have enjoyed superior returns and that fuller utilization of female talent at all levels could yield macroeconomic benefits in addition to advancing women's position in society.[3]

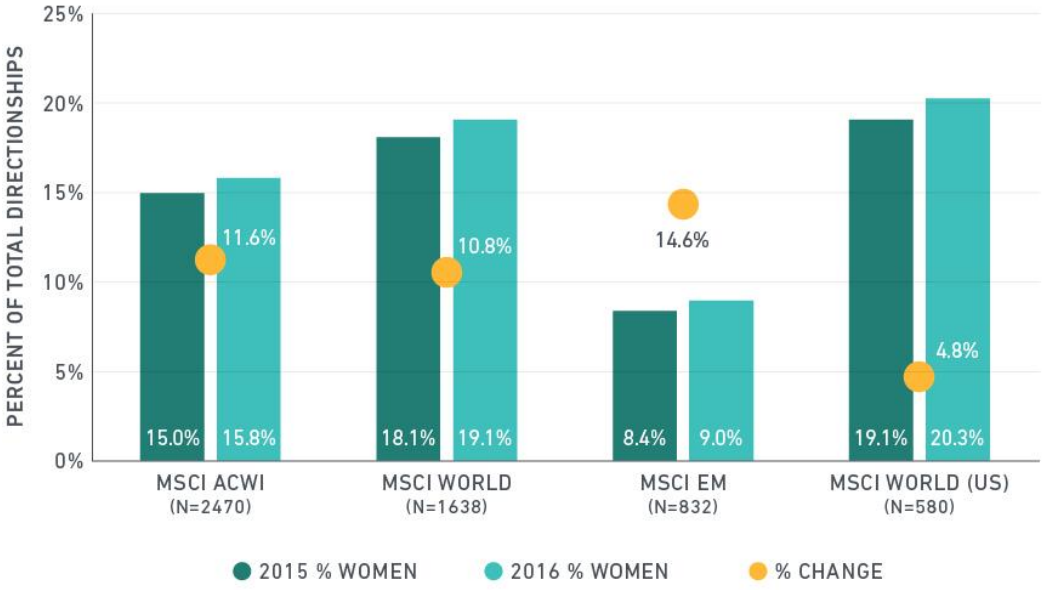
Women achieved incremental gains in filling board seats at companies around the world in the past year, with the greatest percentage increase occurring in emerging markets and the smallest in the U.S. (Exhibit 1). Among MSCI ACWI Index constituents, 75.2% had at least one female director as of September 26, 2016, up from 72.3% in 2015. Among the same group, only 27.4% had at least three women on the board (up from 23.5% in 2015). As noted in last year's report, academic research regards three seats as a key threshold for female directors' ability to participate on a more equal footing and exert influence relative to male peers.[4] For that reason, much of the subsequent analysis in this paper focuses on that threshold.

[2] Quotas apply only to boards of directors; no countries have instituted quotas for female executives.

[3] See, for example, Aguirre et al. (2012) and Toohey et al. (2009).

[4] For example, see Kramer et al., (2006); Konrad et al. (2008); and Torchia et al. (2011).

Exhibit 1: Global Trends in Women on Boards, 2015-2016



Source: MSCI ESG Research

The chart shows the percentage of director seats held by women in 2015 and 2016 for the MSCI ACWI Index, MSCI World Index, MSCI Emerging Markets Index (EM) and U.S.-domiciled constituents of the MSCI World Index, a subset of the MSCI USA Index. The percent change (yellow dot) represents the increase in the absolute number of seats held by women from 2015 to 2016.

WOMEN ON BOARDS AND CORPORATE PERFORMANCE

- Companies that attained at least three women on their board in 2011 saw a median change in Return on Equity (ROE) of 10 percentage points and in Earnings Per Share (EPS) of +37% by 2016, while companies with zero women on the board in 2011 saw median changes of -1 percentage point and -8% respectively over the same period.
- Adding any number of female directors was correlated with higher median increases in EPS compared to losing women from the board during the same period.

A number of studies have found significant correlations between the presence of women on corporate boards and strong corporate performance using various financial metrics.[5] In our research from last year (Lee, 2015), we found that companies with strong female leadership[6] had higher same-year ROE than those without. This year, we examined a five-year period. We found that companies that added women to the board consistently had correlations with stronger financial metrics over the sample period. As in last year's study, no causal link was established.

Studies offer two main hypotheses to explain this relationship:

1. More diverse groups make better decisions (Hong et al., 2004)
2. Gender-diverse companies are more effectively utilizing available talent pools (Hunt et al., 2015)

Some scholars also hypothesize that both performance and the propensity to appoint women to the board may reflect some other factor, such as company culture or management quality. In any of these scenarios, we believe that it would take some time for the relationship to fully manifest. Therefore, this year we examined the relationship between female directors and financial metrics over a five-year period.

In our analysis, we began with U.S. companies that were constituents of the MSCI World Index for the entire July 1, 2011 - June 30, 2016 period and identified those that reached the critical "tipping point" of three women on the board in 2011 versus companies that had zero

[5] For example, see "The CS Gender 3000: Women in Senior Management." (2014) and Joy et al. (2011).

[6] A company was designated as having strong female leadership if its board had three or more women, if the percentage of women on the board was above its country average or if it had a female CEO and at least one woman on the board. Companies that had experienced controversies related to diversity were excluded from the definition.

women on their board that year. We then compared the companies' subsequent performance using two financial metrics for the full five-year period.

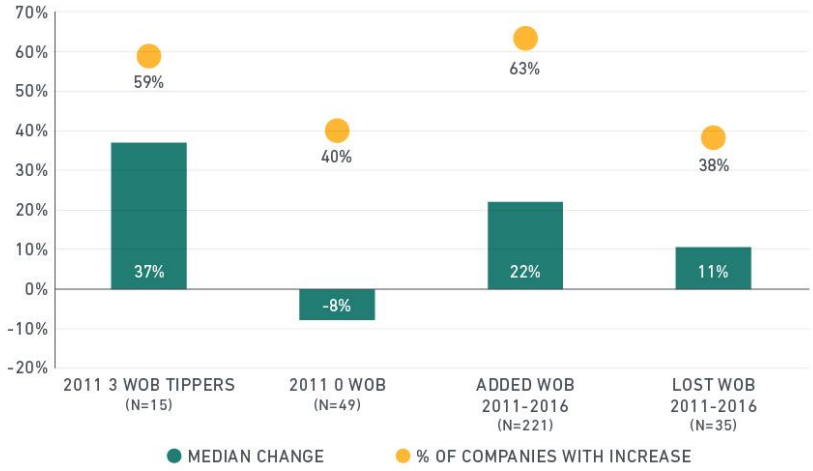
While the findings must be taken with caution because of small sample sizes,[7] the results were nonetheless noteworthy and point to avenues for further research. We found that companies that had reached the tipping point in 2011 experienced median gains in EPS of 37% and in ROE of 10 percentage points over the next five years. In comparison, companies with no women on their boards in 2011 experienced a change in EPS of -8% and in ROE of -1 percentage point over the same time period.

We also analyzed changes in these metrics for companies that added any number of women to their boards from 2011 to 2016 and for companies with a net loss of any number of women from their boards. This comparison is less precise than the above analysis because the companies may have added or lost female directors at any point during the five-year period. However, the comparison may point to some underlying differences between companies that were adding women to the board and those that were losing women from the board.

Although these results must also be taken with caution because of varying sample sizes, we found that companies adding women to the board doubled the performance of those that lost women when looking at the five-year median change in EPS (22% vs. 11%); the difference in ROE change between these two groups was, however, negligible (0% vs. -1%).

[7] Because the sample sizes were so small, we were unable to analyze these metrics relative to sector peers. Among industries whose boards "tipped the scale," Industrials were most overrepresented and Energy was most underrepresented, while Information Technology firms were most overrepresented among the group with no women on the board, compared to the entire analytical set. See Appendix 3 for sector representation statistics among each group as well as the full set of companies.

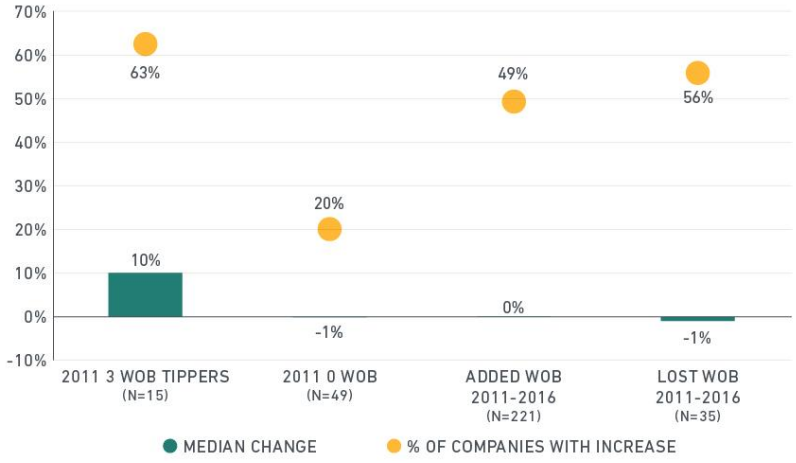
Exhibit 2: Five-Year Earnings Per Share (EPS) by Number of Women Directors



Source: MSCI ESG Research

The chart compares the five-year EPS performance of four groups of companies: 1) those that reached the "tipping point" of three women on the board (WOB) in 2011; 2) those that had zero women on the board in 2011; 3) those that added any number of women between 2011-2016; and 4) those that lost any number of women between 2011-2016.

Exhibit 3: Five-Year Return on Equity (ROE) by Number of Women Directors



Source: MSCI ESG Research

The chart compares the median five-year ROE change (in percentage points) of four groups of companies: 1) those that reached the "tipping point" of three women on the board (WOB) in 2011; 2) those that had zero women on the board in 2011; 3) those that added any number of women between 2011-2016; and 4) those that lost any number of women between 2011-2016.

GENDER DIVERSITY THROUGHOUT THE ORGANIZATION

- Companies with three or more women on the board are likely to have more women among senior executives, including the CEO. In a Financials sector case study, we found that these companies were also better at utilizing available female talent in their locations.
- In Japan, we saw correlations between as few as one or two female directors and more women among management, new hires and the workforce at large.
- Representation of women among the ranks of CEOs and CFOs continues to increase slowly, with more women among CFOs (8.2% of MSCI ACWI Index constituents) than CEOs (3.6%). However, the number of female CFOs among MSCI Emerging Markets Index constituents rose to 7% in 2016 from 3.9% in 2015.

We found that companies that have more women on the board are also more likely to have higher female representation in other senior roles, including the chief executive officer position. Some studies have found that gender diversity among senior executives is correlated with better financial performance (Noland et al., 2012), as we found to be the case for gender-diverse boards. Possible reasons for this are essentially the same as for women on boards.

In Japan, which has adopted new reporting requirements on gender diversity, we found that companies that had more women on their boards also had more women among new hires and the workforce at large. Studies have tied workforce gender diversity to higher employee engagement and lower turnover among both men and women.[8]

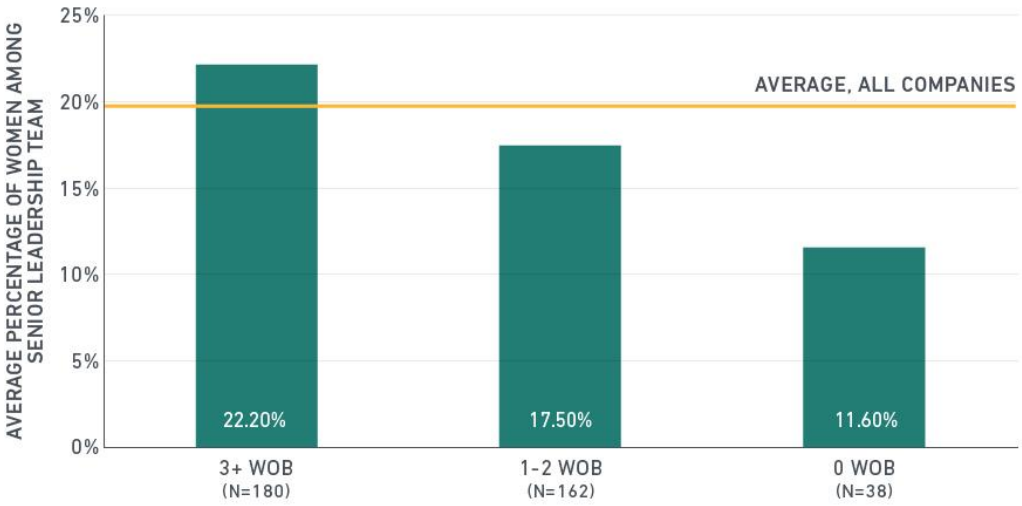
GLOBAL CASE STUDY

We first cast our net globally, analyzing a set of 380 MSCI ACWI Index companies in industries most exposed to talent recruitment and retention risks. These industries fall in the financials, healthcare, real estate, technology and utilities sectors. For these industries, we collected data on female representation among corporate leadership teams, as defined by the companies themselves. Among this set of companies, we found that those with three or more women on the board had a higher average percentage of women on the senior

[8] For example, see Australian Human Resources Institute (AHRI) data in "The business case for gender equality." Kaplan et al. (2011) and "The Costs and Benefits of Diversity: A Study on Methods and Indicators to Measure the Cost-Effectiveness of Diversity Policies in Enterprises." (2003).

leadership team in the most recently reported year than those with fewer than three women on the board. We also found that companies with one or two women directors had a higher average percentage of women in senior leadership than those with no female directors.

Exhibit 4: Number of Women Directors and Percentage of Women on Senior Leadership Team



Source: MSCI ESG Research

The number of women on the board also corresponds to CEO gender. Looking at the entire MSCI ACWI Index universe (2,470 companies) as of September 26, 2016, 8% of constituents with at least three women on the board had female CEOs, while only 2% of constituents with fewer than three female directors had a female CEO.[9]

FINANCIAL SECTOR CASE STUDY

How well do companies with women directors and CEOs draw off the "talent supply" of women available to them? We conducted a deeper review in the financial sector where we had strong female senior management population data for 91 constituent companies of the MSCI ACWI Index in the financial industries.[10] Specifically, we sought to examine not only

[9] Since CEOs often serve on the board of directors, it should be noted that the number of female directors at a company with a female CEO likely includes the CEO within that figure.

[10] The 91 companies analyzed comprised those for which data was available on both women in senior leadership and women on the board.

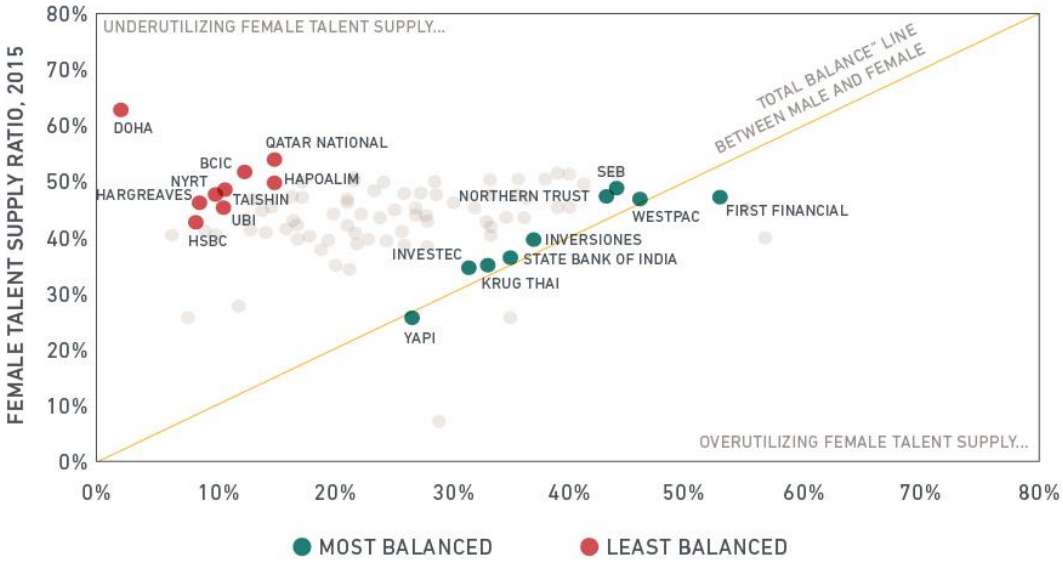
the rate of female representation among senior management but to compare that rate to available talent pools. While women directors do not constitute a critical mass at most of the companies we examined, having a female CEO or having one or two female directors was a strong indicator that the company better accessed the female talent pool.

First, we outlined the "talent supply" balance between men and women. We reviewed female and male workforce participation and tertiary education by country using data from the World Bank and the Organisation for Economic Co-operation and Development (OECD), and then weighted the available talent pools at the country level by company revenues to create a "talent supply" number available to each company for both women and men. Using the "talent supply," we could begin to answer whether and how companies might be utilizing the talent available to them. Those "underutilizing" female talent included firms one might expect, such as **Doha Bank** (women in Qatar are not allowed to work) and a number of firms where there was no obvious explanation, such as **HSBC** (disclosing 24% women in senior management), **Citigroup** (disclosing 22% women in senior management), and **Credit Agricole** (disclosing 21% women in senior management). Among the most notable "balanced" firms were **SEB**, **Investec** and **Yapi ve Kredi**. A more comprehensive analysis and methodology will be available in a future report.

Overall, we found a significant difference between male-led companies and female-led companies in how they utilized female talent:

- Firms with male CEOs were 1.6 times more likely to have a "talent imbalance" – specifically, firms led by male CEOs on average employed 19% more men than their available talent pool would suggest.
- Female CEOs, however, were much more likely to have an even balance, though the sample size for females covered only seven of the 91 companies in our sample set.
- Companies with no women on the board had an average "gap" between supply and utilization rates three times larger than that of companies with three or more female directors.
- Companies with one or two female directors had an average gap about halfway between the other two groups.

Exhibit 5: Talent Utilization in the Financial Sector



Source: MSCI ESG Research

JAPAN CASE STUDY

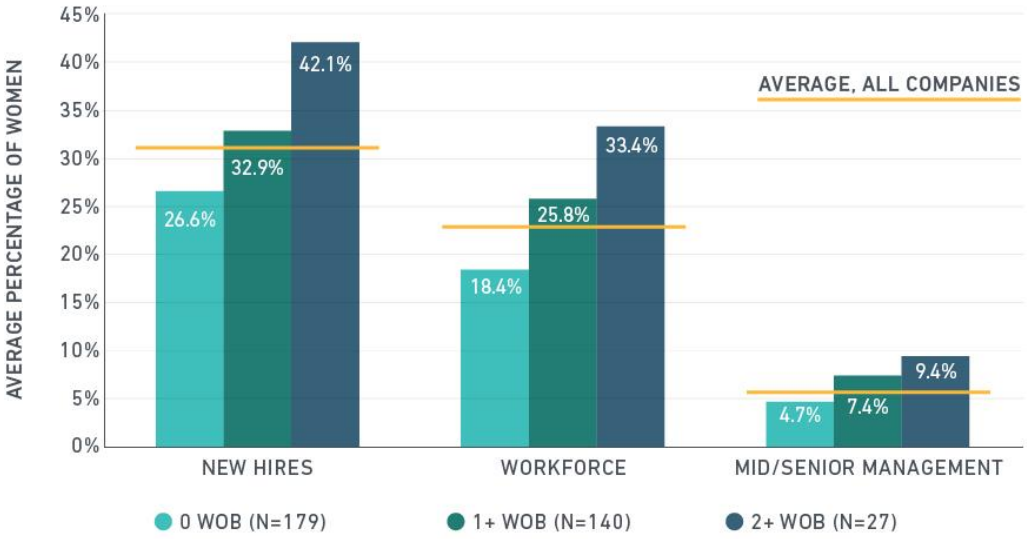
In 2016, the Japanese government adopted rules requiring Japanese companies to report several gender diversity statistics; this measure was part of a broader effort to stimulate the economy by increasing women's workforce participation.[11] This new data set offers the opportunity to examine relationships between women on the board and women in the workforce in a market where gender diversity in the boardroom is still relatively nascent.

Out of 319 Japanese-domiciled constituents of the MSCI ACWI Index, only one (Lawson Inc.) had three women on the board as of September 26, 2016, and more than half (56.1%) had no female directors.[12] Our analysis found that in this context, the presence of even a single woman on the board correlated notably with a higher average percentage of women among management, new hires and the workforce at large. The relationship was even more pronounced for companies with two or more women on the board.

[11] See our 2016 paper "Measuring the Sustainability of Abenomics" for more details on the economic context.

[12] Two Japanese constituents of the MSCI ACWI Index had a female CEO: Trend Micro and McDonald's Holdings Co. (Japan) Ltd. These companies each had one female director.

Exhibit 6: Women on the Board (WOB) and Japanese Women Workers



Source: MSCI ESG Research; Japanese Ministry of Health, Labour and Welfare; and company disclosures

Data from Japanese-domiciled constituents of the MSCI ACWI Index (a subset of the MSCI Japan Index), as of June 20, 2016.

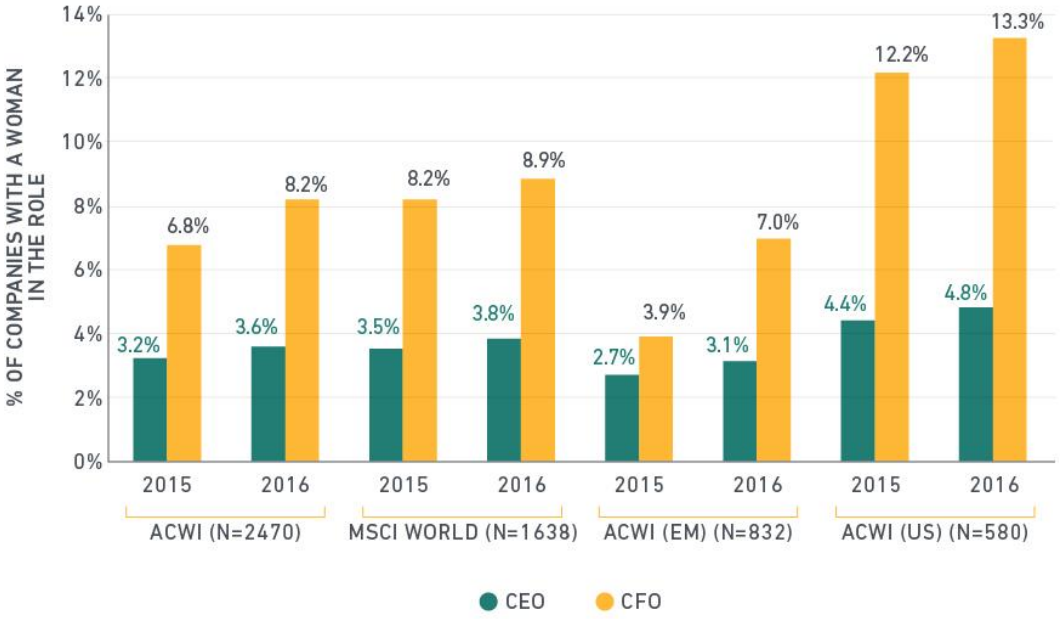
FEMALE CFOS ON THE RISE

While the number of female CEOs remains low among global companies, female chief financial officers are much more common, albeit still relatively few in number. Among MSCI ACWI Index constituents, 89 companies (3.6%) had a female CEO as of September 26, 2016. In comparison, there were 203 women CFOs among MSCI ACWI Index constituents (8.2% of the total).

The number of female CFOs in emerging markets jumped in the past year, rising to 7% (58 companies) in 2016 from 3.9% in 2015.

In the U.S., the number of women CFOs grew to 13.3% (77 companies) in 2016 from 12.2% in 2015. However, the change in the number of women in the top job grew only slightly in the past year, reaching 4.8% of MSCI USA Index companies (28 firms).

Exhibit 7: Global Trends in Female CEOs and CFOs



Source: MSCI ESG Research

The chart shows the percentage of women among CEOs and CFOs for the MSCI ACWI Index, the MSCI World Index, the MSCI Emerging Markets Index and the U.S.-domiciled constituents of the MSCI ACWI Index (a subset of the MSCI USA Index).

FEMALE EXECUTIVES AND THEIR BOARDS

As noted in our 2015 report, companies with a female CEO are far more likely to have a critical mass of women on the board than those with a male CEO. Among the 89 MSCI ACWI Index constituents that had a female CEO as of September 26, 2016, 60.7% also had at least three women on the board (versus 26% of companies with male CEOs).[13] Companies with a female CFO were also substantially more likely to have at least three female directors (45.3% vs 21.8% of companies with male CFOs). In contrast, it is rare, though not unheard of, for a company with a female CEO to have no women on the board: in 2016 this was the case for

[13] As noted previously, since CEOs often serve on the board, the count of directors typically includes the CEO.

only two of the 89 (Far EasTone Telecommunications and OBI Pharma, both Taiwanese companies).

CONCLUSION

U.S. companies reaching the tipping point of three women on the board in 2011 outperformed those that began the period with no women on the board over the next five years. The companies that reached this critical mass of female directors experienced median changes in EPS of +37% and in ROE of +10 percentage points, while those starting with no female directors experienced median change over the July 1, 2011 - June 30, 2016 period of -8% in EPS and -1 percentage point in ROE. While we note the correlation, we do not posit a causal link.

Academic studies have tied diversity in various groups to higher levels of creativity and better decision-making. They have also tied gender diversity in the workforce to higher employee engagement and reduced turnover for both male and female employees. Greater gender diversity also suggests better use of the available talent which beneficial for economies as well as companies.

Our research shows that companies around the world with a critical mass of female directors tended to have more gender-diverse leadership teams and were more likely to have a female CEO. Additional tests further suggested such companies were more effectively tapping available female talent supplies throughout the organization. Thus, the presence of at least three women directors may be seen as a doubly positive indicator: of a better-performing company and of a more functional organization overall. In short, having more women directors may lead to a virtuous cycle.

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APPENDIX 1: COUNTRY AND INDEX STATISTICS

In markets where companies maintain more than one board, management and audit boards are omitted, so that all director counts are focused on either "board of directors" or "supervisory board" membership, in keeping with MSCI ESG Research's existing standards for treating corporate governance systems that employ more than one active board.

% Women on Boards				
Country	2016 n=	2016 %	2015 n=	2015 %
Australia	71	25.8%	68	24.6%
Austria	5	20.9%	5	25.0%
Belgium	10	27.7%	11	25.5%
Brazil	56	5.8%	62	6.0%
Canada	94	22.8%	93	21.5%
Chile	20	7.7%	21	5.0%
China	115	8.6%	103	9.1%
Colombia	8	15.0%	11	11.4%
Czech Republic	3	5.1%	2	9.5%
Denmark	15	21.4%	13	28.8%
Egypt	3	5.0%	3	4.3%
Finland	12	30.2%	12	31.5%
France	70	37.6%	72	34.2%
Germany	53	26.7%	50	22.4%
Greece	9	16.2%	8	11.8%
Hong Kong	79	10.6%	81	10.4%
Hungary	3	3.1%	3	2.9%
India	73	12.8%	70	11.4%
Indonesia	31	2.8%	30	5.7%
Ireland	22	20.4%	19	21.1%
Israel	11	21.8%	10	20.0%
Italy	19	32.7%	22	29.2%
Japan	319	4.8%	315	4.0%
Korea	101	2.4%	102	2.1%
Luxembourg	5	18.6%	4	17.4%
Malaysia	43	15.3%	42	13.8%
Mexico	28	7.2%	29	5.6%
Netherlands	28	19.1%	26	24.2%
New Zealand	7	29.6%	6	31.3%
Norway	9	39.3%	7	36.4%
Peru	2	0.0%	2	0.0%
Philippines	23	9.5%	21	8.7%
Poland	23	10.9%	24	19.0%
Portugal	3	9.1%	4	7.2%
Qatar	13	1.7%	13	0.9%

Russia	20	7.0%	20	5.9%
Singapore	28	11.2%	28	9.7%
South Africa	53	18.6%	53	18.9%
Spain	24	20.6%	26	16.1%
Sweden	29	35.9%	29	35.1%
Switzerland	42	17.1%	44	14.7%
Taiwan	90	6.9%	95	4.2%
Thailand	31	11.2%	29	9.0%
Turkey	24	11.6%	25	7.9%
United Arab Emirates	11	3.1%	10	1.1%
United Kingdom	114	25.5%	112	24.4%
United States	580	20.3%	603	19.1%
MSCI ACWI	2432	16.0%	2438	15.0%
MSCI World	1615	19.4%	1621	18.1%
MSCI EM	817	9.0%	817	8.4%

3+ Women on Boards

Country	2016 n=	2016 %	2016 With Female CEO	2016 With Male CEO or unknown	2015 n=	2015 %	2015 With Female CEO	2015 With Male CEO or unknown
Australia	71	33.8%	8.3%	91.7%	68	27.9%	10.5%	89.5%
Austria	5	60.0%	0.0%	100.0%	5	60.0%	0.0%	100.0%
Belgium	10	80.0%	12.5%	87.5%	11	72.7%	12.5%	87.5%
Brazil	56	0.0%	NA	NA	62	0.0%	NA	NA
Canada	94	50.0%	4.3%	93.6%	93	43.0%	7.5%	92.5%
Chile	20	10.0%	0.0%	100.0%	21	0.0%	NA	NA
China	115	7.0%	12.5%	87.5%	103	7.8%	0.0%	87.5%
Colombia	8	12.5%	0.0%	100.0%	11	0.0%	NA	NA
Czech Republic	3	0.0%	NA	NA	2	0.0%	NA	NA
Denmark	15	60.0%	11.1%	88.9%	13	61.5%	0.0%	100.0%
Egypt	3	0.0%	NA	NA	3	0.0%	NA	NA
Finland	12	50.0%	0.0%	100.0%	12	41.7%	0.0%	100.0%
France	70	98.6%	2.9%	97.1%	72	94.4%	1.5%	98.5%
Germany	53	73.6%	0.0%	100.0%	50	60.0%	0.0%	100.0%
Hungary	9	22.2%	0.0%	100.0%	8	12.5%	0.0%	100.0%
India	79	15.2%	8.3%	91.7%	81	16.0%	15.4%	84.6%
Indonesia	3	0.0%	NA	NA	3	0.0%	NA	NA
Ireland	22	36.4%	0.0%	100.0%	19	36.8%	0.0%	100.0%
Israel	11	45.5%	20.0%	80.0%	10	40.0%	25.0%	75.0%
Italy	19	94.7%	0.0%	100.0%	22	86.4%	0.0%	100.0%
Japan	319	0.3%	0.0%	100.0%	315	1.0%	0.0%	100.0%
Korea	101	1.0%	0.0%	100.0%	102	1.0%	0.0%	100.0%
Luxembourg	5	40.0%	0.0%	100.0%	4	25.0%	0.0%	100.0%
Malaysia	43	9.3%	25.0%	50.0%	42	7.1%	0.0%	66.7%

Mexico	28	10.7%	0.0%	100.0%	29	6.9%	0.0%	100.0%
Netherlands	28	46.4%	0.0%	100.0%	26	26.9%	0.0%	100.0%
New Zealand	7	42.9%	0.0%	100.0%	6	50.0%	0.0%	100.0%
Norway	9	100.0%	0.0%	100.0%	7	100.0%	0.0%	100.0%
Peru	2	0.0%	NA	NA	2	0.0%	NA	NA
Philippines	23	4.3%	0.0%	100.0%	21	4.8%	0.0%	100.0%
Poland	23	30.4%	0.0%	85.7%	24	25.0%	0.0%	83.3%
Portugal	3	0.0%	NA	NA	4	0.0%	NA	NA
Qatar	13	0.0%	NA	NA	13	0.0%	NA	NA
Russia	20	10.0%	NA	NA	20	10.0%	0.0%	100.0%
Singapore	28	10.7%	33.3%	66.7%	28	7.1%	50.0%	50.0%
South Africa	53	39.6%	4.8%	85.7%	53	49.1%	3.8%	96.2%
Spain	24	62.5%	6.7%	93.3%	26	34.6%	0.0%	100.0%
Sweden	29	86.2%	12.0%	88.0%	29	82.8%	4.2%	95.8%
Switzerland	42	28.6%	0.0%	100.0%	44	18.2%	0.0%	100.0%
Taiwan	90	4.4%	50.0%	50.0%	95	2.1%	0.0%	50.0%
Thailand	31	19.4%	16.7%	83.3%	29	13.8%	25.0%	75.0%
Turkey	24	12.5%	0.0%	100.0%	25	4.0%	0.0%	100.0%
United Arab Emirates	11	0.0%	NA	NA	10	0.0%	NA	NA
United Kingdom	114	57.0%	7.7%	90.8%	112	46.4%	3.8%	94.2%
United States	580	34.1%	13.1%	86.9%	603	28.4%	12.3%	87.7%
MSCI ACWI	2432	27.4%	8.1%	91.0%	2438	23.5%	6.6%	92.3%
MSCI World	1615	36.4%	7.8%	91.9%	1621	31.2%	6.7%	93.1%
MSCI EM	817	9.5%	10.3%	84.6%	817	8.2%	6.0%	86.6%

APPENDIX 2: GLOBAL MANDATES SUMMARY

GENDER QUOTAS FOR PUBLIC COMPANIES

Market	Requirement, type	Requirement	Requirement, other	Year Introduced	Due Date
Belgium	Mandatory	33%		2011	2017
Denmark	Comply or explain	40%	set targets	2013	n/a
Finland	Comply or explain		at least one	2008	2010
France	Mandatory	40%		2010	2016
Germany	Mandatory	30%		2015	2016
Iceland	Mandatory	40%		2009	2013
India	Mandatory		at least one	2013	2015
Israel	Mandatory		at least one	1999	n/a
Italy	Mandatory	33%		2011	2015
Malaysia	Mandatory	30%	for new appointments	2011	2016
Netherlands	Comply or explain	30%		2013	2016
Norway	Mandatory	40%		2003	2008
Spain	Comply or explain	40%		2007	2015
UAE	Mandatory		at least one	2012	n/a

GENDER QUOTAS FOR STATE-OWNED COMPANIES (WHERE DIFFERENT)

Market	Requirement
Austria	35%
Columbia	30%
Denmark	50%
Finland	40%
Greece	33%
Iceland	50%
Israel	50%
Kenya	33%
Quebec	50%
Slovenia	40%
South Africa	30%
Switzerland	30%
Taiwan	33%

PENDING QUOTAS

Market	Requirement
EU	40%
Brazil	40% by 2022
Canada	40%
South Africa	50%

APPENDIX 3: TIPPERS AND ZERO WOB SECTOR DISTRIBUTION

Sector*	Tippers	% of Tippers	0 WOB	% of 0 WOB	All	% of All
Consumer Discretionary	3	20%	9	18%	87	16%
Consumer Staples	2	13%	1	2%	39	7%
Energy	0	0%	7	14%	45	8%
Financials	3	20%	8	16%	94	18%
Health Care	0	0%	0	0%	50	9%
Industrials	3	20%	7	14%	70	13%
Information Technology	2	13%	13	27%	74	14%
Materials	1	7%	3	6%	32	6%
Telecommunication Services	0	0%	1	2%	10	2%
Utilities	1	7%	0	0%	31	6%
TOTAL	15	100%	49	100%	532	100%

**The analysis was completed based on GICS® sector designations prior to the separation of Real Estate as an individual GICS sector. GICS is the global industry classification standard jointly developed by MSCI and Standard & Poor's.*

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