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Research Institute

Thought leadership from Credit Suisse Research and the world's foremost experts

The CS Gender 3000: Women in Senior Management

Contents

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Editorial

In the two years since the Credit Suisse Research Institute published its Gender Diversity and Corporate Performance report, there has been a notable increase in academic research and debate as to whether diversity at the board level is reflected in improved corporate financial performance. Given the ongoing focus on the topic, we have decided to revisit our analysis and seek to establish, not just whether greater diversity *and* enhanced financial performance still holds in a post-crisis world, but also to consider what happens below the boardroom—at a senior-management level. We may have seen more diverse boardrooms emerging, but how diverse are top management teams?

Our research team has undertaken the unique and significant exercise of identifying and mapping more than 28,000 senior managers at over 3,000 companies actively covered by Credit Suisse analysts worldwide – The Credit Suisse Gender 3000. This enables a deeper analysis of diversity and its impact at a new day-to-day operational level rather than just the supervisory benefits of the boardroom. As much as the proportion of women in senior management, we can examine the nature of the roles women fulfill by country and by sector.

Some of the findings of our initial report are confirmed – greater diversity in boards and management are empirically associated with higher returns on equity, higher price/book valuations and superior stock price performance. However, new findings emerge from this added management analysis – we find no evidence that female led companies reflect greater financial conservatism where leverage is concerned. Also, dividend payout ratios have been shown to be higher. Female CEOs have proven to be less acquisitive than men when assuming the leadership position. The analysis makes no claims to causality though the results are striking.

While the study shows that the proportion of women in senior management is similar to that on the boards of companies, their roles are arguably skewed towards areas of less influence or offer less opportunity to move into the most senior positions in a company. The “**Management Power Line**” reveals the lowest female representation at the CEO level rising gradually through Business Management and Operational roles, CFO and Strategy and, finally, to Shared Services where their positions are most concentrated. We also find that female representation is higher in “New Economy” companies and in “Non-Manual Labor” (mostly services) companies. While we see female under-representation and management gaps across varying sectors, country and cultural factors are far more influential.

Against this backdrop, what can drive further improvements? There has admittedly been progressive legislation in Europe, but little has happened in the US and diversity levels remain low in most of Asia. The report considers a number of the prevailing obstacles, specifically at mid-management and senior levels and suggests some policy initiatives that could support further progress. However, our research underlines that the trend towards greater gender equality in the workforce and in top-management is consistent with and supported by powerful logic. It is not a case of a greater ability of one gender versus the other but that a more diverse group makes for better decision making and corporate performance. The speed with which change is embraced will prove to be the most important and challenging variable.

Urs Rohner, Chairman, Credit Suisse
Brady Dougan, Chief Executive Officer, Credit Suisse
Iris Bohnet, Professor of Public Policy, Harvard University and Board Member, Credit Suisse

The Credit Suisse Gender 3000

Is gender diversity to the benefit of all stakeholders? We extend our analysis of board structure and corporate performance to consider senior management representation, introducing the Credit Suisse Gender 3000.

Julia Dawson, **Richard Kersley** and **Stefano Natella**

Letting the data speak

Since our initial research report of August 2012, Gender diversity and corporate performance, the focus on diversity within corporate management teams and its perceived benefits has become an even more debated topic. A specific spotlight has been shone on the issue by the disclosure of low diversity levels at leading Silicon Valley companies during summer 2014. While much of the focus continues to center on the equality or fairness argument, we believe that the question should be whether diversity is to the benefit of not just women themselves, but also to the benefit of other stakeholders, corporates, investors and the wider economic environment.

Hence, in this second report, we have revisited the statistical analysis we previously conducted to objectively assess whether there is a business and, importantly, investment case that supports greater gender diversity. Do our prior observations still hold true in the world post the financial crisis? To take the analysis a step further, we looked beyond the issue of how differing female representation in board structures may impact financial metrics to consider senior management representation.

To do this, we have created a proprietary database from Credit Suisse's global company research coverage, amounting to more than 3,000 companies across 40 countries and all major sectors—"The Credit Suisse Gender 3000 (CSG 3000)." It tracks, by company, industry and region, the gender mix across the key senior management roles of CEO, CFO, Operations and Shared Services. Our initial focus on board structure was understandable not least because it was the prime focus for regulators and policy makers. However, the reality is boards supervise but do not necessarily manage companies. The key is whether a diverse board structure is mirrored in a diverse management team.

Caveats and causality

While our statistical findings suggest that diversity does coincide with better corporate financial performance and higher stockmarket valuations, we acknowledge that we are not able to answer the causality question and this is an important caveat to the observations below in the report. Do better companies hire more women, do women choose to work for more successful companies, or do women themselves help improve companies' performance? The most likely answer is a combination of the three. But, we would argue from our analysis that women in management are more of an influence on corporate performance than simply women in the boardroom, if still lacking a sufficient timeline of management diversity data to make broader claims of definitive causality. We will continue to examine the issue in future research.

It is crucial to stress that the analysis that we conduct in the report is not about judging the ability of one gender versus another but the importance of diversity in decision-making. A fascinating study led by Professor Anita Woolley at Carnegie Mellon's Tepper School of Business shows that it is not the greatest ability that leads to the best answer or outcome. Within a group working together, the presence of a woman within the group is one of the key factors that influences the group's collective "intelligence" or in other words the ability of the group to make successful decisions. Skill sets are different, one is not necessarily better than another, but enabling seems as important as being able. This was also a key message of our initial report.

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What are the key findings from our analysis?

- Board diversity has increased in almost every country and every sector, progressing from 9.6% in 2010 to 12.7% at the end of 2013. Female participation in top-management (CEO and directors reporting to the CEO) stands at 12.9% at the end of 2013, but varies considerably from sector to sector and country to country. Countries where board quotas were enforced show among the biggest gaps between the level of representation of women in the board and in top management.
- Regional differences in diversity, perhaps cultural in nature, are more striking than those at a sector level. There is also a positive correlation between market capitalization of a company and the level of gender diversity at both the board level and in top management. Small company management tends to be less diverse. The increasing trend towards global business models among corporates and the fact that large market cap companies tend to be predominantly global should help close the gender gap.
- The participation of women in top management tends to be skewed towards areas of less influence and with lower promotion opportunities. The "Management Power Line" (Figure 1) shows the lowest female representation at the CEO level and growing gradually as we move from there toward Business Management and Operational roles, CFO and Strategy and finally Shared Services. We also find that female representation is higher in "New Economy" companies and in "Non-Manual Labor (mostly services) companies.
- Companies displaying greater board gender diversity display excess stockmarket returns adjusted for sector bias. Companies with more than one woman on the board have returned a compound 3.7% a year over those that have none since 2005. The excess return has moderated since our initial report. Over the last two and a half years, the excess return is a compound 2.0% a year. We find also that companies with higher female representation at the board level or in top management exhibit higher returns on equity, higher valuations and also higher payout ratios.
- On a widely used risk metric—the debt to equity ratio—we find almost no difference between companies with no women on the board and those with at least one woman on the board in terms of their appetite for debt; in fact, we note that companies with more than 15% of women in the top management show significantly higher debt to equity ratios, compared to those with less than 10%. This may confound some who have suggested women operate an inherently risk averse approach. We find little evidence to support this where debt is concerned.
- An analysis of acquisitions and disposals in Europe and the US reflects less acquisitive behavior by the company after the appointment of a female CEO than before. Disposals have also been greater. However, we have found no evidence to suggest that the return on acquisitions related to the price paid is superior for female CEOs than male.
- We see three main obstacles to achieving greater gender diversity: cultural biases; workplace-related biases; and structural/policy issues. We analyze each one of these in detail and dispel some of the most commonly accepted justifications for a "natural" gender gap. We find cultural and education issues the most challenging to overcome in the short term and we believe that policy—but not quotas—can improve the current situation significantly. The Scandinavian model in areas like paternal leave of absence, for example, has produced positive changes in terms of increased representation of women in the work force at all levels.
- We analyze the impact of quotas in driving higher gender diversity. We find that these have not had significant impact yet beyond the boards. Arguably quotas have led to "tokenism" in some areas rather than an opportunity to create a better management structure. Yet, we think that the introduction of quotas has generated a healthy debate and led companies and policy makers to consider other measures to improve the gender gap. We believe that rather than setting quotas, regulators should consider improving transparency on this issue by requiring publicly traded companies to disclose the gender diversity numbers at the different levels of the organizational structure or at the very least at the top management level.

Figure 1
The Management Power Line

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The new boards

There has been a trend of improved female representation on the boards of companies. Rightly or wrongly, quotas have played a role. However, sizeable regional differences exist—more so than at an industry level. The globalization of larger companies—an ongoing trend—may help close this gap.

A new approach

In our last report, to assess the changing and contrasting make-up of the boards of companies, we took aggregated data for approximately 2,400 companies making up the MSCI ACWI index. However, for this report we have broadened the data-set by switching to the coverage reflected in the CSG 3000. This brings together data for over 26,000 company directors worldwide including 3,400 women directors at YE2013, a global average of 12.7%.

We have switched our analysis away from absolute numbers of women on boards to a relative or percentage view by assembling data for each of the companies of the number of men as well as women on the board of the company. We believe this provides a more meaningful measure of how much influence women can exert within the boardroom. Moreover, by focusing on relative rather than absolute values, we can see whether the response to the call for board diversity has simply been to add a woman while also adding an additional man at the same time, in turn diluting genuine progress to improved diversity. Comfortingly, we do find progress driven by more than just statistical manipulation or "tokenism."

As the debate about diversity has picked up pace, so too has the increase in female board representation as Table 1 confirms. Even between 2012 and 2013, we have seen a significant drop from 39% to 34% in the number of companies, globally, without any women on their boards, most notably in EMEA, Latin America and Asia (see Tables 5 and 7). Europe, with quota and target initiatives (we show more on this later), is the furthest down the path of diversity with 19% of boards having 30% or more female directors and only 10%, having zero female representation. Over 50% of European companies have more than 20% women on boards, almost double the level in North America. Again this probably stems from the European policy initiatives.

Now that many countries have met diversity targets in Europe, the challenge is what they will do next. Having met their requirements, will they stop here, or will they further extend the progress towards higher board diversity started a few years ago? As of May 2014, with the appointment of Patrice Merrin to the board of Glencore, the FTSE 100 index had met the Davies Report target of 25% and all the companies covered in the CSG 3000 in Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Portugal and

Table 1

Percentage of women on boards by country

Source: Credit Suisse Research – sample size 27,000 directors

	2010	2011	2012	2013
Global average	**9.6%**	**10.3%**	**11.3%**	**12.7%**
Australia	10.8%	13.7%	15.5%	17.5%
Austria	11.4%	14.0%	14.4%	17.6%
Belgium	15.2%	15.8%	18.9%	23.2%
Brazil	5.6%	6.1%	5.7%	6.5%
Canada	12.5%	13.5%	14.9%	15.9%
Chile	2.3%	3.0%	3.7%	4.7%
China	8.8%	9.0%	9.6%	10.7%
Czech Republic	6.3%	9.7%	6.3%	6.3%
Denmark	16.9%	18.2%	20.6%	25.0%
Finland	26.4%	24.5%	27.0%	29.5%
France	16.1%	21.6%	25.1%	29.6%
Germany	11.8%	14.0%	18.5%	23.0%
Greece	11.5%	10.6%	10.4%	14.3%
Hong Kong SAR	8.9%	9.3%	9.7%	10.8%
India	5.5%	5.8%	6.2%	6.7%
Indonesia	5.9%	5.6%	6.1%	5.0%
Ireland	8.6%	7.4%	7.3%	12.3%
Israel	18.5%	11.5%	15.4%	18.2%
Italy	5.5%	4.6%	9.2%	17.5%
Japan	0.9%	1.1%	1.2%	1.6%
Kazakhstan	6.3%	6.3%	12.0%	16.0%
Malaysia	8.0%	8.6%	10.0%	10.9%
Mexico	7.6%	7.7%	6.5%	5.3%
Netherlands	17.2%	19.2%	22.3%	24.5%
New Zealand	15.6%	19.6%	21.3%	19.6%
Norway	36.6%	38.7%	37.2%	39.7%
Pakistan	2.4%	2.2%	2.5%	1.5%
Philippines	10.5%	9.8%	10.1%	11.9%
Poland	9.5%	9.5%	11.9%	16.3%
Portugal	3.1%	6.5%	7.3%	6.9%
Russia	6.8%	7.1%	7.7%	8.1%
Singapore	7.9%	8.0%	8.6%	7.9%
South Africa	18.1%	17.8%	18.8%	20.0%
South Korea	0.7%	0.9%	0.7%	2.4%
Spain	10.5%	11.1%	12.9%	13.7%
Sweden	28.9%	27.8%	27.3%	30.3%
Switzerland	8.6%	8.9%	9.3%	11.3%
Taiwan	2.8%	2.8%	2.8%	2.8%
Thailand	11.2%	11.6%	11.7%	10.0%
Turkey	8.2%	9.2%	8.5%	6.6%
Ukraine	6.7%	6.7%	6.7%	6.7%
UK	10.1%	11.9%	15.5%	17.9%
US	12.7%	12.8%	13.3%	13.7%

Sweden had at least one female director. Israel is the only other country to have at least one female director at all the companies covered, and again this has been driven by diversity legislation passed as far back as 1999. We would note that Portugal has the lowest ratio of female directors at 6.9% at YE13, followed by Switzerland at 11.3%.

In contrast to trends elsewhere, we would flag companies in Developed Asia (i.e. Japan, Australia, New Zealand, Singapore), which are still more likely not to have a female director than to have one,

although this is largely dictated by Japan which has just 1.6% women directors. In Australia, for example, women now comprise 17.5% of directors but still only 8% in Singapore. We see limited progress in EMEA, perhaps an indication of cultural impediments and the larger proportion of natural resource companies in the market. While the 48% of companies, globally, that had fewer than 10% women on boards in 2012 has fallen to 40% in 2013, it is still a very material number. There is still considerable progress to be made outside North America and Europe.

Table 2

Percentage of women on boards by industry

Source: Credit Suisse Research

	2010	2011	2012	2013
Consumer Discretionary	10.6%	11.3%	12.4%	13.4%
Consumer Staples	13.3%	14.2%	14.9%	16.3%
Energy	6.7%	7.7%	8.3%	9.4%
Financials	11.3%	12.0%	13.0%	14.8%
Healthcare	11.7%	12.4%	12.9%	14.1%
Industrials	7.8%	8.7%	9.9%	11.0%
Materials	6.8%	7.7%	8.6%	10.0%
Technology	8.1%	8.4%	9.0%	10.9%
Telecoms	11.1%	11.0%	12.4%	14.2%
Utilities	10.6%	11.0%	12.0%	14.4%
Total	**9.6%**	**10.3%**	**11.3%**	**12.7%**

Table 3

Market capitalization and women on the board

Source: Credit Suisse Research

	Number of women on the board				Average M Cap
	0	1	2	>=3	
Telecommunication Services	19,729	26,013	21,301	44,254	25,943
Energy	16,968	20,773	44,277	31,257	25,616
Consumer Staples	11,266	10,845	21,888	45,650	22,156
Consumer Discretionary	11,259	14,743	21,202	23,824	16,491
Technology	9,111	25,718	38,767	65,494	23,384
Financials	8,500	12,259	18,563	35,296	17,737
Utilities	8,308	7,802	11,190	20,019	11,692
Health Care	8,112	14,417	39,907	52,921	26,587
Materials	7,759	8,971	18,784	16,742	11,422
Industrials	7,692	11,104	16,777	27,224	12,952
Total	**9,891**	**14,569**	**23,295**	**34,268**	**18,161**

If we look at the data from an industry rather than a country or regional perspective (Tables 4 and 6), we also see a marked drop in the proportion of companies having zero female representation in all sectors. The decline in the global average has been driven by the declines in technology, 10%; utilities, 8%; telecoms, 7.5%; and materials, 6.5%. Correspondingly, we are seeing large numbers of companies increasing the percentage of female directors into the 20-30% bracket and above, so that 24% of companies have had more than 20% female directors by 2013 compared to 20% the previous year. Tables 1 and 2 show the general shift towards both the introduction and increasing of women directors at the board level.

Looking at the representation of women in each sector (Table 2) both in 2010 and 2013, we see little change in the relative rankings and, as we found in our 2012 report and as other research confirms, diversity is greatest in sectors at the consumer end of the supply chain, typically more defensive

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plays. We also note that financials have moved from third place with 11.3% female directors to second place at 14.8% and consider whether this reflects greater conservatism post the financial crisis. But at the low end of diversity rankings on our data, we are not surprised to find the producer-end sectors, materials and energy maintaining their bottom two positions with 10% at best.

We discuss the reasons for this in a later section of this report, but while the tech sector has improved the ratio of female directors by over 35.8% to 10.9%, the energy sector by 38% to 9.4% and materials by 47% to 10%, these sectors still have some way to go to reach overall averages. Close to 40% of these companies still have no female directors, and over 60% of energy companies and 58% of materials companies have less than 10% female representation.

Within the data for materials, there is a specific degree of irony where the mining companies are concerned. The female participation in boards is particularly low. It begs the question of whether women are prepared enough or have the relevant experience to be on the board of a mining company or whether the pipeline is just too weak. However, we would note these levels coincide with an in-depth analysis by PWC and Women in Mining—"Mining for Talent 2014." This showed that only 32% of the men on the board of mining companies have engineering or geology degrees and that there was no correlation between engineers on their boards and their financial performance.

Table 4

Percentage of women on boards by sector 2013

Source: Credit Suisse Research

	0	<10%	10 – 20%	20 – 30%	>30%
Consumer Discretionary	32.4	9.0	32.9	16.7	9.0
Consumer Staples	29.8	7.5	26.1	22.4	14.3
Energy	43.5	15.1	28.0	8.8	4.6
Financials	24.2	13.1	34.0	19.7	9.0
Healthcare	27.9	5.6	35.3	23.3	7.9
Industrials	38.8	12.3	30.1	14.4	4.4
Materials	41.7	12.5	30.8	11.9	3.1
Technology	40.8	7.9	32.1	15.8	3.4
Telecoms	34.1	12.2	22.0	20.7	11.0
Utilities	21.4	16.5	32.0	23.3	6.8
Total	**33.7**	**11.1**	**31.4**	**16.9**	**6.9**

Table 5

Percentage of women on boards by region 2013

Source: Credit Suisse Research

	0	<10%	10 – 20%	20 – 30%	>30%
North America	24.7	11.0	39.6	18.6	6.0
Europe	10.3	6.3	31.4	32.8	19.2
EMEA	39.6	10.4	29.2	15.1	5.7
Latam	56.0	13.1	19.0	10.7	1.2
Developed Asia	54.0	11.1	24.3	8.7	1.9
Emerging Asia	49.5	17.2	23.3	6.7	3.3
Total	**33.7**	**11.1**	**31.4**	**16.9**	**6.9**

Table 6

Percentage of women on boards by sector 2012

Source: Credit Suisse Research

	0	<10%	10–20%	20–30%	>30%
Consumer Discretionary	36.8	7.2	30.2	17.9	7.9
Consumer Staples	31.0	6.9	29.3	21.8	10.9
Energy	46.9	13.9	31.4	3.7	4.1
Financials	31.0	13.1	33.3	16.0	6.7
Healthcare	29.5	8.5	39.5	18.0	4.5
Industrials	43.1	10.8	29.1	13.8	3.3
Materials	47.4	12.5	27.9	10.6	1.6
Technology	50.7	6.5	27.1	13.7	2.0
Telecoms	41.6	9.0	20.2	19.1	10.1
Utilities	29.7	14.4	33.1	19.5	3.4
Total	**39.2**	**10.4**	**30.5**	**14.7**	**5.1**

Table 7

Percentage of women on boards by region 2012

Source: Credit Suisse Research

	0	<10%	10–20%	20–30%	>30%
North America	28.7	9.0	38.0	18.1	6.2
Europe	15.4	8.2	36.6	26.6	13.2
EMEA	41.4	9.1	27.3	17.2	5.1
Latam	58.3	8.3	25.8	7.6	0.0
Developed Asia	57.4	11.3	23.0	8.2	0.2
Emerging Asia	56.1	15.1	20.4	5.9	2.4
Total	**39.2**	**10.4**	**30.5**	**14.7**	**5.1**

One important message arises when comparing sectors and countries. It is at a country and regional level that we see the greater differences in representation rather than between sectors. Country factors, and arguably cultural ones, outweigh global industry issues, notwithstanding the example of mining. Consistent with our analysis, research by Freeman, Kruse and Blasi[1] shows similar findings. However, there is a potential positive dynamic that can change this.

We believe that as the global economy becomes more and more integrated and companies become more and more global in their client base and management, the sector pull will gradually lead the way and force cultural change. This is further supported by the correlation that exists between market capitalization and the number of women on boards. Large capitalization companies are leading the increase in female representation. The development of new sectors and industries will also help this process as preconceived ideas and biases tend to be less. We will discuss this in more detail later.

1 Freeman, Kruse and Blasi 2008: The Same Yet Different; Worker Reports on Labor Practices and Outcomes in a Single Firm across Countries

The Management Power Line

Using our **Credit Suisse Gender 3000** database, we can judge the level of diversity at a top management level. Female representation overall is similar to that at board levels but their sphere of influence and potential for progression are inhibited by a severe skewing in roles away from the CEO and Operational roles to that of Shared Services.

PHOTO: SHUTTERSTOCK.COM/BIKERIDERLONDON

Supervision versus leadership

So, the news on the representation of women on boards appears good: the trend is up in almost every country and every sector. Yet, these numbers need to be looked into with more detail. If we look at the companies comprising the FTSE 100 and S&P 500 indices, male CEOs outweigh females by 20 to 1 and UK male executive directors outnumber female executive directors by 10 to 1.

While we do not want to dismiss or belittle the change that has happened at the board level country by country, or its positive impact, we would feel more reassured if the presence of women at the board level was matched by their representation in top management. Are there similar changes in the areas which have day to day influence on business strategy as well as those in the areas of supervision, as we referred to earlier?

Within the CSG 3000, we have grouped senior management by country and sector into four categories to analyze their actual roles and influence: CEO, CFO and strategy roles (including IR), Shared Services (HR, Legal, IT, External Relations) and Operations (Business Unit heads). We are only able to show a snapshot, though this will be a valuable starting point to track over time.

As Figure 2 highlights, at an aggregate level, the overall representation of women in senior management positions is in fact pretty comparable with that of the board data—12.9% versus 12.7% or 15.3% and 14.1% excluding Japan and South Korea. However, there is a notable contrast in terms of the nature of the responsibilities held. In all regions, and in 18 out of 25 sectors (see Table 10), women have significantly greater representation in Shared Services rather than CEO or Operational roles. These positions can carry less influence and typically have less P&L responsibility. We would add that Shared Services includes technology functions which we know women to be poorly represented in, suggesting these positions are heavily skewed to legal and human resources functions.

This might reflect pipeline causes (as we will see later) or vocational preferences. Such roles arguably also offer less potential to step up to board level or the CEO role. CEO roles remain a male preserve, with women representing only 4%. The CFO/Strategy category is better represented though this does include Investor Relations which carries a greater female representation than the more senior position of CFO itself. The Official Board's[2] recent analysis of female executives at large corporates with sales over USD 100 million annually shows the highest concentration of women to be in VP Communications 44%, VP Investor Relations 35% and VP Human Resources 33%, corroborating these findings.

Table 8

Women in senior management positions by function and by region

Source: Credit Suisse Research – CSG 3000

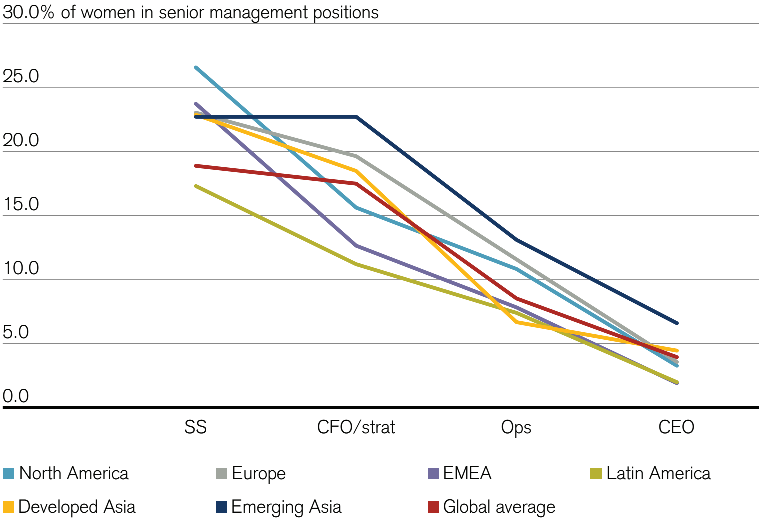
	SS	CFO/ strat	Ops	CEO	Total
North America	26.6%	15.6%	10.8%	3.3%	15.0%
Europe	23.1%	18.9%	11.4%	3.5%	14.7%
EMEA	23.7%	12.6%	7.8%	1.9%	11.4%
Latin America	17.3%	11.2%	7.4%	2.0%	9.1%
Developed Asia	22.9%	18.5%	6.7%	4.4%	12.6%
Emerging Asia*	22.7%	22.7%	13.1%	6.6%	10.4%
Global average	**18.9%**	**17.5%**	**8.5%**	**3.9%**	**12.9%**

* Excluding South Korea

Figure 2

Women in senior management positions by function and by region

Source: Credit Suisse Research – CSG 3000



This leads us to an important conclusion. While the representation of women in management positions and on the board of companies is similar, it is qualitatively different in its make-up: We call this the "Management Power Line" (see Figure 1). The importance of these roles in terms of career progression, compensation and ability to move laterally admittedly varies a lot from sector to sector and from company to company, but we would contend that these tend to reflect less influential positions in the management's structure. Based on Bloomberg data about 94% of S&P 500 CEOs held top operations positions immediately before ascending to the top job. The relative scarcity of women overseeing product lines or entire business units risks slowing their advance to the very top. Even when looking at management structures—aside from boards—women appear to have more supervision than direct influence.

2 The Official Board – "The Growing Presence of Female Corporate Executives": A Study of The Official Board August 2014

Table 9

Women in senior management positions by function and by country

Source: Credit Suisse Research

Women as a % of functions	CEO	Ops	CFO/ strat	SS	Total
Global total	**3.9%**	**8.5%**	**17.5%**	**18.9%**	**12.9%**
Argentina	0.0%	8.3%	23.5%	57.1%	21.7%
Brazil	2.2%	7.3%	9.9%	14.6%	8.9%
Canada	2.6%	10.1%	17.8%	39.7%	16.7%
Chile	5.9%	1.9%	9.1%	11.8%	6.8%
Mexico	0.0%	9.1%	13.3%	13.3%	10.4%
US	3.5%	10.9%	15.3%	25.9%	14.8%
Austria	0.0%	5.9%	21.4%	22.2%	12.8%
Belgium	16.7%	9.5%	23.1%	18.8%	15.8%
Denmark	0.0%	1.7%	23.1%	28.2%	12.9%
Finland	0.0%	7.8%	40.0%	41.2%	19.2%
France	0.0%	7.5%	25.3%	25.3%	13.4%
Germany	0.0%	5.1%	29.6%	15.9%	12.5%
Italy	5.0%	20.0%	15.5%	5.9%	13.9%
Netherlands	12.5%	9.2%	14.0%	20.8%	12.9%
Norway	0.0%	20.0%	14.3%	50.0%	21.6%
Portugal	33.3%	14.3%	16.7%	12.5%	16.1%
Russia	2.4%	9.0%	13.3%	26.0%	13.7%
South Africa	0.0%	8.6%	16.1%	34.8%	12.5%
Spain	0.0%	14.3%	8.7%	24.0%	12.2%
Sweden	5.3%	23.0%	29.8%	36.7%	25.6%
Switzerland	1.7%	6.7%	14.4%	13.6%	9.1%
Turkey	0.0%	6.7%	5.6%	19.6%	8.0%
UK	5.1%	14.1%	15.8%	24.5%	15.9%
Australia	4.5%	10.9%	18.0%	41.7%	18.6%
China	3.2%	5.4%	22.5%	7.4%	14.4%
Hong Kong SAR	12.5%	10.3%	19.1%	13.2%	13.7%
India	8.9%	8.1%	6.1%	12.9%	7.1%
Indonesia	11.8%	12.8%	18.0%	9.3%	12.9%
Japan	0.0%	5.1%	11.5%	13.4%	7.6%
Malaysia	6.7%	12.2%	43.8%	36.6%	26.2%
Pakistan	0.0%	11.1%	5.7%	5.1%	6.5%
Philippines	3.6%	23.1%	32.9%	28.6%	24.6%
Singapore	15.0%	4.2%	41.2%	46.8%	25.1%
South Korea	2.7%	0.8%	3.5%	1.2%	1.2%
Taiwan	5.7%	17.0%	37.4%	34.3%	24.3%
Thailand	12.5%	20.5%	34.4%	30.6%	26.5%

PHOTO: SHUTTERSTOCK.COM/RAWPIXEL

Against these global averages, there are some noteworthy regional differences. Table 9 provides a detailed drill down. The notable standouts are in Europe (Sweden and Norway) and in Emerging Asia (Malaysia, Philippines, Singapore, Taiwan and Thailand which are all clustered around 25%, while South Korea is the lowest country globally at a mere 1.2%). Thailand has the highest level of female participation at 26.5%, followed by Malaysia at 26.2% and Sweden at 25.6%.

In terms of the mix of leadership roles highlighted, the observation above regarding women in shared services functions is apparent in all regions except Latin America and Emerging Asia, the latter driven by low levels of women in South Korean management teams and the relatively high share of women in the CFO group across Emerging Asia. There are marked differences in the Operations and CEO roles held, with North America and Europe having considerably higher female participation in operations, albeit only around 11%. Asia is typically reflecting a greater proportion of CEOs.

Table 10

Women in senior management positions by function and by industry

Source: Credit Suisse Research

	CEO	Ops	CFO/ strat	SS	Total
Autos and components	1.4%	0.8%	3.4%	3.7%	2.3%
Capital Goods	1.7%	2.6%	10.8%	7.7%	5.5%
Tech – hardware	3.4%	3.4%	17.3%	8.5%	7.1%
Building Materials & construction	1.8%	2.6%	20.5%	6.2%	8.3%
Metals & mining	1.0%	1.8%	18.9%	17.1%	10.0%
Oil & Gas	1.5%	7.0%	12.6%	18.8%	11.0%
Chemicals	1.0%	6.1%	14.8%	17.6%	11.0%
Paper & Packaging	0.0%	4.0%	18.3%	25.9%	11.2%
Insurance	1.0%	8.7%	14.1%	25.0%	12.0%
Diversified financials	1.9%	9.3%	18.2%	17.4%	12.6%
Consumer durables	5.4%	10.5%	15.0%	19.5%	12.9%
Food & beverages	6.8%	8.4%	18.3%	23.2%	14.4%
Telecoms	4.9%	9.8%	18.3%	24.2%	15.4%
Banks	7.5%	12.1%	14.6%	24.8%	15.4%
Retailing	5.4%	14.7%	17.3%	20.1%	15.6%
Business services	1.5%	12.4%	24.7%	18.6%	15.8%
Transport	9.0%	8.8%	19.9%	28.1%	16.3%
Tech – other	0.0%	8.2%	22.5%	42.1%	16.4%
Utilities	7.7%	13.8%	17.2%	27.5%	17.0%
Healthcare services	8.2%	14.4%	21.0%	26.8%	17.3%
Pharma & biotech	4.4%	14.8%	15.5%	36.4%	18.0%
Travel & leisure	6.2%	9.9%	25.3%	30.2%	18.6%
Tech – software	3.3%	18.9%	17.0%	31.6%	19.5%
Real Estate	6.3%	13.5%	32.8%	26.4%	20.1%
Media	10.9%	21.7%	24.4%	30.2%	23.2%
Global Average	**3.9%**	**8.6%**	**17.5%**	**18.9%**	**12.9%**

Table 10 cuts the data by industry rather than region. We find five sectors showing a level of participation of women in top management at 10% or below; autos, capital goods, tech hardware, building materials & construction and metals & mining. Only two show levels above 20%: real estate and media. Supporting the point above, 18 of the 25 sectors show higher concentration of women in shared services.

At the CEO level, two sectors have no female CEO; paper & packaging and other tech, mainly environmental energy related. In contrast, the CEOs are better represented in a number of the consumer sectors such as food & beverage, media, and travel & leisure, though perhaps surprisingly lower in retailing. Interestingly, the banking industry sits above the average of senior role representation and very much at the higher end for CEO positions.

Which industries lead the change?

We also analyzed our database, categorizing companies under more detailed industry divisions compared to the traditional sector groups: manual versus non-manual labor industries; “old” economy versus “new” world; older companies versus start-ups; and large caps versus small market caps. Within this framework, we can get a good read across of both the type of business and the different countries to assess the relative influences and biases. For example, female representation has tended to be greater in non-manual and new economy sectors. For more detail, please go to the Appendix II.

Measuring what they manage

While we are seeing progress in the representation of women in company decision making, if not evenly spread in terms of seniority, how is this reflected in the financial characteristics of these companies and how the market perceives them?

Figure 3

Return on equity

Source: CSG 3000

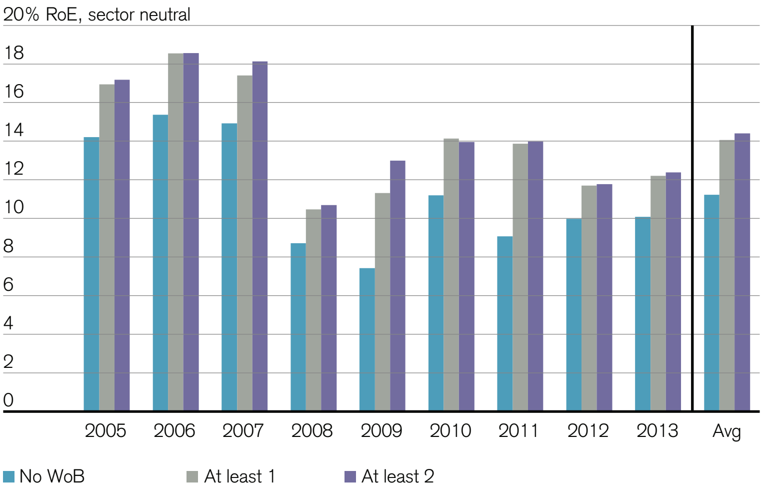
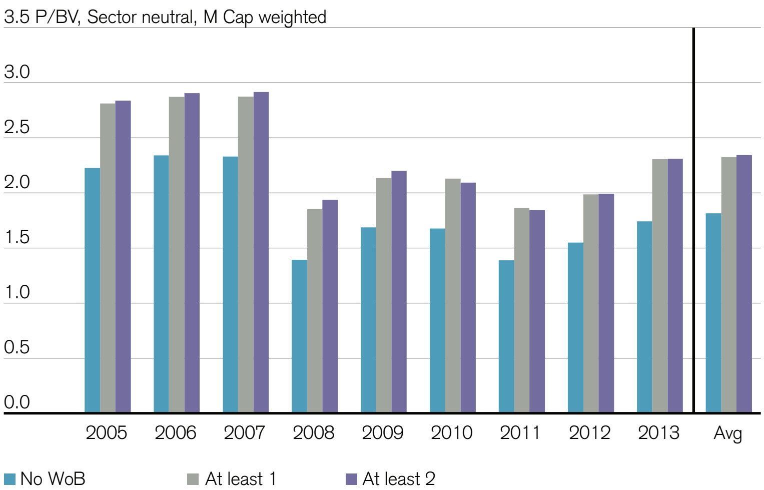


Figure 4

Sector neutral ratios: price/book value

Source: CSG 3000



Running the numbers

To assess the impact of female managers on performance, we briefly revisit our board data and previous findings, but now bring our new management data into the analysis to help assess return and risk characteristics of company business models and how the market values these attributes.

To provide an added new perspective on the topic, we have also drawn off the valuations and corporate performance framework provided by Credit Suisse HOLT®. HOLT's cash flow-based and standardized methodology makes for superior cross border and industry comparisons.

As we highlighted earlier, it is important to still stress that we present this data just as it is—empirical data. We do not seek to claim a causality though note a notable consistency in some of the relationships that emerge.

Premium returns, premium valuation?

In our previous study, two key features were apparent amongst companies that displayed greater gender diversity. First, they typically displayed higher returns on equity (ROE). Second, their price to book value (P/BV) stood at a premium over time; you would of course expect higher P/BV for higher ROEs. These observations have continued to hold true as we bring these charts up to date in Figures 3 and 4. Note that these calculations adjust for sector bias for those without by constructing the comparisons on a sector neutral basis to account for the over- and under-representation of women in management positions.

The 2013 sector adjusted ROE of companies with at least one female board member was 12.2% compared to 10.1% for those with zero representation. Over the last nine years the same ROEs have been 14.1% and 11.2%. As for the price to book value, we find a P/BV of 2.4x on 2013 book values for those companies with female representation on their boards versus 1.8x for those without, and a nine year average for boards with women directors of 2.3x versus 1.8x for companies with all male boards.

PHOTO: SHUTTERSTOCK.COM/TSYHUN

We would note that these results are consistent with the recently published study on the influence of female presence on boards and firms' valuation, "Does it Matter Where You Work? Etc…", Schmid and Urban[3] based on 35,000 companies across 53 countries from 1998 to 2010 ex-financials, which found in developed countries a statistically significant correlation between the presence of women on the board and the firm's valuation as measured by Tobin's Q.

How does this sit with our management data? Table 12 displays a range of financial metrics we have generated from our management data including ROE and P/BV. The table cuts the data both at an aggregate and sector level for those with female senior management representation lower than 10% and those greater than 15%. (The average representation is 12.9%)

While the absolute numbers differ somewhat, the return premium highlighted above and the reward for it reflected via a higher price to book multiple shown in the board structure is apparent also where females play a greater role in senior management.

Adjusting for any industry bias, companies with more than 15% of women in top management carry a 2013 ROE of 14.7% compared to 9.7% for those where women represent less than 10% of the top management. Looking across the roles within management we found that companies where female CEO and Operations management account for more than 10% of these roles exhibit an ROE of 15.2% versus 11.9% where their presence is less than 5%.

Although the sample size for female CEOs compared to that of male CEOs is not statistically significant, it is interesting to note that ROEs and P/BVs are greater where there is a female CEO. Either female CEOs make companies better or better companies hire female CEOs; or both.

In a separate analysis, we also divided our sample into two groups, companies with no change or decline in female board representation and companies that showed an increase in board representation. Over the last three years, the latter group of companies has shown a 15% P/BV expansion versus 11% for the former group. Given the sample size, this is statistically significant and the trend has been pretty consistent year after year. However, we can do this only over the last three years and so there might be some effect tied to the choice of the time frame.

Credit Suisse HOLT CEO analysis

We have been able to look at CEO observations further by drawing off our HOLT-based analysis of cash flow returns. We show here Cash Flow Returns on Investment (CFROI®) for female CEO led U.S. and European companies (though we flag a health warning over survivorship bias here). Importantly, one could argue that the data reflects more than an industry effect. In Figure 5, we have divided the CFROIs in four quartiles and compared each company/CEO to its industry peers. If industry were the only factor influencing returns we would expect to find a flat profile to the charts. However, the downward sloping profile reflects more female CEOs in the first quartile suggesting a positive gender effect. We would, though, shy away from asserting some causality.

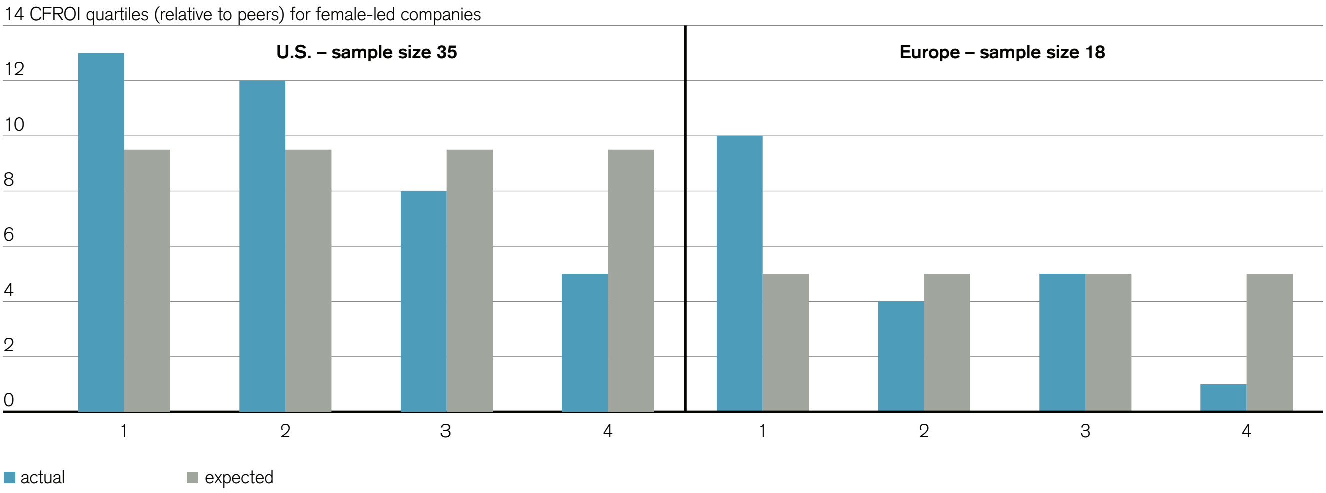
Balance sheet structures

The differences in risk profiles of men and women have been well researched. An extensive study by Barber and Odean ("Boy Will Be Boys", 2001) and based on 35,000 households, showed that men invest in riskier positions than women (portfolio volatility, individual stock volatility, beta and size) and change their mind more often (45% higher turnover). Can we find evidence of a more conservative

Figure 5

CFROI quartiles (relative to peers) for female-led companies

Source: Credit Suisse HOLT



3 Schmid and Urban, 2014: "Does it Matter Where You Work? The Role of Women and Firm Valuation"

Table 12

Comparative returns for women in senior management

Source: Credit Suisse CSG 3000

	ROE (%)	Net debt/equity (%)	Price/book (x)	Payout ratio (%)
CEO				
– male	11.9	43.7	2.33	39.7
– female	15.2	46.5	3.22	44.0
Premium	28%	6%	38%	11%
CEO and Operations				
– women < 5%	11.9	44.1	2.33	39.0
– women > 10%	15.1	55.5	2.73	55.5
Premium	27%	26%	17%	42%
Senior management				
– women <10%	9.7	35.2	1.97	35.5
– women > 15%	14.7	56.8	2.62	43.3
Premium	52%	61%	33%	22%
Senior management by sector				
Consumer discretionary				
– women <10%	11.1	36.1	1.96	28.5
– women >15%	14.7	80.1	2.77	35.4
Premium	32%	122%	41%	24%
Consumer Staples				
– women <10%	13.4	31.3	3.20	60.2
– women >15%	18.0	54.8	3.49	46.3
Premium	34%	75%	9%	-23%
Energy				
– women <10%	11.4	41.4	1.86	47.8
– women >15%	11.3	29.0	2.05	43.0
Premium	-1%	-30%	10%	-10%
Financials				
– women <10%	8.3	NA	1.07	33.7
– women >15%	11.8	NA	1.30	39.7
Premium	42%	NA	21%	18%
Healthcare				
– women <10%	13.1	21.9	3.61	36.1
– women >15%	17.5	49.4	4.20	57.2
Premium	34%	126%	16%	58%
Industrials				
– women <10%	10.2	54.3	1.77	29.7
– women >15%	14.0	98.0	2.68	46.1
Premium	37%	80%	51%	55%
Materials				
– women <10%	5.4	59.7	1.40	36.7
– women >15%	9.9	45.7	2.33	44.4
Premium	83%	-23%	66%	21%
Technology				
– women <10%	15.3	-20.0	2.51	16.6
– women >15%	22.5	-12.8	3.85	34.0
Premium	47%	36%	53%	105%
Telecoms				
– women <10%	10.1	23.6	1.59	55.3
– women >15%	33.7	89.0	2.14	63.2
Premium	234%	277%	35%	14%
Utilities				
– women <10%	5.3	94.0	1.34	70.3
– women >15%	9.2	106.3	1.54	62.8
Premium	74%	13%	15%	-11%

Figure 6

Net debt/equity, sector-neutral

Source: CSG 3000

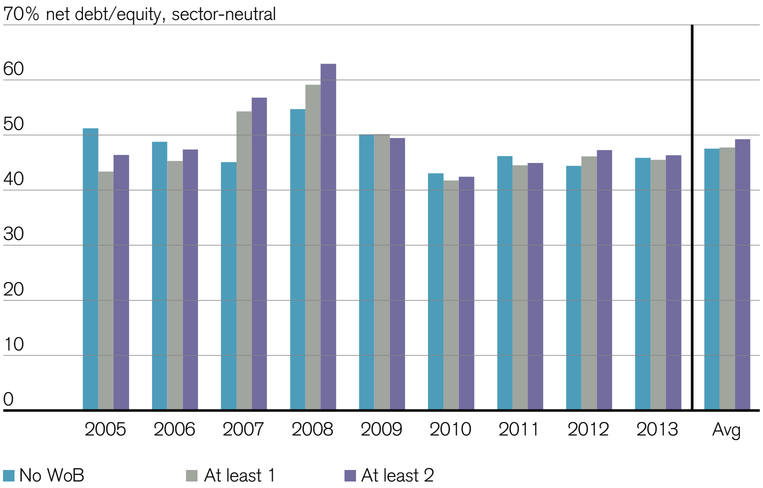
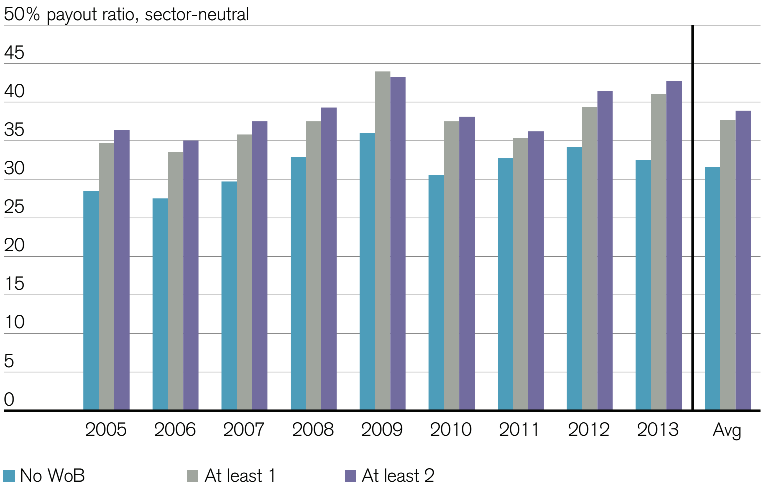


Figure 7

Payout ratio, sector-neutral

Source: CSG 3000



financial approach when looking at the influence of women on boards and management rather than the behavior of men in a household environment?

In our initial study, we examined the net/debt to equity of companies over time that had female board representation. There was some tentative evidence that balance sheet gearing was lower amongst companies with female board representation. However, as we update this now, the picture is less convincing as Figure 6 shows. The averages over time are barely distinguishable. Companies with women on the board showed at the end of June 2014 a net debt to equity ratio of 47% versus 46% for companies with zero representation and an average over time of 48% versus 47%.

Undue conservatism does not emerge from our management data either. Companies with less than 10% of women in top management showed a net debt to equity ratio of 35% versus 57% for companies with more than 15% of women in top management. If we restrict this analysis to just CEO plus business management we get 44% and 56%, respectively. We would recognize that there is a possible risk of selection bias here. If top management jobs select for risk takers, there may be a concentration of female risk seekers compared to a broader pool of men.

In our management data, we have also chosen to look at a different metric to consider financial risk – Net debt/EBITDA. This metric can be used where banking covenants are concerned. This provides a similar picture and does challenge the conservative stereotype. While the levels are by no means troubling in themselves – the corporate sector is very cash rich at present – companies with higher female management involvement have Net debt/EBITDA of 1.0x compared to 0.8x for companies without women. Where there is a female CEO, Net debt/EBITDA is 1.3x compared to 1.0x for male CEO-led companies.

Returning cash or conserving cash?

One final variable we have examined relates to the dividend policy of corporates and the contrast between where women are represented and where they are not. Dividends have assumed significance for investors in varied ways such as a perceived "signaling" by companies. More generally, the **reinvestment** of dividends represents the largest contributor to long-term equity returns for an investor as shown by Dimson, Marsh and Staunton in the Credit Suisse Global Investment Returns Sourcebook. Dividend policy can also say something about a company's attitude to capital management. For the purpose of our analysis, the added relevance is that the level of dividend is a specific management decision or choice.

Our board data shown in Figure 7 gives us a historical perspective on payout ratios. Adjusting for industry bias, we find an average over our 9 year data of 39% payout ratio for companies including a female board member and 32% without. Essentially, companies where women have had board representation have paid more income out as dividends. In our analysis, companies with more than 15% of women in top management showed a payout ratio of 43% versus 36% for companies with less than 10% of women in top management. If we just focus only on CEO and Operations, we find similar numbers.

While there is a danger of over-interpreting such data, we would note that a pattern such as this could be the flip side of some of the other academic and independent research that has referred to a more considered approach to investment and acquisitions. For example, we would note a study by Parrotta and Smith (Female Lead Firms: Performance and Risk Attitudes, 2013)[4] which focused on almost 2,000 Danish companies with more than 50 employees, showed that female CEOs lead to a 56% reduction in the volatility of investments.

Other recent studies show, for example, that female CEOs make lower levels of capital expen-

4 Parrotta and Smith, 2013: "Female Lead Firms: Performance and Risk Attitudes"

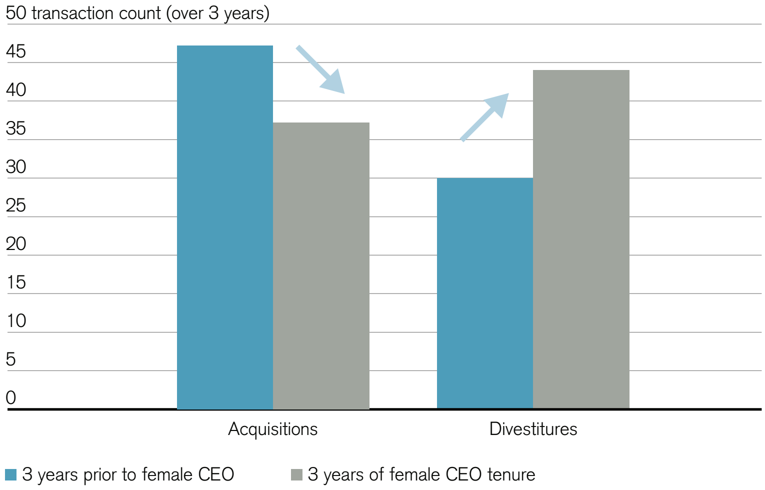
diture as percentage of total assets[5] while Levi et. al.[6] analyzed acquisitions made by S&P 500 companies between 1997 and 2009 and found that for each additional female board member, the cost of a successful acquisition was 15.4% less than if there were no women. In their further unreported analyses, they show that "the fraction of female directors is negatively and significantly associated with both capital expenditures and R&D expenditures."

Our own analysis of the success of acquisitions in return terms leveraging our HOLT cash flow based framework was not conclusive. The transaction cash flow returns did not differ with gender leadership. However, an interesting observation was apparent in terms of the *number* of M&A transactions if not the returns generated. We have collected the dates on which a prevailing female CEO was appointed in both the US and Europe from our dataset and examined how acquisitive the respective companies have proved to be. We found the **number** of acquisitions made in the three years post a female CEO appointment were less than those in the three years preceding. Moreover, the number of divestitures post a female CEO appointment was in fact higher. Again, we wouldn't assert a causality though the charts are striking.

Figure 8

Acquisitions and divestitures transaction counts

Source: Credit Suisse HOLT



5 Alves, Couto and Francisco: "Board of Directors' composition and financing choices"

6 Levi, Li and Zhang (December 2013): "Director gender and mergers and acquisitions"

Are "good" companies, good investments?

Having examined the steady progress of greater gender diversity in companies and the financial business models that emerge in companies which have greater effective female supervision and management, the key question is does it really matter for an investor in terms of equity market returns?

Re-running the numbers

Stock market performance was at the heart of the statistical analysis we conducted in our 2012 report and we update it here.

The message that then emerged from our analysis two years ago was indeed a supportive one, particularly in stock market performance terms. We showed at that point that large companies greater than USD 10 billion which had at least one woman on the board outperformed those without any by 26% for large caps over the six years ending December 2011 (on a sector neutral basis). The exercise derived an excess return of 3.9% a year. Importantly, this mix of companies would also have outperformed global equities as measured by MSCI's ACWI.

However, given our analysis took place following a period of considerable market and economic distress, a key question for us was whether the excess return has been sustained in a less risk averse market environment, while also coinciding with the marked improvement in female representation in company boards? Figures 9 –12 bring the 2012 analysis up to date. We have also updated our universe and rebalanced it historically to remove any survivor bias.

The good news is the outperformance we charted before has been sustained. From the start of 2012 to June 2014, we have seen 5% outperformance on a sector neutral basis by those companies with at least one woman on the board. This then amounts to a compound excess return since 2005 of 3.3%, hence broadly maintaining the same momentum. Figures 10–12 show the data regionally—US, Europe and Asia-Pacific. The outperformance is most marked for Asia-Pacific companies with a 55% excess cumulative return, followed by the US with 20% and Europe with 18%.

We can add further backing to these findings by using our new data that measures the **percentage** of women on the board rather than the simple comparison of zero versus one or more. We reviewed (Figures 13–16) the performance of the companies over USD 10 billion, again on a sector neutral basis, but where the percentage of women on the board is 0.5 standard deviations above the average versus those where female representation is 0.5 standard deviations below the average. The results are reassuringly consistent. The basket of global companies above the average outperformed those below by 36% or 3.7% a year over our full history of 2005–2014 H1. The results hold true when we conduct the same exercise on a regional basis.

Figure 9

Global performance: companies market cap >USD 10 billion

Source: CSG 3000

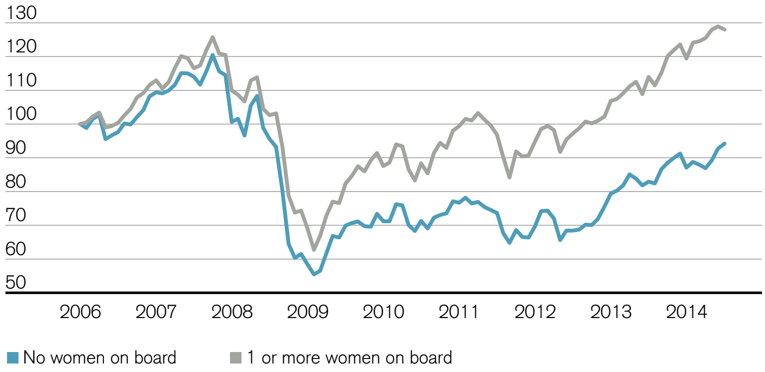


Figure 10

European performance: companies market cap >USD 10 billion

Source: CSG 3000

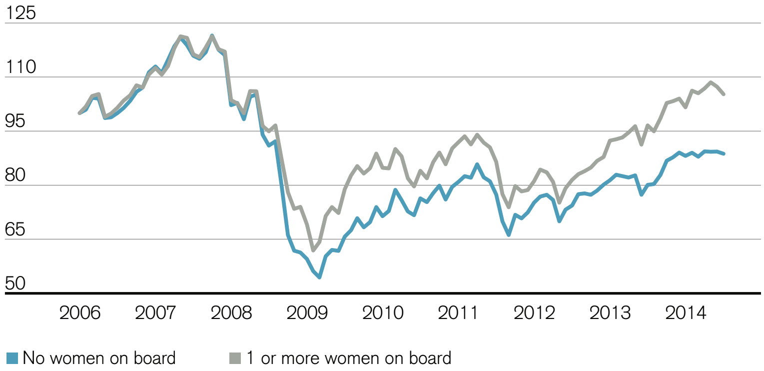


Figure 11

US performance: companies market cap >USD 10 billion

Source: CSG 3000

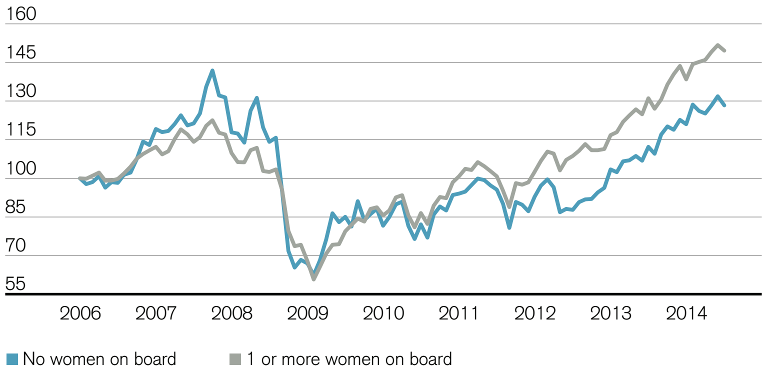


Figure 12

APAC performance: companies market cap >USD 10 billion

Source: CSG 3000

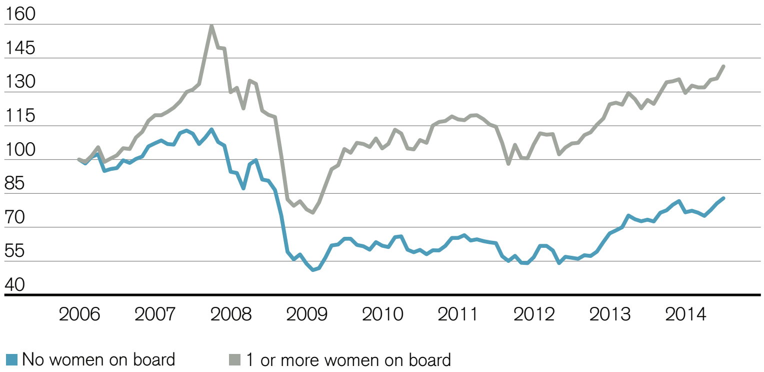


Figure 13

Global performance: companies market cap >USD 10 billion

Source: CSG 3000

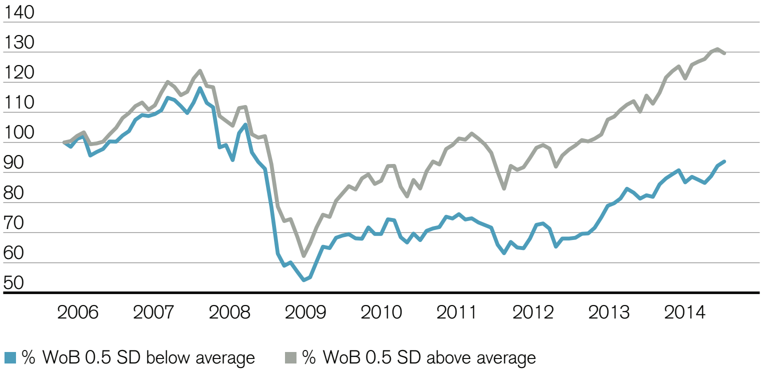


Figure 14

European performance: companies market cap >USD 10 billion

Source: CSG 3000

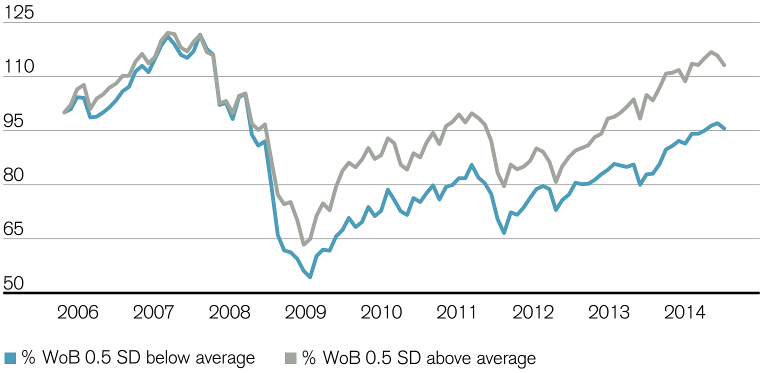


Figure 15

US performance: companies market cap >USD 10 billion

Source: CSG 3000

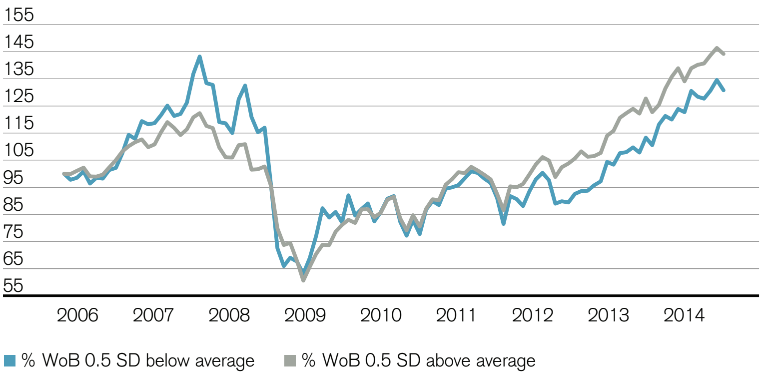
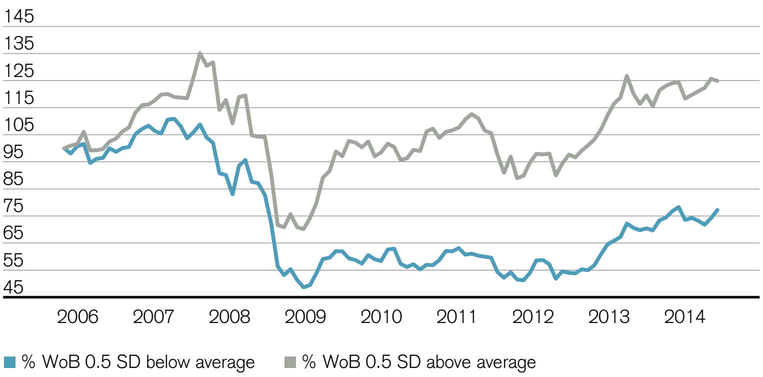


Figure 16

APAC performance: companies market cap >USD 10 billion

Source: CSG 3000



Management impact

Given our management data from the CSG 3000 represents a snapshot of the current structure of leadership roles and hence lacks history, we cannot conduct back-testing in the same manner as we do in the board structure and stock price analysis above. (We have rebalanced our time series year by year in keeping with new board data and constituent changes to construct the charts above which in turn minimizes survivorship bias.) However, and still stressing this survivorship caveat, when we do roll back the current structure to analyze past stock performance of companies with differing degrees of management diversity, an interesting pattern does emerge.

Figure 17 shows the performance of portfolios of companies reflecting three tiers of female management representation in "front office" positions, which we define as our management positions ex shared services. The tiers are set at minimum thresholds of 50%, 33% and 25% of representation. Note that the portfolios were created using companies that are currently trading rebalanced monthly. It does not consider companies that were trading historically, but ceased trading in the meantime, therefore underlining another element of bias into the results. The universes as of today number 64, 204 and 367 and, in that respect, are not large.

PHOTO: SHUTTERSTOCK.COM/COLOURSINMYLIFE

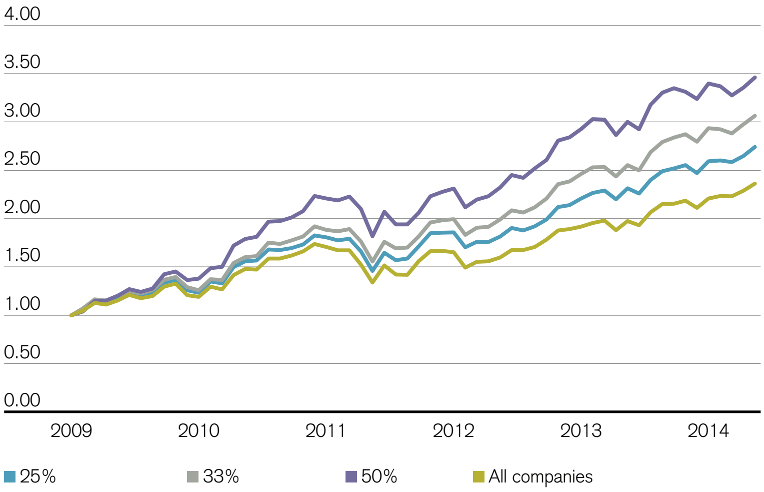
Examining performance since 2009, the universe with 25% female representation nonetheless has delivered +22.8% annualized average return. As the minimum threshold of female representation was increased to 33%, the constituent concentration increased and the average annualized returns increased to +25.6%. Similarly, with a 50% minimum threshold, the constituent concentration increased and the average annualized returns increased to +28.7%. Essentially, as each threshold was raised, performance increased.

A key conclusion from this for us is that whatever the more qualitative judgements as to the benefits of greater diversity may be, there appears to be a material quantitative consideration for investors. Our data provides a strong portrayal of consistent alpha generation from diversity enhanced governance and differentiated decision-making. However, considering all the different factors that may still be at work, we are not able to conclude whether women are making companies "better" or do "better companies" have stronger female representation on the board?

Figure 17

Performance of companies tiered by female management participation

Source: CSG 3000



What are the obstacles to women advancing in their careers?

It is clear that there are still many challenges to overcome to increase female representation on both boards and in top management teams. However, there is evidence emerging from selected countries that specific policies can make a difference.

Table 13

Main obstacles

Source: Credit Suisse Research

Individual	Cultural	Workplace	Structure/policy
Educational choices	Perception of female commitment	Face time and flexibility	Lack of shared parental leave
Sector choices	Double standards	Staff rather than line role promotions	Lack of childcare assistance
Pipeline availability	Spousal role and support	Mentoring for women rather than sponsorship	Differentiated taxation
Risk aversion disparity	Work-life balance priorities	Promotion rates	Organizations were designed for men and manufacturing

What should the right target for representation be? Is there a right target? How fast can we attempt to get there? And, more importantly what are the obstacles that explain why the gender imbalance persists; are there structural or qualitative reasons why women are not rising up the management pipeline in equal measure and are there specific industries and sectors where these factors are more ingrained?

While we explore many of the impediments to progress in detail below, we believe that many of the challenges outlined in Table 13 can be addressed readily. Indeed, the Scandinavian initiative has proven successful using policies to drive greater equitability. Many of the structural and workplace issues can be overcome by government or corporate policies promoting diversity. In Scandinavia, the concept of shared parental leave ensures that women can go back to work after the birth of a child, if she so wishes. It is an innovative social policy that clearly addresses the family/childcare challenges while also making economic sense. If a father in Sweden does not use his two month allowance, the family loses the benefit. Governments should look to emulate this initiative firstly for a six month period and then extend it to a full year of shared parental leave.

One of the anomalies that we have found while conducting our research is the fact that in the US, single mothers and the wives or partners of the lowest earning workers are the least likely to be working because they are unable to cover childcare costs. So, the most needy are unable to participate in the workforce, a long-term poverty trap and a substantial cost, both socially and to the government. In the UK, all three and four year olds are entitled to 15 hours a week of free childcare and working parents have tax incentives to help with childcare costs. Extending this type of initiative more broadly would be a very supportive policy to assist women staying in the workforce and an easy step for governments towards enabling greater diversity and equality.

Is it up to governments to drive diversity or are companies now embracing diversity issues effectively and sufficiently? In Scandinavia, it has been government-led initiatives and policies that have driven the broad level of diversity we witness today. Both the prevalent cultural and social values, along with the relatively small population pools, have been key in the success. This has certainly been more effective in the self-regulating forms of diversity initiatives introduced in other countries. We believe governments are being short-sighted by not pushing through more demanding diversity targets—the Harvard University experiment discussed below, while reflective of a small universe, demonstrates that change can be dynamic and bear quick results.

Do quotas help with structural issues? As ever, the answer is both yes and no. Yes, they focus debate, but we have concerns that they detract from the real issue of gender equality throughout the management pipeline by encouraging tokenism. The Norwegian example has not led to any improvements in female representation outside of the boardroom or narrowing of the gender pay gap[7]. We discuss this in more detail below but we believe that a better system would be for governments to require board level training for potential female directors and for financial regulators to demand that all gender data and policies are disclosed upfront in all quarterly updates and in all financial reports. Australian disclosure efforts have seen male CEOs drag their feet, whereas female CEOs have met all disclosure requirements for the ASX200. Perhaps limiting board and senior level remuneration and bonuses might make disclosure more palatable.

The third area we believe should be tackled is education. Make education engaging! Start teaching girls STEM (science, technology, engineering and maths) subjects in a more enlightened, practical female-brain manner. All Education Ministers should perhaps visit hands-on learning spaces like the Exploratorium in San Francisco to see how the subject can be taught in an exciting and engaging way.

7 Bertrand, Black, Jensen, Lleras-Muney 2014: Breaking the Glass Ceiling? The Effect of Board Quotas of Female Labor Market Outcomes in Norway

And the workplace issues we identify in Table 13 should be addressed too. Incentives for CEOs and senior managers should include these issues in performance criteria, not just the more typical financial and performance drivers. CEOs who do not address pay-gap differences, differing promotion rates and the opposing cultures of face time and flexibility should be removed by their boards. Diversity delivers better financial performance and market valuations as we have seen in parts one and two of this report, so CEOs who are not promoting diversity are not acting in the interests of their companies or shareholders and should be held accountable.

Educational choices and the management pipeline

The low female representation in Japanese companies boards and overall top management is mirrored in the lowest percentage of general growth and the lowest percent of female graduates in engineering among the countries we considered in this analysis.

In most countries though low female representation in senior management can no longer be explained by a lack of education or competences. Over 36% of all women in the US today have college degrees compared to 14% in 1970 and OECD data show that virtually every country globally has seen an increase in female university graduation rates. In 2009, women accounted for 58% of OECD graduates up from 54% in 2000. Despite this, the Grant Thornton International Business Report says the global average of women in senior management positions, a broad definition compared to our top management or CSG 3000, is flat at 24%.

So if women are graduating in greater numbers than men but are still not breaking through the glass ceiling, particularly in these more "systemized/producer-end" industries, are they studying the wrong subjects? National Science Foundation data show that women made up over 22% of US computer science graduates as recently as 2005, but, surprisingly, this has fallen substantially in recent years from 30% a decade earlier despite the success of the sector. According to the latest data available, women are just 18% of computer science and IT graduates in the US and 16% in the UK.

We can understand why the debate today focuses on STEM subjects and the lower rates for female graduates in these areas. While STEM degrees overall were awarded almost equally to male and female students in both the US and UK in 2010 (see Figure 19), if we drill down into the actual areas studied, we see very significant differences which help to explain the distinctions in the recruitment pool and subsequent lower levels of women in the workforce. In the US, 41,000 male students graduated with a maths or computer science degree compared to 14,000 women. In the UK, it was 15,400 males compared to 5,300 women. For engineering, 57,000 males graduated in the US versus 13,000 women and in the UK it was 17,000 men compared to 3,300 women. It can be no surprise therefore that many managers in these sectors argue that there are not enough women with the requisite skill sets to recruit or promote.

In the US, 38% of undergraduates enrolling for a STEM degree do not complete their degree in a STEM field, either dropping out or switching to a non-STEM

PHOTO: ISTOCK.COM\MEDIAPHOTOS

subject[8]. Gender-specific data is not available but this is a considerable challenge to industries requiring STEM skills. One explanation put forward is that all the theoretical coursework is concentrated in years 1 and 2 with more creative and explorative work left for later years by which time students have opted for another field. Dissatisfaction with the course program may also be part of the reason why over 40% of female STEM graduates are no longer working in STEM companies even two years after graduation. If female students decide or are persuaded to stay reluctantly with their chosen field until graduation, it may offer part of the reason why they are such early "switchers" or choose other employment options.

Although the shortage of engineering graduates in the US ensures that they enjoy the highest starting salary of all undergraduates, female graduates switch to other fields using similar skill sets—maths, science knowledge —and opt for competing industries, consulting and finance for example, or public sector roles, further diminishing the female pool for the future management pipeline. 75% of women STEM graduates have left the sector within 10 years of graduation in the US, whereas over 40% of male graduates are still in STEM fields. In the UK, less than 30% of all female STEM graduates of working age are working in STEM-sector positions[9].

According to a Stanford University and Anita Borg Institute report[10], 77% of mid-level male managers in the technology sector have an engineering or computer science degree versus 61% of women. Higher up the management ladder and at board level, data suggest that sector-specific education is less of a factor in general hiring decisions, but it is certainly a key determinant at entry-level appointments and promotions, whichever sector. Even though a women may bring broader skills to play lower down in an organization, if she does not have the technical skills to support promotion opportunities, the numbers of internal female candidates for management in these sectors are set to remain low.

The generally negative perception by potential employees of certain sectors will not help change the current status quo. Based on PWC's Millennials at Work survey, 14% of current graduates would not want to work in oil and gas "solely because of (its) image." Defence and insurance are the second least popular, with 12% looking to avoid employment in those companies. Perceptions such as these are hard to change—it might take decades— but companies need to do more to help the process if they are to maximize their own performance.

In Japan, there have historically been two educational tracks at secondary and tertiary level separated along gender lines. While statistics show that 40% of Japanese graduates are female, this is a misleading picture as to their potential to enter the broad workforce as female par-

8 Up to 50% of US undergraduates change their choice of majors, according to Penn State University, but these are usually within-field, i.e. non-STEM to non-STEM. For comparison, at STEM-only institutes, MIT has a completion rate of 97%, Stanford 95% and Imperial College 97%.

9 Smith Institute "Unlocking Potential – perspectives of women in science, engineering and technology"

10 Simard, Henderson, Gilmartin, Schiebinger and Whitney: Climbing the Technical Ladder: Obstacles and Solutions for mid-level Women in Technology – Michelle R Clayman Institute for Gender Research, Stanford University and the Anita Borg Institute for Women and Technology

Figure 18

Females as a % of university graduates

Source: National Science Foundation 2011 report – 2008 data

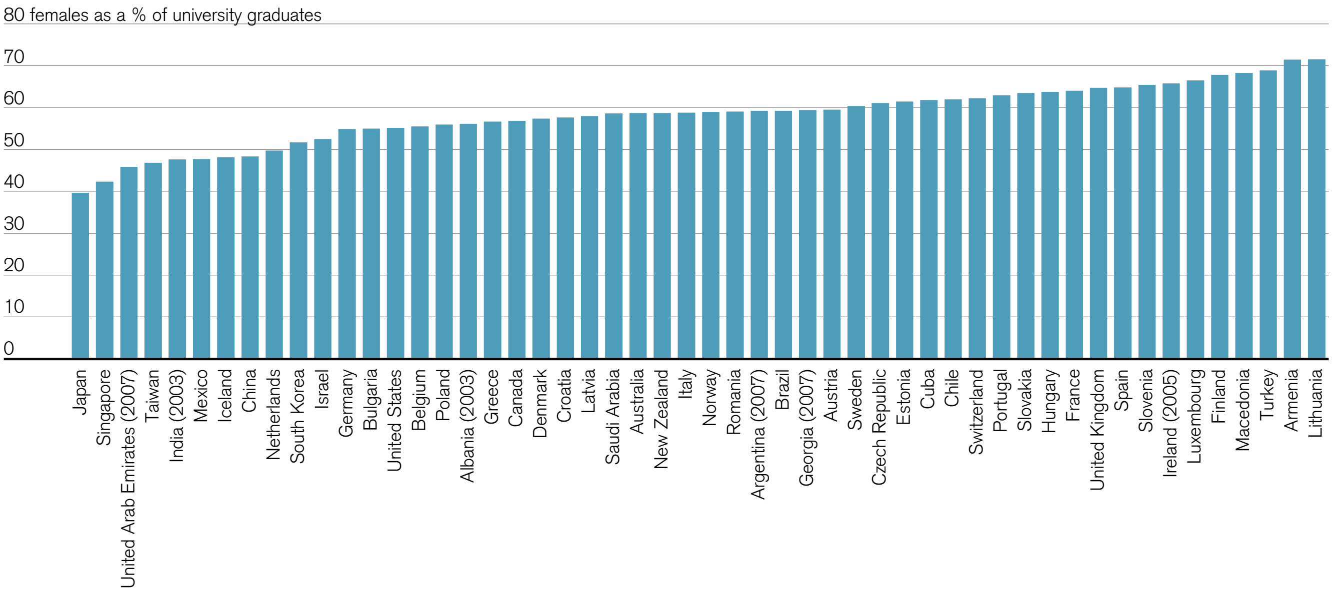


Figure 19

Graduates in selected STEM disciplines – 2010

Source: National Science Foundation

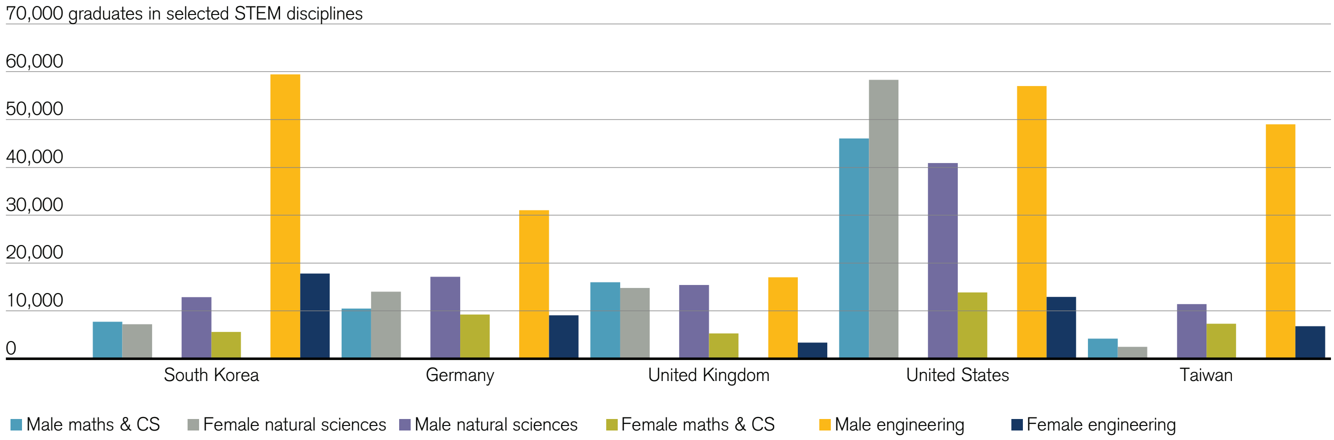


Figure 20

Female % of S&E graduates by field – 2008

Source: National Science Foundation 2011 report

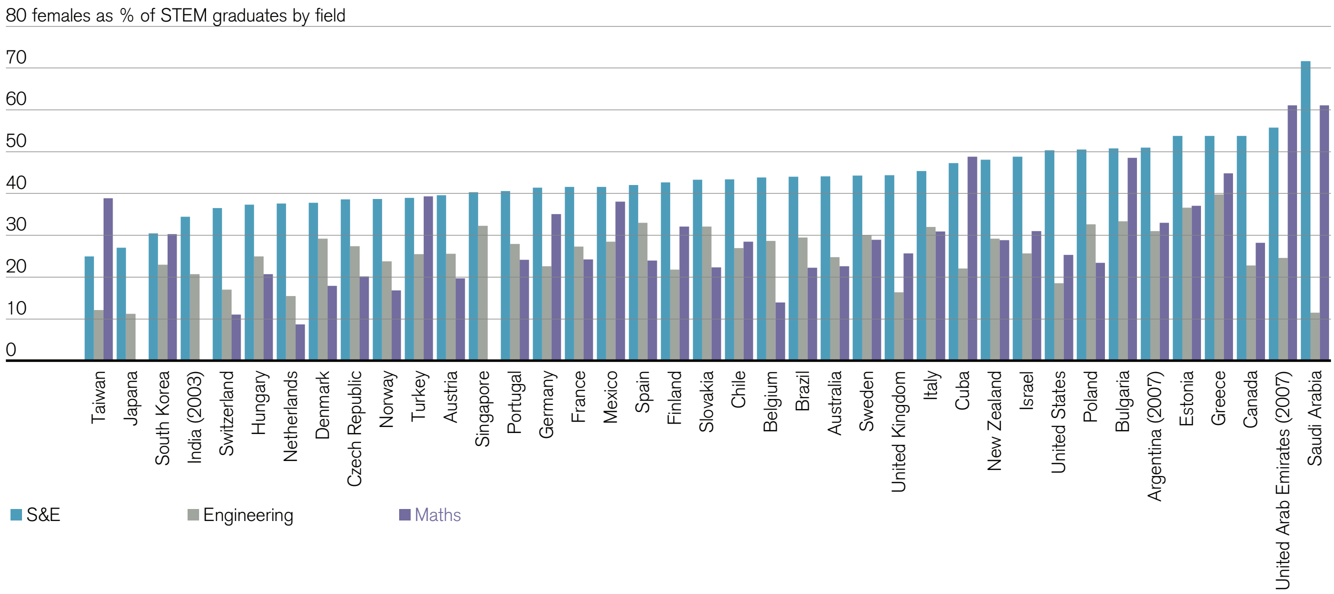


PHOTO: ISTOCK.COM\YINYAN

Table 14

Women as % of graduates by discipline

Source: Higher Education Statistics Agency Ltd 2011-2012; Digest of Education Statistics 2010-2011

	UK	USA
Medicine & dentistry	57.8	48.3
Physical sciences	43.0	40.2
Maths	42.2	43.1
Computer sciences/ICT	16.2	18.2
Engineering	15.1	17.8
All STEM degrees	**50.9**	**50.3**
Law	64.0	70.3
Social sciences	60.3	49.3
Economics	30.9	30.6
Creative Arts	62.1	61.3
Business & Admin	51.2	48.8
All degrees	**57.1**	**57.2**

ticipation is skewed towards home economics, education and service whereas male graduates come predominantly from engineering, manufacturing, construction and science. This gender tracking of education is the key reason for low levels of female participation in Japanese companies (Figure 18) and while Shinzo Abe's efforts to address this with 30% representation in senior management and political roles by 2020 are admirable, it looks a challenge given the available talent pool. Access to Japanese tertiary education is also perhaps hampered for women by the high costs of university courses, so this may also be an area to be addressed to ensure more equitable access as Abe has specifically cited improved female participation rates as a way to counterbalance the declining birth rate. In early September, he created a new Ministry for the Promotion of Women.

In exploring the link between Japanese female education and their participation in management, we have mapped the corresponding data for other countries. While there appears to be a correlation between the two generally, we would highlight that countries that see higher female graduation levels are typically only seeing correspondingly high management levels because of legislative initiatives.

Culture and unconscious bias

In the 1970s and 1980s, Dutch psychologist professor Geert Hofstede developed a framework to measure national cultures and rank them on a masculinity index (MAS)[11] reflecting the extent to which a given country or society applauds achievement, competitiveness, heroism, assertiveness and material rewards as opposed to "femininity" where values focus on co-operation, modesty, quality of life and society is more consensus oriented. Schmid and Urban[12] have used the framework to look at whether this interpretation of the cultural or subconscious value system can help explain gender

11 Hofstede, Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations

12 Schmid & Urban 2014: Does is matter where you work? The role of women in the boardroom and firm valuation

PHOTO: ISTOCK.COM\ANNEDDE

inequality—or at least explain it in part. They find that the fraction of female board members changes by +/–2.5% in absolute terms when "masculinity" drops by one standard deviation and that approximately half of this change can be explained statistically by culture and half by firm specifics. They also find that the percentage of companies with at least one female board member is 39% in more "masculine" countries, compared to 59% in more "feminine" countries. This clearly suggests that cultural bias is an impediment to the appointment of women and maintains the glass ceiling.

Social conditioning over centuries depicting a father being the breadwinner and a mother as the primary caregiver has led to the pervasiveness of the unconscious bias against women today and the reluctance to promote women in the expectation that they will eventually put any family first—the old "too risky to promote" attitude. This can trigger a self-fulfilling prophecy and vicious cycle, and lack of promotion is one of the top reasons cited by women for leaving their jobs. We can see statistically that women leaving are more likely to be replaced by a male employee than a female, reinforcing the historical bias and vicious circle. The more senior the female leaver is, the more likely she is to be replaced by a male colleague. Otherwise, the entry level split of close to 50:50 would be maintained up the pipeline instead of female attrition rates accelerating at mid-career levels.

These embedded negative perceptions about women's commitment to work typically center on their parenting role, possible or actual. Social conditioning has led to women being equated with having greater family responsibility and, in the working environment, this signals a family-work conflict, actual or potential, regardless of whether the female employee has a family or not[13]. Most male managers today were brought up by a stay-at-home mother, so subconsciously or otherwise, this perhaps fosters expectations of female preferences and likely choices.

13 Banerji and Greenwald 2013: Hidden Biases of Good People

Gender differences in willingness to take risk and compete

Numerous studies have proven that men prefer taking risks to women[14]. Risk aversion differences are most obviously demonstrated in studies of male and female propensity to gamble, in pension allocation and in insurance premium versus deductible decisions. Male traders have also been shown to trade more frequently, regardless of whether or not this will lead them to underperform their female peers. Testosterone pattern tests show that levels can reach highs where male traders become overconfident and take bad risks knowingly, i.e. irrational exuberance. This appetite for risk taking has historically been interpreted as men having a greater suitability and natural aptitude for business leadership, but since 2007 there has been considerably greater debate.

One such study is Gneezy et. al. showing that in a non-competitive environment, men and women perform a given task fairly equitably, but when a competitive element is thrown into the game men immediately step up their performance significantly whereas women do not. However, within a female-only competition, women will perform better, but not to the same extent as men. This is interpreted by the authors as "stereotype threat", i.e. that women are held back by different expectations as to their abilities. The explanation of "stereotype threat" for women's risk appetite levels is underlined by a 2010 study[15] that uses a gender neutral task (listing words starting with the same letter) rather than the maze solving (i.e. male brain) task of the Gneezy et. al. experiment and here the findings show that women tend not to compete with men if they (rightly or wrongly) think they will lose anyway. With a

14 Niederle and Vesterlund 2007: Do Women Shy Away from Competition? Do Men Compete too Much?; Croson and Gneezy 2009: Gender Differences in Preferences; Coates and Herbert 2008: Endogenous steroids and financial risk taking on a London trading floor

15 Guenther et al 2010: Women can't jump? An experiment on competitive attitudes and stereotype threat

gender neutral task, women outperform men in a non-competitive environment and when the competitive element is added, even though men again improve significantly, women also improve performance sufficiently to match men's results. So the presence of a "stereotype threat" can explain the relative risk aversion of women in certain settings.

Stereotyping

Stereotyping as to career paths can be driven as early as parental steering or teachers' advice towards tertiary degree choices. In the UK, just 9% of the science and engineering workforce is female and a recent report says that parents and carers are reinforcing gender stereotyping by advising female students interested in science and maths towards a career in medicine or law rather than engineering. Underpinning this is a difference in parental gender attitudes: 2% of parents considered engineering as an appropriate career for a daughter versus 12% for a son[16]. Compare this to 16% of parents being in favor of their daughters becoming teachers versus 5% for sons. In the UK, just 5% of teachers at elementary school level have science degrees and 75% of secondary schools were not fulfilling their independent, impartial career advice obligations, according to one government report[17]. Being taught by a non-subject graduate cannot be optimum[18]. Peer pressure and broad cultural messages also add a further negative layer. So the bias, implicit or explicit, steering children and girls in their choices reinforces stereotyping and social conditioning.

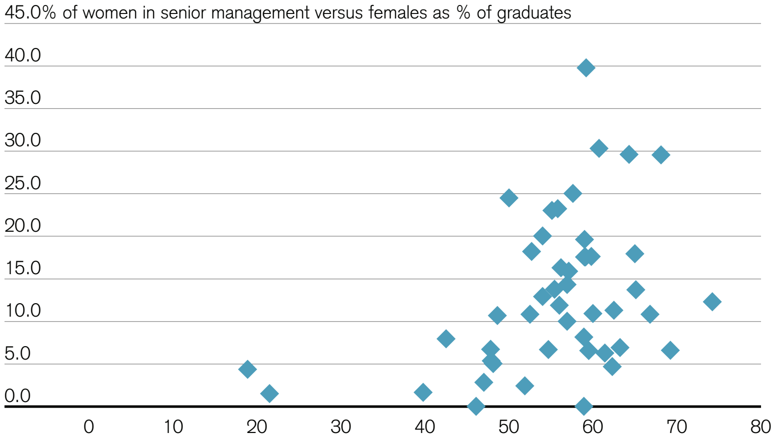
What happens if you actively try to control unconscious bias? Harvard Business School found that male and female students were arriving for their MBA program with the same test scores, but that there were few women making the top 5% cut at graduation and so started a gender experiment with the 2011–2013 class to identify reasons for this and try to close the "grade gap."[19] To eliminate the unconscious grading and memory bias for class participation (which makes up 50% of grades), they introduced court stenographers to note exactly who said what in class and to encourage female participation by giving hand-raising coaching to counterbalance the dominant male behavior in classrooms.

What they also identified was that women students felt the need to choose between academic and social success, while the two aspects were closely intertwined for men. In a managerial context, wanting to be liked can go against asserting authority. But after the two year gender experiment, the grade gap had narrowed so dramatically that women made up 40% of the top 5% at graduation and interestingly, no one was able to pinpoint exactly the reasons for this huge improvement. Among the three possible drivers suggested in an article in the New York Times were the efforts to reduce the unconscious bias in grading, an improved environment both inside and outside the classroom that enabled women to perform better and an easing of grading for women. Or a mix of all three. But what the experiment so clearly demonstrates is how quickly women narrow the gender gap if the unconscious bias is controlled.

Figure 21

Percent of women in senior management versus females as percent of graduates

Source: National Science Foundation 2011 report – 2008 data, OECD, Factfish



Double standards

As Guenther et. al. write, "Being competitive in itself is regarded as stereotypically rather male, and… being competitive in 'male settings' for women still includes a negative stigma of being bitchy."[20] In terms of general behavioral patterns, what is seen as a positive in a male colleague can be interpreted as a negative in a female showing the same attributes. Double standards! An ambitious male is judged as wanting to succeed, driven, and as someone with leadership potential; a similarly ambitious woman can be dismissed as not a team player and someone difficult to manage.As a corollary to this, women managers lean towards a more collaborative style of decision-making, incorporating a greater number and broader range of voices when seeking to make decisions and choices. This style of, or preference in, behavior can be wholly misperceived by male colleagues as lacking the ability to lead, lacking confidence or indecisiveness. Politeness can be read as subordination!

In fact, this is a significant misinterpretation. In a fascinating study from 2010, Professor Anita Woolley and colleagues identified a "collective intelligence" factor when asking groups of between two and five to complete various tasks. Their findings were that the performance—or success—in these tasks was not strongly driven by either the

16 Engineers Week Survey
17 Ofsted data
18 In the UK, an estimated 30-40% of GCSE maths lessons are taught by teachers with qualifications in other subjects. The Telegraph, 18 June 2012. National Math & Science Initiative estimates that 36% of public middle school maths teachers in the US did not major in maths at college and/or are not qualified to teach it. The corresponding figure for science teachers is 30%.
19 New York Times: Harvard Business School Case Study: Gender Equity – 7 September 2013

20 Guenther et al "Women can't jump? An experiment on competitive attitudes and stereotype threat

average intelligence of the group, or by the most intelligent member of the group, but was more correlated with the interaction of the group, specifically the social sensitivity of members to one another, each member of the group being allowed to give their thoughts and opinions, and the proportion of females in the group, i.e. the presence of a facilitator more likely to draw out contributions and therefore the best solutions of all. So it is about time that men started teaching themselves that female deferring or listening to others is not subordination, nor is it an inability to lead, but a means to achieve the best solution.[21]

Other studies also evaluate how qualifications are rated differently for male and female applicants. Interestingly, recruiters tend to put more emphasis on the importance of qualifications to jobs when men have achieved strong results in these fields and downplayed their importance if male candidates have not scored so highly. This implicit favoritism does not translate to women. Areas where women have stronger skill sets or qualifications are deemed to carry less weight in the recruiting process and instead the hiring or promoting criteria are more likely to focus on softer social skills, i.e. "likeability."[22]

Spousal role and support

The work-life balance can be a continual change and perhaps more so for women. In her important work, A Grand Gender Convergence: Its Last Chapter, Claudia Goldin[23] argues that the structure of jobs and the time-based structure of salaries must be altered for there to be real equality. How women are able to structure their time given outside commitments and what time demands organizations place on them do not necessarily coincide. There is still a strong correlation between women's advancement and the time commitments of their jobs.

Literature always posits the female as the decision maker when it comes to stepping out of the workforce. This is not always obviously the case and the real reasons for spouses and partners "supporting" such a decision can be varied. In the US, overall marriage rates have fallen from 81% in 1970 to 51% in 2010 for 25–39 year olds. In 2010 American Community Survey data, wives earned more than their husbands in 26% of couples between 18 and 65 years old. Wives out-earning husbands can lead to greater unhappiness in couples and to a higher divorce rate. 50% of US couples report being "very happily married," but this level of happiness starts to fall as wives become the main breadwinner role and there is 50% higher likelihood of eventual divorce when this is the case.[24]

While it is commonly believed that motherhood is the point at which gender promotion rates diverge, this is not the case. The promotion gaps start well before women opt to have children and particularly today when women are opting to have children later in order to invest in their careers. There is a significant discrepancy between parenting rates at entry and mid-level employees,[25] with 9% fewer women having children at entry level and 8% at mid-level. Women are postponing having children relative to their male colleagues while they establish their careers and seek promotion.

However, there is a generational shift in the expectations of a work-life balance, and what today is seen as a gender issue is set to become an issue across the entire workforce. Bain & Co research data show that men with non-working spouses are significantly happier at work than when they have a spouse/partner who is working. It ranges from a 17% difference in their job satisfaction when they have no children, rising to 34% when they have children and their spouse is at home.[26] Counterintuitively, it is mothers in the lowest household income levels who are the most likely to opt out of the workplace, according to US Census Bureau data for 2005–07, because of the unaffordability of childcare; but cultural and legacy values can also consider a wife staying at home—with or without children—as a status symbol, proving that a husband has reached the level of earning power where he alone can provide financially.

21 Woolley, Chabris, Pentland, Hashmi and Malone 2010: Evidence for a Collective Intelligence Factor in the Performance of Human Groups

22 Phelan, Moss-Racusin and Rudman 2008: Competent yet out in the Cold

23 Goldin C. A Grand Gender Convergence: Its Last Chapter. American Economic Review. 2014;104(4):1091–1119.

24 Bertrand, Kamenica and Pan 2013: Gender identity and relative income within households 2013

25 Simard, Henderson, Gilmartin, Schiebinger and Whitney: Climbing the Technical Ladder: Obstacles and Solutions for mid-level Women in Technology – idem

26 Bain & Co 2013: Gender equality in the UK

PHOTO: SHUTTERSTOCK.COM/MONKEY BUSINESS IMAGES

The Bain & Co findings are echoed by data for the tech sector showing that 79.3% of mid-level women have a full-time working partner, more than double their male peers, less than 38% of whom have a full time working partner. This implies that mid-level women are more likely to have to juggle work and home and childcare responsibilities than their male colleagues. Men in the tech sector are four times more likely to have a partner with primary responsibility for the household and childcare, and 50% have a partner who either works part-time or not at all. This compares to less than 15% of women with a partner working part-time or not at all who can support them in their career. Despite working women still bearing the responsibility for homecare and childcare, men will have to increase their contribution, especially as paternal involvement in child-rearing continues to become the norm. PWC's research into young employees born between 1980 and 1995, the so-called "Millennials," shows that both men and women have very similar expectations and demands of the work-life balance today.[27]

Workplace bias and quantitative issues – the gender pay gap

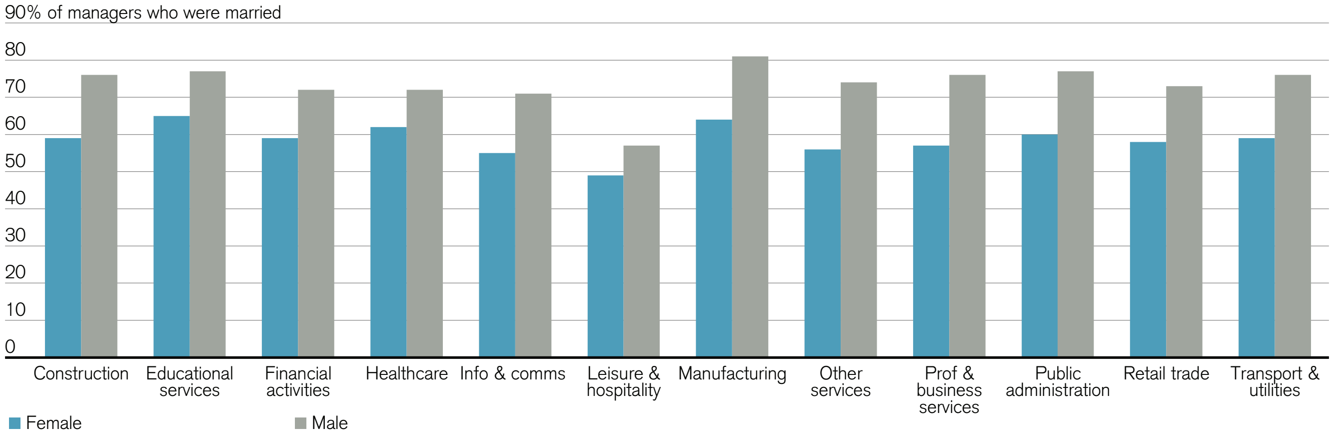
It is hard to comprehend that like-for-like jobs still pay men and women differently. While pay gaps are obvious where there are different skill levels, qualifications, hours etc., there can pay be no excuse for the stubborn underpaying of women for doing the same job. It is discrimination. It serves as an obstacle to commitment and progression; it is demoralizing and demeaning. But it is one of the easiest workplace biases to remove.

Graduate level data is skewed by degree choice, the higher proportion of women accepting jobs in the public sector compared to men, particularly in education and healthcare, or part-time posts. However, MBA graduates are emerging with similar skill sets and similar job profiles—

Figure 22

Estimated % of managers who were married – 2007

Source: US Government Accountability Office analysis of American Community survey data

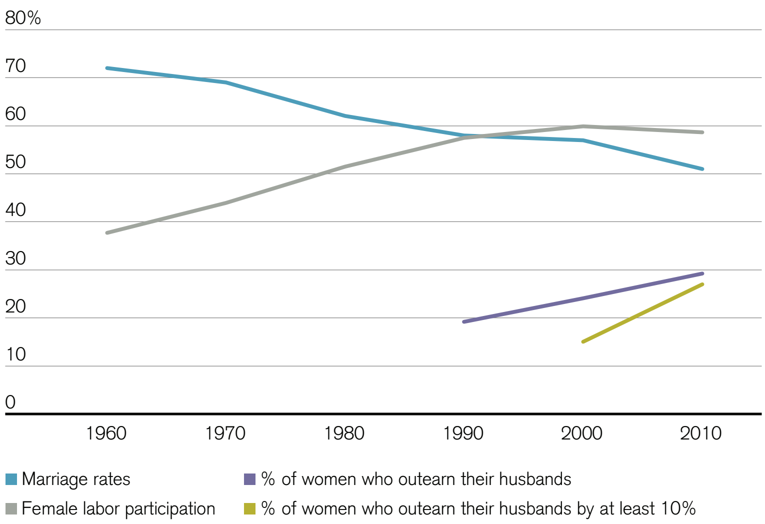


27 PWC 2011: Millennials at work: Reshaping the workplace

Figure 23

US marriage rates have fallen as the number of women working has increased

Source: 2010 American Community Survey data,
Pew Research Center analyst of Decennial Census (1960-2000); US Department of Labor



yet male MBA students still get paid USD 5,000 more than their female colleagues.[28] This pay gap is confirmed by a further study released in June 2014 of over 600 MBA graduates in Europe where the annual salary gap was EURO 4,255 (USD 5,784 at current exchange rates) at their first job out of business school, widening to EURO 36,304 a mere five years after graduation, a 750% expansion. That is a very material difference.

If we look at broader gender pay gaps reported by governments but take comparisons for full-time working men compared to full-time working women, we see a 16.4% differential across Europe, 17.1% in Australia and 19.1% in both the UK and the US. The US gap is 10% for 25 to 34 years old and increases with age. This is in line with women failing to reach senior management heights. It also increases with tertiary levels of education![29]

28 Catalyst Group 2010: Pipeline's Broken Promise
29 This is not a surprise as manual labor is typically paid by the hour and is more unionized, i.e. collective agreements.

PHOTO: SHUTTERSTOCK.COM\MONKEY BUSINESS IMAGES

Interestingly, Norway and Sweden are 15%–16%. The OECD reports an average of 16%, with a 21% difference at the top of the pay scale. Japan has a gender pay gap of 29% but it is 40% for workers over 40, which is consistent with the very low levels of women in senior management and on boards, though this should improve with Abe's 2020 initiatives. South Korea has the greatest difference at 39%, again tallying with the low representation of senior women.

In terms of sectors, we see particularly wide gaps in professions with billable hours, i.e. law; this is one explanation for why office presence, or perhaps face-time continues to be rewarded.[30] The financial services sector comes next. In the US, it is almost 30%, in Australia 32% and in the UK 38%. The lowest gap was in construction in the US, 5%, followed by agriculture and leisure & hospitality at 15-16%. Education and health services were 23% versus 17% within education and 19% for health professionals in the UK. The narrowest gap in the UK was in retail sales, at 5%.[31]

In a double-blind study at Yale,[32] academic scientists were given applications from students applying for a lab manager position. They were given identical CVs, but some with a male applicant's name, some with a female name. Not only were the male applicants rated higher on competence, hireability and mentoring (whether the reviewer would mentor the candidate) in line with other gender-blind study results, but also men were offered a USD 30,000 starting salary while the women were offered USD 26,500!

"Of Age, Sex and Money,"[33] a study of the pay gap, finds that CEOs pay employees of the opposite gender less than those of their own gender (even when controlling for job characteristics), hence the perpetuation of this discrimination against women. The bias works both ways though, and the median US difference in 2012 was an annual USD 11,084 in favor of the male workforce and USD 64,200 at the senior management level, according to the report. Male CEOs pay male middle managers USD 46,500 a year more than women, whereas women CEOs pay women middle managers USD 21,960 more, i.e. the male self-bias is more pronounced.

Self-promotion and promotion

In academic research, male self-promotion can be categorized as male overconfidence, which only diminishes later in age.[34] Men are generally better at playing by the invisible rules that aid promotion. At the interviewing process, the female tendency to "talk about" rather than "talk up" their qualifications and experience can lead hirers to see them as having accomplished less than their male counterparts who are more willing to talk up the same experience. In the tech sector, which frequently conducts first round interviews by phone, women applicants often do not get past the first hurdle, as their reticence to embroider their exact experience and qualifications means they lose out to male candidates who are more willing to do so. Asking for promotion is also a well-documented difference in male and female styles. Accenture's 2014 survey of 4,100 employees for their Career Capital reports that men are over 10% more likely to ask for a salary increase and almost 20% more likely to ask for a promotion than their female colleagues and to compound that, they are 15% more likely to be granted these than women.[35] And when men ask for a salary increase, they ask for a higher increase than their female counterparts!

"Women feel confident only when they are perfect. Or practically perfect," so argue journalists Katty Kay and Claire Shipman in their recent book "The Confidence Code: The Science and Art of Self-Assurance—What Women Should Know." This is a concise way of explaining the seemingly never-ending research projects that demonstrate that women

30 Goldin 2014: A Grand Gender Convergence: Its Last Chapter

31 Australian Board of Statistics, Eurostat, ONS US Bureau of Labor Statistics, OECD, UK Equality & Human Rights Commission

32 Moss-Racusin et al 2012: Science faculty's subtle gender biases favour male students

33 Newton and Simutin 2014: Of Age, Sex, and Money: Insight form Corporate Office Compensation on the Wage Inequality between Genders

34 Niederle and Vesterlund 2007: Jakobsson and others 2013: Gender and Overconfidence: Effects of Context, Gendered Stereotypes and Peer Group; Reuben and others 2011: The Emergence of male Leadership in Competitive Environments and many more

35 Accenture: Career Capital – 2014 Global Research Results

always underestimate their abilities compared to men overestimating theirs—and actual results being equitable.[36] It also explains women's decisions not to go for promotions and positions where they (subjectively) feel unqualified, only to see a less qualified man step forward and take the prize. Less confidence means less willingness to take risks and to compete.

Women's relative reticence to ask for a promotion and hence preference to rely on meritocracy and formal channels is a brake on their climb up the career ladder. Likewise, loyalty is considered by women as an important attribute, but loyalty does not result in them being promoted. At possible opportunities for making the next step up the ladder, women will want to be certain they have all the requisite skills for the next level whereas men will believe that they can fill in any missing gaps on the job. This is cited as a confidence gap, a concept to capture many differences in gender behavior, but it also goes back to the difference between how boys and girls answer questions in the classroom, where boys tend to put their hand up to answer before the end of the question whereas a girl will only put her hand up when she has secured the answer. This narrow understanding of the paths and prerequisites for promotion is a definite obstacle; Harvey Coleman in "Empowering Yourself, The Organizational Game" states that performance only contributes 10% towards promotions decisions.

Asking for promotion further compounds the greater frequency at which men get promoted. Various studies[37] report that men are promoted twice as rapidly in their early years in employment and that these promotions are both vertical and horizontal, giving men far broader experience (and network) within an organization. And of course, this divergence expands higher up the organization and serves as a block on women having the same opportunities to reach top management. Data shows that men are 30% more likely than women to enjoy five or more promotions in their careers, regardless of whether women have children or not.[38]

Flexibility: travel, face time and working from home

The desire for flexibility is much discussed, but flexibility is a catch-all term for anything ranging from setting one's own agenda, deciding where and how much to work, and when and where to travel. Travel is a key reason for women choosing to step off the career ladder. While women can find the requirement to travel a challenge, particularly if they have other responsibilities outside of the work environment, line managers can infer that women have a wholesale unwillingness to travel.

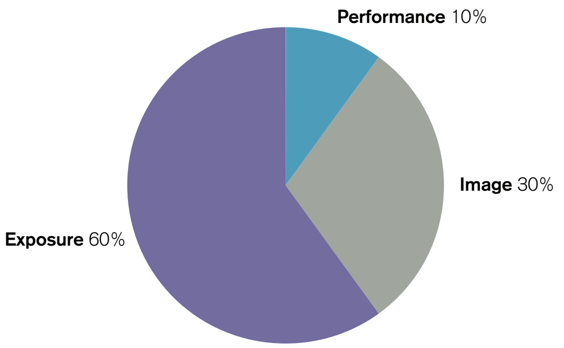
This in turn can reinforce the "unconscious bias" and lead to these managers not putting women candidates forward for promotions or projects that would involve relocation or time spent abroad and typically, these are the assignments that can be decisive and well-established routes to networking and promotion. The problem here is about presumed female preferences and not the actual preferences themselves. Men can presume that women want to stop working at some stage, perhaps projecting the role of their own mother. In a UK survey, 61% of mothers said they would want to work even if they did not have to financially versus just 24% who said they would give up work if they could.[39] Cotter et. al. show that the percentage of married mothers staying at home does not increase consistently as husbands' earnings rise. 60% of mothers with husbands in the top 5% of earners are working and over the past 15 years, it has been women with higher earning husbands who have been increasing their participation in the labor force. This does not appear to correspond to general perceptions that women will opt out if they can afford to.[40] Women may want to work differently, but that does not mean they do not want to work.

"Face-time" is widely regarded as a waste of time, but it is a practice that persists. Why does sitting at one's desk in an office or remaining at one's workplace equate to better levels of productivity and higher levels of loyalty?[41] Technology developments mean that remote working is a real possibility and a real benefit for many employees. Certainly there are areas where remote working is not viable, for example where confidential information is involved, where regulatory requirements mean that employees need to be supervised in their functions, but in most fields, it is increasingly a possibility that will not hinder an employee's output. This type of flexibility does not need to entail full-time or even considerable hours of remote working, but this type of flexibility improves employee satisfaction and loyalty amongst the entire

Figure 24

How do people get promoted?

Source: "Empowering Yourself, the Organizational Game", Harvey Coleman



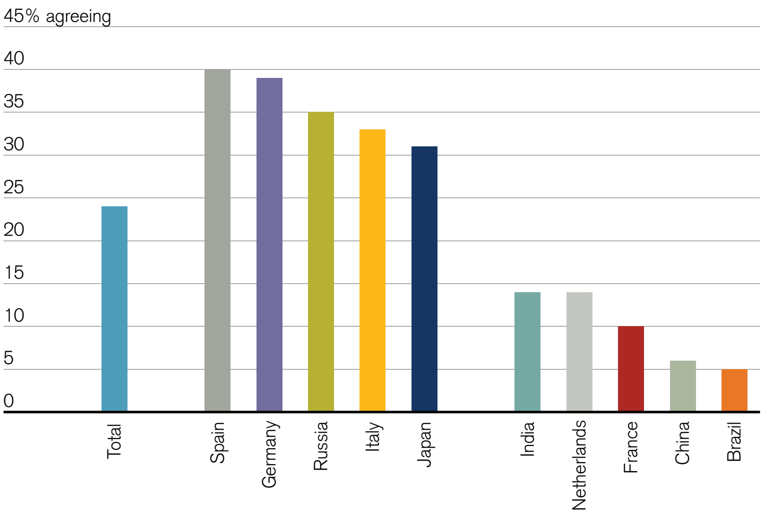
36 Furnham and Chamorro-Premuzic 2007: Self-assessed intelligence and confidence for the acquisition of skills; Furnham 2001: Self-estimates of intelligence: culture and gender difference in self and other estimates of both general and multiple intelligences.
37 KPMG 2014: Cracking the Code
38 KPMG 2014: Cracking the Code - idem

39 NCT Survey: Experiences of women returning to work after maternity leave in the UK
40 Cotter, England and Hermser 2007: Moms and Jobs: Trends in Mothers' Employment and Which Mothers Stay Home
41 BTplc reports 63% fewer sick days in its home-based staff compared to office-based staff and they have cut their average sick day count to 3.1 days per employee vs the UK national average of 8.5 days. Opportunity Now website

Figure 25

PWC Millennials survey – employees that agree that employers are too male biased when promoting from within

Source: PWC Millennials at Work research;



workforce even when these employees do not use the facility. The possibility alone of flexibility is enough to create the difference and the time has come to challenge traditional working practices with practical, workable solutions.

Flexibility in the form of the ability to set one's own agenda and schedule most of one's working day often coincides with rising seniority. It is of course incompatible with many areas of work, but continually working with someone senior setting working terms can be a compounding source of frustration for employees, both men and women, passed over for or losing out on promotions. This can be a specific trade-off for parents trying to juggle school timetables and rigid working hours and encourage a concern that it is the broad family, not just the parent that is losing out on the work-life balance.

Table 15

Who receives five or more promotions?

Source: KPMG 2014: Cracking the Code

	% without children	% with children
Men	65	74
Women	51	57
Difference	27%	30%

Men are more adept at making flexibility in their workdays. Cranfield Business School research shows that as many men work flexibly as women, but that women do so contractually whereas men do so unofficially. Similarly, Captivate Network data says that men are 25% more likely to take breaks during the working day for personal activities, 7% more likely to go for a walk, 5% more likely to go out to lunch and 35% more likely just to take a break to relax compared to their female colleagues.

Overall, there is less appetite for working long hours dictated by someone else these days, and this comes at the pinch-point where women are losing out on promotions and becoming less satisfied or even demoralized by the lack of opportunities at work. It can coincide with the "rush-hour" in women's lives and, at this point, the sense of frustration or sacrifice may not seem worthwhile; or it may be that personal success for women is a more complex satisfaction than just work-derived, so they choose to opt out or start to "make the compromise."

Managing your own business

If the ability to control or manage one's time is a key determinant of a woman's decision to opt out of the corporate world, it may also explain why so many start-ups and new companies are being founded by women today. Between 1997 and 2014, the number of women-owned businesses in the US rose by 68%, twice the increase in male-led start-ups[42]. Biz2Credit.com found that average earnings at one of the 10,000 female-owned businesses applying for credit via their platform rose from USD 35,135 in 2012 to USD 54,114 in 2013. The average loan application was for USD 85,000 and women were looking for these loans after 27 months in business rather than the average of more than 40 months as in the 2012 applications, reflecting not just the general economic rebound but a greater level of confidence amongst female entrepreneurs. At this scale of business, a woman is likely working from home and maximizing the benefits of technology, and 2012 data shows that close to 90% of female-owned businesses have revenues of less than USD 100,000.

The rapid growth in female-led start-ups again shows us that it is wrong to interpret a woman stepping off the formalized corporate ladder as a decision to stop working altogether, which is the common perception. These women are choosing to work differently and to embrace different, possibly broader, challenges than is currently being offered to them in the corporate workplace. Perhaps they are choosing to take the responsibility they are being denied in the workplace. In an academic report as far back as 1997, Moore and Buttner[43] identified that many women start their own business as an alternative career option, largely at the point when they feel they will not be promoted further.

Flexibility tends to push women into staff rather than line roles

The downside for women looking for increased working flexibility is that organizations tend to offer this only in more support-side functions (i.e., shared services) rather than in line positions. Line roles remain the key conduit to senior and board positions as these functions exist all the way up the organization, unlike staff and more internally focused roles. 25% of senior women are employed in Human Resource functions, according to the Grant Thornton International Business Report 2014 while Credit

42 US Census Bureau data

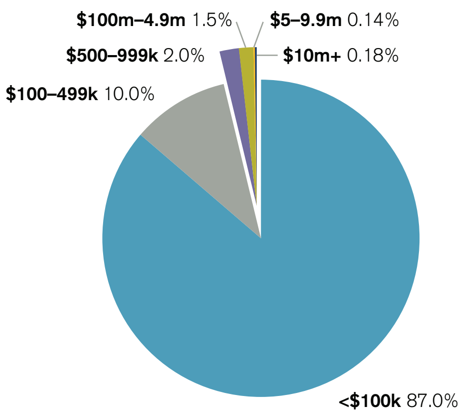
43 Moore and Buttner 1997: Women Entrepreneurs: Moving Beyond the Glass Ceiling

PHOTO: SHUTTERSTOCK.COM/PRESSMASTER

Figure 26

Revenues for women owned companies in the US – 2012

Source: Data compiled by American Express OPEN/Womenable estimate from US Census Bureau



Suisse data, cited earlier, show 34% of senior female management globally are in shared services (HR, Legal, Communications etc). This is not the typical route to an executive or board position which looks for operational or financial responsibility and the sharp discrepancies shown in our data in Figures 27 and 28 as to the relative representation of men and women in line functions and shared services goes a long way to explaining why men are so much more likely to be promoted to the top and the limited pool available even for board appointments.

Seeking out and prioritizing flexibility may come at a time where dual incomes are less important or less necessary as the cost of childcare erodes much of the utility of the second income. This, however, is often only a temporary issue and more flexible working arrangements could keep female employees in the workplace until this phase passes. The working culture needs to judge women stepping out as a pause in their careers driven by a multitude of different possible reasons, not necessarily a permanent step off.

Women are mentored, men are sponsored

Mentors and sponsorship can be aids in helping promotions, though fast track women's programs alone do not necessarily help promote greater

diversity within an organization as is demonstrated by the ongoing low levels of women in senior positions. A 2008 survey by the Catalyst Group shows that 72% of men with active mentoring received one or more promotions within two years compared to 65% of women. Why? One reason might be that 78% of the men were actively mentored by a CEO or other senior executives, i.e. the decision-makers, compared to 69% for women. But behind these numbers, it is actually a greater number of women—83%—who have a mentor at one point in their career compared to 76% of men, although 36% of women have female mentors versus 11% for men. So it seems that women are not getting equal benefits from mentoring even though many companies see this type of program as a key tool in efforts to help women up the promotional ladder. They need to think again.

Sponsorship is a quicker route to the top.[44] In the UK, male employees are 25% more likely and senior male employees 50% more likely to have a sponsor,[45] possibly the old boy's network, to smooth the way and develop the exposure and profile needed to get through the 60% exposure criterion identified in "Empowering Yourself, The Organizational Game Revealed" by Harvey Coleman. Ibarra[46] succinctly describes how women are "over-mentored" and "under-sponsored" relative to male peers and how the support network needed for promotion does not need necessarily to be broader, but deeper, an impact which women can misunderstand. Ibarra argues that without sponsorship, women are less likely to be appointed to senior roles and less willing to step up for these positions.

Ibarra also suggests[47] that mentoring, women's leadership programs and networking initiatives can be counterproductive and recommends a 70-20-10 approach to female talent development—70% on-the-job learning through stretch assignments, 20% mentoring and 10% through training. Most diversity programs try to address the issue via the mentoring and training route, i.e. 30% of the solution whereas the 70% assignment proportion is essentially mirroring the male employee route—postings abroad and postings in other departments, which give male employees broader, line experience for promotion.

Figure 27

Senior management in line or operating functions

Source: Credit Suisse

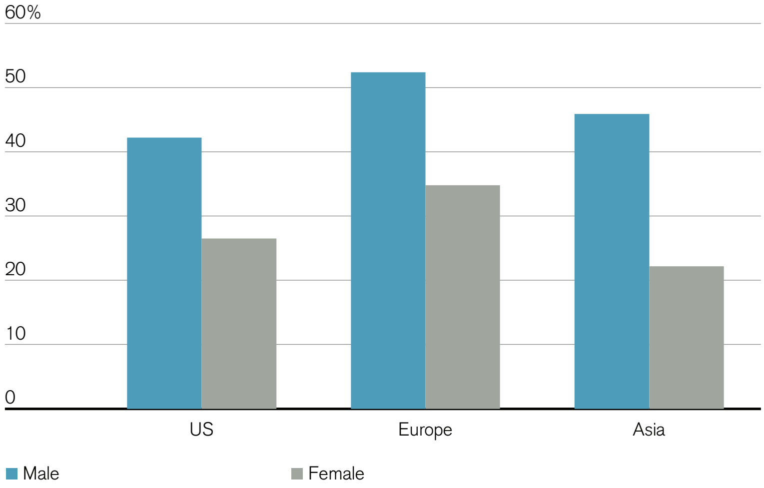
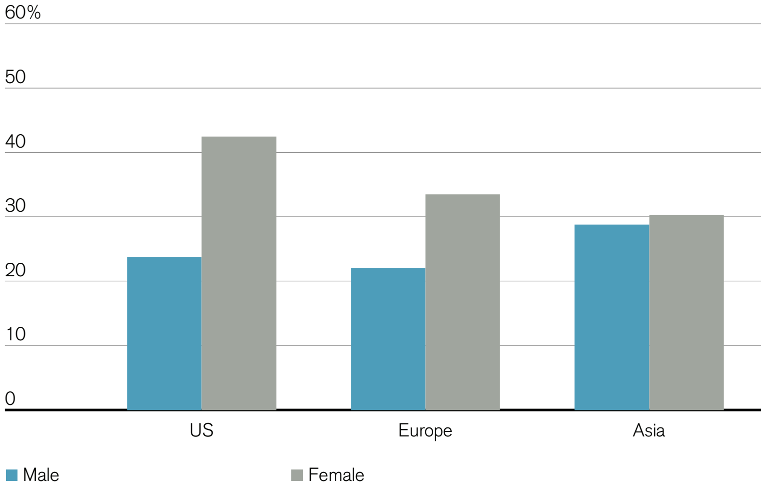


Figure 28

Senior management in shared services functions

Source: Credit Suisse



44 McKinsey & Company: Unlocking the full potential of women at work
45 Center for Talent Innovation: Hewlett and others – Sponsor Effect: UK
46 Ibarra 2010: Why Men Still Get More Promotions Than Women
47 Ibarra 2012: To Close the Gender Gap, Focus on Assignments

PHOTO: SHUTTERSTOCK.COM/STOKKETE

Lack of role models

The absence of a role model is frequently posited as a significant reason why women choose to opt out or abandon efforts to secure further promotion. Why fight for failure, or at least what looks unrealistic? Role models serve as inspiration. Mentors aid as sounding blocks. It seems as if "seeing really is believing." Women are more likely to stay in their positions if they have a female supervisor.[48] Usually internal colleagues who have direct knowledge of the situation or parallel situations, they tend to aid personal development rather than career advancement. As such, sponsorship helps more as it can push obstacles out of a career path before they appear. It is essentially pre-approval.

Structural obstacles – quotas themselves can be an obstacle

Attitudes towards gender roles have evolved over the past 50 years in close correlation with the increase in the rate of female labor market participation and increased tertiary education levels. In this context, another important initiative to drive the ratio of women higher up the management chain has been the setting of quotas for female board participation (Norway, Spain, Belgium, Italy, France) and targets (UK, Holland, Japan). Malaysia has a 30% quota for new board appointments, while Brazil has a 40% target for state-owned companies. Other countries such as Finland, Sweden and Australia are supporting diversity by disclosure requirements and/or active promotion of the diversity debate in the national media. But are quotas a positive or a negative? Do they promote change generally or do they just promote "tokenism?"

There is still little evidence as to the real impact of quotas given their recent introduction. But in a seminal study on the impact of quotas in politics, Pande et al[49] looked at the impact on gender stereotypical beliefs caused by the 1998 implementation of reserved seats for women in local village elections in India. Under this quota, one third of village councils were randomly selected at every election and made to appoint a female chief councillor. The study looks at 7000 households in 495 villages in West Bengal and perceptions following the 1998 and 2003 elections and shows that there was a dramatic impact on the perceptions of the effectiveness of female leadership, but only after the second round of having a female chief councillor. The introduction of these quotas also raised parental aspirations for daughters and the aspirations of girls for themselves. However, even with this positive change in attitude towards female effectiveness, both female board and management participation levels in India are around 7% today.

We believe that the effect of the quotas and targets for board level participation have positively contributed to the debate, but has so far failed to improve female participation in senior management more broadly and have done nothing to address the pipeline issues. Norway has a 40% quota for female representation on boards with at least 10 directors, but the number of women in senior management roles is less than 22% according to CS data. This corresponds to recent academic findings by Bertrand, Black, Jensen and Lleras-Muney in their "Breaking the Glass Ceiling? The Effect of Board quotas on Female Labor Market Outcomes in Norway," which demonstrates that there has been no broader spillover or trickle down impact from the quota and that it has done nothing to impact (positively) the gender pay gap outside the boardroom. So it seems that boards have ticked the box. And that is all.

In the UK, the target for board representation is 25% by 2015 and currently stands at 20.7%[50] but women are just 16% of senior managers. This holds for many countries across Europe where targets have been introduced. Our concern is that governments, rather than taking board initiatives as a first step and then driving further gender diversity—as Sweden has done, for example, in the area of parental leave—will fail to push through additional progress, resting on the progress made at the board level. Also, male-led management teams who hit their quota and target requirements may then believe that all their gender issues are solved and thus ignore the substantially larger problems they have in the gaps in female representation throughout their management structure.

As a recent alternative to outright quotas and targets, we are encouraged by the initiative of Prime Minister Matteo Renzi in Italy to highlight the issue of female representation by appointing women 50% of posts in his cabinet and as chairmen of four State-owned corporations. This is a clear signal of intent and it will be interesting to see the extent to which it drives broader improvements in female participation in management.

The "tokenism" argument has been tested in an interesting study of Danish companies that found that having a female in a very senior position in a company does not lead to increased recruitment of women board directors nor does a female board chairman improve the representation of women on a board. In fact, it leads to the opposite and companies with a female chairman have, on average, a 9% lower share of women board members. A second finding of the study shows that if there is already one woman board member in place, the probability of hiring another female is lower. If there are two female board members, the chance of hiring one more man is significantly higher than it is of hiring an additional female. This is interpreted in the study as proof of "tokenism."

Quotas at what price?

When the Norwegian 40% quota law was passed in December 2003, just 9% of local board seats were occupied by women. The law became mandatory in January 2006 with a two year transition period. The failure of companies to meet the original voluntary requirement coupled with the average 3.5% fall in share prices following the announcement of the law plus the fact that no

48 McGinn and Milkman 2012: Looking Up and Looking Out: Career Mobility Effects of Demographic Similarity among Professionals
49 Pande et al 2009: Powerful Women: Does Exposure Reduce Bias?

50 Boardwatch – May 2014

Figure 29

2013 Female management gap by country (board versus top management)

Source: Credit Suisse Research

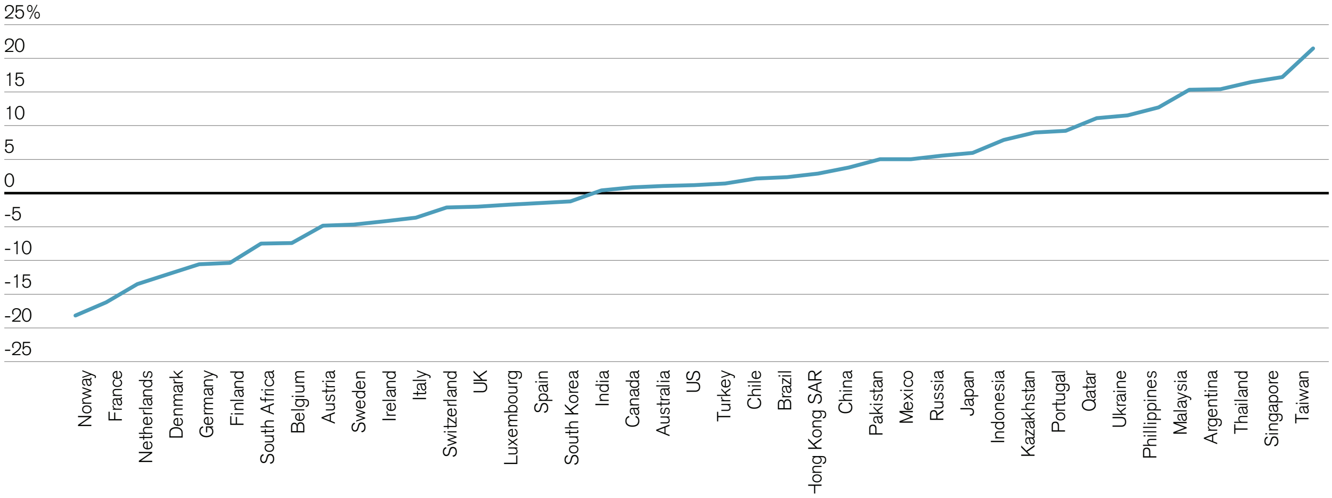
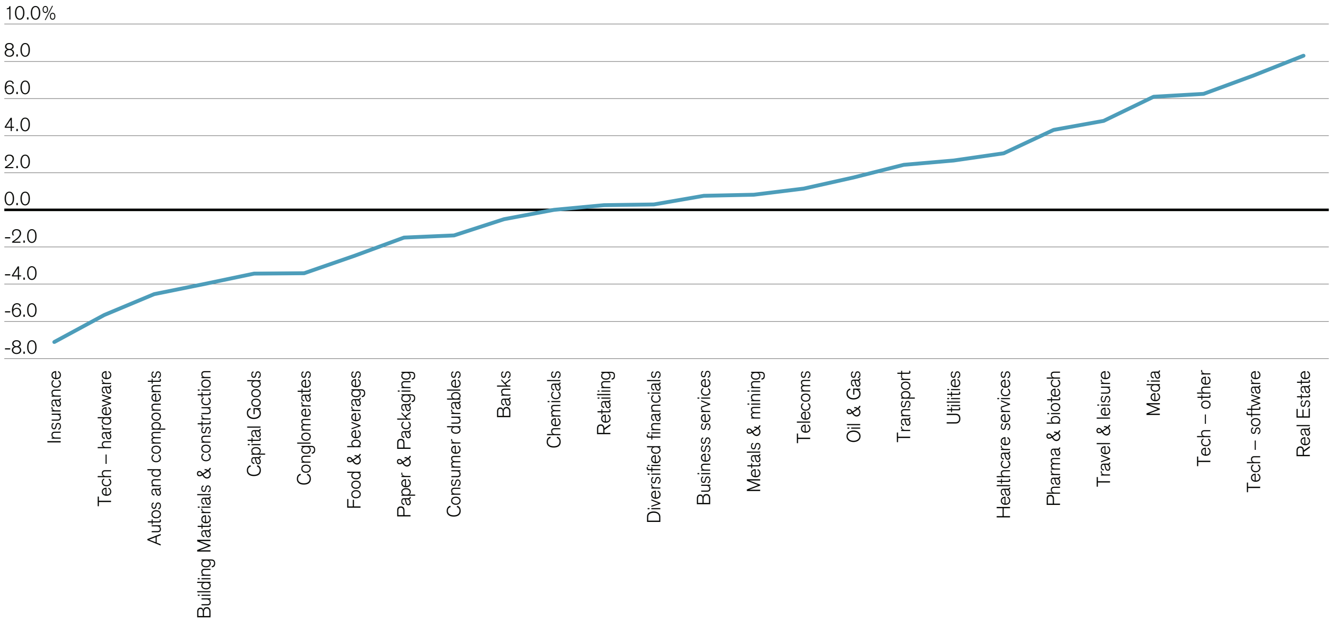


Figure 30

2013 Female management gap by sector (board versus top management)

Source: Credit Suisse Research



other management changes occurred suggest that the law was broadly unpopular.

The new female directors were on average 8 years younger than existing male directors and the male directors they replaced suggesting less experience. Ahern and Dittmar in their research into the impact of the Norwegian quota found that the addition of women led to more acquisitions, increased leverage and reduced cash holdings. Firm value as measured by Tobin's Q fell by more than 12% with every 10% increase in female board members showing that the market believed that companies were constrained in their ability to appoint the most qualified candidates to their boards. Compared to valuations in 2003, the firms most impacted by the quota continued to see substantially more negative hits to their valuations from 2007 to 2009, i.e. more than a temporary reaction in the stock market.

Are quotas always what they seem?

The Norwegian mandatory quota is widely quoted as a minimum 40% requirement and as the model to ensure diversity. We were surprised therefore to find that the average level of women on Norwegian boards was just below 40% for the companies covered by CS analysts and only 37% for the companies in the MSCI ACWI index. There are a number of exceptions to the quota that explain this: the law does not in fact state a 40% diversity requirement as such and it only relates to companies with boards with over 10 members (many of the shipping and oil services companies have boards with 5-7 directors); it does not apply to companies whose boards are appointed by a Corporate Assembly rather than the AGM (explaining why Telenor and Norsk Hydro are below 40% but still compliant); it applies only to directors who are shareholder representatives and not employee representatives. We also note

that close to 100 companies chose to delist rather than comply when the law was passed and others decreased the size of their board to fall below the 10 member threshold. So while the example has done much to focus the diversity debate and foster diversity on its board, there are many ways to get around the 40% target.

And do managers drag their feet with "comply or explain" initiatives?

Australia has a "comply or explain" diversity initiative that requires companies to disclose their (individually set) gender diversity targets in their Annual Reports and the compliance rates. Blackrock Australia in its 2013 report on diversity progress described progress "at a glacial pace" and that "disclosures made by ASX 200 companies regarding their gender policies point towards boards not appearing to take the issue seriously." Within the 140 Australian companies within the CS3000, the ratio of women on Australian boards has increased from 11% in 2010 to 17.5% in 2013 which would suggest that it is the smaller, less investor-focus companies that are dragging their feet. At a management level, women make up 18.6% of senior positions but this is really only driven by the fact that 42% of shared services positions are held by women. For the Australian companies under CS coverage, only 4.5% have female CEOs, only 18% of the finance and strategy roles are held by women (and this is overstated by the inclusion of the IR function here) and 10.9% of business operations are headed by women. Again, we would be concerned that this is tokenism as a response to targets.

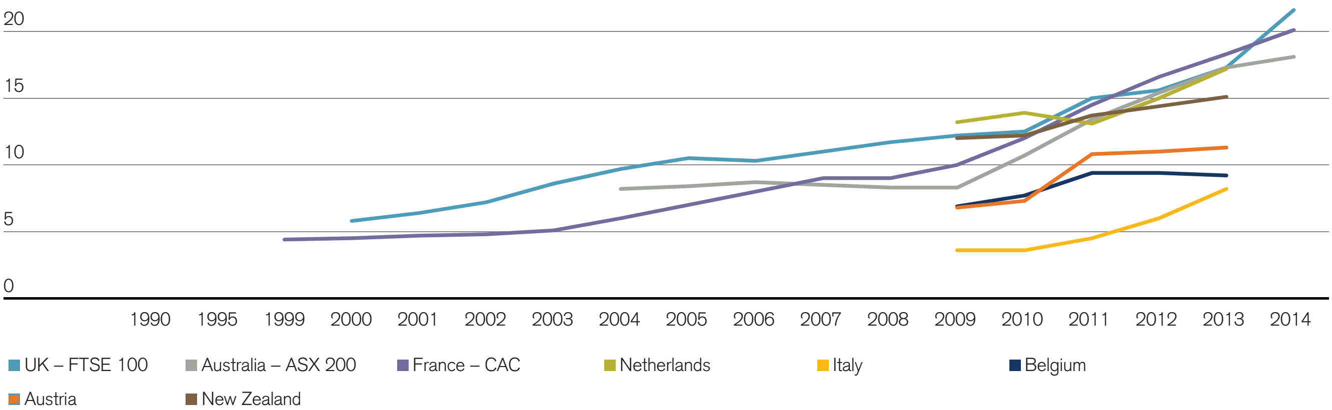
The impact of shareholders

In the US, shareholders, particularly public employee retirement funds, have been pushing for greater diversity at the board level. This has come typically with pressure to adopt formal diversity policies—even though these are not a legal requirement as yet in the US—either via an AGM proposal or a commitment from the company's management to improve corporate governance practices in return for the withdrawal of such a proposal. However, not all management teams have lived up to their promises. At the end of May 2014, this issue was high-

Figure 31

Impact of quotas and targets on female board representation

Source: UK: ONS, Cranfield University Female FTSE reports; France: Institut national de la statistique et des etudes economiques; GMI ratings: ASX



lighted by the New York State comptroller, Thomas P. DiNapoli, also the overseer of the New York State Common Retirement Fund who publicly said that he would vote against a specific management team to protest against their corporate governance failings and specifically the lack of diversity on the board despite commitments made in 2009 in return for the withdrawal of shareholder proposals. CalSTRS, the California teachers' pension fund, has managed to secure the appointment of women or minorities in 14 out of 35 instances where it has put forward shareholder proposals for action . We believe that requiring companies to disclose their diversity policies and numbers in their annual report might be a way to incentivize meaningful change across the management structure.

We believe that closing the gap is not impossible, but will take time. The speed of this process will vary from country to country and will depend on several factors. Below we list a few suggestions that come from the analysis performed in the report as well as from empirical evidence of the success stories we have seen over the past few years. There is no silver bullet; but the combination of the appropriate policies and initiatives altogether can be extremely impactful.

Table 16

Progressive measures

Source: Credit Suisse Research

Type	Description	Key points
Legislation	• Introduction and furthering of legislation supportive to women and cultural change. We do not include quotas which we consider generally detracting from the broader issues.	• Appointment of official diversity Watchdog • Introduction of Swedish style and longer term shared parental level • State provision of childcare assistance to allow women to work if they choose • State promotion of work place flexibility for all
Education	• How are STEM subjects being taught?	• Make learning more interactive • Teach STEM subjects in a more practical, creative and engaging way • Make maths a requirement for school leaving certification. It can be continued practice and application or continued learning and skill development
Regulation	• Provision of diversity information to accompany all financial reporting. • Disclosure of diversity targets and progress • Disclosure of diversity initiatives and education benefits • Disclosure of female talent retention initiatives • Disclosure of gender pay-gap	• Ensure CEOs properly accountable • Penalties for failing to comply with diversity reporting. • Control and monitor persistent recruiting practices

PHOTO: SHUTTERSTOCK.COM/NOSTAL6IE

PHOTO: ISTOCK.COM/MATTJEACOCK

Appendix I

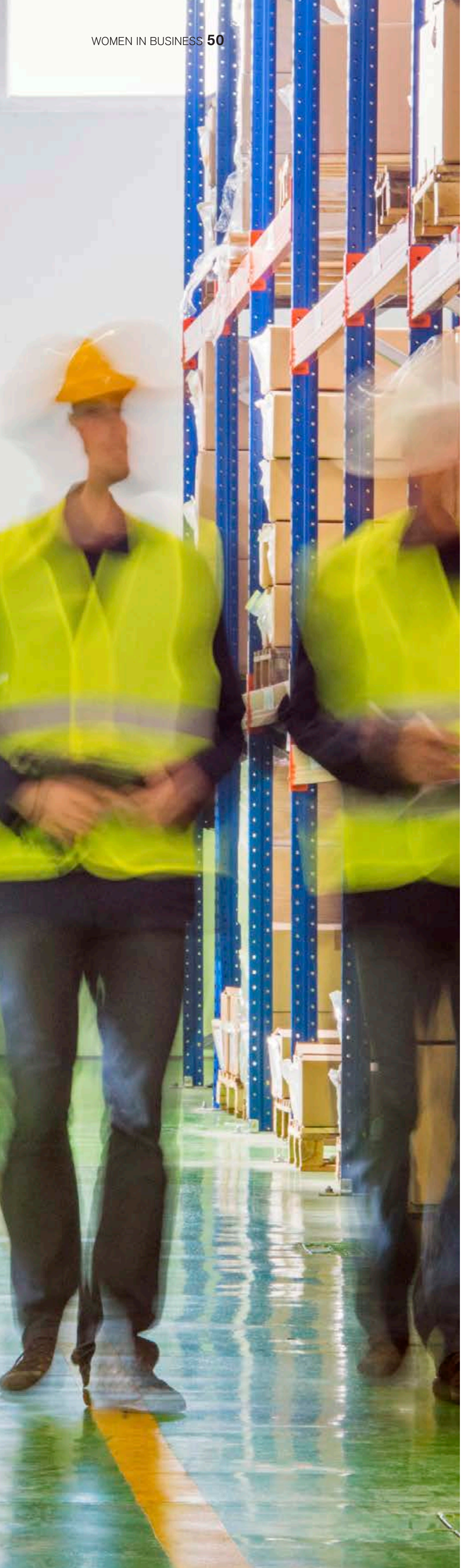
Table 17

Current gender quotas and disclosure requirements

Source: CS Research, European Women's Lobby, Paul Hastings: Breaking the Glass Ceiling – Third Edition, PWC Malaysian Code on Corporate Governance 2012, Catalyst Group

	Board quota or target	Mandatory or voluntary	Annual report diversity disclosure requirement	Board or senior management-level disclosure
Argentina	No	Voluntary. Listed companies must comply or explain	No	No
Australia	Listed companies must disclose targets and progress	Comply or explain	Yes	Board, senior mgmt. and overall workforce gender balance
Austria	Voluntary target of 35% for state-owned companies only by 2018	Listed companies required to consider diversity at board level	Yes, EU directive April 2014	Board
Belgium	At least 1/3 male directors and at least 1/3 female directors by 2018	Mandatory	Yes, EU directive April 2014	Board
Brazil	40% target for State-controlled companies	Voluntary. Waiting for Senate approval	No	No
Canada	Ontario Securities Commission proposal for TSX-listed company disclosure of diversity targets and progress. Public consultation ended April 2014	Comply or explain if approved. Waiting Senate second reading	If approved	Proposal covers board and executive officers
Denmark	Targets and disclosure recommended	Comply or explain	Yes	Board
Finland	Both genders must be represented on listed company boards	Comply or explain	Yes	Board
France	Listed companies and companies with more than 500 employees should have at least 40% by 2017*	Comply or explain	Yes, EU directive April 2014	Board
Germany	Companies obliged to "aim for appropriate inclusion of women"	Comply or explain	Yes, EU directive April 2014	Board
Hong Kong SAR	Companies should aim for a balance of appropriate diversity, skills and experience	Comply or explain	Yes	Board
Iceland	40% female representation on boards	Mandatory for listed companies	Yes	Board, senior mgmt. and overall workforce gender balance
Israel	50% female board directors at state-owned companies. Since April 1999, boards of listed companies have been required to have at least 1 female director.	Mandatory	Yes	Board
Italy	33% quota for boards of listed and state-owned companies by 2015	Comply or explain	Yes, EU directive April 2014	Board
Japan	PM Abe goal of 30% women senior managers by 2020	NA	No	No
Malaysia	30% quota for new board appointments	Mandatory	Yes	Board
Netherlands	Supervisory boards to set and disclose diversity aims	Comply or explain	Yes, EU directive April 2014	Board
New Zealand	Listed companies must disclose any targets and progress	Comply or explain	Yes	Board and senior mgmt
Norway	40% female representation on boards	Mandatory for listed companies	Yes	Board, senior mgmt. and overall workforce gender balance
Singapore	No. Boards should consider appropriate diversity	Comply or explain	No	No
South Africa	Boards should consider appropriate diversity. Financial Services Charter targets 11%black women directors	Comply or explain	No	No
Spain	At least 40% of both genders at traded companies by March 2015	Comply or the lack of diversity will be considered when State contracts and subsidies are awarded	Yes, EU directive April 2014	Board
Sweden	Target of equal gender representation on boards	Comply or explain	Yes	Board, senior mgmt. and overall workforce gender balance
UK	Recommendation for 25% female representation on boards of listed companies by 2015	Comply or explain	Yes from 2014	Board, senior mgmt. and overall workforce gender balance
US	No	No	Must disclose if diversity is a consideration when directors are put forward for nominated	Board

* France has met its Phase 1 target of 20% female representation on boards by 2014.



Appendix II

Manual versus non-manual industries and old economy versus new economy sectors

Manual versus non-manual labor industries

If we compare companies for which manual labor is a key component of the final product (manufacturing, mining, etc) to those for which most of the inputs are non-manual (banks, insurance, technology, etc.), we find that women account for only 8% of the top management of "manual" industries versus 16% for non-manual ones. Intuitively, and given historic reasons, that is not a surprise. Yet, in Europe, Emerging Europe, Latin America and North America the difference is only a few percentage points; in Scandinavia there is almost no difference, while in places like Japan, South Korea or Indonesia the percentage of women in non-manual industries is 3 to 5 times larger than that of women in manual labor industries. In the more influential positions, such as CEOs and Operations, the gap between "manual" and "non-manual" is far larger. So while much is made of the low levels of participation in these manual industries generally, the cultural overlay is still the key driver.

So we would expect the closing of the gender gap in top management in these more "paternalistic" countries to be driven by the services sector gaining market share along with further globalization of consumer products and technology. Further ahead, the internationalization of education, admittedly at an elite level, along with cross-border work experience, should gradually help to "import" more liberal and accepting attitudes towards women in the workplace in many of these countries.

Old economy versus new world industries

We would have expected to find a marked difference in the presence of women in the top management of old world industries (oil, leisure, machinery, mining, airlines, autos, etc.) versus new world industries (consulting, employment services, education, internet retail, etc.). Most countries show similar percentages.

Japan is probably the most interesting case with an 18% participation in "new" sectors versus a mere 3% in "old" sectors. This bodes well for a gradual increase in the participation of women in the top management of the Japanese corporate world—but it will take a long time as the "old world" sectors will not disappear suddenly.

Also, when we look across the roles occupied by women in the top-management—CEO, CFO/Strategy, Operations and Shared Services—there is not a marked difference between new and old sectors with the exception of developed Asia and Emerging Europe.

Age of existence

Another way to segment companies is based on the age of each firm. We look for discernible trends across the different top management roles on a pure global basis. We found no overall difference between older and younger firms, with the exception of operations roles: firms in existence for 15 years or less show that women in operations account for 11% of the total; for firms older than 20 years, the corresponding number is just 8%.

At the CEO level the only other point worth noting is that the 4% female participation is pretty consistent across all ages, with a 6% peak for firms founded 15 to 20 years ago.

Table 18

Proportion of roles held by women in manual and non-manual labor-dominated industries

Source: Credit Suisse Research

	CEO		Business Mgmt/ Operations		CFO/IR/Strategy		Shared Services		Total	
Region	Manual	Non-Manual	Manual	Non-Manual	Manual	Non-Manual	Manual	Non-Manual	Manual	Non-Manual
Developed Asia	1%	5%	1%	14%	11%	20%	12%	30%	5%	18%
Emerging Asia	3%	8%	7%	13%	21%	22%	15%	19%	13%	17%
Europe	1%	6%	6%	14%	22%	18%	22%	23%	13%	16%
EEMEA	0%	3%	4%	9%	14%	11%	27%	22%	11%	11%
North America	3%	4%	8%	14%	14%	19%	27%	29%	14%	18%
Latam	4%	2%	4%	9%	12%	11%	14%	20%	8%	11%
Total	**2%**	**5%**	**6%**	**13%**	**16%**	**19%**	**21%**	**25%**	**12%**	**17%**

Table 19

Proportion of roles held by women in old and new industries

Source: Credit Suisse Research

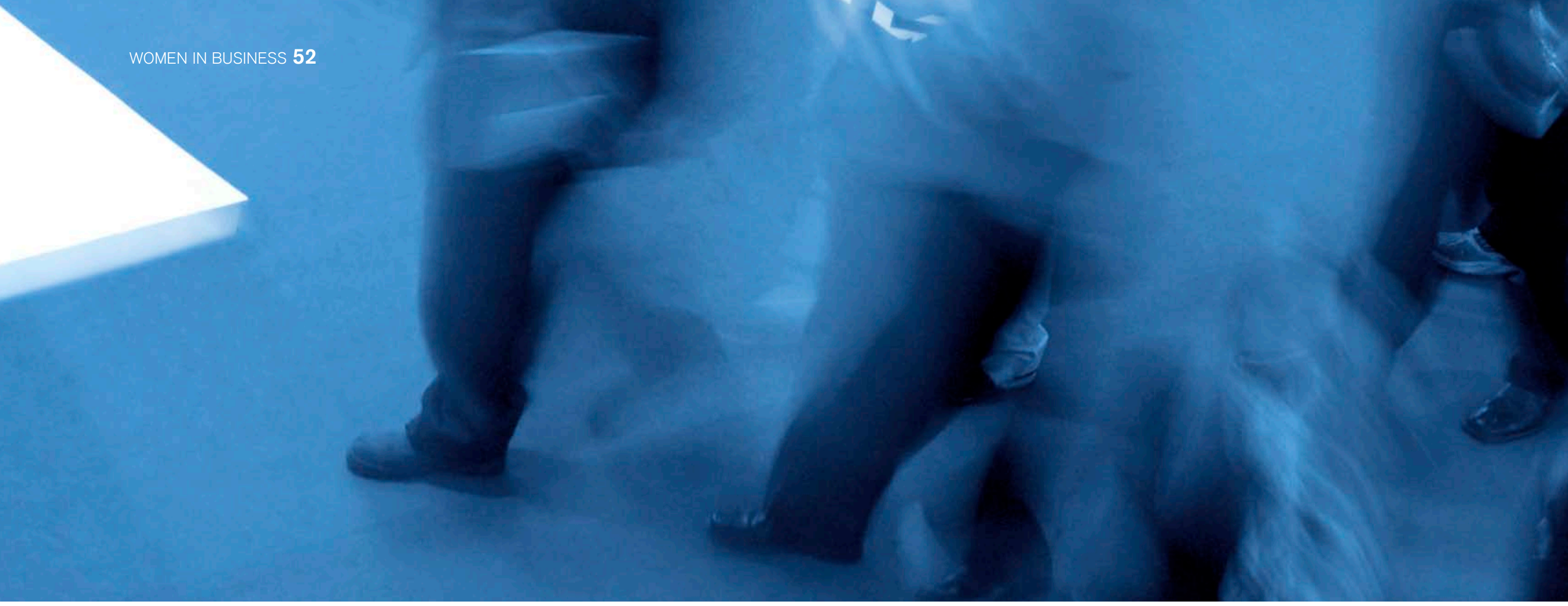
	CEO		Business Mgmt/ Operations		CFO/IR/Strategy		Shared Services		Total	
Region	Old	New	Old	New	Old	New	Old	New	Old	New
Developed Asia	4%	2%	5%	18%	16%	22%	20%	33%	10%	21%
Emerging Asia	7%	3%	11%	10%	21%	23%	16%	24%	15%	16%
Europe	4%	5%	12%	10%	21%	16%	23%	23%	15%	15%
EEMEA	2%	0%	8%	6%	14%	6%	26%	20%	12%	9%
North America	3%	4%	12%	10%	16%	17%	27%	29%	16%	16%
Latam	2%	5%	7%	11%	12%	7%	20%	5%	11%	7%
Total	**4%**	**4%**	**10%**	**11%**	**17%**	**19%**	**22%**	**27%**	**14%**	**16%**

Table 20

Proportion of roles held by women based on the age of each firm

Source: Credit Suisse Research

Firm Age	CEO role	Bus Mgmt/ Product/Sales roles	CFO/IR/ Strategy roles	Shared Svcs/ IT/Legal/HR roles	Total women in senior management
0-5yrs	4%	**12%**	**19%**	**24%**	**16%**
5-10yrs	4%	11%	17%	20%	14%
10-15yrs	4%	11%	20%	24%	15%
15-20yrs	6%	12%	19%	26%	16%
20-25yrs	4%	8%	16%	22%	12%
25-30yrs	3%	9%	20%	24%	14%
30-35yrs	4%	7%	15%	23%	13%



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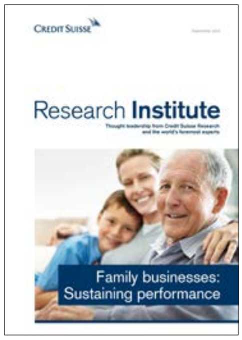

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