

September 2021

Research Institute

The CS Gender 3000 in 2021:
Broadening the diversity discussion



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

Introduction

We are delighted to introduce “The Credit Suisse Gender 3000 in 2021: Broadening the diversity discussion,” the latest edition in the series of studies from the Credit Suisse Research Institute focusing on gender diversity in the corporate sector.

This study underlines the significance that diversity in leadership, not just in the boardroom but also in senior management roles, assumes for corporate performance.

The importance of a workforce that represents society has only grown for companies and their stakeholders. Principles of diversity and inclusion are at the heart of the environmental, social and governance (ESG) focus among investors and policymakers, specifically shaping their expectations as to what good governance looks like. Its significance is embedded in the culture and values of Credit Suisse.

We hope you find our latest study brings new perspectives to this discussion and wish you a thought-provoking read.

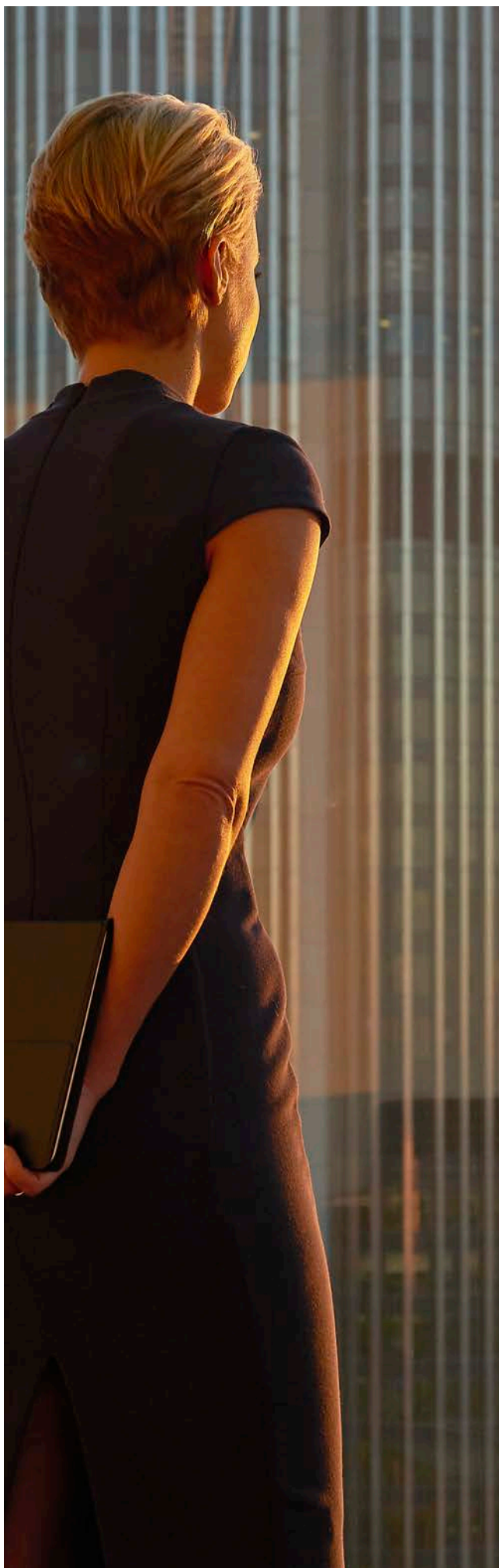
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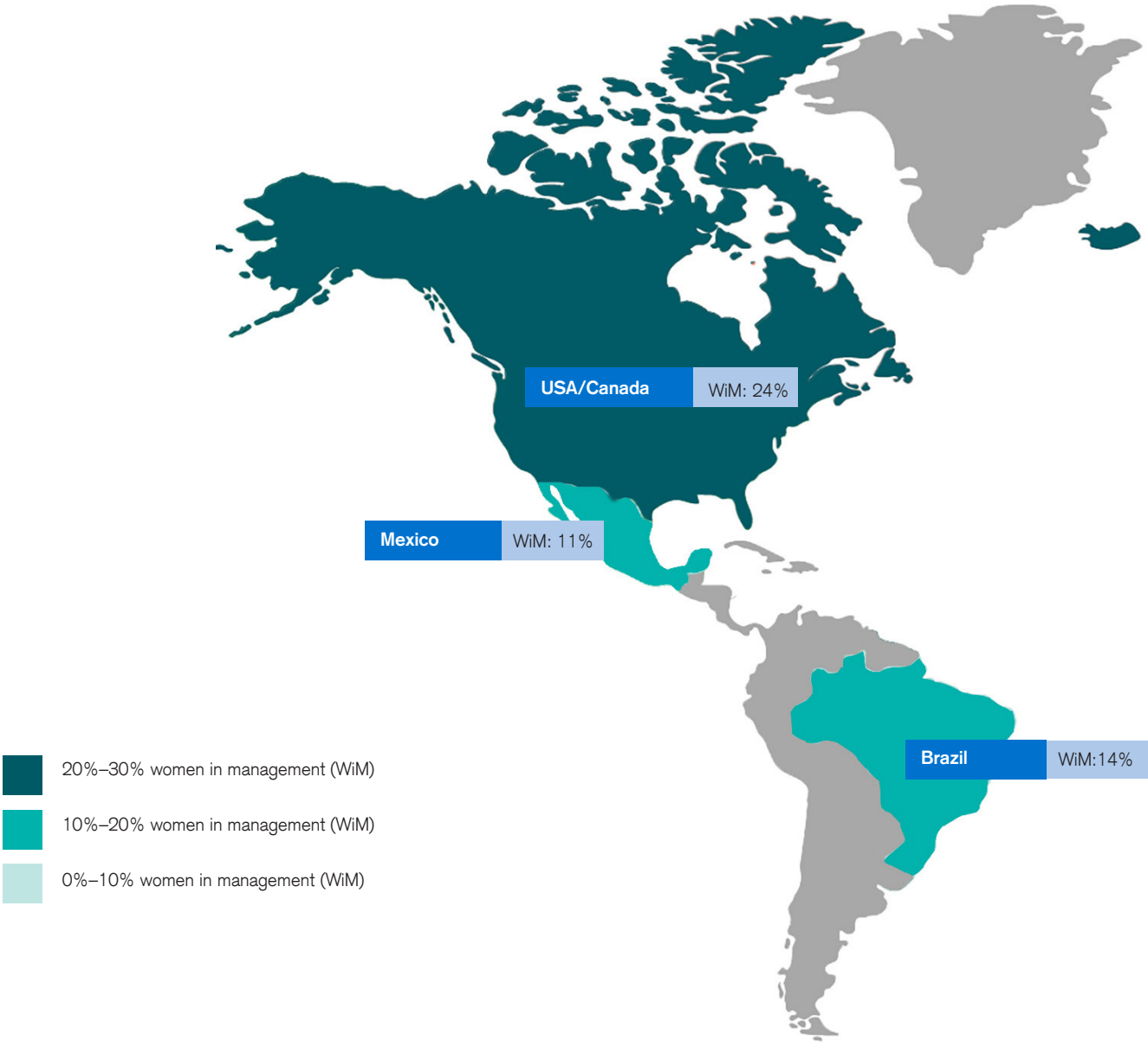
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The Credit Suisse Gender 3000

33,000 senior executives from over 3,000 companies stretching across 46 countries



- 20%–30% women in management (WiM)
- 10%–20% women in management (WiM)
- 0%–10% women in management (WiM)

USA/Canada (30.4%*)	Mexico (1.3%*)	Brazil (3.8%*)	Rest of Latam (0.5%*)
Women on boards: 29%	Women on boards: 11%	Women on boards: 14%	Women on boards: 13%
CEOs, CFOs and strategy: 13%	CEOs, CFOs and strategy: 3%	CEOs, CFOs and strategy: 7%	CEOs, CFOs and strategy: 4%
Business management: 20%	Business management: 11%	Business management: 12%	Business management: 5%
Shared services: 38%	Shared services: 22%	Shared services: 25%	Shared services: 19%

*Note: % of companies sampled from this country/region

Scandinavia (2.0%*)

Women on boards: 38%
 CEOs, CFOs and strategy: 14%
 Business management: 19%
 Shared services: 45%

United Kingdom (5.1%*)

Women on boards: 35%
 CEOs, CFOs and strategy: 13%
 Business management: 17%
 Shared services: 42%

France (2.0%*)

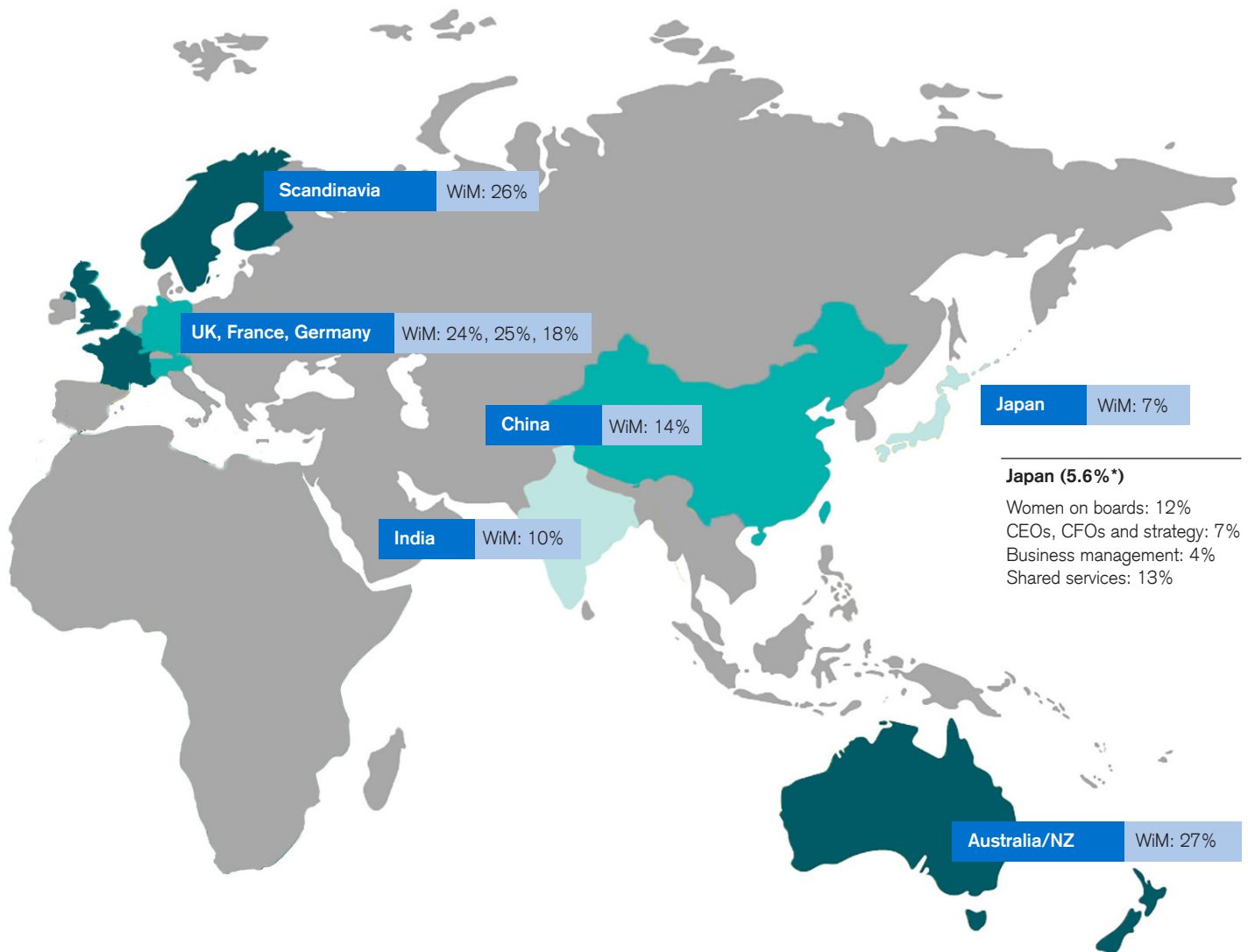
Women on boards: 45%
 CEOs, CFOs and strategy: 17%
 Business management: 20%
 Shared services: 42%

Germany (2.3%*)

Women on boards: 34%
 CEOs, CFOs and strategy: 10%
 Business management: 9%
 Shared services: 40%

Rest of Europe (7.3%*)**

Women on boards: 29%
 CEOs, CFOs and strategy: 11%
 Business management: 13%
 Shared services: 27%

**Japan (5.6%*)**

Women on boards: 12%
 CEOs, CFOs and strategy: 7%
 Business management: 4%
 Shared services: 13%

India (3.8%*)

Women on boards: 17%
 CEOs, CFOs and strategy: 6%
 Business management: 10%
 Shared services: 14%

China (14.6%*)

Women on boards: 13%
 CEOs, CFOs and strategy: 13%
 Business management: 12%
 Shared services: 24%

Australia/New Zealand (6.3%*)

Women on boards: 34%
 CEOs, CFOs and strategy: 13%
 Business management: 17%
 Shared services: 49%

Rest of APAC (13.8%*)

Women on boards: 15%
 CEOs, CFOs and strategy: 21%
 Business management: 19%
 Shared services: 29%

**Note: Rest of Europe (including EMEA); Source: Credit Suisse Research, CS Gender 3000



Photo: GettyImages, monkeybusinessimages

Gender diversity in the spotlight

Richard Kersley, Akanksha Kharbanda, Bahar Sezer Longworth

Credit Suisse has been at the forefront of research related to gender diversity in the workplace, focusing specifically on corporate leadership and oversight. We have sought to track developing trends in diversity in both company boards and management leadership teams and, importantly, their relevance for corporate performance. With the benefit of our global research platform, we have been able to conduct such an analysis with unique breadth and depth, establishing the Credit Suisse Gender 3000, a global lens to examine gender diversity across the corporate sector. In our 2021 edition, we review and update our universe of companies and analyze the progress made to improve the profile of gender diversity.

The focus on diversity is sharpening

Since beginning our research into the topic of gender diversity and corporate performance in 2012, the focus upon it, along with considerations of diversity through a wider lens beyond purely gender, has only grown. With Environmental, Social and Corporate Governance (ESG) investing specifically taking root within the mainstream investment process, diversity assumes a significance for both the “S” and the “G” components. If the initials “ESG” matter, so do those of the UN’s Sustainable Development Goals (SDGs), which specifically articulate the importance of equality of opportunity in the corporate world, implicitly reflecting in equality of pay, a topic of considerable discussion where diversity is concerned.

Against this backdrop, investors and industry bodies alike have only become more vocal on the topic since our last report in 2019, whether in disclosure requirements or the stated

unilateral expectations of a number of major institutions with potential sanctions applied if their expectations are not met (see **Table 1**). We provide a deeper dive into the specific trends and expectations among investors in the USA later in the report. Suffice to say, diversity as a topic has become front and center for many investors.

The Credit Suisse Gender 3000

In approaching the topic of gender diversity, a unique aspect of our research is the company-specific and global nature of our analysis. We have leveraged the knowledge base of our global equity analysts to create a unique bottom-up proprietary database of more than 3,000 listed companies to analyze gender diversity – the Credit Suisse Gender 3000. Analysts from our Global Securities research team have mapped the gender profile of senior executives alongside an overview of boardroom diversity in their respective industries company by company.

Table 1: Gender diversity in focus – new developments

Date	Geography	Development
August 2021	United States	The SEC approved Nasdaq's proposed rule changes related to board diversity and disclosure. The new listing standards will require each Nasdaq-listed company, subject to certain exceptions, to have at least two diverse board members or explain why it does not. The new listing standards will also require disclosure of information on the voluntary self-identified gender, racial characteristics and LGBTQ+ status of the company's board.
July 2021	United Kingdom	A group of UK asset owners, with combined assets under management of GBP 1.08 trillion, signed a new Diversity Charter with an objective to formalize a set of actions to which asset owners can commit to improve diversity, in all forms, and subsequent disclosure across the investment industry.
July 2021	United Kingdom	The FCA launched a consultation on changes to its listing rules to require companies to publish annually: (1) A "comply or explain statement" on whether they have achieved certain proposed targets for gender and ethnic minority representation on their boards; and (2) data on the make-up of their board and most senior level of executive management in terms of gender and ethnicity.
July 2021	Global	Fidelity International introduced new voting policies on gender diversity and stated it will not support boards where companies do not meet the expectations. Where companies fall short of the minimum expectations of having at least 30% female board representation in the most developed markets and 15% in all other markets, Fidelity International stated it will vote against management.
April 2021	Hong Kong, SAR, China	The HKEX published a consultation on review of the corporate governance code and related listing rules. The new proposals include diversity requirements to end single-gender boards among listed issuers as well as mandatory targets and timelines for achieving gender diversity at both the board level and across the workforce.
February 2021	Hong Kong, SAR, China	The Hong Kong Institute of Chartered Secretaries proposes that the Hong Kong SAR's Corporate Governance Code should be amended to include a target of a minimum 30% female representation on boards.
January 2021	United States	In the proxy voting guidelines for US securities effective as of January 2021, BlackRock states that, in addition to other elements of diversity, they encourage companies to have at least two women directors on their board.
September 2020	Singapore	The Council for Board Diversity, which was established by the Ministry of Social and Family Development, has a target for women on boards of 20% by 2020, 25% by 2025 and 30% by 2030.
July 2020	Global	AXA IM announced the expansion of its gender diversity voting policy. From 2021, AXA IM will target listed companies in developed market economies where at least one-third of the board of directors is not gender diverse.
April 2020	India	The Securities and Exchange Board of India (SEBI) requires that the top 1,000 listed companies by market capitalization have a woman board member who is also an independent director.

Source: Diversity Project, The US Securities and Exchange Commission, Financial Conduct Authority, Fidelity International, AXA Investment Managers, Hong Kong Exchanges and Clearing, Council for Board Diversity, The Hong Kong Institute of Chartered Secretaries, BlackRock, The Securities and Exchange Board of India

The majority of published work on gender diversity among companies, as well as regulatory and shareholder focus, has typically been at the boardroom level. This is where quotas or aspirational targets have been set across countries. As important as an appropriate balance in key supervisory functions is, assessing whether diversity is represented among those making the executive and day-to-day decisions and hence driving financial performance is arguably more important.

At a minimum, this provides for a more holistic picture of diversity across companies that a focus on board representation alone may fail to provide. As we have highlighted in our earlier work, and indeed witnessed, the latter can be open to some statistical manipulation to artificially meet quotas. However, and as we show in the second chapter of this report, the representation of women in senior management should be a key metric from a shareholder's perspective when analyzing the relevance of diversity for financial and share price performance.

Table 2: The Credit Suisse Gender 3000 – regional sample distribution

	2021 (unmatched dataset)		2021 (matched dataset with 2019)			2021 (matched dataset with 2019 and 2016)		
	% sample size	No. of companies		% sample size	No. of companies		% sample size	No. of companies
APxJ	38%	1,228	APxJ	39%	1,002	APxJ	40%	745
North America	30%	970	North America	30%	780	North America	27%	509
Europe	19%	601	Europe	20%	517	Europe	21%	402
Japan	7%	217	Japan	6%	145	Latam	6%	119
Latam	6%	176	Latam	6%	150	Japan	6%	111
Total		3,192	Total		2,594	Total		1,886

Source: Credit Suisse Research, CS Gender 3000

The corporate landscape in 2021

As with our earlier work, we have conducted a biennial review of our universe of companies, which establishes a dataset of around 3,200 companies this year. While almost 78% of the companies in our 2021 universe are the same as the 2019 universe, approximately 56% of the companies remain unchanged in our dataset when looking across three different points of time (2021, 2019 and 2016, see **Table 2**).

As the geographical mix and the majority of our companies are the same, this gives us confidence in our data to make like-for-like comparisons. However, as we highlight later in the report, the results that emerge are not materially different whether making comparisons on a matched or unmatched basis where the dataset is concerned.

Looking around the boardroom table

We begin by analyzing the changes taking place in the Gender 3000 from a boardroom perspective since our last study. Encouragingly, we find that boardroom diversity continues to improve globally with an average of almost 24% female representation in corporate boardrooms. Between 2015 and 2021, the percentage of women on boards (defined as the total number of female board members as a proportion of total board size across companies in the Gender 3000 database) has increased by 8.9 percentage points and more than doubled if compared with the start of the decade.

Looking across regions, the direction of travel in each case is positive. In terms of overall levels, Europe and North America sit above the global average, with women making up 34.4% and 28.6% of boards, respectively.

At 17.3% and 12.7%, respectively, Asia Pacific excluding Japan (APxJ) and Latin America lag behind. While other factors are certainly in play, we note that the levels of company diversity resonate with the prevalence of ESG investing. Boardroom metrics have been a focus for many ESG investors. As we show in Chapter 3, ESG investing is far more common in Europe than is the case in emerging economies.



Encouragingly, we find that boardroom diversity continues to improve globally

European companies have also of course operated against a backdrop of greater regulatory as well as shareholder pressure for some time. Boardroom quotas date back to as far as 2004 (Appendix I provides more detail on prevailing quotas and targets by country as well as broader changes in the regulatory landscape). Such pressures have in no sense diminished.

There has been less of the formality of a “quota stick” from upon high in the USA, with improvement in board diversity more organic, and perhaps aligned to the growth of ESG investing in this region. Just the same, the heightened disclosure requirements we flag potentially turn up the pressure further (see Chapter 3 for more details). Outside the USA and Europe, less regulatory pressure and weighting of ESG funds have been brought to bear. When combined with country-specific cultural factors and often less-stable political backdrops, it is perhaps unsurprising that progress has been more pedestrian in Asia and Latin America¹.

“ European companies have operated against a backdrop of greater regulatory as well as shareholder pressure for some time

group’s aspiration has grown to achieving at least 30% representation of women on boards and C-suites globally.

There are considerable differences within APAC, with female board representation ranging from 33% in Australia/New Zealand – where disclosure requirements and an ESG focus are perhaps more akin to those in Europe and North America – to a lowly 9% in South Korea. While there are admittedly improvements in all countries, the needle has been moving in a particularly positive manner in Australia/New Zealand, together with Singapore and Malaysia. The progress in the major Asian economies (China, India, Japan and Korea) has been sluggish by comparison, as has been the case in Latin America.

Table 3: Percentage of female directors on corporate boards – by region

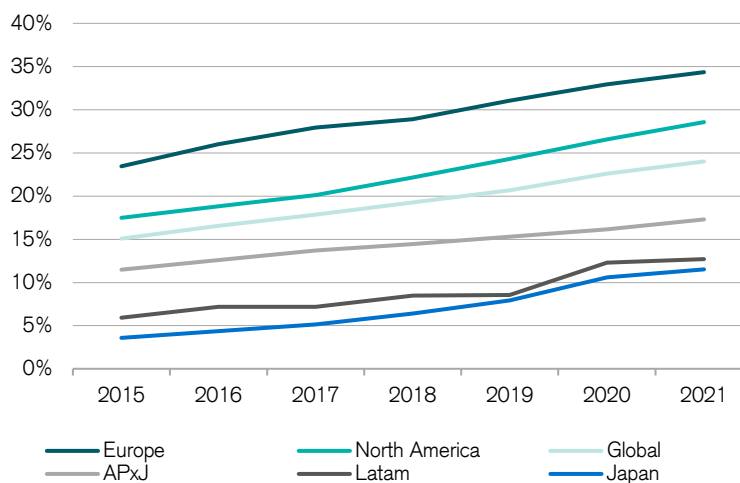
Region	2015	2016	2017	2018	2019	2020	2021
Europe	23.5%	26.0%	28.0%	28.9%	31.1%	32.9%	34.4%
North America	17.5%	18.8%	20.1%	22.2%	24.3%	26.6%	28.6%
Global	15.1%	16.6%	17.9%	19.3%	20.7%	22.6%	24.0%
APxJ	11.5%	12.6%	13.7%	14.5%	15.3%	16.2%	17.3%
Latam	5.9%	7.2%	7.2%	8.5%	8.5%	12.3%	12.7%
Japan	3.6%	4.4%	5.1%	6.4%	7.9%	10.6%	11.5%

Source: Credit Suisse Research, CS Gender 3000, Refinitiv, The BLOOMBERG PROFESSIONAL™ service

Country mix...France tops the table

The regional data does of course conceal a number of country differences. We break the data down by country in **Table 4**. European countries unsurprisingly populate the top rows of the table with France, at 45%, number one. This figure for France chimes well with the expectation of at least 40% female board representation from a policy perspective. While lower down the league table, we note the marked improvement that has taken place over time in Spain. The 14.3 percentage point increase reflects a more than doubling since 2015. In the UK, the 34% for our universe of companies is consistent with the achieved targets of “The 30% Club”², set originally for the FTSE 100 and FTSE 350. Since its inception, the

Figure 1: Percentage of female directors on the board – by region



Source: Credit Suisse Research, CS Gender 3000, Refinitiv, The BLOOMBERG PROFESSIONAL™ service

1. Legal and cultural factors as catalysts for promoting women in the boardroom. Laura Cabeza-García, Esther B. Del Brio, Carlos Rueda (March 2019); Cultures and Organizations: Software of the Mind, Revised and Expanded. G. Hofstede, G.J. Hofstede, M. Minkov (2010)

2. <https://30percentclub.org/about/who-we-are>

Table 4: Percentage of female directors on the board – by market

Country	2015	2016	2017	2018	2019	2020	2021	Momentum (2015–21)
France	34.5%	39.7%	41.7%	42.5%	43.1%	43.2%	44.5%	10.0%
Sweden	33.2%	38.6%	36.6%	36.4%	35.4%	38.4%	40.0%	6.8%
Italy	24.8%	28.2%	32.5%	35.4%	34.4%	34.5%	39.4%	14.6%
Austria	21.3%	20.3%	22.8%	26.3%	33.9%	38.0%	39.2%	17.9%
Denmark	28.6%	29.3%	30.1%	30.0%	31.2%	33.7%	37.5%	8.9%
Finland	30.3%	31.7%	34.1%	34.7%	34.0%	36.6%	37.3%	7.0%
Norway	35.2%	37.1%	36.4%	35.7%	38.8%	33.3%	36.4%	1.2%
Netherlands	24.8%	27.0%	28.0%	29.3%	29.9%	33.6%	35.5%	10.7%
Canada	22.7%	23.5%	26.4%	28.8%	31.2%	34.2%	35.4%	12.7%
United Kingdom	22.6%	23.7%	26.1%	27.3%	31.5%	34.0%	35.3%	12.7%
Germany	22.3%	25.8%	27.4%	29.2%	32.1%	32.9%	34.2%	11.9%
Belgium	27.8%	27.7%	32.7%	32.9%	35.8%	37.7%	34.2%	6.3%
Australia/NZ	19.3%	22.5%	25.9%	27.4%	29.8%	31.3%	33.5%	14.2%
Spain	16.9%	18.2%	22.4%	23.5%	24.6%	30.6%	31.1%	14.3%
Vietnam	34.4%	37.5%	31.4%	25.0%	29.7%	26.8%	30.2%	-4.1%
Ireland	16.7%	16.5%	16.5%	19.2%	25.3%	29.6%	29.3%	12.6%
United States	17.1%	18.4%	19.6%	21.7%	23.8%	26.0%	28.1%	11.0%
Malaysia	14.9%	18.0%	20.4%	24.0%	28.4%	27.2%	27.4%	12.5%
Switzerland	14.9%	18.0%	19.6%	20.7%	21.7%	24.0%	25.9%	11.0%
Singapore	10.0%	11.9%	13.3%	15.9%	17.9%	19.3%	20.1%	10.0%
India	11.4%	13.0%	14.1%	14.4%	15.5%	16.2%	17.3%	5.9%
Philippines	10.6%	11.3%	12.7%	12.5%	13.9%	16.3%	16.9%	6.3%
Thailand	11.6%	12.8%	12.7%	14.6%	14.9%	15.7%	16.2%	4.6%
Pakistan	4.3%	4.3%	10.4%	11.1%	8.9%	12.5%	14.9%	10.6%
Turkey	7.0%	10.3%	10.5%	12.9%	14.4%	16.0%	14.4%	7.5%
Brazil	5.3%	6.3%	6.6%	8.8%	8.9%	13.2%	13.7%	8.4%
Argentina	2.5%	5.1%	3.8%	9.2%	9.4%	9.7%	13.1%	10.6%
China	10.0%	10.3%	11.0%	11.4%	11.5%	12.1%	13.0%	3.0%
Indonesia	9.8%	9.4%	9.8%	9.6%	11.7%	12.4%	12.9%	3.0%
Taiwan (Chinese Taipei)	9.2%	10.2%	10.9%	10.9%	10.5%	11.2%	11.8%	2.6%
Japan	3.6%	4.4%	5.1%	6.4%	7.9%	10.6%	11.5%	7.9%
Mexico	6.8%	8.1%	7.6%	7.7%	7.4%	10.7%	10.9%	4.1%
Chile	9.1%	12.5%	12.9%	10.1%	9.9%	11.4%	9.9%	0.8%
South Korea	3.9%	3.4%	2.9%	3.2%	4.6%	6.1%	9.1%	5.3%
Russian Federation	7.0%	8.6%	10.0%	5.6%	5.3%	5.4%	8.9%	1.9%

*based on countries with more than five companies in the dataset.

Source: Credit Suisse Research, CS Gender 3000, Refinitiv The BLOOMBERG PROFESSIONAL™ service

Winds of change?

Japan has been viewed as a perennial disappointment on this metric despite government policies to encourage greater female participation in the workforce and managerial positions. However, we note that the representation on boards has now moved into a double-digit percentage within our sample. There are no formal board-specific targets for women in Japan as yet, although the Tokyo Stock Exchange looks likely to introduce a policy akin to that seen recently at the Nasdaq in 2022, which may stimulate further change. In India, the Indian Securities and Exchanges Board now requires an independent woman board member rather than simply a family member. Such steps can hopefully build a momentum of change among these laggards.

The sector mix

Finally, **Table 5** recasts the data along industry lines. While we ultimately view country and cultural factors as significant determinants of differing levels of diversity, we have also examined where over-concentration of women in a given industry was still visible. Given the improvement in the aggregate data we have shown, the sector data unsurprisingly trends up, with financials, health care and materials companies seeing a substantial change in the last six years. We have also seen a steady convergence in the data over time, with far less deviation around the mean underlining that greater female participation in company oversight need not be too industry specific. However technology companies still stand out for their lower representation of women relative to other sectors.

There seems to us no obvious reason why it should be more difficult for technology companies to match the improvement we have seen in, for example materials and industrials, by way of diversity of supervision whatever the ongoing debate about STEM education (science, technology, engineering and mathematics) for women may be. These are both industries where employment would typically be more male dominated, but diversity in the boardroom is in fact above the average for all companies whether male or female dominated in terms of their workforce. Diversity should be a basic aim of supervision and governance whatever the industry.

What's happening in the C-Suite?

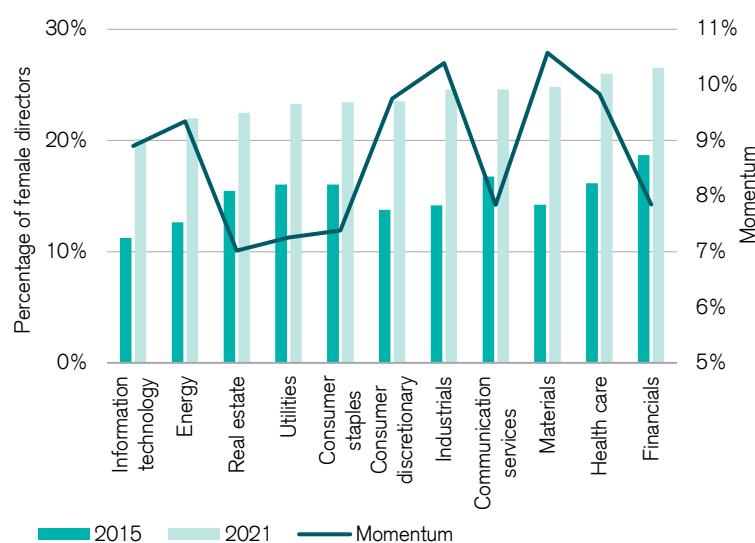
As we have said above and in previous reports, we feel that gender diversity metrics based purely around a picture of the boardroom can, in isolation, fail to provide the full picture on the progress of embedding diversity within corporate culture. In fact, are quotas creating a slightly exaggerated picture of enhanced diversity in some cases? In order to analyze how gender diversity

Table 5: Percentage of female directors on the board – by sector

Sector	2015	2016	2017	2018	2019	2020	2021
Communication services	16.7%	19.2%	20.1%	21.2%	21.6%	23.7%	24.6%
Consumer discretionary	13.8%	15.6%	17.2%	18.9%	20.9%	22.5%	23.5%
Consumer staples	16.0%	16.7%	17.6%	18.5%	20.3%	22.7%	23.4%
Energy	12.6%	13.8%	14.8%	16.7%	18.6%	20.3%	22.0%
Financials	18.7%	19.8%	20.8%	22.1%	23.4%	25.1%	26.5%
Health care	16.2%	17.2%	19.1%	20.4%	21.8%	24.3%	26.0%
Industrials	14.2%	16.0%	17.6%	19.1%	20.6%	22.9%	24.6%
Information technology	11.2%	12.7%	13.8%	15.0%	17.0%	18.7%	20.1%
Materials	14.2%	15.9%	17.8%	19.8%	21.7%	22.9%	24.8%
Real estate	15.5%	17.1%	17.4%	18.7%	19.3%	21.3%	22.5%
Utilities	16.0%	17.3%	19.1%	19.8%	19.4%	21.8%	23.3%

Source: Credit Suisse Research, CS Gender 3000, Refinitiv The BLOOMBERG PROFESSIONAL™ service

Figure 2: Percentage of female directors on the board – by sector (2021 versus 2015)



Source: Credit Suisse Research, CS Gender 3000, Refinitiv The BLOOMBERG PROFESSIONAL™ service

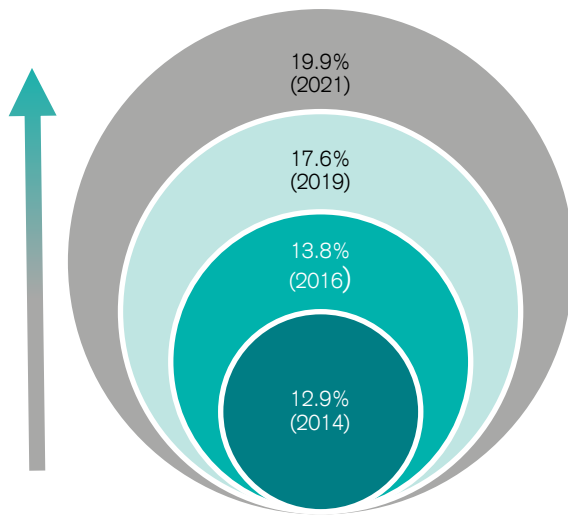
is reflected in the mix of management teams as well as boardrooms, we created our “women in management” dataset. While it is a very broad statement, it might be said that boards typically supervise business strategy, but the executive team executes it. In this sense, executive management arguably plays a far greater role in driving diversity and inclusion in the workplace as its business decisions shape day-to-day corporate culture.

For the benefit of our new readers, we provide a recap of what constitutes our universe. Our bottom-up constructed database of over 3,000 companies maps almost 33,000 positions held by senior executives globally. We define a senior executive as someone at the highest level of authority in an organization (i.e. group level) and who is typically

part of the executive management team. The insights of our company analysts allow us to build this granular profile of company management.

Roles are mapped through what we call “The Management Power Line” (see **Figure 5**). These include the chief executive officer (CEO), chief financial officer (CFO), strategy/other finance heads, business/product managers as well those responsible for technology, legal and compliance, risk management, human resources and other shared services in the organization. The Management Power Line is designed to reflect the level of influence of positions in a company and their direct alignment to revenue, with the CEO of course being the most influential in terms of business strategy and decision-making. This distinction is important as we come to analyze the roles that women occupy within senior management and their skew. It is a reasonable assumption that the closer to the CEO seat one resides, the greater the likelihood is of potentially occupying it. We will see that not all roles are created equal, nor is the gender distribution.

Figure 3: Percentage of women in management through time (unmatched dataset)

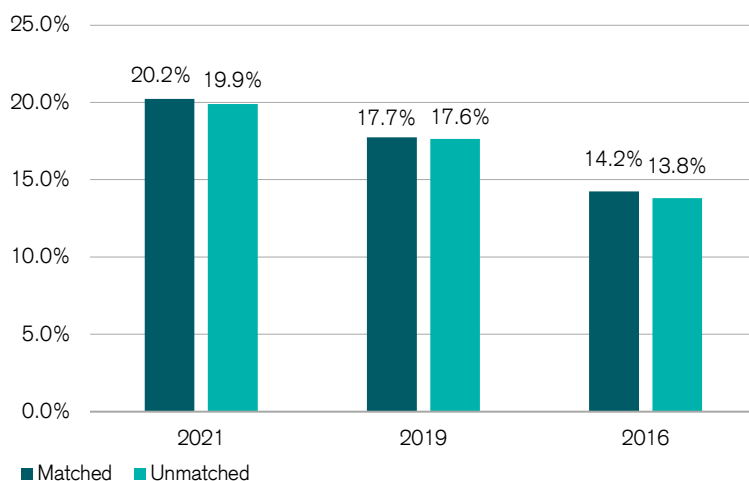


Source: Credit Suisse Research, CS Gender 3000



Not all roles are created equal, nor is the gender distribution

Figure 4: Percentage of women in management – sample comparison



Source: Credit Suisse Research, CS Gender 3000

An improving trend

If we look first at the aggregate picture regarding the representation of women in senior management positions, it is one of improvement. The average percentage of women in senior management (defined as the number of female executives as a proportion of all executives in our Gender 3000 database) has improved from 17.6% in our 2019 report to 19.9% in 2021. This is on an unmatched (i.e. not constant) sample basis (see **Figure 3**).

However, our calculations across the matched dataset do show the same positive trend irrespective of the change in the mix of our companies (**Figure 4**). We can feel confident that the change in the percentage of women

Figure 5: The Management Power Line

Proportion of women in senior executive positions



Source: Credit Suisse Research, CS Gender 3000

in the “C-suite” (CEOs, CFOs, business managers) within the Gender 3000 is driven by actual change across years rather than changes in the sample.

In the following sections, for simplicity, we provide our results based purely on an unmatched basis. In Appendix II, we show how our findings would be if the comparison were made on a purely matched dataset basis. The differences are minimal.

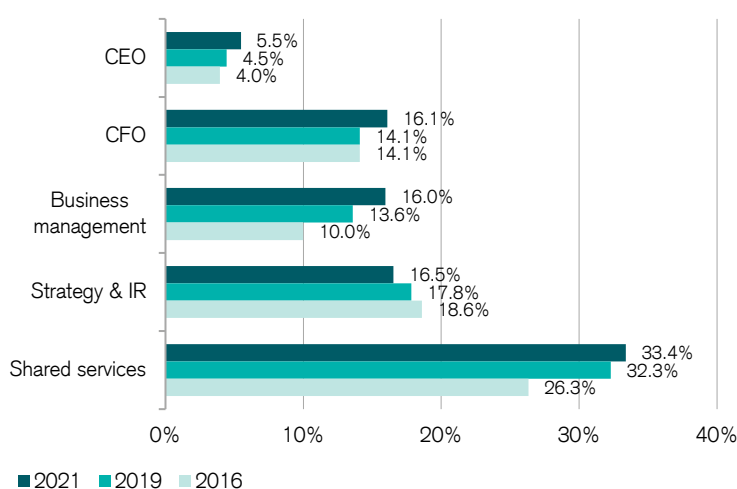
The Management Power Line: Moving up the chain?

The consistent take-away from prior reports was that the closer we come to the CEO office – or the sharp end of our notional Management Power Line – the fewer women we find.

The bad news is that this theme is still very prevalent. The better news is that more women are finding their way to the front of the Power Line. We find that the aggregate increase in women in management shown above is in fact reflected in an increase in the percentage of women holding senior management positions across nearly all functions throughout the Power Line, including CEO.

The number of female CEOs in our database has increased by 27% from 140 in 2019 to 179. To be fair, this is still only 5.5% of the total. The number of female CFOs starts from a higher base and has risen 17% from 419 to 491, taking the overall percentage from 14.1% to 16.1%. The heads of operational businesses have also risen from 1,676 to 2,077, taking their share from 13.6% to 15.9%. Of course, the picture remains one of a significant skewing in female roles to shared services functions where women occupy a third of such roles. Even though the distinction across the Power Line has narrowed to some extent, this structural skewing in the distribution of roles does remain.

Figure 6: Management Power Line (unmatched dataset)



Source: Credit Suisse Research, CS Gender 3000

Sustainability leadership:

Women lead the way

The global pandemic has accelerated the focus on sustainability and ESG within companies, not least because of shareholder pressure. In order to highlight their commitment toward causes that have greater impact on the global ecosystem, an increasing number of companies are now appointing a “head of sustainability” within their senior executive teams as they seek to embed such factors into their business models.

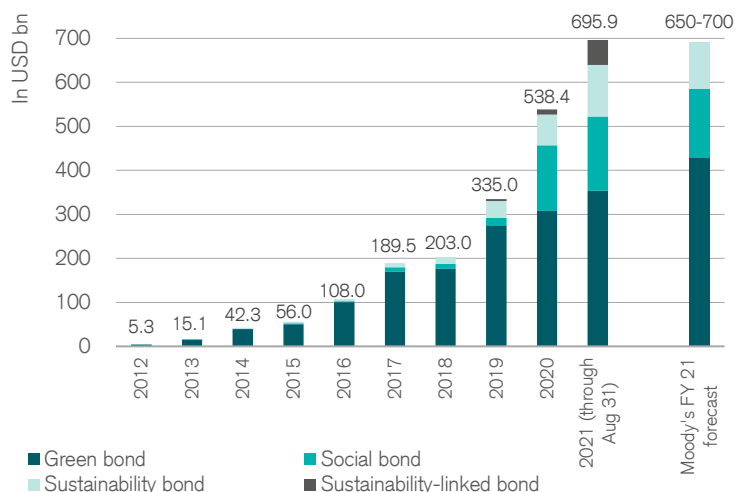
While we have not identified this as a specific role in the Power Line, we capture it as part of our “shared services” function. If we drill down to the specific role, we find that, out of our universe, around 600 companies have a “dedicated” sustainability officer in their senior

Figure 7: Female sustainability heads versus male technology heads



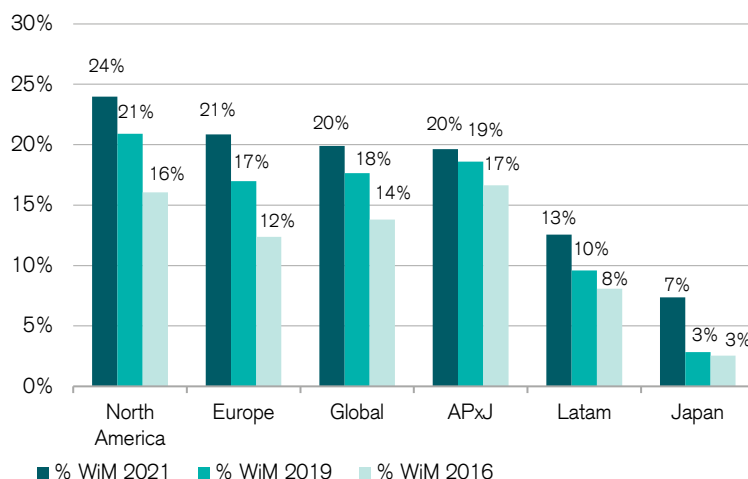
Source: Credit Suisse Research, CS Gender 3000, *Data for CTOs and sustainability heads based on around 1,200 and 650 companies, respectively

Figure 8: Social and Sustainability bonds rise as a mode of financing



Source: BloombergNEF, Moody's Investor Services

Figure 9: Women in management by region (unmatched dataset)



Source: Credit Suisse Research, CS Gender 3000

management team. Many of the executives who head the sustainability initiatives for companies combine them with other executive functions.

Irrespective of the limited nature of the data, we find that women are more likely to be chosen to head the sustainability portfolios of companies than men. The proportion of female "sustainability heads" stands at almost 45% of all such positions in our global dataset.

A company's approach to sustainability carries significant financial, reputational and regulatory implications. Social and sustainability bonds are increasingly becoming a greater part of financing (Figure 8). A company's ESG rating can have a direct impact on its access to capital or indeed capital requirements. In that respect, its ESG rating affects a company's cost of capital and ultimately its share price, making the role of growing significance. While we have not treated it as such, given the limited sample of dedicated roles, the position of sustainability in the Power Line lies more likely to the right than to the left in Figure 5.

“
A company's approach to sustainability carries significant financial, reputational and regulatory implications

Across the regions

Consistent with the developments in boardroom diversity, we find that the more developed markets of Europe and North America are at the forefront regionally in our women in management data (Figure 9). However, the gap between these and the rest of the regions is far less dramatic than we see at the boardroom level. For example, the gap in the percentage of women in boardrooms between Europe and Asia Pacific (excluding Japan) is 17 percentage points. The gap at the management level is only one percentage point. Latin America and Japan still display the poorest

level of management gender diversity, although the gap for Latin America is significantly narrower to the global average than we witnessed in the boardroom data. Do the boardroom data perhaps exaggerate how far behind regions such as Asia and Latin America are when it comes to gender diversity in leadership positions?

Breaking down the Power Line, we observe that a similar concentration of women in shared services roles is common across all regions, as one would expect from the aggregate data. The skew is greatest in North America. In Asia ex Japan, however, the picture is somewhat less pronounced. We find more evidence of women in the region having a stronger foothold in the most senior positions in management than seen in the more developed regions. **Figures 11 and 12** draw out the trend in the CEO and CFO positions by region.

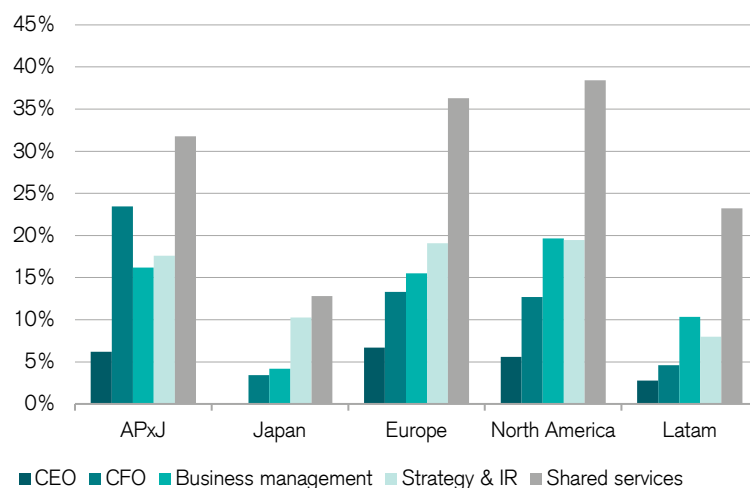
At 6.7%, Europe has the highest percentage of women as CEOs and has also seen the largest increase since 2019. However, the proportion in Asia ex Japan continues to track higher at 6.2%, while that of the USA stands at 5.6%. At the CFO level, women are particularly well represented in APAC ex Japan. Women in the region are approaching a quarter of CFOs, well ahead of Europe and the USA. As much as this is a positive story in APAC ex Japan, the representation in Japan itself remains far less impressive in these more senior roles. The proportion of women in management as a whole has significantly increased from its low level and is perhaps reflective of some tentative success of government policies to increase women in executive roles, 30% being the long-term aspirational target. However, within our sample, there are still no female CEOs in Japan, with only 3% of companies having female CFOs.

Country by country

Table 6 breaks the regions into their country components. The table is ranked by the proportion of companies with female CEOs, but the Power Line roles are all highlighted. Given the charts above, unsurprisingly, European and Asia ex Japan countries dominate the top of the table. The top ten countries are evenly split. Sweden is number one with the highest proportion of female CEOs, although its proportion of women in executive positions as a whole has in fact slipped slightly since 2019.

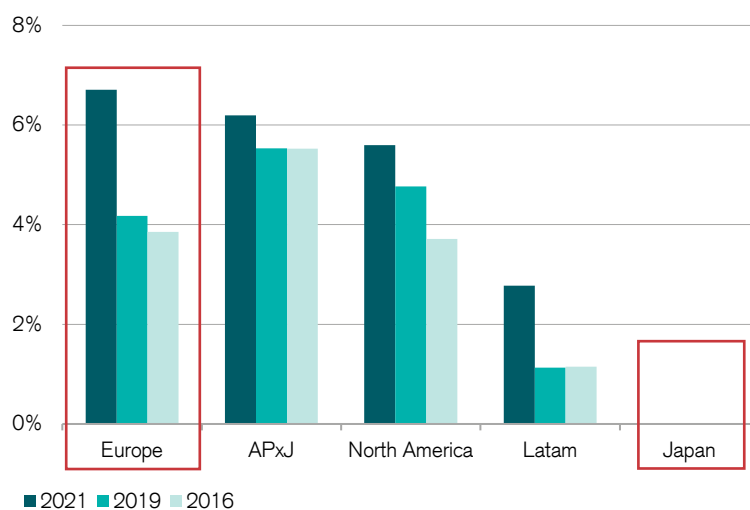
In terms of laggards, Japan and Korea prop up the table. Of the other major economies, Germany also stands out to us. Despite increasing from our last report when the number of female CEOs was zero, the proportion of female CEOs is still the lowest in Europe. Germany's proportion of women in

Figure 10: The Management Power Line by region (unmatched dataset)



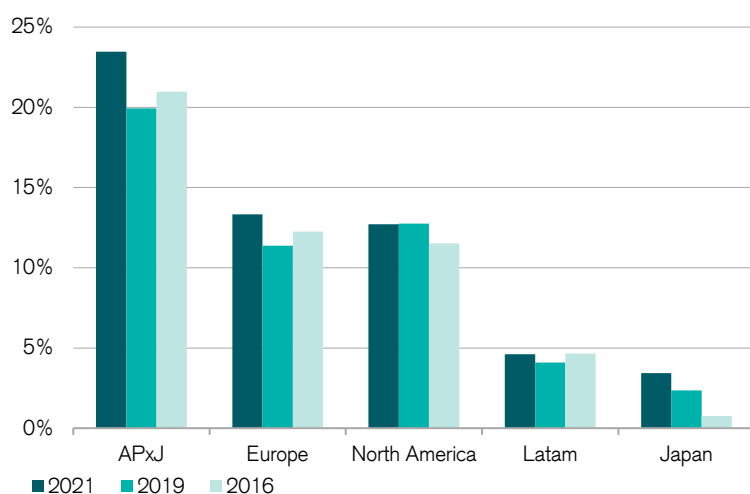
Source: Credit Suisse Research, CS Gender 3000

Figure 11: Female CEOs by region (unmatched dataset)



Source: Credit Suisse Research, CS Gender 3000

Figure 12: Female CFOs by region (unmatched dataset)



Source: Credit Suisse Research, CS Gender 3000

Table 6: Women in management by market in 2021 (based on unmatched dataset)

Country	CEO	CFO	Strategy & IR	Shared services	Business management	%WiM (2021)	%WiM (2019)
Norway	25%	25%	0%	78%	31%	40%	28%
Sweden	19%	5%	0%	40%	16%	23%	25%
Vietnam	17%	58%	60%	50%	25%	34%	31%
Singapore	16%	40%	28%	29%	24%	27%	23%
Thailand	16%	49%	24%	43%	23%	29%	28%
Belgium	14%	15%	26%	38%	20%	24%	18%
Denmark	11%	26%	17%	32%	22%	24%	15%
Italy	10%	4%	19%	26%	15%	18%	15%
Ireland	10%	10%	0%	34%	9%	19%	16%
Philippines	9%	28%	35%	36%	30%	31%	34%
Taiwan (Chinese Taipei)	8%	36%	43%	33%	15%	20%	19%
United Kingdom	8%	13%	19%	42%	17%	24%	18%
France	8%	20%	23%	42%	20%	25%	21%
Indonesia	7%	22%	20%	22%	24%	21%	19%
Canada	7%	19%	19%	41%	13%	22%	19%
Australia/NZ	6%	20%	13%	49%	17%	27%	25%
Finland	6%	6%	18%	53%	17%	26%	23%
Turkey	6%	6%	44%	30%	16%	18%	12%
United States	6%	12%	19%	38%	20%	24%	21%
India	5%	4%	9%	14%	10%	10%	8%
China	4%	24%	13%	24%	12%	14%	15%
Netherlands	4%	20%	30%	41%	18%	23%	18%
Spain	4%	13%	26%	32%	10%	19%	17%
South Korea	4%	0%	12%	9%	9%	8%	4%
Switzerland	3%	9%	13%	19%	10%	12%	10%
Brazil	3%	5%	11%	25%	12%	14%	11%
Germany	3%	19%	10%	40%	9%	18%	13%
Mexico	2%	5%	3%	22%	11%	11%	9%
Japan	0%	3%	10%	13%	4%	7%	3%
Malaysia	0%	31%	6%	44%	13%	23%	23%
Chile	0%	0%	4%	21%	6%	10%	6%
Argentina	0%	0%	6%	18%	0%	7%	8%
Pakistan	0%	20%	0%	0%	4%	4%	3%
Austria	0%	0%	0%	0%	4%	3%	6%
Russian Federation	0%	0%	14%	17%	5%	6%	15%

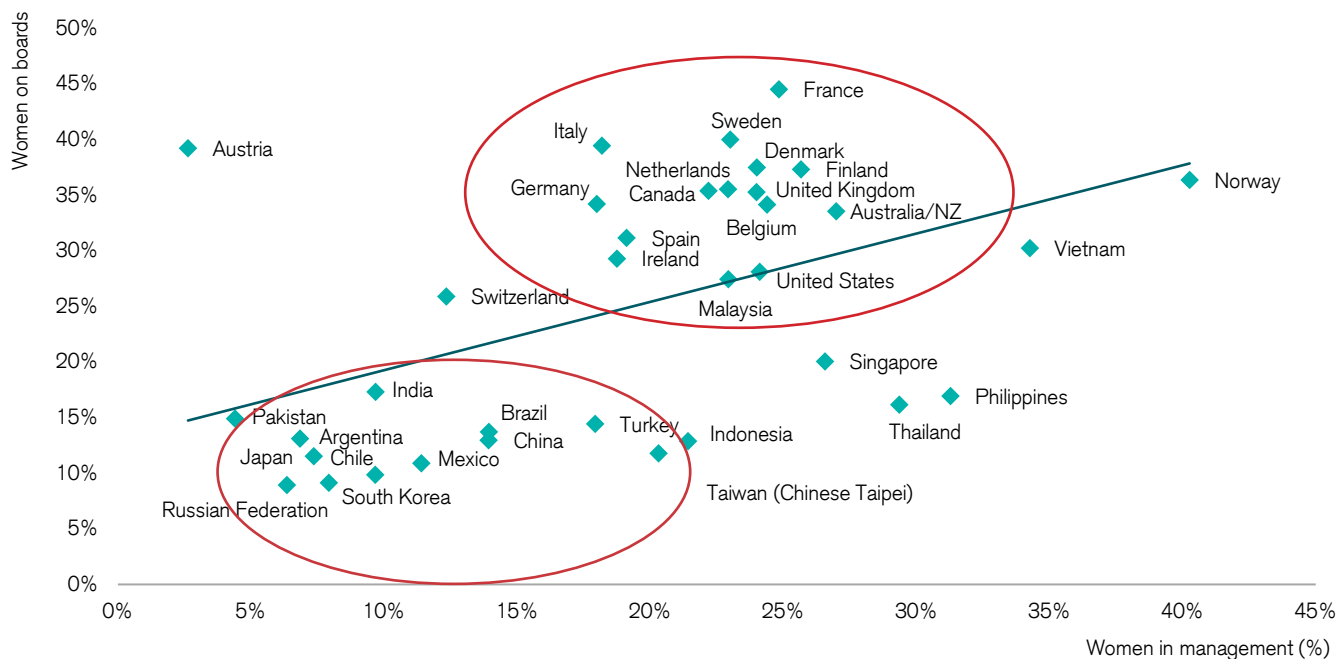
*Countries with at least five companies in the data set for 2021; source: Credit Suisse Research, CS Gender 3000

Table 7: Women in management by sector in 2021 (based on unmatched dataset)

Sector	CEO	CFO	Strategy & IR	Shared services	Business management	%WiM (2021)	%WiM (2019)
Communication services	6%	16%	15%	39%	21%	23%	20%
Consumer discretionary	7%	16%	14%	33%	17%	19%	18%
Consumer staples	6%	13%	18%	33%	17%	21%	17%
Energy	3%	11%	18%	31%	14%	18%	15%
Financials	6%	16%	17%	32%	19%	21%	20%
Health care	8%	16%	21%	40%	22%	25%	20%
Industrials	3%	13%	15%	32%	12%	17%	15%
Information technology	3%	22%	17%	29%	13%	17%	15%
Materials	4%	14%	12%	34%	12%	17%	15%
Real estate	9%	28%	22%	42%	23%	25%	19%
Utilities	7%	16%	20%	35%	14%	22%	23%

Source: Credit Suisse Research, CS Gender 3000

Figure 13: Women on boards versus women in management by market



Credit Suisse Research, CS Gender 3000, Refinitiv, The BLOOMBERG PROFESSIONAL™ service

management as a whole is below the global average and the lowest in the European Union. However, this may increase as a result of a new proposed regulation, which requires German listed companies with more than three members on management boards to have at least one woman on the board.

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In our view, where the profile of women is concerned, the corporate sector does not and cannot operate in isolation from wider social and political dynamics

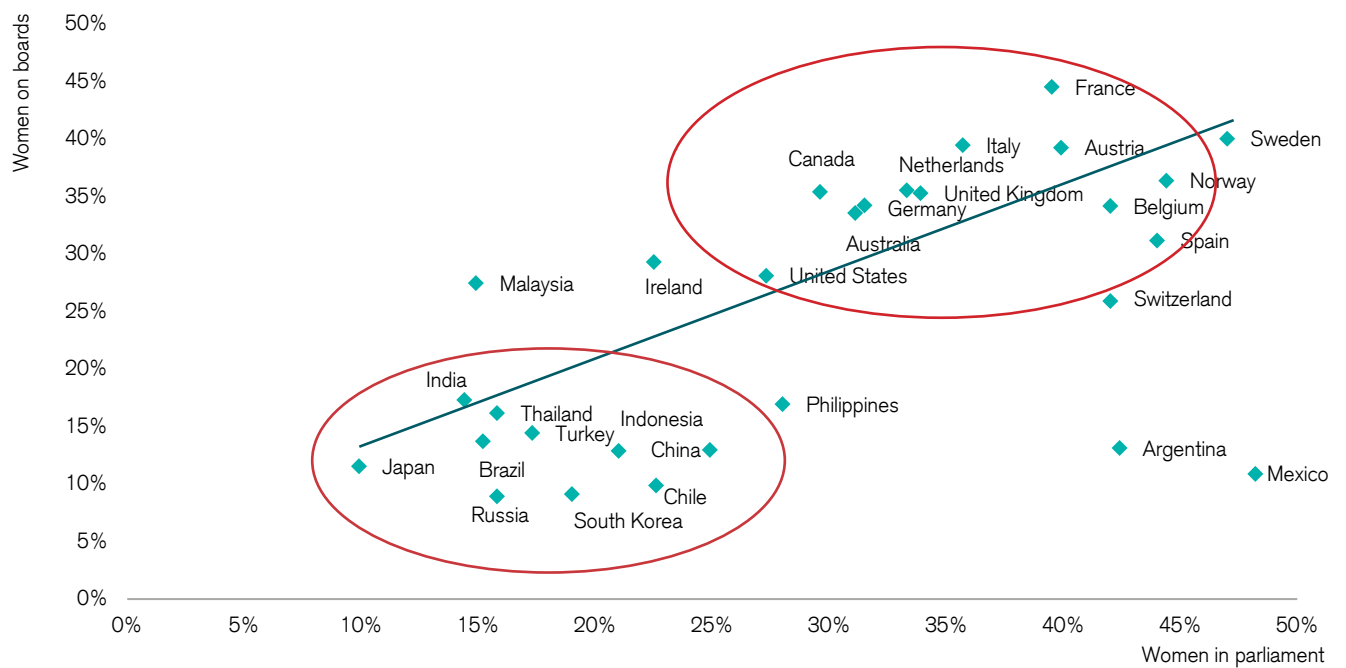
The boardroom, the C-Suite and the wider world...

In **Figure 13**, we bring together our board and management datasets by country. The scatter chart illustrates a positive, if not perfect, correlation between the board and women in management data. However, within the data, we would flag two distinct clusters of countries. In part, they are along the lines of developed versus emerging markets, but not in every case.

At the top right, we principally have European countries. As much as their developed economy status, they are linked by the thread of quotas and targets, which have helped diversity trends to some extent. However, putting the board and women in management data side by side does highlight that the existence of targets for board representation and the associated levels of female representation has not necessarily led to the same outcomes for the representation of women in management across countries. Similar outcomes for levels of women in management are apparent, despite significantly lower board representation of women.

At the bottom left, we principally have emerging economies, although Japan and South Korea are decided exceptions to that rule. We are by no means looking at a homogeneous economic

Figure 14: Women in politics versus women in the corporate world



Source: Credit Suisse Research, CS Gender 3000, Refinitiv, The BLOOMBERG PROFESSIONAL™ service, World Economic Forum: <https://www.weforum.org/agenda/2019/06/women-finance-least-developed-countries-collateral>

bloc akin to Europe where GDP per capita is concerned. As we mentioned earlier, the role of formal regulation or targets is a relatively new phenomenon among many of these countries. There is nevertheless a question as to whether we are simply observing the consequences of the earlier introduction of diversity policies or whether there are also cultural factors at work, which need to be overcome³.

3. Legal and cultural factors as catalysts for promoting women in the boardroom. Laura Cabeza-García, Esther B. Del Brio, Carlos Rueda (March 2019); Cultures and Organizations: Software of the Mind, Revised and Expanded. G. Hofstede, G.J. Hofstede, M. Minkov (2010)

In **Figure 14**, where data is available, we map the political representation of women by country alongside company board representation. While not one to one, there is a broad positive correlation between the two scatter charts. The clustered countries in **Figure 13** map quite closely to the bottom left and top right clusters in **Figure 14**, respectively.

In our view, where the profile of women is concerned, the corporate sector does not and cannot operate in isolation from wider social and political dynamics. Changes in the former are unlikely to happen independently of a structural change in the latter. With some circularity, this brings us back to the rising importance of the “S” component in ESG.

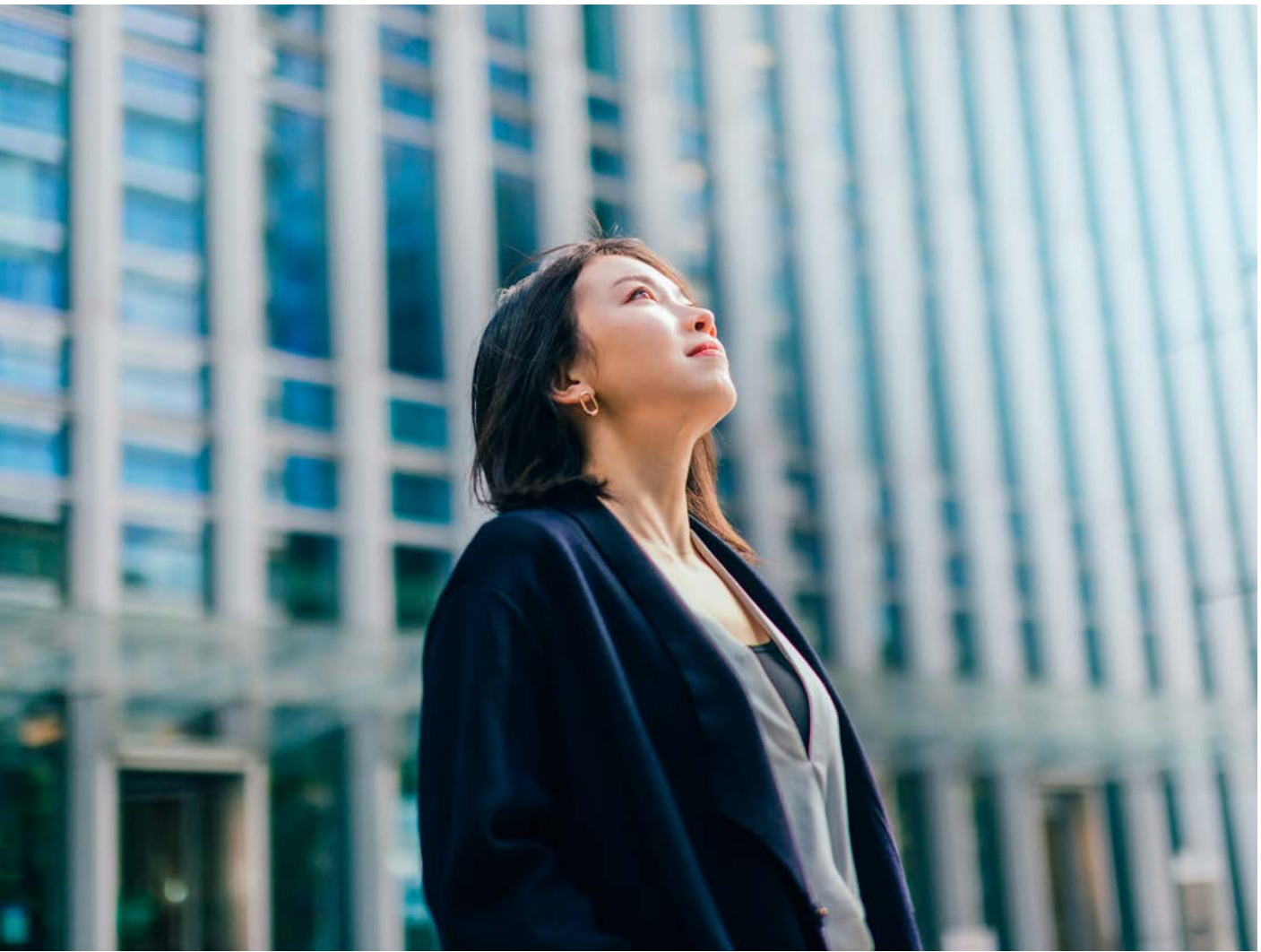


Photo: GettyImages, Oscar Wong

The “diversity premium”

Richard Kersley, Akanksha Kharbanda

While at pains not to claim a causal relationship, our prior research has highlighted how the business model of companies with more gender-diverse leadership has displayed higher returns on capital, higher margins and lower volatility through the cycle. The valuation and share price performance of such companies has also displayed a premium versus their less-diverse counterparts. Here we update and review these financial benchmarks across our Gender 3000 management universe. An observed, if not proven, “diversity premium” is still apparent. However, our belief that boardroom metrics alone can present too narrow a measure of success is also supported. We find the best-performing companies in terms of share price display superior diversity in both the boardroom and the C-Suite. Delivering on the former, but failing on the latter, erodes the “diversity premium.”

A “diverse” business model

A consistent aspect of the Gender 3000 series of reports has been to ask whether diversity matters in terms of the cold hard reality of financial and stock performance statistically. Are differing diversity characteristics within companies reflected in differing financial outcomes?

Our initial reports were based around the benchmarks of board diversity, but, with the benefit of our deeper dive into the diversity of management teams, we were able to look at performance through both dimensions. Here we review things through the management diversity lens, but also consider the relevance of diversity in both the supervisory and executive functions. Does one matter more than the other? We make no judgement as to cause and effect here, but let the data speak.

In the charts that follow, we revisit the various profit and loss and balance sheet metrics of our Gender 3000 universe when contrasted by levels of gender diversity. This is a key component of our analysis and is all conducted on a sector-neutral basis. The underlying financial characteristics of companies and the business models that shape them dictate how stocks perform.

Figures 1 and 2 begin with sector-adjusted profitability metrics. We contrast trends in EBITDA margin and cash flow return on investment (CFROI®) as measured in our proprietary corporate performance and valuation framework Credit Suisse HOLT® by differing tiers of management gender diversity. With the percentage representation of women in senior management having increased since our previous publication to around 20% globally, as shown earlier, we have used this as a pivot point for comparisons in the charts.

Figure 1 focuses on operating margins. The pattern emerging is one of greater diversity coinciding with better EBITDA margins across time. Comparing the average margin since 2010 for companies with over a 20% diversity threshold with those below 15% reveals a premium of 1.6 percentage points. If we lower the threshold to less than 10%, the gap is wider still. In fact, a striking feature of **Figure 1** is how stable the margin gap across the ascending tiers of diversity is over time.

As we focus on returns and the implicit efficiency in the deployment of capital in **Figure 2**, we find a similar picture. The same above-20% and below-15% threshold comparison yields a 1.91 percentage point average CFROI gap through time. The chart also reflects a similar pattern of tiering to that which we saw in the EBITDA comparisons showing the higher the diversity threshold, the higher the returns.

“
The pattern emerging is one of greater diversity coinciding with better EBITDA margins across time

Examining leverage characteristics as we do in **Figure 3** yields a less clear-cut message than we glean from the profit metrics. When looking at the ratio of net debt to EBITDA, we find that more diverse companies on average tend to be less leveraged over time. The average difference between the above-20% and below-15% thresholds is -5% over the 11 years we show. However, it is more variable year-to-year than we see for margins and returns. The picture is more distinct when we look at the above-30% level, where leverage is consistently lower.

Figure 1: Better EBITDA margins across time*
(non-financials, sector-adjusted, sales-weighted)

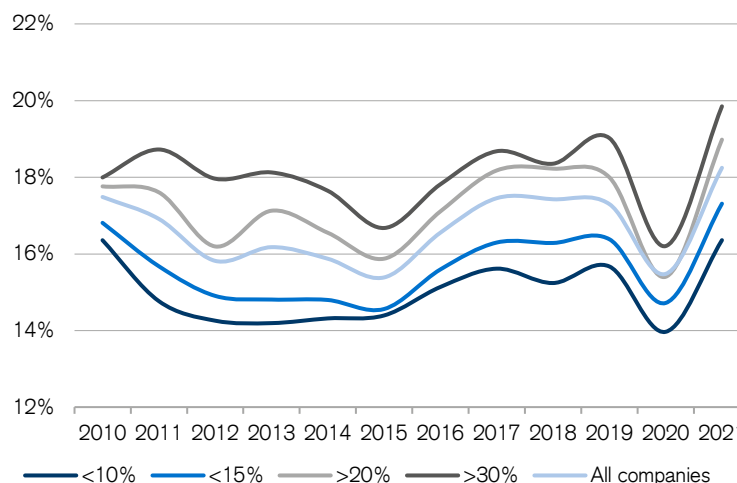


Figure 2: Higher cash flow returns*
(non-financials, sector-adjusted, gross-investment-weighted, in %)

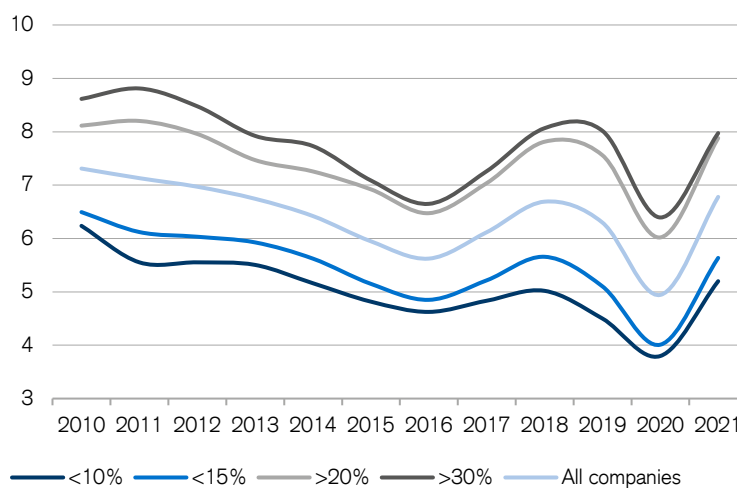
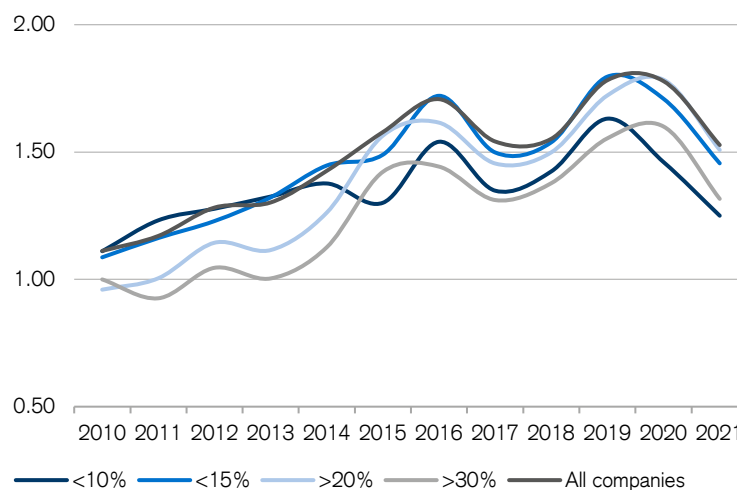


Figure 3: Net debt to EBITDA over time*
(non-financials, sector-adjusted, EBITDA-weighted)



* The percentages in the legend refer to the different thresholds of female representation in management; source Figures 1-3: Credit Suisse Research, CS Gender 3000, Refinitiv

Interestingly, however, if more diverse companies display higher leverage, these companies tend to have a lower risk profile in the eyes of the credit market as depicted by their credit ratings in **Figures 4 and 5**. While limited in terms of data availability (around 1,500 companies), we find that almost 28% of the companies with above-average female representation have credit ratings of A– or higher. This corresponding number for the below-15% group of women in management stands at 17%.

“
Almost 28% of the companies with above-average female representation have credit ratings of A– or higher

Figure 4: Credit rating profile by gender threshold

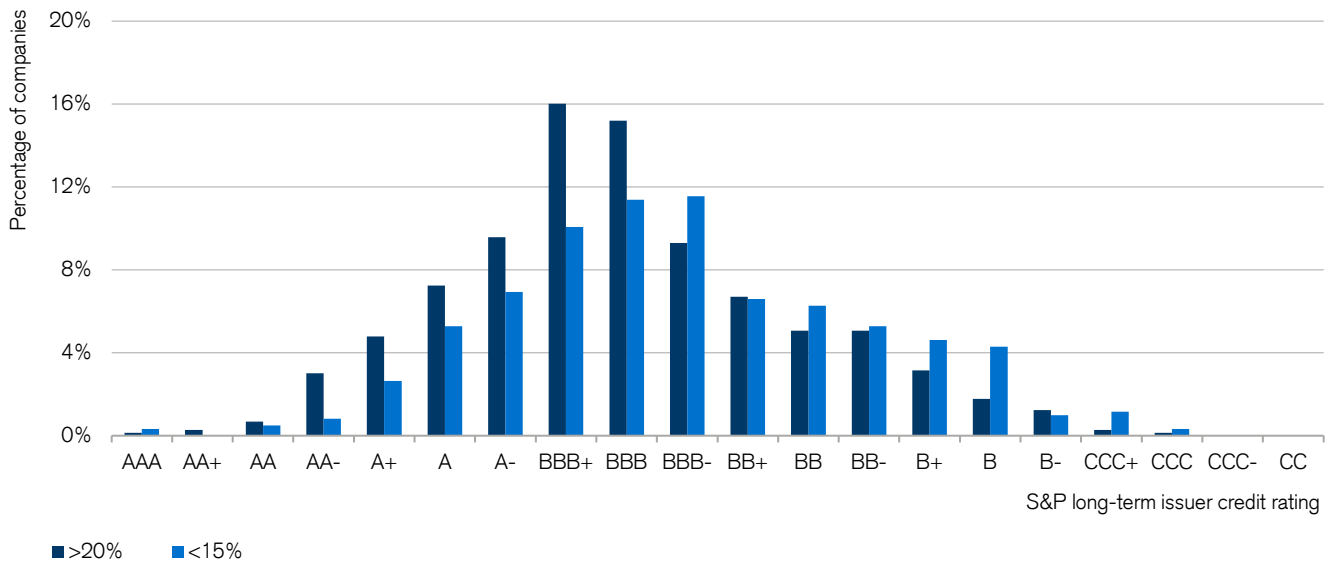
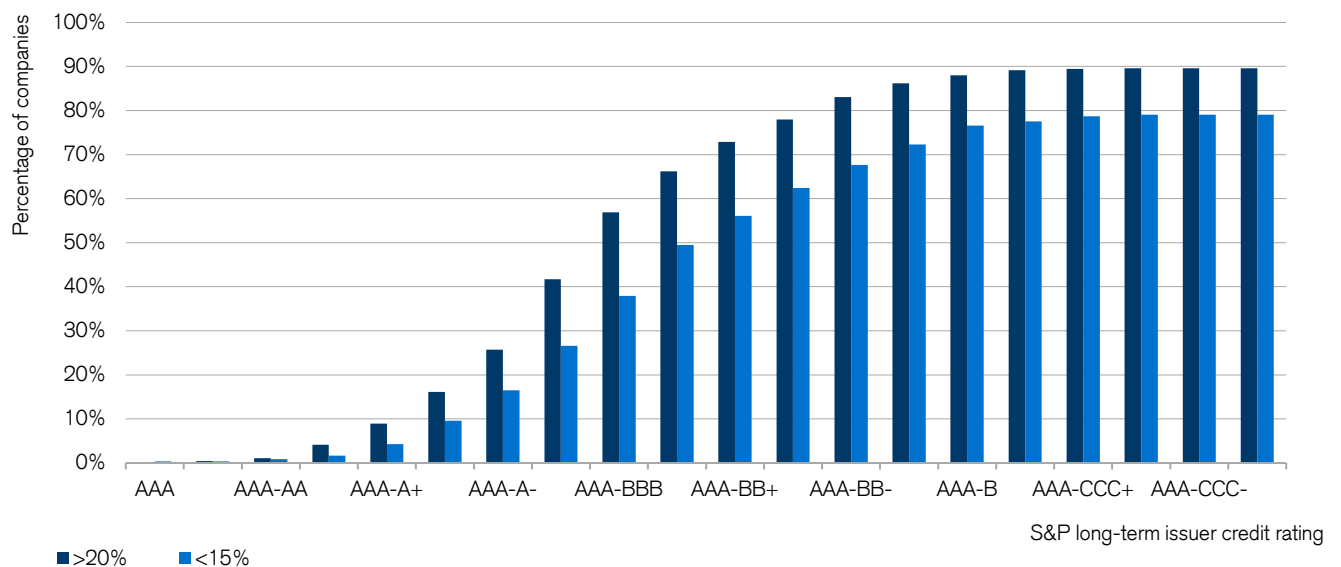


Figure 5: Cumulative credit ratings by gender threshold



Source Figures 4 and 5: Credit Suisse Research, CS Gender 3000, The BLOOMBERG PROFESSIONAL™ service

Arguably, the metric we would highlight the most is HOLT's "Quality" metric, as it consolidates much of the messages above into one yardstick¹.

Figure 6 shows the average percentile ranking globally and across each major region. It is higher in each case for the companies with above-average representation of women in management.

Finally, you would expect companies with higher margins, higher and less-volatile returns, and better credit ratings to be accorded high equity-market valuations. **Figure 7** squares the circle. Since 2010, measured on the basis of EV/EBITDA, companies with more than 20% management diversity have traded at an average premium of 13% to companies with less than 15% female representation in management. This average is indeed reflected in a consistent tiering through time. Is this a diversity premium? (In Appendix II, we provide details on these financial metrics by regions and sectors.)

The "alpha" female factor

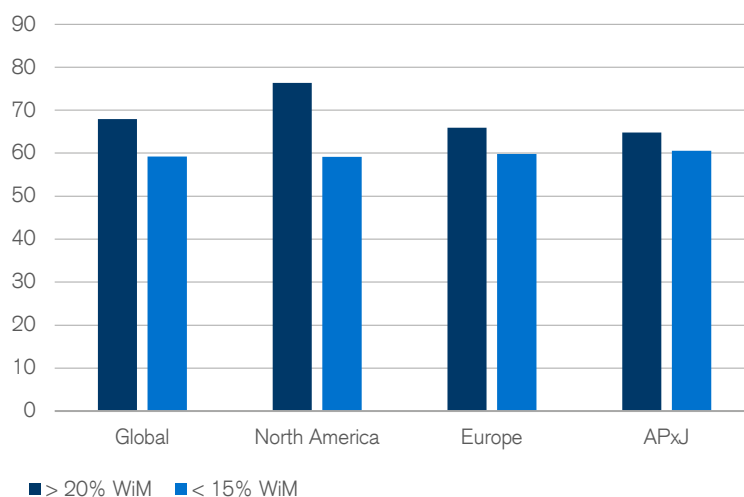
Having examined the various financial metrics of companies by their gender characteristics, below we focus on share price performance. Does the sector-adjusted excess performance or "alpha" still hold from our previous analysis? The sustained premium valuation shown above perhaps provides a clue.

Using the same 20% pivot point as above, and rolling back our constant sample of companies since 2010, companies with an above-average (20%) share of women in management produced an alpha of 200 basis points annually when compared to companies with less than 15% of women in their management teams. (**Figure 8 and Table 1**). This is slightly less than we found in our last report, where returns were closer to 300 basis points.

While our differing universe may have some impact on the comparability of the statistics with prior years, we would note our overall results do not differ significantly when rebalancing our universe for our different cuts of data through time. Rebalancing our portfolio to begin from the relevant year to reflect the past three Gender 3000 universes (2016, 2019 and 2021), a review of the forward returns shows that companies with greater gender diversity (20% and 30%) in senior management show a similar outperformance of 200 and 180 basis points, respectively, on an annualised basis.

1. The HOLT® Quality factor assesses the relative attractiveness of a company based on level and variability of CFROI®. The factor incorporates the most recently achieved CFROI level, 5-year median CFROI, and the 5-year range in CFROI.

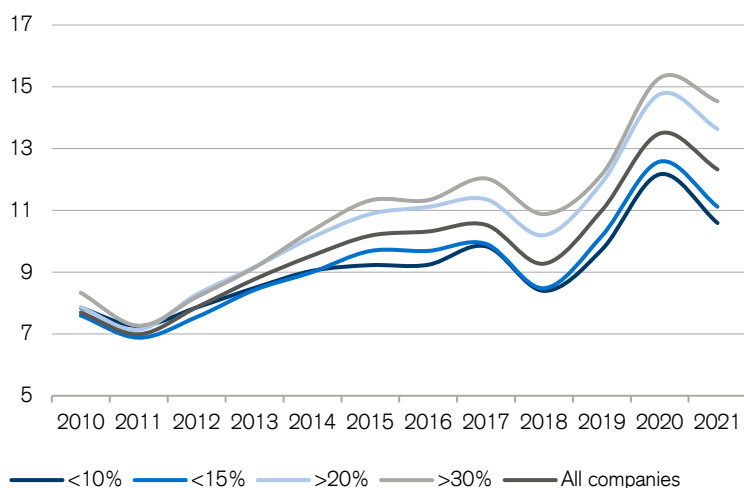
Figure 6: Quality rank across regions by percentage of women in management



Source: Credit Suisse Research, CS Gender 3000, Credit Suisse HOLT®

Figure 7: EV by EBITDA, non-financials

Sector-adjusted, EBITDA-weighted



Source: Credit Suisse Research, CS Gender 3000, Refinitiv

Figure 8: Share price performance by percentage of women in management



Source: Credit Suisse Research, CS Gender 3000, Refinitiv

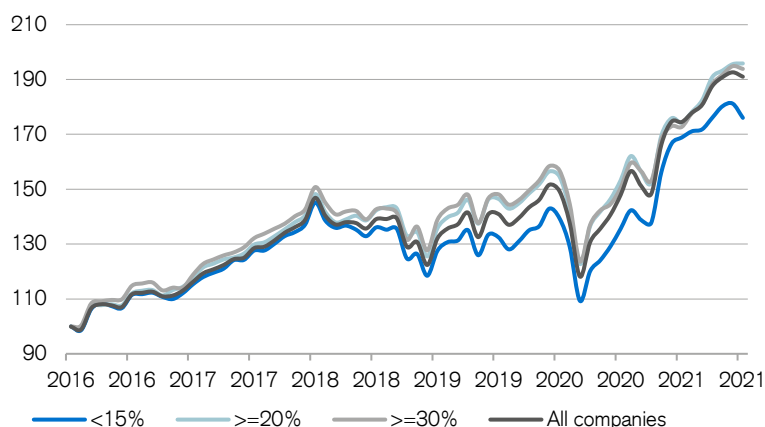
Table 1: Share price performance by percentage of women in management

Price performance	Global								
	Absolute performance					Relative to <15% female representation			
	<15%	>=20%	>=30%	>=40%	All companies	>=20%	>=30%	>=40%	All companies
2021 YTD	4.6%	12%	13%	13%	9%	6.9%	7.7%	9%	4.5%
2020	20%	16%	16%	13%	17%	-3.6%	-3.3%	-6%	-2.6%
2019	23%	25%	24%	25%	24%	2.0%	1.2%	2.0%	1.2%
2018	-15%	-10%	-10%	-10%	-12%	6.0%	5.9%	6.4%	3.7%
2017	27%	25%	24%	24%	25%	-1.7%	-2.1%	-2.8%	-1.6%
2016	3%	6%	6%	3%	5%	2.7%	3.0%	0.3%	2.0%
2015	-5%	-4%	-6%	-7%	-5%	1.4%	-0.6%	-1.49%	0.5%
2014	4%	3%	3%	2%	3%	-0.4%	-0.6%	-1.3%	-0.3%
2013	15%	23%	22%	23%	19%	6.9%	6.7%	7.7%	4%
2012	16%	16%	16%	14%	16%	-0.1%	-0.5%	-2%	0%
2011	-13%	-8%	-9%	-7%	-10%	5.7%	5.0%	7%	4.3%
2010	19%	17%	16%	21%	17%	-1.7%	-2.0%	2%	-1%
Cumulative ann.	7.5%	9.7%	9.4%	9.4%	8.8%	2.0%	1.7%	1.7%	1.2%

Source: Credit Suisse Research, CS Gender 3000, Refinitiv

Figure 9: Share price performance by percentage of women in management (rebalanced universe)

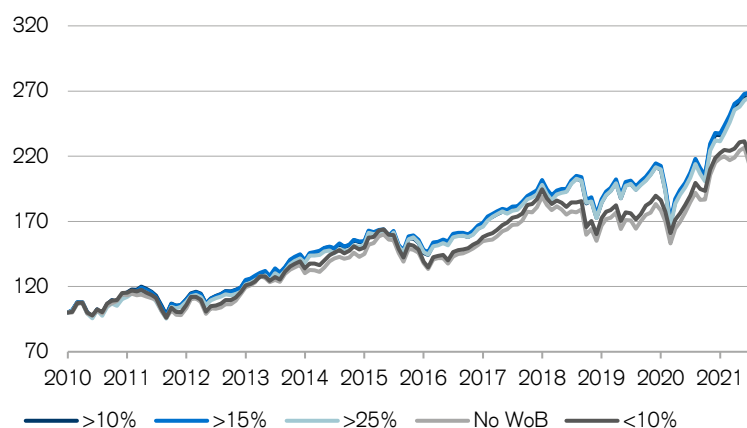
(indexed to 100)



Source: Credit Suisse Research, CS Gender 3000, Refinitiv

Figure 10: Share-price performance of differing percentages of female board representation

(indexed to 100; average = 15% since 2010)



Source: Credit Suisse Research, MSCI ACWI, Refinitiv

While a sector-neutral excess return of 200 basis points would still be more than acceptable to most investors, there is potentially a more general point to make as to the magnitude of any excess return going forward. If a unique characteristic of a company becomes less of a point of differentiation versus its peers, you would expect it to have less of an influence on its share price. As diversity becomes more mainstream, the same argument could apply here. We find some resonance of this in the fact that the returns generated by our groups with at least 30% (sample of around 743 companies) and 40% (around 334 companies) women in management appear to be similar. That is, of course, if we accept that this is playing a role where performance is concerned rather than just a statistical accident.

Revisiting boardroom diversity and performance

Finally, we return to the boardroom. As we outlined in Chapter 1, it has been one of the first ports of call for policymakers looking to effect change within companies. However, our contention expressed in the first chapter, in particular, has been that it might not be sufficient per se to judge whether diversity is having its fullest potential impact on company leadership and strategy, and hence financial performance.

To be fair, our findings with regard to the interplay of board diversity and management diversity in Chapter 1 did show that the majority of countries that have above-average diversity

in their boardrooms are also more likely to be the ones with above-average diversity in senior management. Hence, when we examine the share price performance of companies with above-average board representation by women over time, the result is very similar to that of the basket of companies with an above-average share of women in management (**Figure 11**). Both generated compound returns of 9.7% since 2010. In reality, we are looking at overwhelmingly the same companies.

“ The general alignment of board and management diversity is not perfect

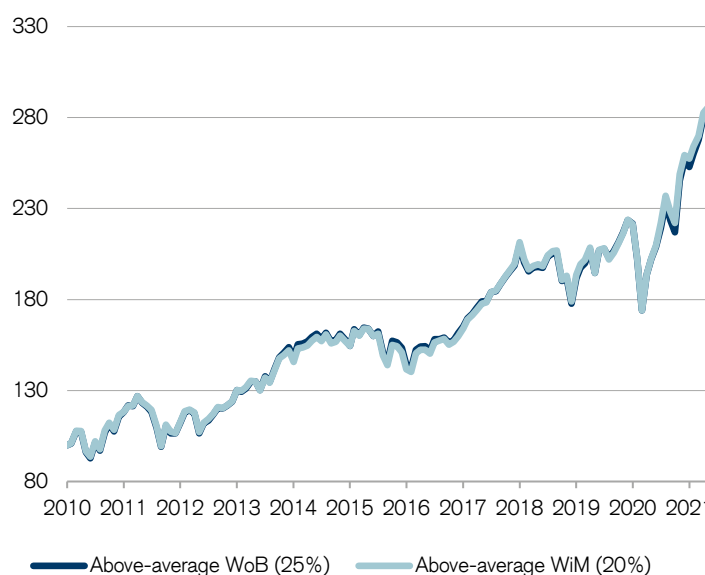
However, we also know from Chapter 1 that the general alignment of board and management diversity is not perfect. Remember, we had countries such as Germany and Spain that scored very highly on female representation in the boardroom, but relatively poorly on their representation within management. Should shareholders care about this? To address this, **Figure 12** compares returns for various levels and combinations of female representation on boards and/or within management.

The first simple takeaway from the chart is that, where observed share price performance is concerned, gender diversity matters. Looking at the excess returns yielded by our different groups of companies in **Figure 12**, we find that companies with greater diversity, either in management or the boardroom, display higher share price returns in comparison to companies with below-average diversity. The spread of returns is highest at around 300 basis points when we compare companies with an above-average share of women on boards and in management, with those that are below average (9.7% versus 6.8%, respectively).

Second, on isolating the returns, and perhaps thinking of our Germany or Spain example, we find that lowering the levels of management diversity among companies that still display

Figure 11: Share price performance of an above-average share of women on boards versus an above-average share of women in management

(indexed to 100)



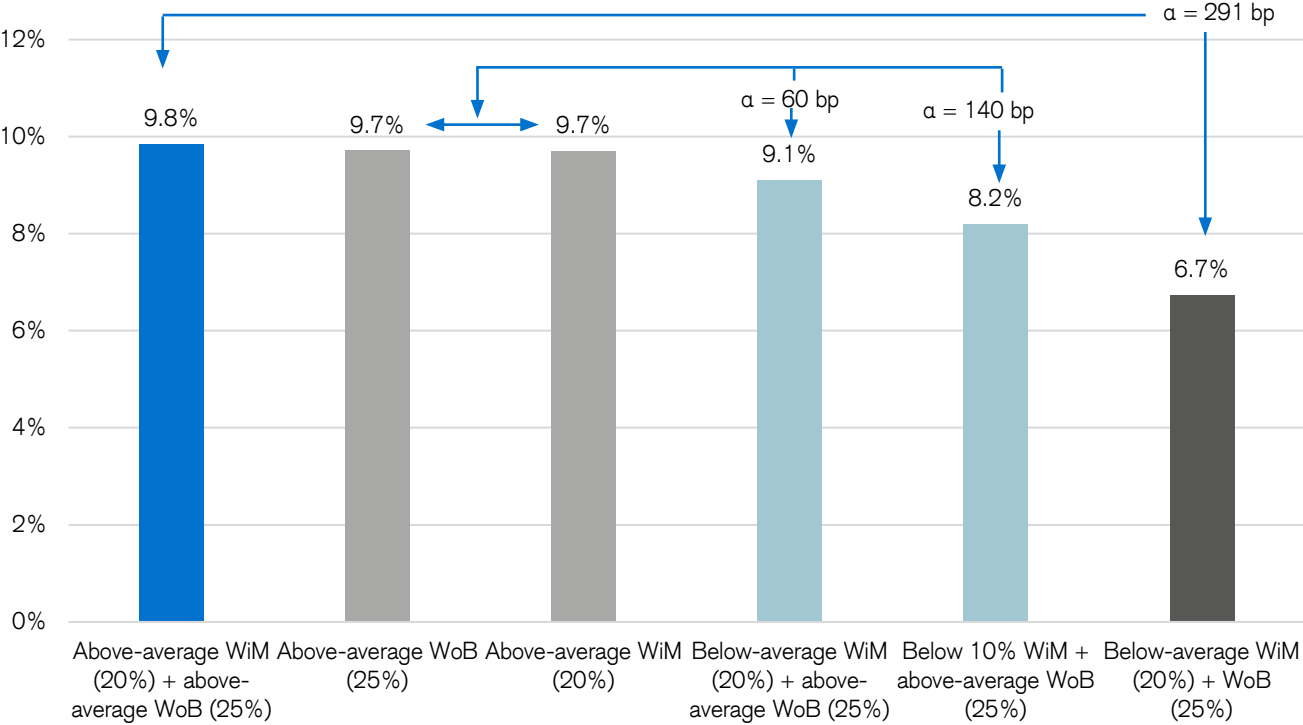
WiM = Women in management; WoB = Women on boards
Source: Credit Suisse research, CS Gender 3000, Refinitiv

the same and above-average board diversity erodes returns. For example, if we observe the returns of companies with an above-average share of women on boards (25%) and a below-average share of women in management (20%), the returns decline by around 60 basis points to 9.1%. There is a further dip in returns by 140 basis points if we reduce female representation to 10%. Statistically, therefore, gender diversity matters, but the more broadly it manifests itself within the layers of leadership in a company, the better it would seem.

Concluding remarks

During the life of our studies, we have always encountered a healthy degree of skepticism as to whether the outperformance premium that gender diversity appears to be offering is genuine or a statistical quirk. To be fair, we have never asserted cause and effect in our analysis and only pointed to the observable and enduring correlation as we do again now. It can equally be that we are picking up another factor or factors at work by proxy. It is indeed a moot point as to whether greater diversity leads to the higher “quality” business model we are presenting or whether higher “quality” businesses pursue policies of greater diversity and inclusion.

Figure 12: Greater gender diversity appears to coincide with superior returns



Source: Credit Suisse Research, CS Gender 3000, Refinitiv

However, whichever of the two is the case, the notion that diversity of leadership should be a more broadly rather than more narrowly defined concept makes intuitive sense when it comes to decision-making and relative superior versus inferior outcomes. We find **Figure 12** a compelling chart in that regard.

One of the other key takeaways from this and Chapter 1 is that gender diversity within management and the boardroom is increasing globally. However, at this point in time, there is still plenty of room for improvement, particularly in emerging and notable Asian countries, suggesting its relevance is far from played out. A company without women in the boardroom is very rare. To the extent to which greater diversity becomes the norm, it may – indirectly or directly – be less relevant as a general driver of outperformance.

Finally, while the core and history of the Gender 3000 series of studies has by nature been a focus on female versus male in the examination of diversity, we are more than aware that an assessment of diversity within companies and society at large is a far wider debate than just the male/female contrasts. Hence, in the following chapter, we widen the discussion to consider diversity in a non-binary manner to include LGBT+ diversity and how it may correlate with corporate performance. In addition, we provide an overview of the growing relevance of diversity and inclusion as seen in the USA through increasing investor pressure and links to executive compensation plans.



Photo: Credit Suisse

Gender and diversity through a wider lens

Eugène Klerk, Betty Jiang, Bahar Sezer Longworth

Against the backdrop of the growing relevance of ESG, we note that the female versus male analysis is but a part of the diversity discussion that resides in the “S” of ESG among investors. With that in mind, we review in this section how the “female alpha” compares to the performance of companies that score above average on diversity-related parameters, with a focus on gender and sexual identities. Other diversity topics such as race are not taken into consideration here. Finally, we show that shareholders are also becoming increasingly engaged with the topic of diversity, with a particular focus on developments in the USA.

Figure 1: ESG asset development



Source: Global Sustainable Investment Review 2020

Gender and ESG

The relevance of environmental, social and governance (ESG) related topics has grown significantly over the past five years. For example, data from the Global Sustainable Investment Alliance shows that the share of financial assets that are invested based on ESG-related principles reached 36% globally in 2020, up from just over 20% in 2012. Of the more than USD 35 trillion of assets that are classified as sustainable, some USD 12 trillion are invested by European asset managers and USD 17 trillion by US asset managers.

Despite the already large amount of sustainable assets, we note that the growth in ESG-related investing appears to be accelerating. Data from Morningstar suggest that inflows into ESG-related equity funds reached USD 95 billion during the first six months of 2021. This represents an annualized growth rate of 72% over the USD 110 billion of inflows seen in 2020.

Table 1: SDG5: Gender equality

Target	Goal	Indicator
5.1	End all discrimination against women and girls everywhere	– Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of gender
5.2	End all violence against and exploitation of women and girls	– The proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age – The proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence
5.3	Eliminate forced marriages and genital mutilation	– The proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18 – The proportion of girls and women aged 15–49 years who have undergone female genital mutilation/cutting
5.4	Value unpaid care and promote shared domestic responsibilities	– The proportion of time spent on unpaid domestic and care work, by gender, age and location
5.5	Ensure full participation in leadership and decision-making	– The proportion of seats held by women in (1) national parliaments and (2) local governments – The proportion of women in managerial positions
5.6	Universal access to reproductive rights and health	– The proportion of women aged 15–49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care – Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education
5.A	Equal rights to economic resources, property ownership and financial services	– Proportion of total agricultural population with ownership or secure rights over agricultural land by gender and the share of women among owners of rights-bearers of agricultural land, by type of tenure – Proportion of countries where the legal framework guarantees women equal right to land ownership and/or control
5.B	Promote empowerment of women through technology	– Proportion of people that own a mobile telephone by gender
5.C	Adopt and strengthen policies and enforceable legislation for gender equality	– Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment

Source: United Nations, Credit Suisse Research

The rising importance of ESG-related investments suggests that ESG topics are likely to become increasingly relevant as drivers of relative performance. In other words, companies that score better or show improving trends in terms of ESG should, all else being equal, be more likely to outperform peers that score below average on ESG.

Gender makes up a key area of interest in ESG. Among other things, this can be seen in the definitions of the Sustainable Development Goals (SDGs) and the targets associated with them. Several of the 17 SDGs as defined by the United Nations deal with inequality, but SDG5 specifically deals with gender equality. In order to assess the degree to which gender equality exists globally, the UN has established

targets linked to SDG5, each of which need to be met by 2030. These targets are shown in **Table 1**.

Considering that gender equality is highly relevant from an ESG perspective and given the observation made about the growing relevance of strong ESG credentials, it would help to further rationalize the observed correlation between the share of women in management and the share price returns for these companies. We recognize that the gender diversity within companies is but one of many factors seen as “material” from an ESG perspective. The question is therefore whether companies with a greater representation of women in management score better when reviewing a broader set of ESG parameters?

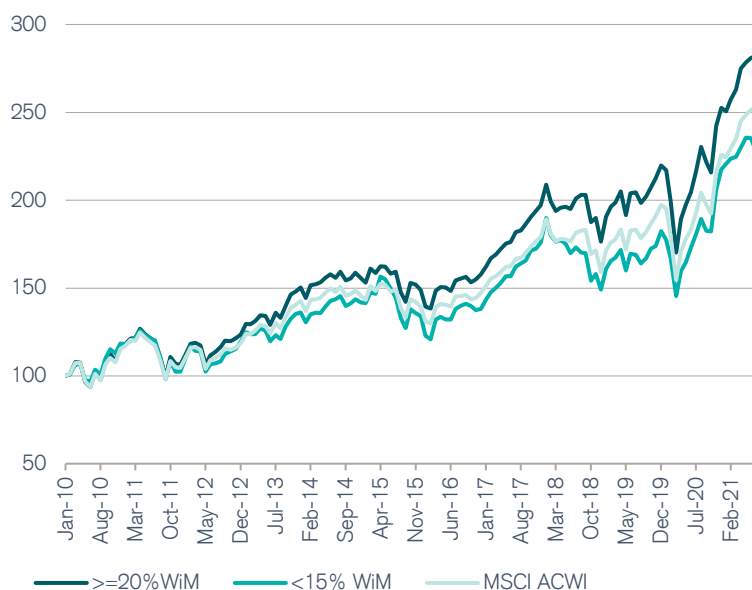
Gender, diversity and ESG ratings

Environmental, social and governance scores or ratings are designed to help investors understand a company's key exposure to ESG risks and how they are managed. Gender and the broader concept of diversity and inclusion are critical building blocks in most of these ratings. In **Table 2** below, we provide an overview of how issues relating to diversity and inclusion are incorporated into the methodology of well-known ESG ratings and standards provided by key ESG rating companies and ESG standards committees.



We note that the growth in ESG-related investing appears to be accelerating

Figure 2: Share price returns of women in management



Source: Refinitiv, Credit Suisse Research

Sustainability Accounting Standards Board

The Sustainability Accounting Standards Board (SASB) has developed standards that identify ESG issues relevant to financial performance in 77 industries. They are designed to help companies disclose financially material sustainability information to investors. The SASB standards address five sustainability dimensions, one of which is human capital. Diversity and Inclusion is one of the categories within the human capital sustainability dimension, along with Employee Health & Safety, Labor Practices and Employee Engagement, according to SASB. The disclosure topics associated with these categories address a company's ability to ensure that its culture, hiring and promotion practices embrace the building of a diverse and inclusive workforce. Specific diversity and inclusion metrics, for example, include the percentage of gender and racial/ethnic group representation for management, technical staff and all other employees.

Table 2: Overview of diversity and inclusion metrics

Standard	Category	Example metric
SASB	Employee engagement, diversity and inclusion	Percentage of gender and racial/ethnic group representation for management, technical staff and all other employees
Sustainalytics	Material ESG issues – human capital	Gender pay disclosure, board diversity, discrimination policy or diversity program
MSCI	Company-reported ESG information	Evidence of anti-discrimination and inclusion policy
Refinitiv	Social – workforce	The Workforce Score measures a company's effectiveness toward job satisfaction, a healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce

Source: SASB, Sustainalytics, MSCI, Refinitiv

Sustainalytics

Sustainalytics' ESG Risk Rating provides an insight into company-level ESG risk by measuring the magnitude of a company's unmanaged ESG risks. This rating is comprised of a quantitative score and a risk category (e.g. low, medium, high). The ESG risk ratings are made up of three building blocks that contribute to the overall rating. The second building block focuses on material ESG issues including the topics of employee recruitment, development, diversity and engagement.

MSCI

The MSCI ESG Ratings are designed to help investors understand ESG risks and opportunities. The ratings are created using data points across ten themes and 35 ESG key issues, focusing on the intersection between

a company's core business and the industry issues that can create significant risks and opportunities for the company. Diversity and inclusion are part of the "Human Capital" theme within the "Social" pillar.

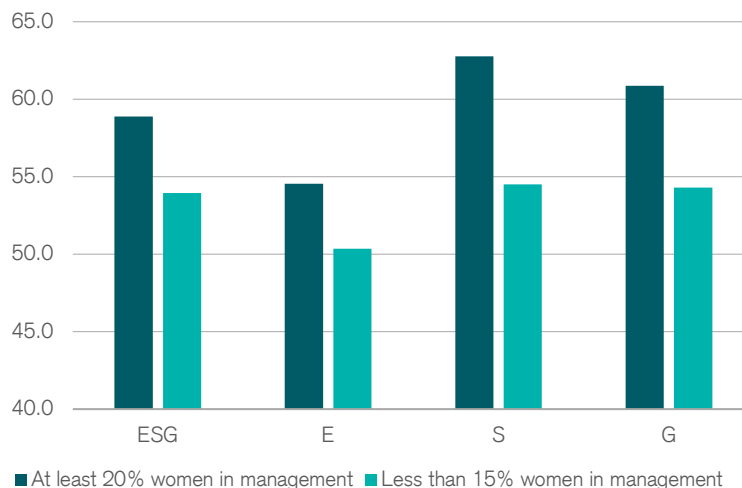
Refinitiv

The Refinitiv ESG Scores are designed to measure a company's ESG performance across ten themes based on company-reported data. Within the "Social" pillar, themes addressing diversity and inclusion issues focus on workforce, human rights and community as well as management-related metrics in the "Governance" pillar.

Here we look at how ESG scores differ between companies based on their share of women in management as per the Gender 3000 universe. We have done this by using the ESG scores as calculated by Refinitiv. **Figure 3** shows key results for the overall ESG score as well as the individual scores for "E," "S" and "G." We arrive at a simple conclusion. Companies that have a higher share of women in management currently score substantially better across all three areas of ESG. The fact that these companies score better on social-related issues might have been expected given the fact that gender forms part of it. However, it appears that companies with a greater share of women in management tend to also perform better in relation to their environmental and government policies.

“
Companies that score better in terms of ESG should, all else being equal, be more likely to outperform peers that score below average on ESG

Figure 3: ESG scores across our Gender 3000 database



Source: Refinitiv, Credit Suisse Research

Gender versus diversity more broadly

In earlier chapters, we showed that, for the average company, the share of women in management and boardrooms is still rising. This is clearly positive when viewed through a binary gender lens of male versus female. However, we note that a company's workforce is made up of employees whose gender and sexual identity can differ from the gender that they were assigned at birth. Hence we set out to examine companies in terms of their broader policies focused on gender and sexual identity. Do companies that score well in terms of binary gender diversity reflect more positive diversity characteristics when judged through a wider lens? These days, the range of sexual and gender minorities is commonly grouped by the initials LGBT+. This incorporates the lesbian, gay, bisexual and transgender community, while the "+" stands for other sexual or gender identities.

Gender and LGBT+ are part of the broader diversity topic. Race is another area of focus in relation to diversity. However, that is not taken into consideration here. The key challenge that investors face when trying to assess whether their companies perform well in terms of diversity is a lack of data. While retrieving information regarding the share of women in an organization is difficult but doable, obtaining reliable information on the make-up of a company's workforce in terms of LGBT+ is very challenging. Finding out whether a company has inclusive LGBT+ policies and procedures in place and, if so, what these policies entail is also not straightforward. This suggests that trying to analyze whether a company's share of women in management or on the board has any correlation with its broader approach toward diversity is difficult.

Benchmarking tools to construct the LGBT 400

To examine the impact of enhanced diversity on corporate performance through a lens of LGBT inclusiveness, we created a market-cap weighted and sector-adjusted basket of around 400 LGBT-inclusive companies. We selected companies using a number of external sources focused on assessing company policies, practices and benefits pertinent to LGBT+ rights. These include leading benchmark surveys such as Stonewall's Top 100 Employers, the Corporate Equality Index from the Human Rights Campaign (HRC), DiversityInc Top Companies for LGBT Employees, and India's first comprehensive benchmarking tool for employers to measure their progress on LGBT+ inclusion in the workplace.

Having the LGBT 400 database allows us to compare the performance of companies in terms of women in management and diversity more broadly. One caveat, however, is that the sector and country weightings of the LGBT 400 differ from the Gender 3000. **Table 3** shows the market-cap-weighted sector composition for the companies that are part of our LGBT 400 database as well as the Gender 3000 universe. We also include the sector make-up of companies that have more than a 20% share of women in management as well as the roughly 200 companies in this group that also form part of our LGBT 400 universe. The table shows that:

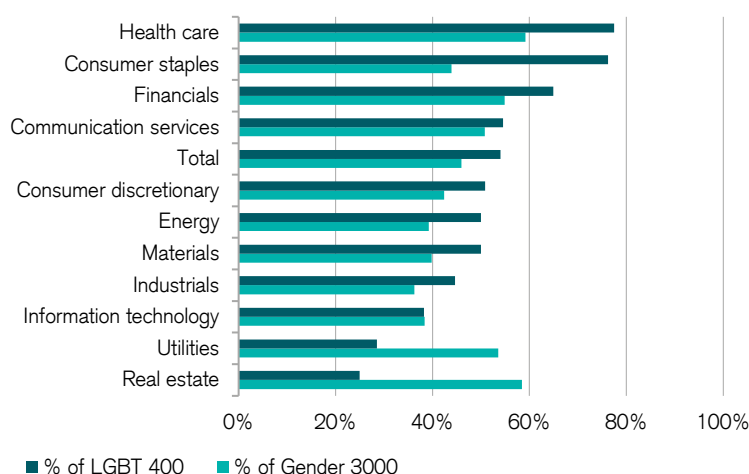
- Technology companies appear to have a greater focus on diversity than on women in management. They make up 32% of our LGBT 400 universe, while 20% of our Gender 3000 universe consists of tech companies that have more than a 20% share of women in management. Furthermore, the share of tech companies included in the LGBT 400 universe that also have more than 20% women in management is only 18%.
- On the other hand, sectors within the LGBT 400 universe that have an above-average share of women in management include financials, consumer staples and health care. **Figure 4** shows the share of companies in both databases that have more than 20% of women in management. In the case of health care companies, we note that 78% of those included in the LGBT 400 index have over a 20% share. This compares to 59% for the broader Gender 3000 index.

Table 3: Sector weightings between the LGBT 400 and Gender 3000 database

Market capitalization	LGBT 400	WiM>20%	LGBT 400+ WiM 20%	Gender 3000	MSCI ACWI
Communication services	14%	11%	19%	10%	9%
Consumer discretionary	12%	14%	14%	14%	13%
Consumer staples	6%	8%	8%	8%	8%
Energy	1%	3%	1%	4%	3%
Financials	12%	16%	15%	14%	15%
Health care	13%	14%	18%	10%	11%
Industrials	5%	7%	4%	9%	10%
Information technology	32%	20%	18%	21%	20%
Materials	2%	4%	1%	5%	6%
Real estate	0.2%	2%	0.1%	2%	3%
Utilities	2%	2%	1%	2%	3%

Source: Refinitiv, Credit Suisse Research

Figure 4: Share of companies that have more than 20% of women in management



Source: Credit Suisse Research

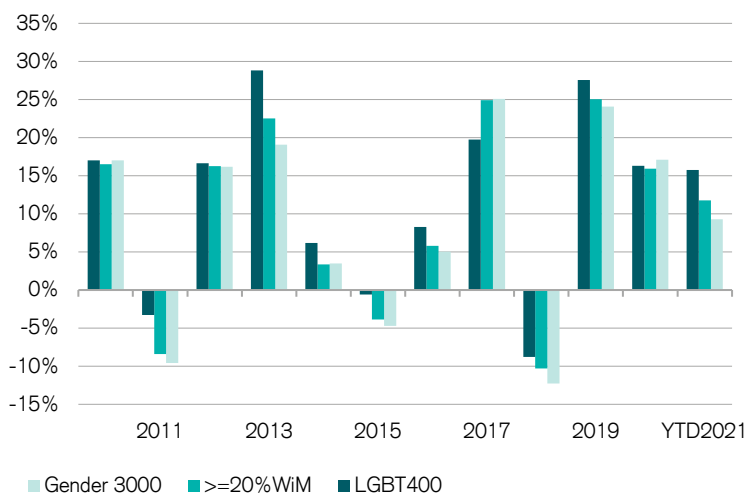
“ Companies within the Gender 3000 with a greater share of women in management currently have a better ESG score

Table 4: Overview of the benchmarking tools to create the LGBT 400

	Stonewall Top 100 Employers 2020	HRC Corporate Equality Index 2021	DiversityInc Top Companies for LGBT Employees 2020	India Workplace Equality Index 2020
No. of companies	100	767 (with a top score of 100)	29	52 (with gold, silver or bronze status)
Regional focus	United Kingdom	United States	United States	India
Methodology	<p>The Stonewall Workplace Equality Index is a benchmarking tool for employers to measure their progress on lesbian, gay, bi and trans inclusion in the workplace.</p> <p>The following steps are undertaken in order to evaluate an organization's achievements and progress on LGBT equality as per Stonewall's website:</p> <ol style="list-style-type: none"> 1. Participating companies have to showcase their achievements in ten areas of employment policy and practice; 2. Employees also complete an anonymous survey about their experiences at work; 3. Organizations then receive their scores, enabling them to understand what's going well and where they need to focus their efforts, as well as see how they've performed in comparison with their peer groups; and 4. The 100 best-performing organizations are published online in the Stonewall Top 100 Employers list. 	<p>The HRC Corporate Equality Index is an annual survey of how companies in the United States treat their lesbian, gay, bisexual, transgender and queer employees, consumers and investors.</p> <p>As per CEI's website, employers earning top ratings took concrete steps to ensure greater equity for LGBTQ workers and their families in the form of comprehensive policies, benefits and practices. The CEI rating criteria have four key pillars:</p> <ol style="list-style-type: none"> 1. Non-discrimination policies across business entities; 2. Equitable benefits for LGBTQ workers and their families; 3. Supporting an inclusive culture; and 4. Corporate social responsibility. 	<p>The DiversityInc Top Companies for LGBT Employees is based on data obtained through organizations filling out an annual survey.</p> <p>Factors that determine the LGBT specialty list as per DiversityInc's website are:</p> <ol style="list-style-type: none"> 1. 100% Human Rights Campaign — Corporate Equality Index rating; 2. Existence of Employee Resource Group (ERG) for LGBT employees; 3. Percentage of philanthropic spend with LGBT-focused organizations; and 4. Percentage of supplier spend with LGBT vendors; and 5. Workplace practices, policies and benefits supportive of LGBT employees. 	<p>The India Workplace Equality Index is India's first comprehensive benchmarking tool for employers to measure their progress on lesbian, gay, bi and trans (LGBT+) inclusion in the workplace.</p> <p>A gold, bronze or status is assigned based on the following criteria:</p> <ol style="list-style-type: none"> 1. Gold: employers who have successfully embedded LGBT+ inclusion in their policies, hiring practices, external communication, demonstrating a long-term and in-depth commitment towards LGBT+ inclusion. 2. Silver: employers who have made significant achievements in promoting LGBT+ inclusion in the workplace, demonstrating progress and impact over time. 3. Bronze: employers who have started their journey to better LGBT+ inclusion at work by developing inclusive policies and initiating activities that promote LGBT+ inclusion for employees.
Examples of featured companies	Vodafone is a sponsor of Pride and also launched the global Allies program in 2018. GSK partnered with Gay Times for a campaign focusing on LGBTQ+ consumers in 2020.	Johnson & Johnson's Care With Pride initiative is a sponsor for more than 40 Pride parades globally. Starbucks launched a campaign in 2020 to support trans charity Mermaids.	MasterCard launched the True Name initiative to allow chosen names to appear on the front of cards, helping the transgender and non-binary communities.	Tata Steel extended certain HR policies to same-sex parents, trans parents and single male parents.

Source: Credit Suisse Research, Stonewall Top 100 Employers 2020, HRC Corporate Equality Index 2021, The DiversityInc Top Companies for LGBT Employees 2020, India Workplace Equality Index 2020

Figure 5: Annual absolute returns

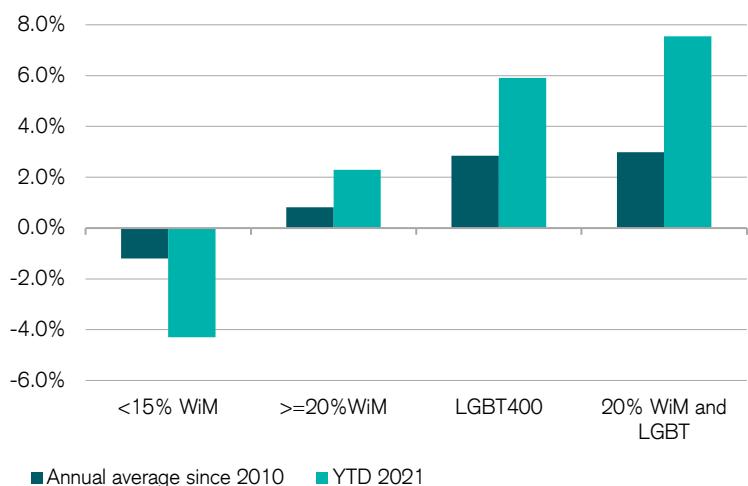


Source: Refinitiv, Credit Suisse Research

With the exception of real estate, utilities and technology, we find that the average LGBT 400 company has a greater share of women in management than the average company in our Gender 3000 database. One positive result of having a greater focus on diversity may be that companies are more likely to employ women higher up in the organization too.

We also compared the alpha characteristics of companies with an above-average share of women in management with those that score well in terms of LGBT+. In order to remove any sector or size bias, we have calculated the share price returns on a market-capitalization-weighted and sector-adjusted basis. **Figure 5** shows the annual absolute performance of the LGBT 400 universe. The chart also shows the returns for our Gender 3000 universe and for those companies within our Gender 3000 universe that have more than 20% of women in management. Historically speaking, it appears that the LGBT 400 universe has statistically delivered higher returns.

Figure 6: Returns relative to the Gender 3000 universe



Source: Refinitiv, Credit Suisse Research

We also reviewed the return profile of those companies that score well in both of our two databases in order to see whether a high share of women in management and a strong focus on LGBT diversity trumps returns generated by companies that focus more on just one of those two areas.

Figure 6 shows that restricting our analysis to companies that are part of our LGBT 400 database and that have a more than 20% share of women in management lifts the annual average return. Since 2010, it would have added around 20 basis points per year relative to the LGBT 400 alpha. So far this year, the benefit of focusing on companies within our LGBT universe that have a high share of women in management is a more impressive 160 basis points. This analysis seems to indicate that investors seeking to maximize returns should focus on companies that put both women and diversity more broadly at the heart of their corporate strategy.

Gender, diversity and ESG

We previously showed that companies with a greater share of women in management tend to score better in terms of overall ESG rankings. The question relevant for ESG-focused investors is whether a similar conclusion can be reached for companies that score well in terms of diversity more broadly.

Figure 7 shows that the companies in our LGBT 400 database on average score better in terms of ESG performance across most sectors than the companies in the Gender 3000 database.

Figure 8 compares the Social scores for the LGBT 400 companies with those for Gender 3000 companies. This suggests that the companies with social policies in terms of gender and sexual identities tend to have higher overall social scores than companies in the MSCI AC World or the Gender 3000 database.

Leaders in Women in Management and LGBT 400

Given the superior ESG profile of the companies that are included in both the LGBT 400 and that have a share of women in management above 20%, we reviewed key financial characteristics of these companies and compared them with those for the two databases individually. Specifically, we calculated average CFROI as this allows us to assess profitability characteristics between the groups.

Figure 9 shows the sector-adjusted CFROI profiles for the women in management (WiM) data, the LGBT universe and subsets thereof. The conclusion is that companies that combine a good score in terms of LGBT and that have an above-average share of women in management tend to be more profitable.

The overlap between our LGBT 400 universe and the companies from our Gender 3000 universe that have more than 20% of women in management consists of just over 200 companies. All but one of these are located in either the USA or Europe. This in part stems from the fact that diversity-related information is not easily available for companies across Asia. However, it also reflects lower levels of women in management in a number of the larger Asian economies.

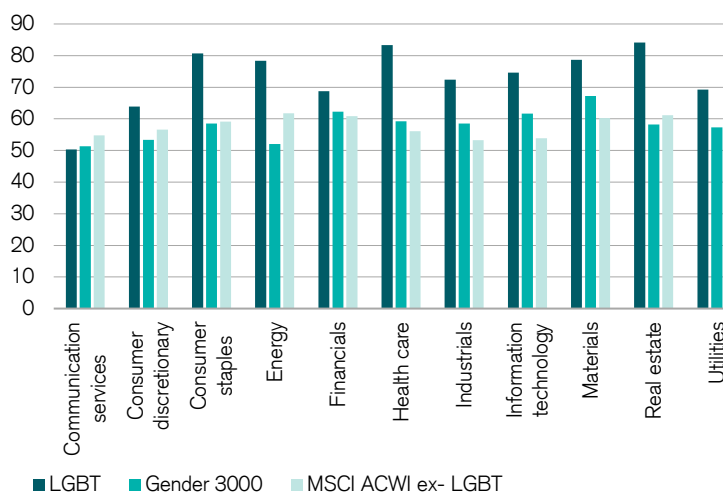
Table 5 shows the 15 largest companies by market capitalization in the USA and Europe that form part of the above-mentioned overlap between our two databases. We include the share of women in management as well as the Refinitiv ESG scores for them. In addition to a relatively high average share of women in management (31% for the US companies and 30% for the European constituents), we also note the very high ESG scores that these companies have on average.

Figure 7: ESG scores of LGBT 400 versus Gender 3000 and MSCI AC World Index



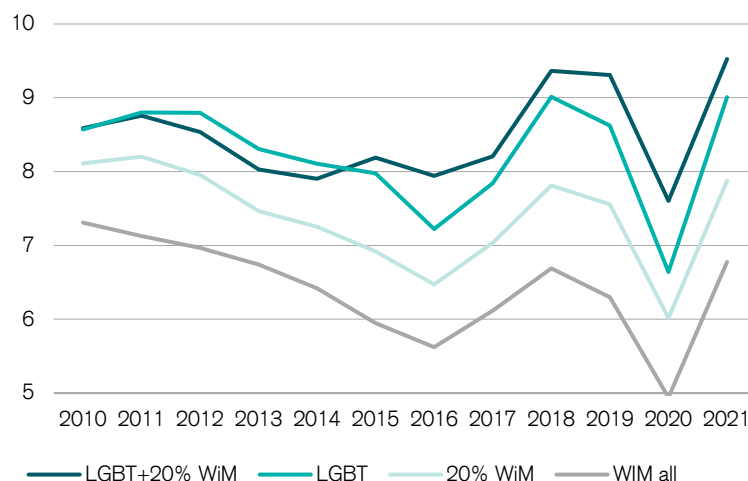
Source: Refinitiv, Credit Suisse Research

Figure 8: Social scores: LGBT 400 versus Gender 3000 and MSCI AC World Index



Source: Refinitiv, Credit Suisse Research

Figure 9: CFROI (sector adjusted, gross investment weighted)



Source: Credit Suisse HOLT®, Credit Suisse Research

Table 5: The 15 largest companies with more than 20% of women in management and are included in our LGBT 400 universe

Name	Sector	Market cap. (USD bn)	ESG	E	S	G
US companies			74	73	80	68
Alphabet	Communication services	1,940	69	76	91	48
Amazon com Inc.	Consumer discretionary	1,762	87	88	91	82
Facebook Inc.	Communication services	1,077	61	47	56	70
NVIDIA Corporation	Information technology	561	77	70	82	75
Visa Inc.	Information technology	489	53	46	74	37
JPMorgan Chase & Co.	Financials	483	82	83	82	81
Johnson & Johnson	Health care	457	88	93	97	73
Walmart Inc.	Consumer staples	414	85	82	90	78
UnitedHealth Group Inc.	Health care	394	70	82	57	81
Procter & Gamble	Consumer staples	349	73	88	79	48
Bank of America Corp.	Financials	347	79	83	89	63
MasterCard Inc.	Information technology	345	71	78	74	65
PayPal	Information technology	337	74	46	75	83
The Walt Disney Company	Communication services	333	69	55	84	54
Adobe	Information technology	317	78	78	77	79
European companies			84	80	90	82
Novartis	Health care	228	86	83	92	77
AstraZeneca	Health care	182	94	92	96	92
Siemens	Industrials	140	86	87	84	89
Sanofi	Health care	132	91	85	96	86
GlaxoSmithKline plc	Health care	102	92	83	96	93
Kering	Consumer discretionary	102	80	96	95	56
Air Liquide	Materials	86	74	48	90	95
BNP Paribas	Financials	81	94	95	96	91
Siemens Healthineers	Health care	80	72	71	78	65
National Grid	Utilities	47	63	49	73	73
Vodafone Group	Communication services	47	92	79	95	96
Ericsson	Information technology	40	83	65	90	87
Capgemini	Information technology	38	71	77	91	51
Nokia	Information technology	34	91	95	86	93
Societe Generale	Financials	27	87	96	88	82

Source: Refinitiv, Credit Suisse Research

How shareholders drive gender and diversity in the USA

In this chapter, we have shown that companies with a greater focus on gender and diversity more broadly tend to perform well and on average appear to be outperforming their peers for which these topics appear less of a focus. There are several ways in which diversity-related topics make it onto the corporate agenda. Governments in various countries have enacted legislation requiring companies to meet quotas of female representation in companies and/or boards. More recently, we note that shareholders are becoming increasingly vocal on the topic too. In the remainder of this chapter, we show how shareholders in the USA drive the topic of diversity and inclusion.

The importance of diversity and inclusion has been growing rapidly in the USA during the past few years, which we attribute to a combination of the COVID-19 pandemic putting a spotlight on how institutions treat all of their stakeholders, sweeping protests across the USA over racism and inequality, and an increasing number of women speaking out against unfairness in the workplace (e.g. underrepresented in high-level positions, underpaid versus men in similar positions, etc.).

This growing importance is reflected in the dominance of diversity and inclusion in both executive compensation plans and ESG-related shareholder proposals due to pressure from investors (particularly regarding enhanced disclosure on key diversity and inclusion data). While the level and type of diversity-related disclosures varies significantly across sectors and companies, we have been able to make some interesting observations looking at the top 300 companies in the USA (out of the S&P 500 Index). Meanwhile, the US Securities and Exchange Commission (SEC) is set to propose rules later this year that should increase both the number of companies providing such disclosures and the level of consistency, which will make it easier to compare companies.

Diversity and inclusion dominates ESG in executive compensation plans...

Given the growing investor/societal pressure on public companies to increase their ESG and sustainability focus in recent years, we examined whether annual executive bonus plans have evolved accordingly. Specifically, we looked at the 2019–20 proxy statements of the top 10 companies by market capitalization within each of the 11 sectors (110 companies) across the S&P 500 Index (data as of late

Figure 10: Number of companies¹ including ESG/non-financial considerations in annual bonus plans²

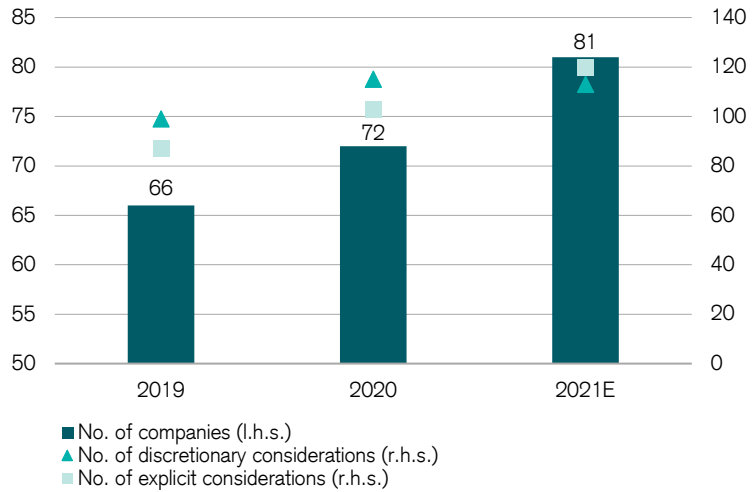
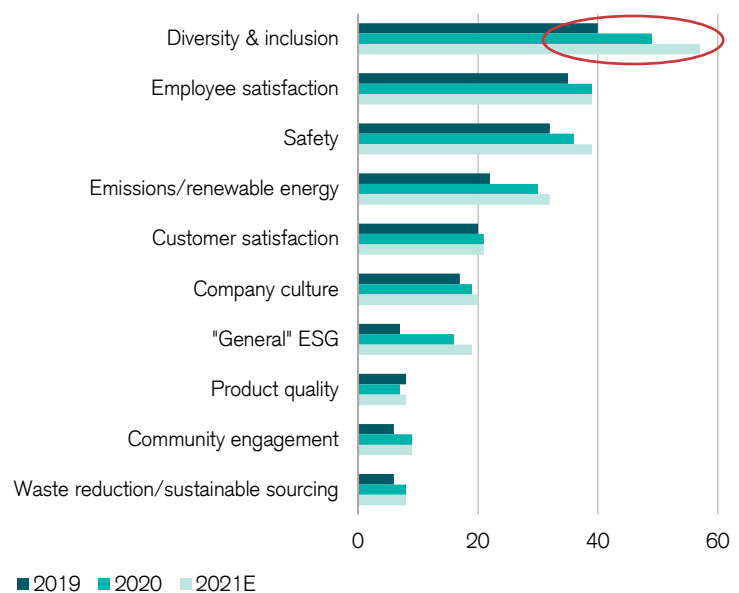


Figure 11: Number of companies¹ including ESG/non-financial considerations in annual bonus plans² – by category

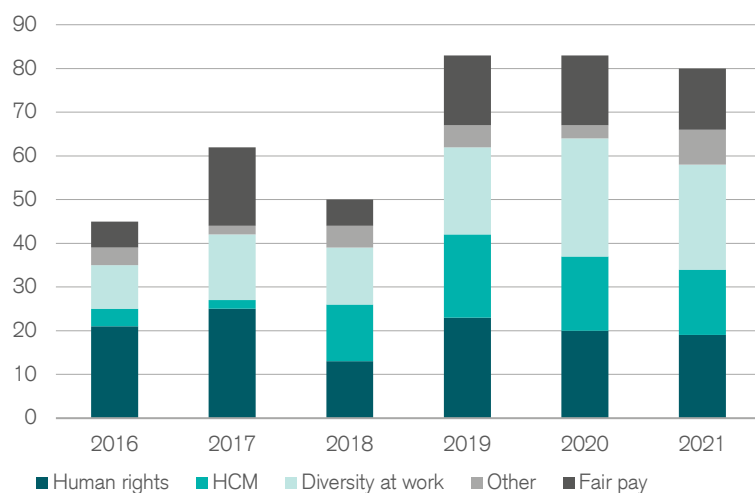


Source Figures 10 and 11: Company data, Credit Suisse research

1. Reflects top 10 companies by market cap within each of the 11 sectors (110 companies) across the S&P 500 Index (data as of late April/early May)

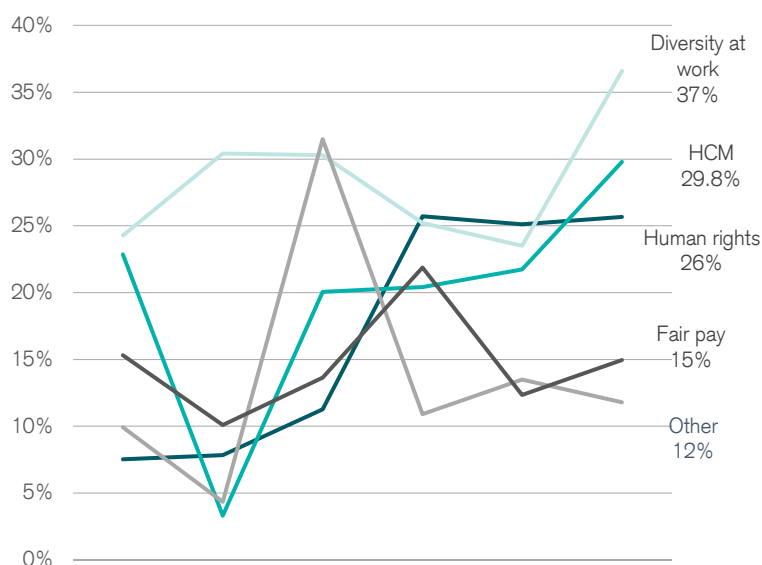
2. If there was no mention of expectations for 2021, we assume the same considerations from 2020

Figure 12: Trend in number of social-related proposals across S&P 500 companies



Source: Proxy Insights, Credit Suisse research

Figure 13: Trend in average approval rate for social-related proposals across S&P 500 companies



Source: Proxy Insights, Credit Suisse research

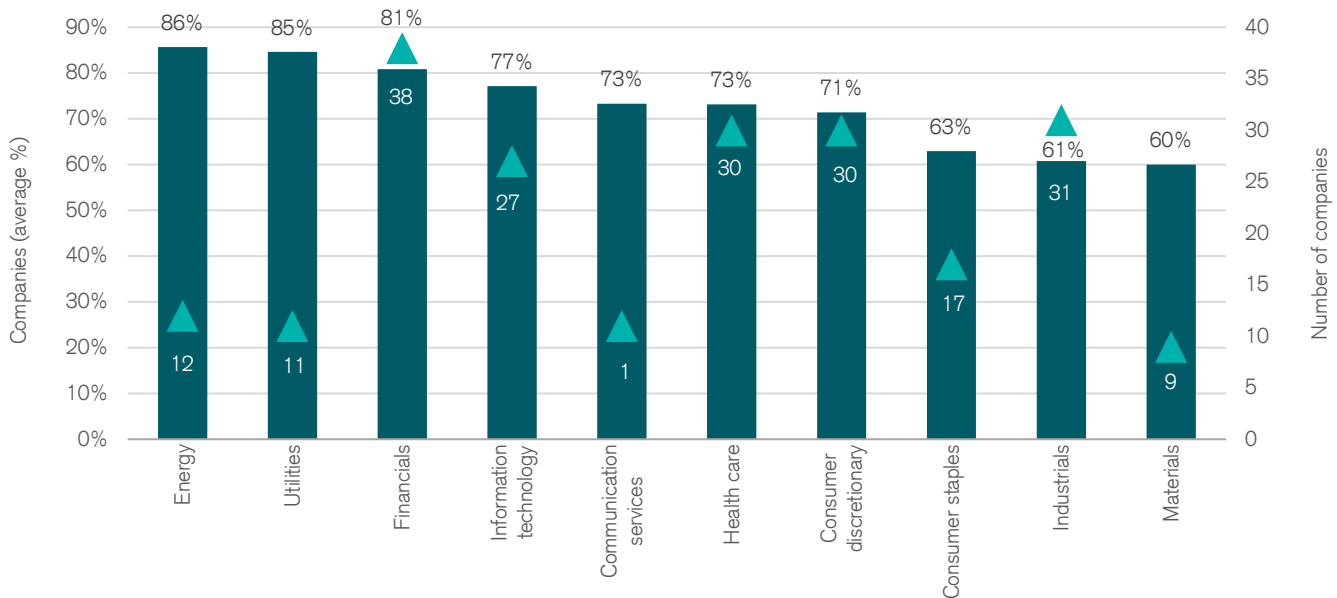
April/early May). Within the 110 companies, we found that 66 companies (around 60%) included ESG or non-financial considerations in annual bonus plans in 2019. This figure grew to 72 companies (around 65%) in 2020 and is set to grow to at least 81 companies (around 74%) in 2021. In addition to the nine new companies, we found at least nine other companies that plan to enhance existing ESG/non-financial considerations in their 2021 annual bonus plans. Notably, considerations related to diversity and inclusion have not only remained the most common among all ten ESG/non-financial categories, but have also gained the most traction since 2019.

“
This growing importance is reflected in the dominance of diversity and inclusion in both executive compensation plans and ESG-related shareholder proposals due to pressure from investors

...and in shareholder proposals

We also looked into S&P 500 companies' ESG shareholder proposals, which saw unprecedented support during the 2021 proxy season. Given the increasing investor focus on social (“S”) issues in recent years, it is no surprise that the number of social-related shareholder proposals has not only surged, but also been the largest of the three (“E,” “S” and “G”) over the last three years. While all types of social-related proposals have been increasing, diversity-related proposals have particularly been leading the way. In 2020–21, diversity-related proposals accounted for over 30% of all social proposals up for a vote and

Figure 14: Percentage and number of companies disclosing employee diversity¹ by sector



Source: Company data, Credit Suisse research; 1. Reflects top 300 companies by market capitalization in the S&P 500 Index

over 75% of all social proposals that received majority support. This means the average approval rate for diversity-related proposals is also the highest at around 37% in 2021. While shareholder proposals are advisory (meaning companies are not mandated to take action even if a proposal receives a majority vote), in practice the management teams of these companies do feel under pressure to address the issues raised in these proposals.

“
Stakeholders are increasingly focused on diversity disclosure beyond just the board and executive management levels

Current state of workforce diversity disclosure in the USA

The strong approval rate for the aforementioned diversity-related shareholder proposals underscores the fact that stakeholders are increasingly focused on diversity disclosure beyond just the board and executive management levels. As workforce gender and/or race diversity data are not easily accessible, we went through public corporate materials (e.g. sustainability reports, EEO-a forms, annual reports, etc.) for the top 300 companies by market cap in the USA to assess the current state of disclosure at the employee level. Based on our findings, we have made the following observations:

- Out of the 300 companies, 216 (or 72%) provide disclosure on the diversity of their workforce, with the vast majority of them including some level of ethnicity details.
- 194 companies (or 65%) provide gender diversity data (i.e. the percentage of women in the global workforce).
- In general, companies with a larger market capitalization have a higher probability of disclosing their workforce composition than those with a smaller market capitalization.
- The top sectors in terms of workforce diversity disclosure (over 80%) are energy, utilities and financials. Meanwhile, the bottom three sectors (less than 70%) are materials, industrials and consumer staples, see **Figure 14**.

Forthcoming regulatory push should help bridge the gap

The growing focus by investors on the performance of companies in terms of ESG has also caught the attention of regulators and particularly the US Securities and Exchange Commission (SEC). Currently, US public companies must disclose ESG-related information only if they deem it material to investors' perception of the business, but the SEC is now considering ways to "enhance" such disclosure requirements. In particular, the agency will be proposing new disclosure rules related to board diversity and human capital management by October 2021. This will not only help increase the number of companies providing such disclosures, but also the level of consistency, which will make it easier to compare companies.

“
If companies do not satisfy the requirements, they will have to explain why

Additionally, on 6 August, the SEC formally approved Nasdaq's proposed listing rules regarding board diversity and diversity reporting. The rules, which were originally proposed in December 2020 and amended in February 2021, require companies listed on Nasdaq's US exchange to disclose diversity information about their boards of directors using a standardized template and, subject to certain exceptions, require them to have at least two diverse directors or explain why they have not met that standard. Unlike many Nasdaq corporate governance rules, these requirements will apply to foreign private issuers as well as domestic companies. If companies do not satisfy the requirements, they will have to explain why, or risk being delisted. It is unclear whether other exchanges or the SEC will adopt similar requirements.

Concluding remarks

In summary, our analysis clearly indicates that more diverse companies tend to score better in terms of ESG and each of the three individual components when compared to a broader universe. While we have not investigated the reason for this correlation, we believe that a more diverse workforce, including the C-suite, is likely to have a broader or more diverse set of potential solutions when faced with corporate challenges. This view appears to be supported by our analysis of the performance of companies that have a broad focus on diversity, one that includes both gender and sexual identity. Positive in this regard is that investors are becoming increasingly engaged with the topic of diversity, which is likely to continue in our view.



Photo: GettyImages, Tom Werner

Female founders and the entrepreneurial gap

Joelle Natzkoff

In this chapter, we explore female participation in entrepreneurship, its motivations and a visible “entrepreneurial gap” globally. We find evidence of some improvement over the last five years, with the ratio of female- to male-founded start-ups up from 0.62 to 0.73. However, in 2020, the COVID-19 pandemic caused a drop in every region except Europe. Female-founded businesses tend to be smaller than male-founded businesses with lower revenues and lower valuations. Among the top 100 unicorns globally, none is founded by a female-only team. While assets under management devoted to “gender lens investing” has increased to USD 10 billion by Q1 2021, more can be done to further improve the representation of women in entrepreneurship.

Female entrepreneurs: An untapped engine of prosperity

Entrepreneurship can build a sustainable path toward gender equality. According to The World Bank, small and medium enterprises (SMEs) account for 50% of employment worldwide. In addition to generating income for women business owners, entrepreneurship can help create additional employment along the supply chain, thus further creating income across the economy. Hence, encouraging female representation in entrepreneurship could contribute toward reducing inequalities as stipulated in the UN SDG 5 (Gender Equality: Achieve gender equality and empower all women and girls)¹.

However, women start fewer businesses than men and, past the start-up stage, the relative under-representation of women relative to men among established entrepreneurs only worsens.

1. <https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-5-gender-equality>

Moreover, female-founded businesses are typically smaller than male-founded businesses and have shorter lifespans. Here we explore the factors in play and potential ways through which this entrepreneurial gap might be closed.

Gender gap in entrepreneurship among start-ups improving from a low base

There are fewer female entrepreneurs than there are male entrepreneurs in most countries. In 2020, the ratio of female- to male-founded start-ups was at 0.73², suggesting that for every 100 businesses started by men, only 73 were started by women. The relative propensity for women to start a business was lower than that of men in 37 out of 43 countries.

2. Global Entrepreneurship Monitor 2020/21 Global report: <https://www.gemconsortium.org/reports/latest-global-report>. This is our estimate of the global weighted average of the female-to-male TEA ratio.

Figure 1: Gender entrepreneurship gap for start-ups across markets

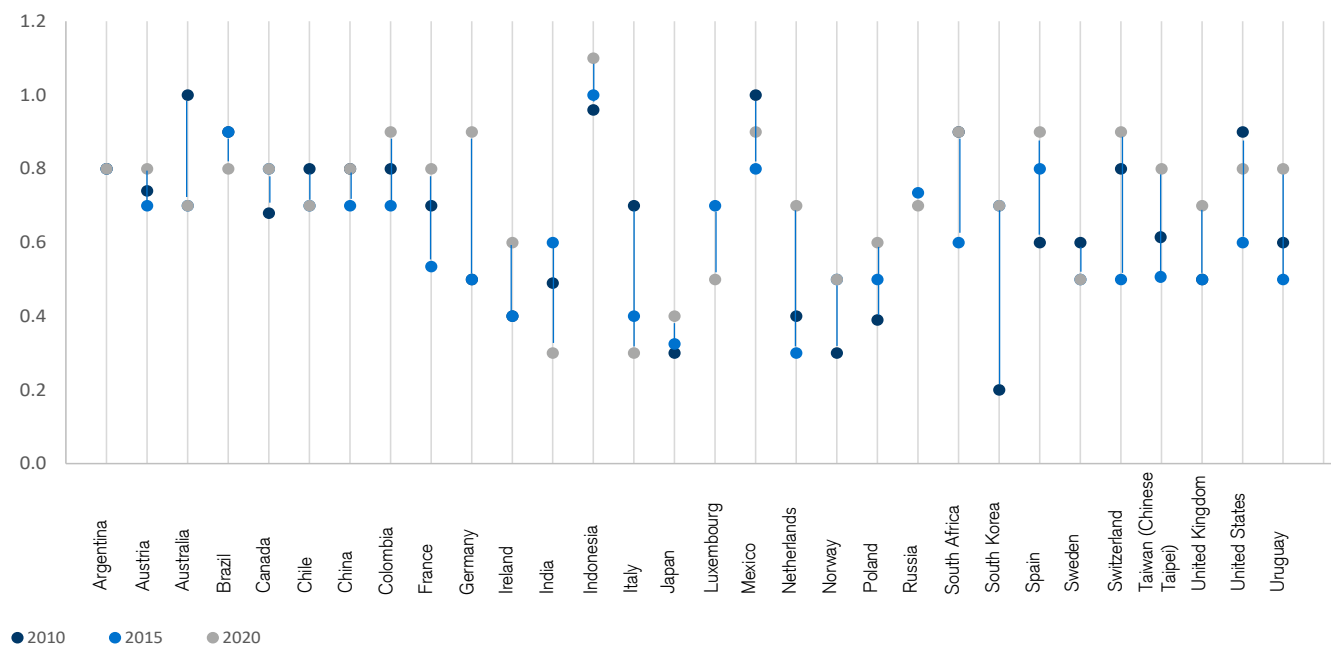


Figure 1 illustrates the female-to-male start-up ratio³ for three different points in time – 2020, 2015 and 2010. The 2020 reading is higher compared to five years ago in most countries, including many European countries (Austria, France, Germany, Ireland, Netherlands, Norway, Poland, Spain, Switzerland and the UK). Perhaps the growing focus on equality across different strands of society is helping the willingness and

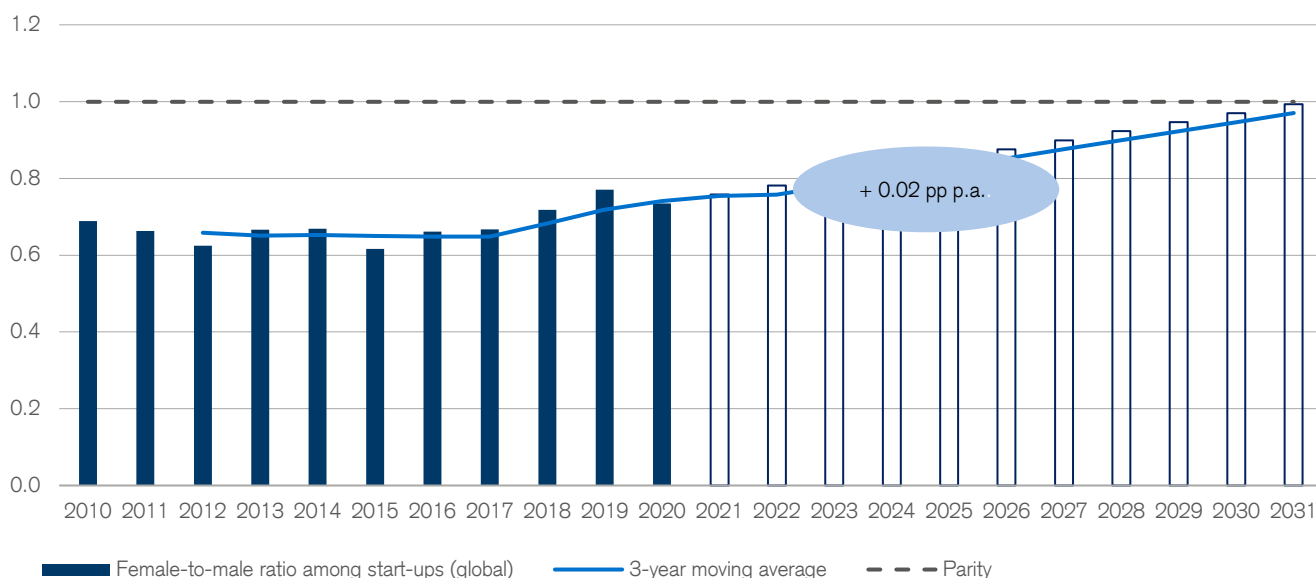
ability of women to actively participate in the labor force. However, progress is still relatively pedestrian. As **Figure 2** shows, assuming the current pace of progress is maintained, the global entrepreneurial gender gap among start-ups would take until 2031 to close.

At a regional level, progress was most notable for North America (from 0.62 to 0.80) and Developed Europe (from 0.52 to 0.73) over the last five years. As **Figure 3** shows, Developed Europe was the only region where the female-to-male start-up ratio continued to rise between

3. Calculated as the ratio female TEA (% of women currently nascent entrepreneurs) to the male TEA (% of men currently nascent entrepreneurs)

Figure 2: Global entrepreneurial gender gap among start-ups could close within ten years

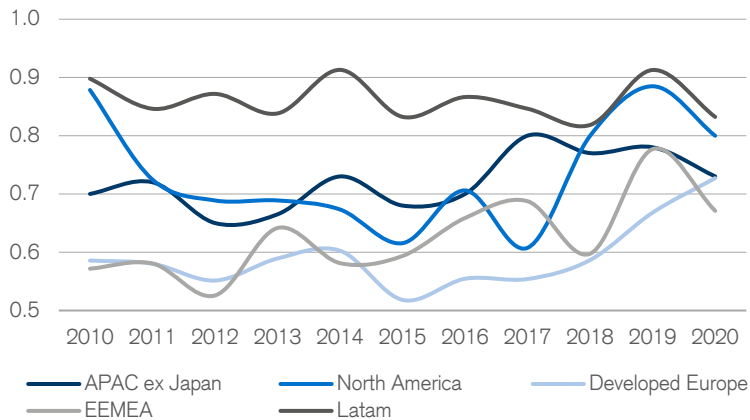
Female-to-male parity among start-ups would be achieved in 2031 assuming the current pace of progress



Source Figures 1 and 2: Credit Suisse estimates, Global Entrepreneurship Monitor 2020/2021 Global Report

Figure 3: Developed Europe has seen a rapid improvement in the last five years

Female-to-male total early-stage entrepreneurial activity ratio by region



Source: Company data, Credit Suisse estimates, Global Entrepreneurship Monitor 2020/2021 Global Report

2019 and 2020, suggesting that female entrepreneurs in the region were less deterred than their male peers from starting a new business or staying in a new business, despite the ramifications of the COVID-19 pandemic. This resonates with the growing focus on gender equality as a topic, which seems to feature more prominently among developed countries than in emerging countries.

Among emerging economies, Latin America continues to fare best compared to the rest of the world, although we note a drop in 2019 (largely due to Brazil). APAC ex Japan has lost some momentum in recent years. Within Asia, Indonesia interestingly stands out as having slightly more women than men who start a new business. The country has a strong focus on entrepreneurial education at schools, which may also help foster a start-up culture. According to the Global Entrepreneurship Monitor, Indonesia ranks first out of 45 countries for entrepreneurship education at schools (introducing ideas of entrepreneurship and instilling students with entrepreneurial values such as enquiry, opportunity recognition and creativity), as well as for post-school entrepreneurship education (colleges, universities and business schools offering effective courses in entrepreneurial subjects, alongside practical training in how to start a business). Moreover, for more than a decade, the Indonesian government has implemented several (gender-neutral) initiatives aimed at

increasing the formation of micro, small and medium enterprises (MSMEs)⁴. Unintentionally, these have benefited women since they are well represented among MSMEs.

Within APAC, China also fares very well (female-to-male start-up ratio of 0.8), possibly due to several government initiatives over recent decades, including a proactive approach in providing over 290 billion yuan (USD 45 billion) of government-subsidized microcredit to female entrepreneurs in the early 2010s. This, it could also be argued, might also be a consequence of the one-child policy in place in China for several decades.



Assuming the current pace of progress is maintained, the global entrepreneurial gender gap among start-ups would take until 2031 to close

Survival rates for businesses founded by male and female entrepreneurs differ

According to The World Bank, evidence in developed and developing countries suggests that female-owned firms tend to have a shorter lifespan than their male counterparts, a point of particular significance during the pandemic. Data from the Global Entrepreneurship Monitor corroborates this finding as shown in **Figure 4**. For nearly every country on the chart, the female-to-male start-up ratio exceeds the female-to-male established business ownership ratio, suggesting that more businesses are started than are in operation three years after the launch. India and Colombia stand out as the exceptions to the rule.

4. The measures include simplification of the business registration process (registration is key to gaining access to finance), increased awareness and initiatives to strengthen entrepreneurial networks by the government and central bank, and mandated corporate social responsibility programs for state-owned companies. See: Women-owned SMEs in Indonesia, IFC - The World Bank, March 2016

While women face several constraints when growing their businesses, business closure can be voluntary in some cases. It is worth noting that women are more likely than men to voluntarily exit, and more likely for personal reasons rather than due to business failure⁵.

“ Women are more likely than men to voluntarily exit, and more likely for personal reasons rather than due to business failure

Access to finance: A key obstacle for women

One significant barrier that female entrepreneurs face when developing their businesses is a lack of access to finance or funding. According to The Alison Rose Review of Female Entrepreneurship (2019), women in the UK launch businesses with 53% less capital on average than men, they are less aware of different funding options and less willing to take on debt throughout the business's lifecycle⁶. Consequently the growth of female-founded business may be more constrained and they may be more vulnerable in the face of an economic downturn.

This has been observed for all sizes of businesses. In developing economies, cultural and legal structures are sometimes an impediment to women's ownership rights, making it more challenging for them to secure business finance. Further up the scale, as is well documented, venture capitalist funding is less accessible to female entrepreneurs.

Inequitable asset ownership rights for women in developing countries

Women entrepreneurs have access to a smaller pool of business finance compared to men. The

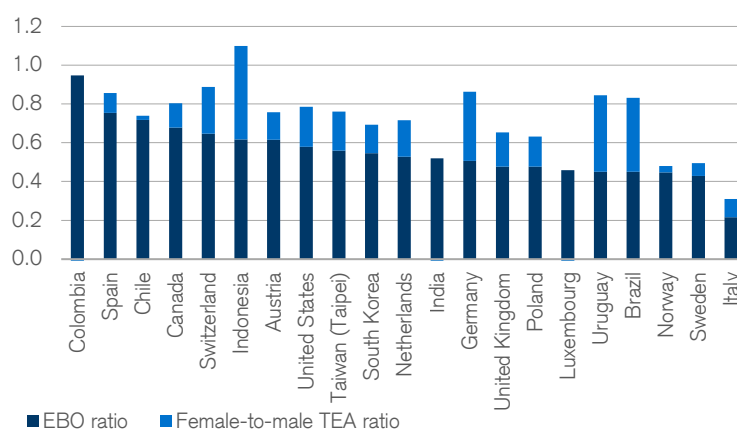
5. "The different reasons men and women leave their successful start-ups," by Rachida Justo. The paper finds that when the entrepreneur was female, the probability of exit for personal reasons is increased by 15% but the probability of actual business failure was reduced by 13% for women compared to men.

6. The Alison Rose Review of Female Entrepreneurship, 2019.

International Finance Corporation (IFC) estimates that 70% of women-owned SMEs in developing countries are underserved by financial institutions – a financing gap of at least USD 260 billion per year⁷. Women face several barriers to financial inclusion, including not having access to a bank account (over one billion women worldwide do

7. <https://www.ifc.org/wps/wcm/connect/d7623440-8bb4-4827-9ce5-470dcb6f86b1/Entrepreneurship+Offering+Brochure+July2017.pdf?MOD=AJPERES&CVID=IQps6KM>

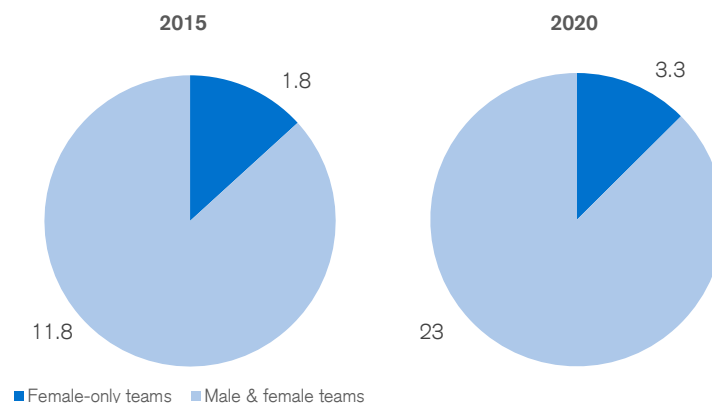
Figure 4: Female-to-male TEA¹ ratio of start-ups compared to female-to-male EBO² ratio for established businesses



1. TEA = Total Entrepreneurial Activity; 2. EBO = Established Business Ownership; TEA ratio: the female-to-male TEA ratio measures the percentage of female relative to male nascent entrepreneurs/owners/managers of a new business. EBO ratio: The female-to-male EBO ratio measures the percentage of female relative to male owners/managers of an established business (at least 42 months old, or 3.5 years)
Source: Credit Suisse estimates, Global Entrepreneurship Monitor 2020/2021 Global Report

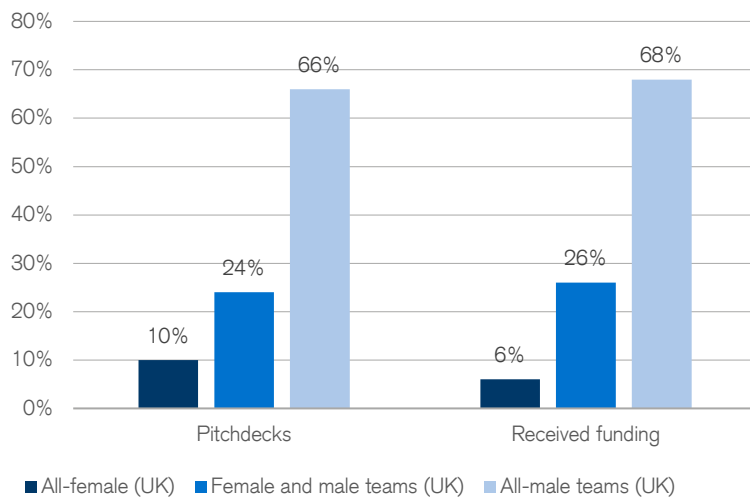
Figure 5: Female entrepreneurs received a smaller proportion (USD 3.3 billion) of total venture capital funding in 2020 compared to mixed teams

Venture capital funding allocated in 2020 in the USA (bn)



Source: Company data, Credit Suisse estimates, Pitchbook

Figure 6: Proportion of pitchdecks received versus funding allocated to entrepreneurs split by gender (UK)



Source: Company data, Credit Suisse estimates, HM Treasury (2020)

not have a bank account⁸) or not having the right to own land (40% of countries have restrictions in place when it comes to female ownership of property⁹). This gender inequality in financial inclusion makes it more challenging for women to obtain a business loan, which is often dependent on the availability of collateral such as real estate.

Allocation of venture capital financing is smaller for women

Women-owned businesses attract less venture capital investment. In Europe, venture-capital-backed tech companies with all-male founding teams receive 93% of the capital invested, while 5% of capital goes to mixed teams and only 2% to all-female teams.

As shown in **Figure 5**. In the USA, financial research company Pitchbook suggests that mixed entrepreneur teams received USD 23 billion in funding in 2020 compared to USD 3.3 billion for female-only entrepreneurs. It is worth noting that female funding from venture capital has improved in the past five years (+83%), albeit at a slower pace than for mixed teams (+95%).

Fewer female entrepreneurs apply for venture capital funding

One possible explanation as to why women receive a smaller share of venture capital funding compared to men is because there are

8. World Economic Forum: <https://www.weforum.org/agenda/2019/06/women-finance-least-developed-countries-collateral>

9. <https://blogs.worldbank.org/opendata/where-world-do-women-still-face-legal-barriers-own-and-administer-assets>

significantly fewer women in the process than men. In **Figure 6**, we compare the proportion of pitchdecks (marketing presentations) received by all-female, mixed and all-male teams with the proportion of venture capital funds allocated to each of these three groups in the UK. Female-only teams submitted a mere 10% of pitchdecks.

This may be unsurprising since women tend to operate smaller businesses and thus have less need for venture capital funding that targets businesses with revenues of USD 1 million or above. However, female-only teams underperformed relative to the other two groups by securing only 6% of the funding. This sparks additional questions as to whether there might be other factors at play, including a potential gender bias in the venture capital process.

Pitching process potentially prone to bias

Venture capital is to a large extent male dominated and there may be an unconscious bias that creeps in, notably during the pitching process as argued by Hassan, Varadan and Zeisberger (2020)¹⁰. They argue that pitches by men “significantly outperformed” those made by women and the outcome was the same whether potential investors were male or female. Moreover, men are consistently asked more “promotion” questions that highlight upside potential and potential gains, while women are asked more “preventive” questions that focus on possible losses and risk mitigation¹¹.



There may be bias against feminine stereotypes

However, according to Balachandra, Briggs, Eddleston and Brush (Don’t Pitch Like a Girl!: How Gender Stereotypes Influence

10. How the VC Pitch Process Is Failing Female Entrepreneurs (2020), Harvard Business Review – Kamal Hassan, Monisha Varadan and Claudia Zeisberger

11. Male and Female Entrepreneurs Get Asked Different Questions by VCs — and It Affects How Much Funding They Get (2017), Harvard Business Review – Dana Kanze, Laura Huang, Mark A. Conley, and E. Tory Higgins

Investor Decisions, 2019), there is no direct bias against women by prospective venture capital investors. Rather, they argue that there may be bias against feminine stereotypes and people (men and women) displaying feminine traits (e.g. more nurturing, warm and expressive behavior, and less assertive and confident behavior)¹². Another experiment by Gornall and Strebulaev (2020)¹³ concluded that investors do not seem to discriminate against female entrepreneurs when evaluating unsolicited pitches, suggesting that it is the pitching process itself that puts women at a relative disadvantage when trying to secure venture capital funding.

Key features of female-founder companies

In addition to the gender gap among start-ups and the reasons why women become entrepreneurs, we also think it is relevant to highlight some characteristics that can be typically observed when comparing female-founded companies with those started by men. As we show below, some of these characteristics provide female founders with challenges in terms of growing their businesses successfully.

Female-founded companies tend to be smaller...

Female-founded businesses are smaller than male-founded businesses in terms of revenue generation. In the USA, for example, the annual revenues of female-owned businesses averaged USD 385,000 in 2019, compared to a higher average annual revenue of USD 752,000¹⁴. We also find that female-founded

12. How gender biases drive venture capital decision-making: exploring the gender funding gap (2019) – Lakshmi Balachandra. The paper finds that the observed/assumed sex of the entrepreneur was not a factor in decision-making. Gender is measured and quantified in terms of how the entrepreneurs pitched, whether they pitched in masculine or feminine “styles” – qualities such as warmth, sensitivity, expressiveness and emotivity – all “classically feminine” traits. They found that there was a general bias by prospective venture capital investors against femininity. When both men and women displayed “feminine behavior” during the pitch, they were less likely to be selected.

13. Gender, Race, and Entrepreneurship: A Randomized Field Experiment on Venture Capitalists and Angels – Will Gornall, Ilya A. Strebulaev and NBER (December 2020) – The authors study gender and race in high-impact entrepreneurship using a tightly controlled randomized field experiment. They sent out 80,000 pitch emails introducing promising but fictitious start-ups to 28,000 venture capitalists and angels. Each email was sent by a fictitious entrepreneur with randomly assigned gender and race. Female entrepreneurs received 9% more interested replies than males pitching identical projects, and Asians received 6% more than whites.

14. Why male entrepreneurs in the US make double their female counterparts – Rohit Arora (CNBC.com)

businesses are less likely to achieve unicorn status. Among the 100 highest-valued unicorn companies (start-ups or private companies valued at over USD 1 billion), five were founded by mixed teams and none had a female founder (or an all-female founding team). Potential reasons include the industries that men and women choose to enter¹⁵, unequal access to business networks, non-economic goals as a motivation and uneven access to finance.

...but beware of the sector impact

According to The World Bank, there is a hierarchy of earnings along gender lines such that male-owned businesses in male-dominated sectors such as technology, construction, warehousing and auto repairs earn the most and women in female-concentrated sectors like health, education, grooming services and social services earn the least¹⁶. Beyond the relevance of the gender lines, we note that another important factor determining relative size relates to the sector that a female-owned company is active in. In developed as well as developing countries, female-owned businesses in male-dominated sectors make significantly higher profits than female-owned businesses in traditionally female sectors.



Many entrepreneurs launch businesses with social impact as the primary objective

Women are often home-based entrepreneurs

Home-based entrepreneurs have less access to business networks. Such businesses are mostly located in residential areas, and are thus less likely than businesses in commercial premises to have access to the local business support infrastructure and networks that can have a positive impact on business success. Relatively less access

15. Female Entrepreneurs: How and Why Are They Different? Eliana Carranza, Chandra Dhakal and Inessa Love – The World Bank Group (2018)

16. Tackling the Global Profitarchy: Gender and the Choice of Business Sector – The World Bank, Markus Goldstein Paula Gonzalez Martinez Sreelakshmi Papineni (2019).

to technical business and IT support is also a potential challenge for home-based entrepreneurs. Women's businesses are more often located in their homes (up to 80% in developing countries) compared to men's businesses¹⁷. Furthermore, in some developing countries, restrictive social norms sometimes prevent women from travelling outside of the home.

Becoming an entrepreneur is about more than money

It is perhaps logical to assume that making money is a key driver for aspiring entrepreneurs. While we find evidence that the pursuit of profitability is the top priority for both men and women, it is not the only consideration for would-be entrepreneurs. Many entrepreneurs launch businesses with social impact as the primary objective, or alongside additional unpaid activities (e.g. childcare and domestic tasks). The relevance of such social drivers can sometimes be stronger than the desire or need to make money or generate a profit. Our analysis suggests that there can be differences between how female and male entrepreneurs assess the key drivers for setting up a business.

Making money is a driver, but with some variation

For most entrepreneurs, there is significant financial motivation for starting a business. According to the 2020/21 Global

Entrepreneurship Monitor report, after the desire to gain more independence, the top reason for both men and women to start a business was to earn a living¹⁸. We find differences by region. For example, earning a living is a more important incentive to start a business for women across developing countries than for men (**Figure 7**). The dark blue line represents the percentage of women starting a business in emerging markets and the grey line represents the percentage of men doing so. Within emerging markets, the median proportion of female entrepreneurs primarily motivated by the desire to earn a living is 77% compared to 67% for their male counterparts. Across developed countries, it appears that earning a living is less of a driver for women starting a business than for men, but only marginally so (49% for women and 51% for men).

The desire to make a difference: Social enterprises

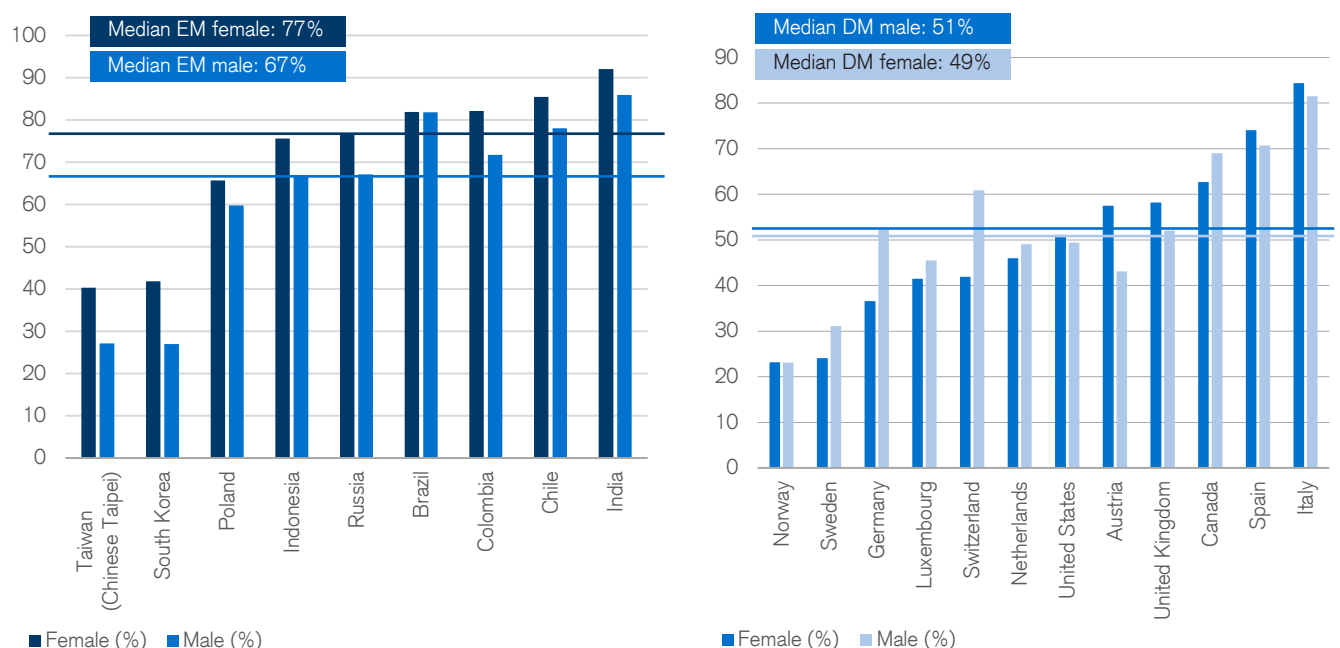
A social enterprise (SE) is a cause-driven business. In contrast to charities, SEs are financially independent and do not rely on grants or donations. The entrepreneur's primary objective is to achieve a social or environmental benefit and then gradually recover the capital invested, without taking any dividend beyond that point. Instead, any profit is reinvested in the business to further the intended objective. SEs have been operating since the mid-1800s with the development of co-operatives¹⁹,

18. See Table 2 at the end of this chapter for more details

19. The future of social enterprises in Europe: Euricse and Emes present the Mapping Study in Brussels – Euricse (2019)

17. https://eprints.soton.ac.uk/428481/1/abfe755f_en.pdf

Figure 7: Proportion of female and male entrepreneurs who see earning a living as the most important reason to start a business (%)



Source: Company data, Credit Suisse estimates, Global Entrepreneurship Monitor

with the well-documented example of Florence Nightingale, who set up nursing schools. More recently, we notice a rapid acceleration in social entrepreneurship across most regions. This seems to coincide with a growing desire among a broadening (especially younger) section of societies to create a more inclusive environment that is not primarily driven by financial gains alone.

Many female entrepreneurs see the need to make a difference as the most important reason for being in business²⁰. Data from the Global Entrepreneurship Monitor suggest that the desire for women to start a business to make a difference was a relatively more influential consideration in the USA, Canada, Switzerland and the UK in stark contrast to their respective male counterparts, for whom the top reason was either to earn a living or to build great wealth (see **Table 1**).

Social enterprises have a smaller gender gap than commercial enterprises

Women are more highly represented as founders of social enterprises compared to commercial enterprises across most regions (see **Figure 8**). This is particularly pertinent for the Middle East North Africa region where the female-to-male start-up ratio for social enterprises is at parity compared to a start-up ratio for commercial enterprises of only 0.59. We observe a similar trend in Europe and Australia/USA. For Latam, South East Asia and sub-Saharan Africa, a higher proportion of women relative to men were founders of a commercial enterprise rather than a social enterprise. As stated earlier, this trend may be the result of a greater need for earning a living than might be the case in other regions.

The longevity of women-founded businesses was also higher for SEs than for commercial enterprises. In Australia/USA and Eastern Europe and Middle East North Africa (MENA), the female-to-male ratio of operational businesses was at least twice as high for SEs as for commercial enterprises. Since women are more likely to start SEs and also more likely to stay in social entrepreneurship, they have the potential to create social value in society in two major ways. First, they have scope to address social problems unable to be tackled by government agencies or non-governmental organizations (NGOs). Moreover, SEs create employment especially for more vulnerable parts of society.

Greater flexibility: Women are able to do unpaid work (such as childcare)

For many women, entrepreneurship offers flexible work schedules, allowing business owners to work part-time if they wish and engage in additional unpaid activities. According to the World Bank,

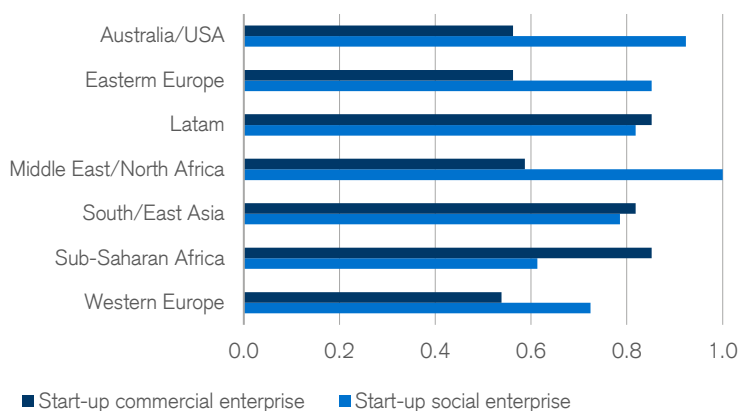
Table 1: For some developed economies female entrepreneurs are more inclined to start a business to make a difference

	% To make a difference (women)	% To make a difference (men)	% To build great wealth (women)	% To build great wealth (men)
USA	70	66	61	70
Canada	69	64	58	69
UK	60	56	39	73
Switzerland	44	41	30	35

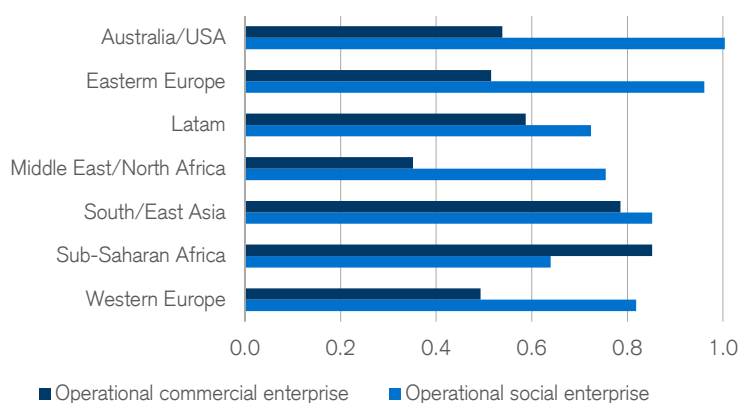
Source: Company data, Credit Suisse estimates, Global Entrepreneurship Monitor 2020/2021 Global Report

Figure 8: Entrepreneurial gender deficit is less pronounced for social enterprises compared to commercial enterprises

Start-ups: Female-to-male ratio of social entrepreneurs and commercial entrepreneurs



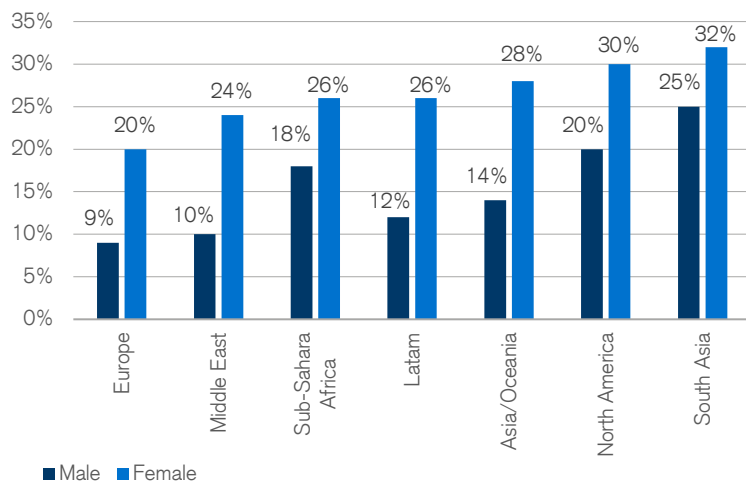
Operational businesses: Female-to-male ratio of social entrepreneurs and commercial entrepreneurs



Source: Company data, Credit Suisse estimates, Global Entrepreneurship Monitor (data based on 2015 survey)

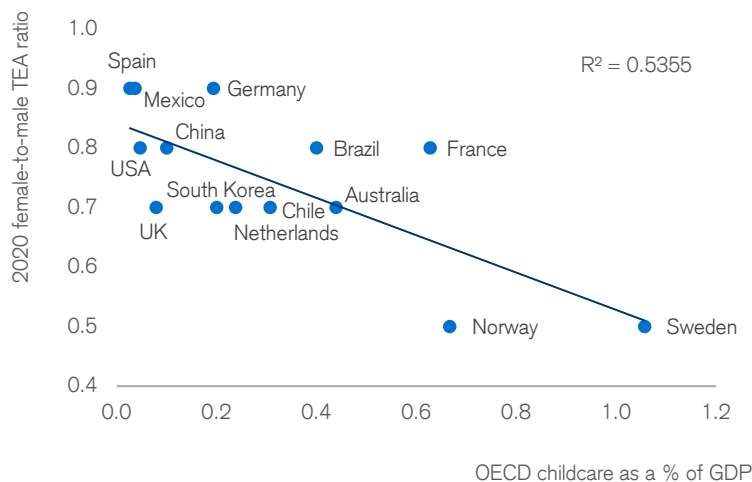
20. See Table 2 at the end of this chapter for more details

Figure 9: Entrepreneurs spending over six hours per day in unpaid work relating to domestic tasks/family care



Source: Company data, Credit Suisse estimates, The World Bank

Figure 10: Childcare spending as percentage of GDP (%)



Source: Company data, Credit Suisse estimates, OECD, Global Entrepreneurship Monitor

women in every region dedicate more time to unpaid work relating to domestic tasks and family care than men (**Figure 9**). We also find that the scarcity of affordable childcare (measured by the proportion of government childcare spending as a percentage of GDP in **Figure 10**) correlates with a higher rate of female-led businesses being launched. In other words, in countries where state childcare is more easily available, women do not opt for entrepreneurship as a long-term career, but prefer a salaried job instead. This factor also comes into play when women decide whether to scale their businesses or to keep operating as a going concern.

Toward a more equitable entrepreneurial landscape

The World Bank, via initiatives such as Women Entrepreneurs Finance Initiative (WeFi) and the Women's Leadership in Small and Medium Enterprises (WLSME) trust fund, has been very active in financing interventions, including business development skills training, microfinance facilitation, and non-cognitive skills training for female entrepreneurs in developing countries. Moreover, similar initiatives are also emerging in the private sector (e.g. the Beyond the Billion Funds – see page 67 for an interview with Beyond the Billion co-founder Sarah Chen) and are growing rapidly. Nevertheless, policymakers can do more to set domestic policies that help close the gender entrepreneurial gap.

Policies helping to level the playing field

We can learn from policies that have recently been implemented in the USA, Canada and the Netherlands to level the playing field for female entrepreneurs²¹. Both Canada and the Netherlands have reduced their entrepreneurial gender gap by about one third over the past decade. In Canada, the government launched a supplier diversity review to track where federal contracts were allocated and published the information. In the USA, the Women-owned Small Business (WOSB) federal contracting program resulted in over USD 100 million of investment in women-owned businesses. In the Netherlands, in addition to tax subsidies, an effort by Her Majesty Queen Maxima in partnership with the Ministry of Economic Affairs to look into microfinancing and start-up capital raised EUR 30 million.

Gender lens investing: A fast growing gateway for female-founded businesses

Investor attitudes play a crucial role in unlocking capital for female business owners and the growth in gender lens investing (GLI), or gender-

21. The Alison Rose Review of Female Entrepreneurship, 2019

smart investing, could have an impact²². This approach is gaining ground with public and private financial institutions and institutional investors across regions. By end-Q1 2021, assets under management in gender lens products amounted to around USD 10 billion – publicly traded gender lens equity funds (GLEFs) had USD 3.3 billion in assets under management (up 21% since end-2020) and gender lens fixed income assets under management stood at USD 6.5 billion (up 39% from end-2020). Gender lens investing activities are concentrated in developed economies in terms of the source as well as target of investment funds, and the most common strategy is investing in women-led businesses²³. However, we would point out that developing countries are receiving more attention from GLI investors, notably with the launch of the first gender bond in Africa in Q1 2021.

Conclusion

Despite a relative improvement in recent years, women entrepreneurs are still outnumbered by men globally. We find that men and women do not always have the same motivations to start a business, although, in developing economies, the need to earn a living is paramount for all. Some women see entrepreneurship as a route to making a difference or they appreciate the time flexibility, which in turn allows them to take on additional unpaid work such as childcare and domestic tasks.

22. Gender lens investing (GLI) is an investment approach accounting for gender-based factors across the investment process to advance gender equality and better inform investment decision. The Global Impact Investment Network (GIIN) defines gender lens investing within two broad categories: investing with the intent to address gender issues or promote gender equity (e.g. invest in women-owned or women-led enterprises) and/or investing with a process that focuses on gender (e.g. sourcing and due diligence)

23. Gender Lens Investing: An Introduction – Donor Committee for Enterprise Development (2019)

“
**By end-Q1 2021,
assets under
management in
gender lens products
amounted to around
USD 10 billion**

When comparing male-founded and female-founded businesses, we find that the latter are smaller in terms of revenue, overrepresented in some industries, and in many cases run from home. Moreover, women face higher barriers to accessing business finance. In developing countries, unequitable ownership rights make it hard for women to get a loan from a bank and, at the other extreme, venture capital funding is mostly directed at male entrepreneurs. Although more funds have been channeled to female-owned businesses through gender lens investing in recent years, policymakers as well as the private sector still have a role to play in order to level the playing field for female entrepreneurs.

Table 2: Motivation for entrepreneurs to start a business*

Country	To earn a living		Build great wealth		To make a difference		Continue family tradition	
	% female	% male	% female	% male	% female	% male	% female	% male
Austria	58	43	32	34	45	35	18	23
Brazil	82	82	54	61	69	63	26	28
Canada	63	69	58	69	69	64	35	43
Chile	85	78	53	55	58	59	36	38
Colombia	82	72	60	64	66	60	40	34
Germany	37	52	61	45	38	41	67	58
India	92	86	71	76	74	83	76	77
Indonesia	76	67	51	49	51	38	43	40
Italy	84	82	100	94	19	29	26	27
Luxembourg	42	46	25	47	48	53	20	15
Netherlands	46	49	36	45	48	45	14	32
Norway	23	23	15	37	48	32	19	9
Poland	66	60	42	60	22	22	14	24
Russia	77	67	68	69	21	27	14	18
South Korea	42	27	63	72	7	12	4	6
Spain	74	71	28	41	30	34	18	17
Sweden	24	31	31	48	43	41	16	28
Switzerland	42	61	30	35	44	41	17	23
Taiwan (Chinese Taipei)	40	27	53	61	46	58	25	26
United Kingdom	58	52	39	73	60	56	16	23
United States	51	49	61	70	70	66	26	31

*The desire for independence was not included as a motivation since prior testing by the Global Entrepreneurship Monitor has shown that almost everyone starting a business agreed with that. Respondents could choose, on a 5-point Likert scale, whether to strongly agree, somewhat agree, neither agree, or strongly disagree. They could also agree or disagree with as many motives as they chose. See Global Entrepreneurship Monitor, 2020/2021 Global Report for more details.

Source: Company data, Credit Suisse estimates



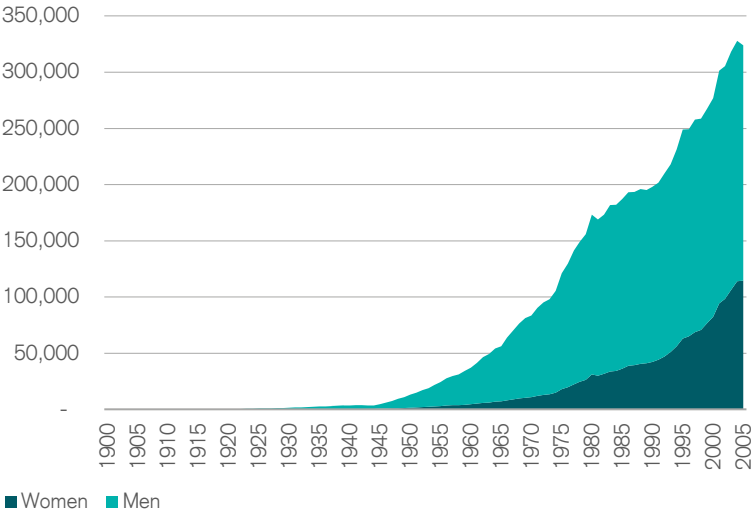
Photo: GettyImages, serlis

Women in science: Addressing the leaky pipeline

Sara Carnazzi Weber, Pascal Zumbühl

The capacity of firms to innovate hinges on the ability to build on and integrate technological and scientific progress. This innovation is a fundamental source of economic growth and ultimately prosperity. How do women participate in that progress and what are the main barriers female talents face during their careers in the scientific world? Despite some progress, there are still considerable imbalances when it comes to women’s representation in scientific fields, especially further down the academic track, among researchers and entrepreneurs in tech sectors. Diversity, however, is generally considered an important driver of innovation. To strengthen female talent in technological and scientific areas, a focus on the sustainability of women’s careers seems an essential ingredient.

Figure 1: Number of female authors in academia still lagging
Known number of active female and male authors in academia, worldwide, 1900-2005



Source: Huang et al. (2020)

Gender imbalances in successful scientific careers

Decades of technological progress and the empowerment of girls and women have led to an increase in the number of active female authors in academia worldwide (see **Figure 1**). While this result is gratifying, there is still a large gender gap when it comes to successful scientific careers, especially in certain fields like technology or engineering. The imbalance is well illustrated by the share of female Nobel laureates in the scientific disciplines of chemistry, physiology/medicine and physics. Of the 624 Nobel medals awarded in these three scientific disciplines between 1901 and 2020, only 23 have gone to women (**Figure 2**). Which factors hinder women in obtaining the world’s most prestigious honors in science?

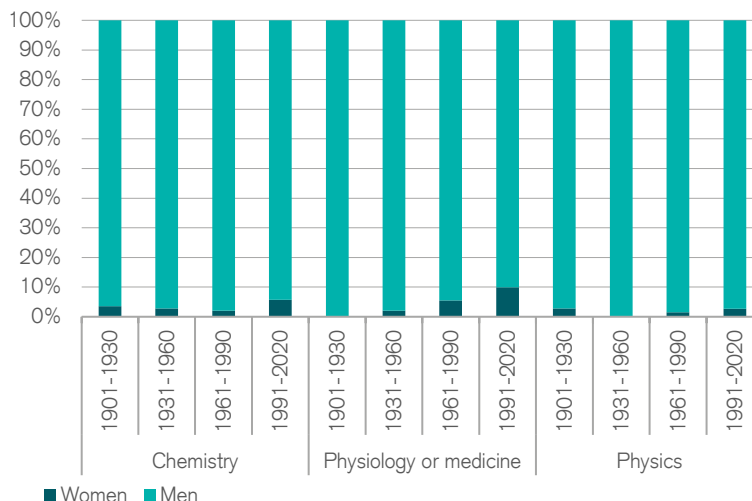
Women are still underrepresented in STEM education...

One recurring observation is that fewer women than men consider fields of science, technology, engineering and mathematics (STEM) when they choose a career path. Although significant progress has been made, gender differences in STEM education are still present. As soon as subject selection becomes available, usually in upper secondary education, these gender differences become apparent (UNESCO (2017)). This may reflect lower confidence of girls in their STEM abilities (UNICEF (2020)). However, being capable or confident does not mean that girls necessarily want to pursue STEM careers. Data from the PISA (program for international student assessment) survey 2018 suggest that fewer girls than boys aspire to careers in science, technology or engineering, even among top performers (UNICEF (2020)). Yet, other reasons must be at play. Cultural and social norms can motivate individuals to adapt their life choices to what appears appropriate for their group. But also differences in preferences between the genders play a role.

“ Gender imbalances are more pronounced in natural and medical sciences, engineering and technology

A broad-based analysis of gender differences in occupational interests summarizing more than 40 years of evidence shows that, over time and across age groups, men gravitated toward things-oriented careers and women gravitated toward people-oriented careers. Men generally showed more realistic and investigative interests, as well as stronger interests in the STEM areas. In comparison, women tend to have more artistic, social, and conventional interests, and tend to express less interest in the STEM fields. (Su et al. (2009)). Kuhn and Wolter (2020) recently found similar evidence in their analysis of occupational preferences among apprentices in Switzerland.

Figure 2: Strong gender imbalances in Nobel medals awarded
Share of Nobel medals awarded to women and men, by scientific discipline, 1901–2020



Source: Gibney (2019), Credit Suisse

The most popular occupations among female apprentices include commercial employees, health care assistants, retail professionals, social care workers or hairdressers. On the other hand, male apprentices tend to favor becoming information technologists, mechanical engineers, electricians, carpenters or logistics experts.

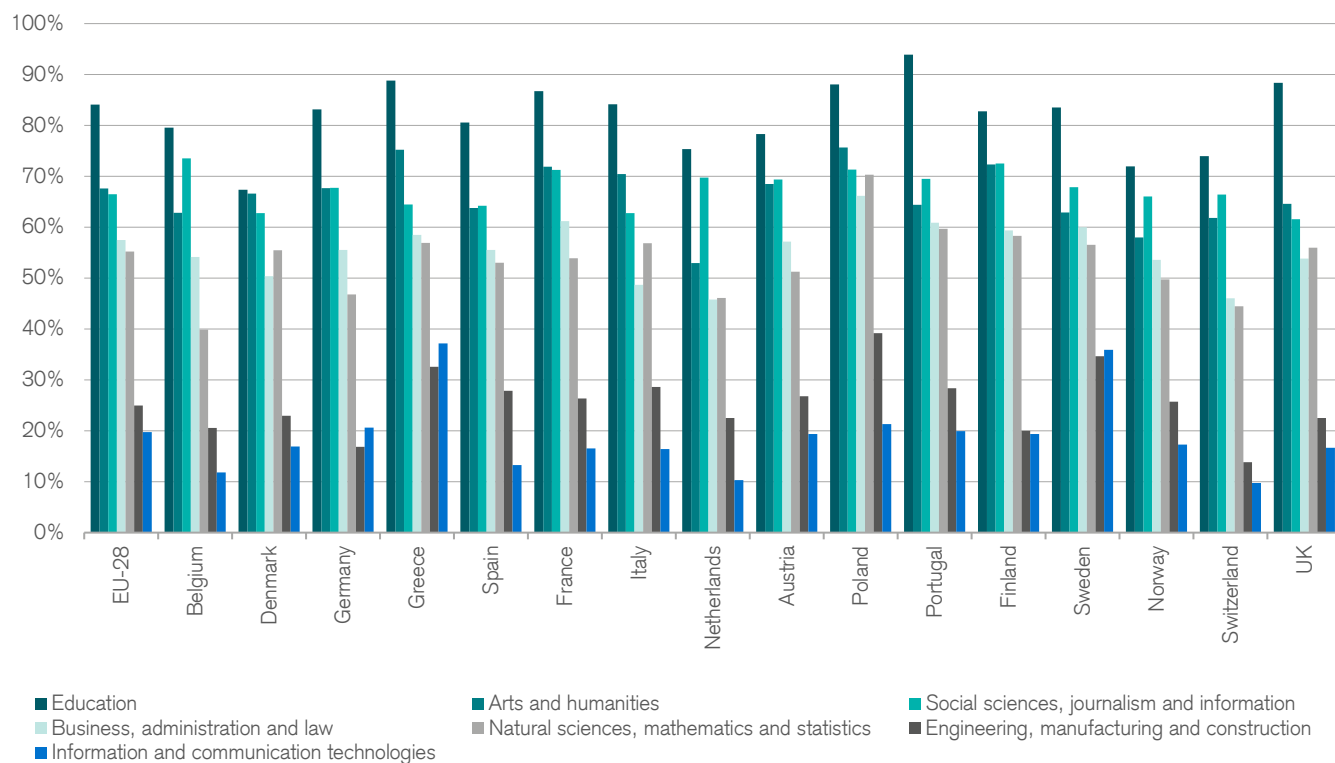
When it comes to the choice of which academic discipline to pursue at university, gender differences become more pronounced. As data for the European Union in 2019 show, the share of female undergraduates in the fields of information and communication technologies (20%) as well as engineering, manufacturing and construction (25%) – all fields related to working with things – is relatively low. In the field of natural sciences, mathematics and statistics (55%), however, there are more female than male undergraduates (**Figure 3**).

...especially further down the academic track...

Another explanation is that women more frequently elect to leave their academic careers as they progress. Despite making up the majority of students and graduates at the bachelor's and master's levels across all fields of study, female representation then drops at the doctoral level, and the discrepancy widens further at higher academic positions, as data for the European Union show (**Figure 4**). Considering the STEM field of science and engineering only, women were already underrepresented at the bachelor's and

Figure 3: Female bachelor graduates are still relatively scarce in most STEM fields

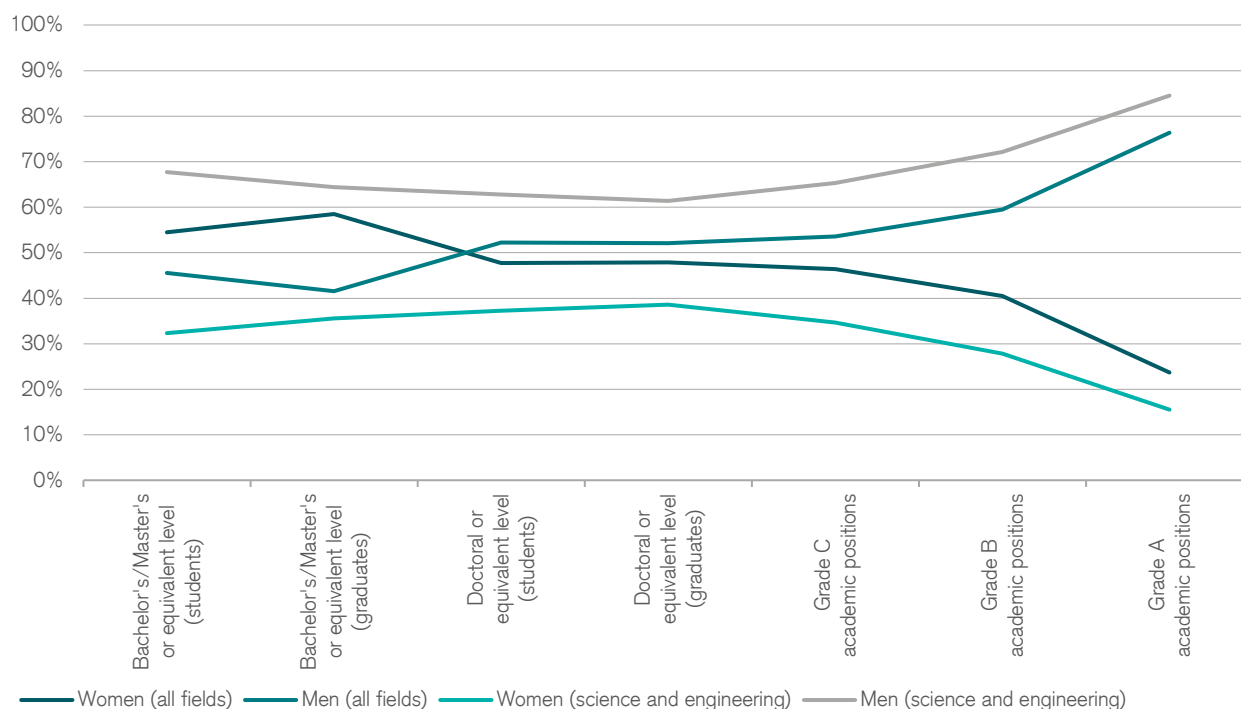
Share of female graduates across bachelor's or equivalent level, by program orientation, selected countries and EU-28, 2019



Source: Eurostat

Figure 4: Women are underrepresented further up the academic ladder

Proportion of men and women in a typical academic career, all fields as well as science and engineering, students and academic staff*, EU-28, 2016



* It is difficult to compare the shares seen for grades A until C across European countries, because of different grading definitions across national systems. In the majority of the countries, however, grade A corresponds either to the rank of a full professor, or to the highest post at which research is normally conducted. People with a grade A academic position are mostly responsible for teaching and research. See European Commission (2018) for country-specific details.

Source: European Commission (2018) based on UNESCO Institute for Statistics (UIS) and Eurostat

master's levels. While rising at the doctoral level, the share of women in these fields decreases considerably among researchers and professors. Hence, while the choice of academic discipline in the earlier stages of tertiary education is one important element, it cannot alone explain the gender gap in science. In academia as in other fields of business, female talent is lost on the way to higher seniority levels.

...while not performing less well than their male peers (including in STEM disciplines)

Figure 4 shows that the women's share of STEM graduates at the bachelor's and master's levels (36%) is higher than that among students (32%). The same pattern also applies for female doctorate students and graduates¹. Stoet and Geary's (2018) analysis of teenage girls' and boys' scores in different domains including science literacy and mathematics also shows girls scores are similar to or better than those of boys.

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Women more frequently elect to leave their academic careers as they progress

A “leaky pipeline”

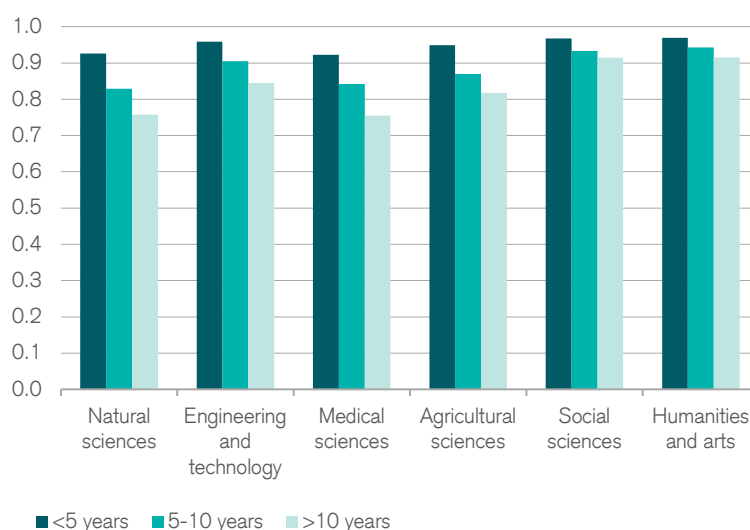
The overall numbers and ratios of women to men in senior academic positions – both overall and in STEM fields – are much lower than would be expected given the number of female university graduates over recent decades. Relatively high dropout rates among female scientists are frequently referred to as the “leaky pipeline” of lost talent (Baskaran (2017)). The underrepresentation of women in STEM fields manifests itself in a lower publishing record of women compared to men. But what is especially striking is that this gap becomes larger at higher seniority levels – albeit with differences across fields of research.

1. It is important to mention that the students of 2016 are not the same people as the graduates of 2016.

Gender imbalances are more pronounced in natural and medical sciences, as well as in engineering and technology compared to social sciences, humanities and arts (**Figure 5**). Moreover, less than 15% of heads in universities or similar institutions in the European Union are women, further emphasizing the gender gap at higher academic levels.

Figure 5: Women publish less at higher seniority levels

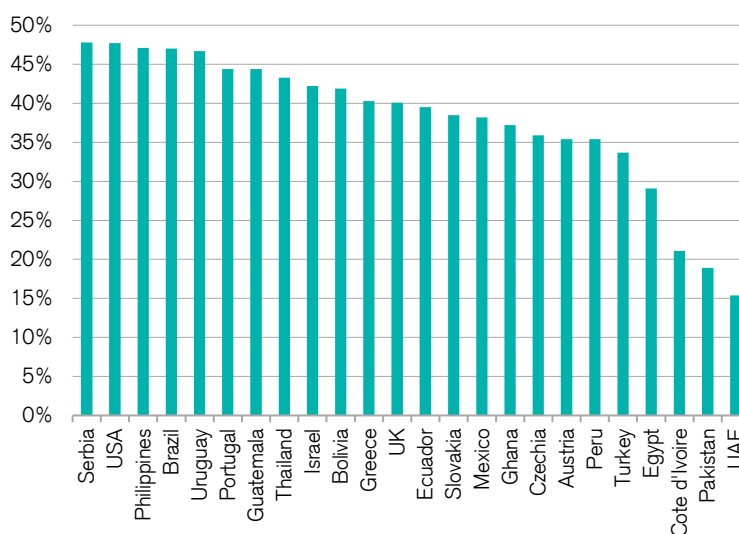
Ratio* of women to men in average number of publications (all authorships), by field of research and seniority level, worldwide, 2013–17



*A value below 1 indicates more men than women; a value equal to 1 indicates parity. Source: European Commission (2018) based on Elsevier using Scopus data

Figure 6: Women underrepresented in STEM jobs

Share of women in STEM employment in %, selection of countries*



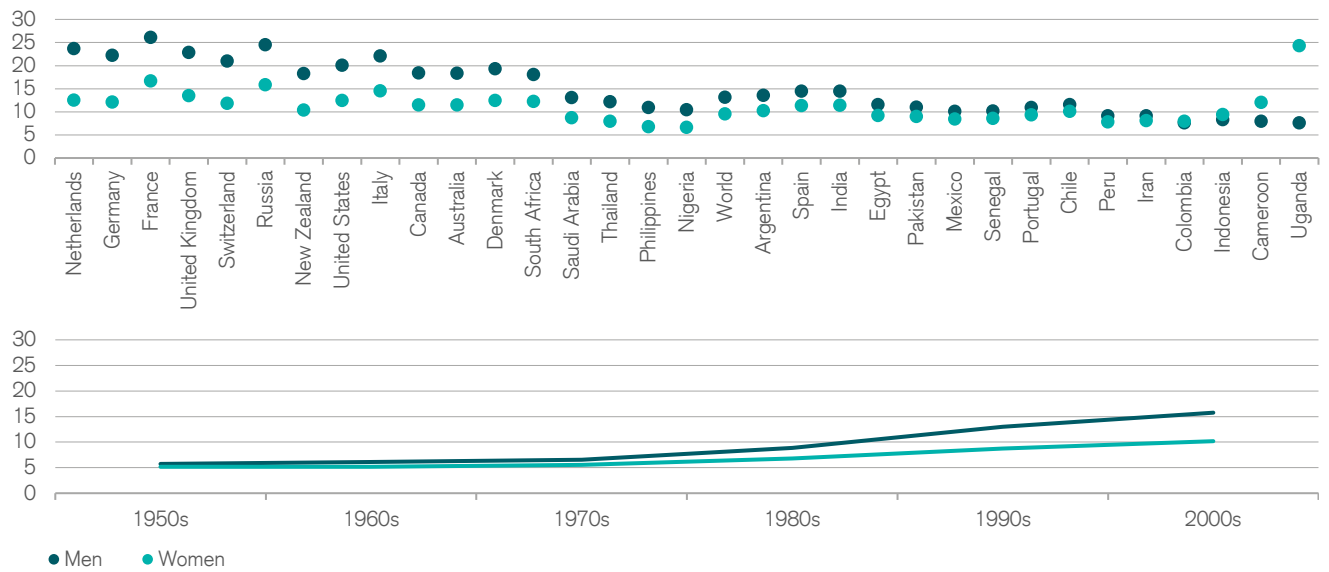
*Since there is no internationally agreed definition for STEM occupations, the data are an experimental series from ILOSTAT based on a sample of 68 countries. Source: ILO (2020)

UNESCO estimates that only 30% of all researchers worldwide are female. Women also find themselves underrepresented in STEM jobs. According to the International Labour Organization (ILO), women represent about 40% of the STEM workforce across a sample of 68 countries (Figure 6). There are considerable differences between countries in terms of female share among researchers or STEM employment, however, with countries with a communist legacy, which followed a more egalitarian approach,

generally showing higher female shares. Overall, women are well represented in health, but considerably underrepresented in engineering and technology jobs. Women also account for only 28% of professionals in the tech industry. Given these figures, it is also not surprising to find a small number of women entrepreneurs in STEM sectors. In the USA, only 28% of start-ups in these fields had at least one female founder in 2020, albeit on an increasing path from 22% in 2017 (SVB (2020)).

Figure 7: The gender gap in total productivity has been increasing from the 1950s to the 2000s...

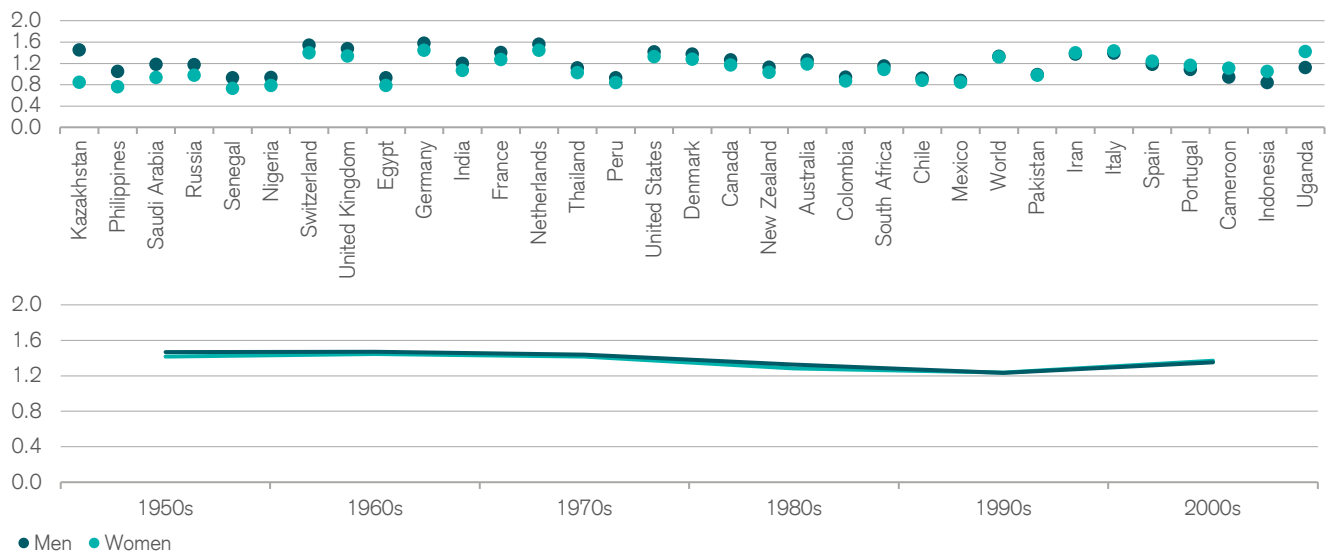
Total productivity, defined as the total number of published papers during scientific careers, worldwide and broken down by country (top) and decade of career end (bottom), men and women, 1955–2010*



* Sample includes 1.5 million gender-identified authors whose publishing careers ended between 1955 and 2010
Source: Huang et al. (2020)

Figure 8: ...but annual productivity differences between men and women are negligible

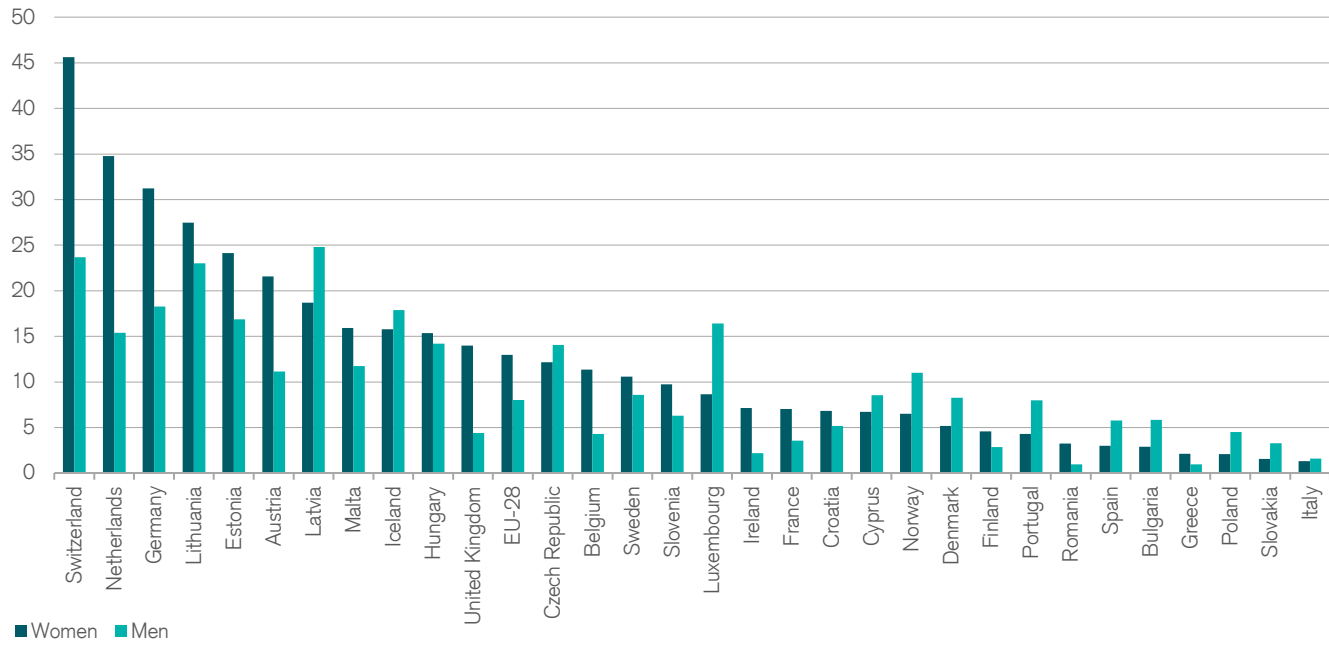
Annual productivity, defined as the average number of published papers per year, worldwide and broken down by country (top) and decade of career end (bottom), men and women, 1955–2010*



* Sample includes 1.5 million gender-identified authors whose publishing careers ended between 1955 and 2010
Source: Huang et al. (2020)

Figure 9: Female researchers are more likely to work part-time

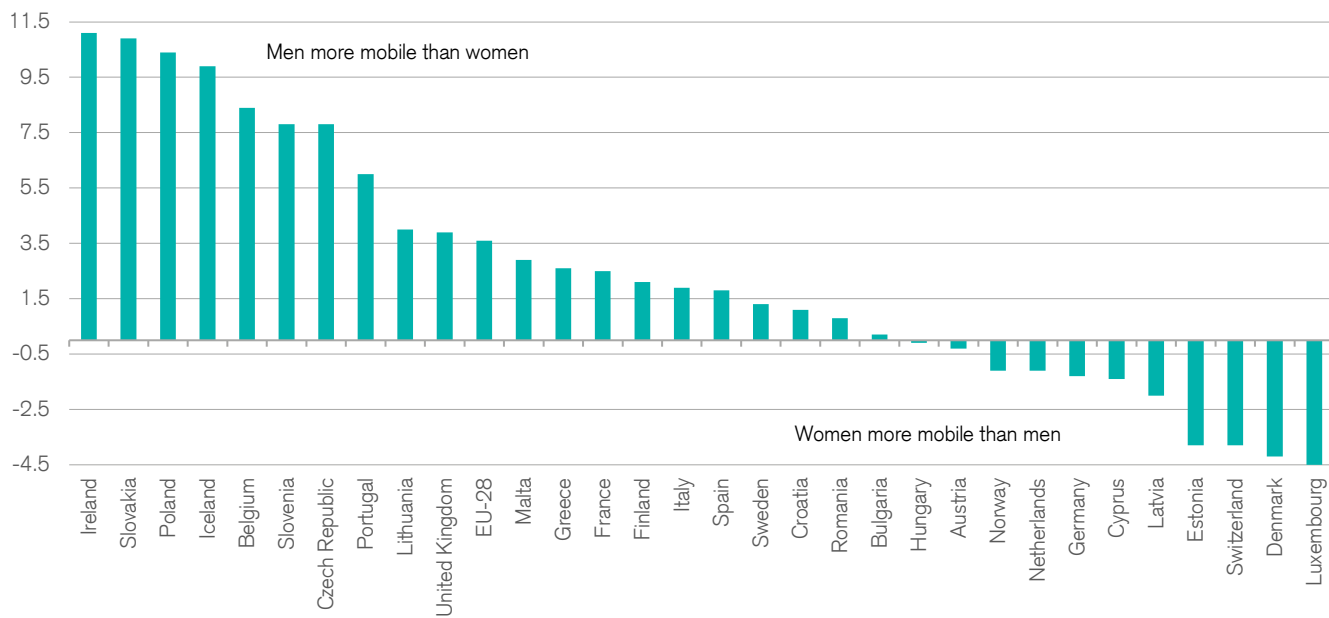
Part-time employment of researchers in the higher education sector out of total researcher population, by sex, selected countries and EU-28, 2016



Source: European Commission (2018) based on MORE3 EU Horizon Europe Survey by Janger et al. (2017)

Figure 10: Male researchers are more mobile than their female colleagues

Gender differences in the international mobility of researchers in post-PhD stages, European countries, 2016



Source: European Commission (2018) based on MORE3 EU Horizon Europe Survey by Janger et al. (2017)

Looking at tech start-ups alone, the share was even lower at 26%. Health-related start-ups, on the contrary, more often had at least one female founder (38%). In Europe, only 21% of tech founders were female in 2019, with the UK and Ireland having the highest gender diversity, while France, the Benelux countries and Southern Europe show the lowest (Atomico, Slush & Orrick (2019)).

How to explain the “leaky pipeline” of female scientists

Studies suggest that a significant share of the reported gender gaps in scientific careers is due to gender-specific dropout rates. Huang et al. (2020) found that men on average produce more papers during their scientific careers and that this productivity gap has been increasing since the 1950s (Figure 7). However, they also argue that while there are total productivity differences between men and women, the annual productivity differences are negligible (Figure 8). The authors conclude that the large gender gap in total career productivity is caused by a divergence in career duration for female versus male researchers. In other words, women have shorter scientific careers than men, resulting in total productivity differences.

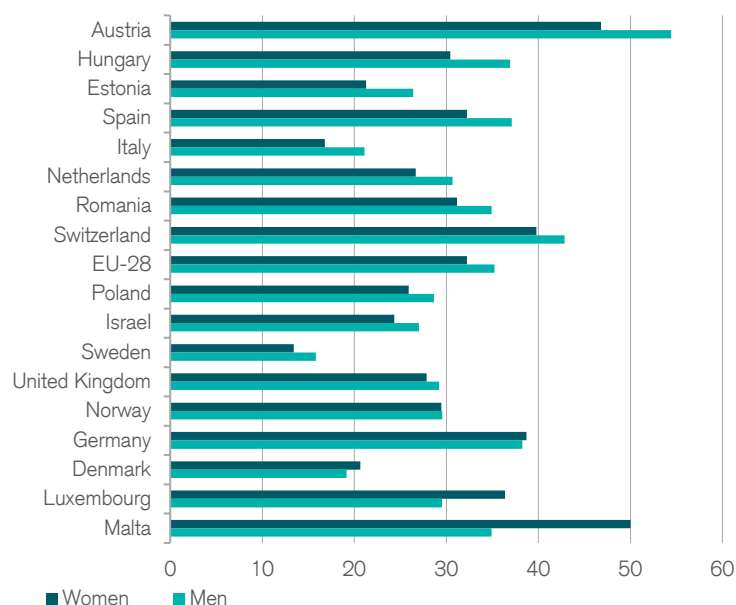
Family and flexible working time

Some of the issues hindering the advancement of women to top decision-making roles in academia relate to family responsibilities. Deryugina et al. (2021), for example, found that female scientists assumed more responsibility for childcare and housework. Consequently, female scientists work part-time more often than their male peers, with the negative impact on their publishing record that ensues. In the European Union, 13% of all female researchers in higher education worked part-time in 2016, while the share is at 8% for men (Figure 9). Throughout the entire European continent, the widest gap can be observed in Switzerland, with 46% of women working part-time compared to only 24% of men.

While job flexibility might enhance the labor participation rate of working parents, it can also turn out to be an obstacle for their advancement in scientific careers, when such work arrangements are primarily chosen by women and remain less popular among men. Job interruptions have similar implications and moreover lead to less work experience. Successful scientific careers often not only require long working hours, but also the ability to seize opportunities as they arise. Data for Europe show that post-doctoral female researchers are less geographically mobile than their male peers (Figure 10). Unequal mobility patterns between men and women may be a reflection of the unequal distribution of familial duties or different priorities with regard to these duties, thus further narrowing women’s chances to have successful and long-lasting scientific careers.

Figure 11: Women are less successful in receiving national, publicly managed research funding

Research funding success rate differences between women and men, in %, selected countries in Europe, 2017



Source: European Commission (2018)

Output of female academics invites fewer citations

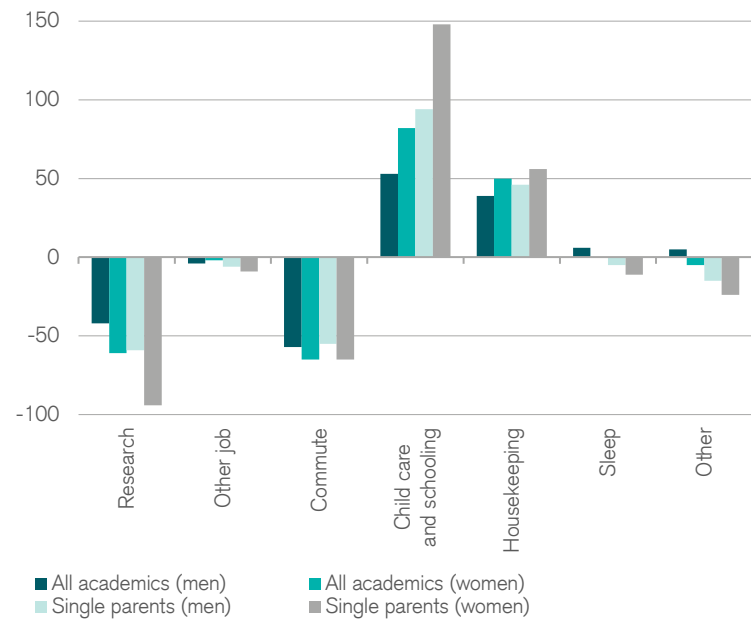
Different attitudes toward women’s scientific work can have an impact on women’s recruitment and advancement to senior research positions. Figure 11 shows that women are less successful in obtaining national, publicly managed research funding. Women’s work also has less impact in terms of citations (Huang et al. (2020)). In this context, Hofstra et al. (2020) examined the performance of more than one million PhD holders in the United States between 1977 and 2015, tracking their publishing careers and academic positions. The analysis shows that underrepresented groups, such as women, create higher rates of scientific innovation measured by publishing output. But women’s innovative contributions are often undervalued and overlooked in the sense that their findings are taken up by other academics at a lower rate than men’s contributions. Moreover, Hofstra et al. (2020) found that equally impactful contributions are less likely to lead to successful scientific careers for women.

The impact of COVID-19

The COVID-19 pandemic has had a detrimental influence on female scientists, as women have had to work from home, while also performing a greater number of household responsibilities, such as childcare, especially during school closures. Based on a survey conducted among researchers with publications in major academic journals or who self-identified themselves as active researchers in an academic appointment or at research institutions, Deryugina et al. (2021) found that the disruptions in conjunction with the pandemic led to a higher decrease in time spent on research for female scientists. Women could dedicate 62 minutes less per day to research activities, compared to their male peers with 42 minutes (Figure 12). At the same time, women allocated more time to childcare duties, schooling and housework chores during the pandemic relative to men (132 and 92 minutes per day, respectively). The data of Deryugina et al. (2021) also suggest that single parents – regardless of gender – have seen an even further decrease in research time due to COVID-19.

Figure 12: COVID-19 disruptions disproportionately affected female academics

Mean changes in time use of male and female academics for different tasks due to COVID-19, in minutes per day, all academics and single parents; global survey carried out between May and July 2020



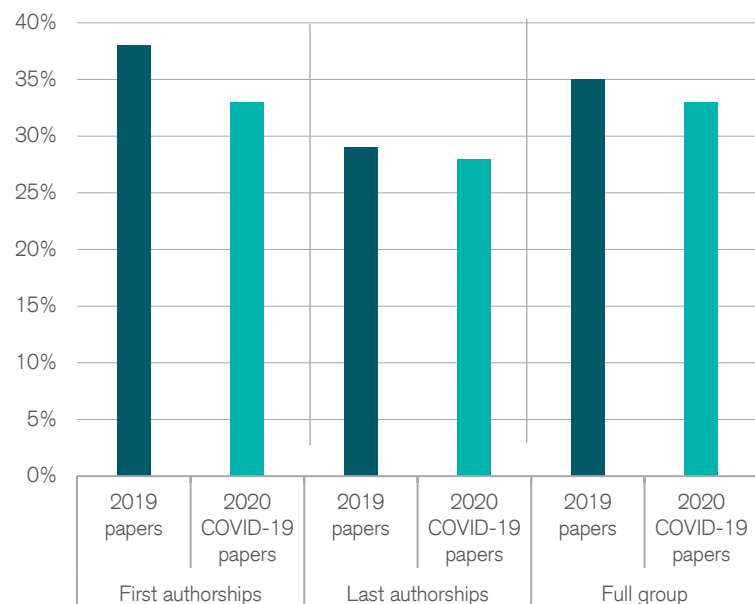
Source: Deryugina et al. (2021)

“
Some of the issues hindering the advancement of women to top decision-making roles in academia relate to family responsibilities

Myers et al. (2020) also find supporting evidence of the unequal impact of COVID-19 on women: they discovered that US and European-based female scientists reported a 5% greater reduction in research time than men during the pandemic. The decline in research time was also considerably greater for male and female scientists with at least one child aged five or younger compared to peers without these childcare responsibilities (-17%).

Figure 13: COVID-19 medical papers in the USA have fewer female authors than papers from 2019 published in the same journals

Share of female authors, as first, last author and any author position, for medical papers published in 2019 and papers published during the months most affected by the COVID-19 pandemic (March and April 2020)



Source: Andersen et al. (2020)

The greater reduction in time spent on research may also explain why women were less productive in publishing during the pandemic. Research of women's publishing during the pandemic shows that their publishing rate has fallen relative to men's amid COVID-19: according to Andersen et al. (2020), the proportion of medical publications with female first authors was five percentage points lower in 2020 compared to 2019. For the group of female last authors – typically senior-level scientists – the percentage also fell slightly in 2020 compared to 2019 (**Figure 13**).

Avoiding the loss of female talent in the scientific world

Technological and scientific progress is a fundamental source of economic growth, crucial to enhance and spread prosperity. The ability to innovate, in turn, usually requires specialists with advanced knowledge in scientific fields. Despite some improvement, women are still not participating in this progress as fully as men. Educational choices rooted in the socialization and learning process, but also reflecting gender-specific preferences are one reason. As seen above, however, the scientific world loses women who have chosen this path at a greater rate in more advanced stages of their careers. Focusing solely on increasing the talent pool may not be enough to address the observed gender imbalance in science in general, and in STEM fields in particular. The focus should therefore also be on increasing efforts to retain female talents in academic and research positions, enabling more sustainability in women's scientific careers.

A higher representation of women would also allow more diverse research groups, which generally has a positive impact on innovation. Origins, experiences, and needs and concerns that differ from traditionally represented groups diversify scholarly perspectives, often generating ideas that have traditionally been missed or ignored (Hofstra et al. (2020)).

More female role models in STEM and related disciplines would encourage the next generation of young female students. González-Pérez et al. (2020), for instance, discovered that the existence of female role

models in mathematics had a positive influence on mathematics enjoyment, the significance that females attach to mathematics and girls' aspirations in STEM. At the same time, they found that successful female role models lessen gender stereotypes.

“ More female role models in STEM and related disciplines would encourage the next generation of young female students

Successful female role models are also a way to tackle another factor hindering women's careers, subtle gender prejudices and stereotypes. More role models in senior academic positions help female academic talents push forward. So do female scientists and innovators in business. For example, Switzerland's Venturelab selects annually the 100 women entrepreneurs to watch, many of whom have scientific or technological backgrounds.

A more balanced approach toward part-time work for both men and women in academic careers would better align the cumulative differences in productivity that arise through women's shorter careers. These include the distribution of academic activities that prioritize research over teaching for part-time employed scientists so as to maximize scientific career-defining productivity, i.e. publication activity.

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Photo: Gettyimages, Hinterhaus Productions

Meet the practitioners

Interviews with Sarah Chen, Janneke Niessen and Effy Vayena

In this chapter, we present the perspectives of three practitioners to complement the findings discussed in prior chapters. In this context, we were delighted to engage with Sarah Chen (co-founder of Beyond The Billion), Janneke Niessen (co-founder of CapitalT) and Prof. Dr. Effy Vayena (ETH Zurich). We wanted to shed some light on the challenges facing female entrepreneurs in relation to accessing finance, as well as the barriers faced by female scientists in the academic world. We trust that you will find their unique insights highly valuable.

Interview with Sarah Chen, co-founder of Beyond The Billion

Joelle Natzkoff: Sarah, what motivated you to launch Beyond The Billion?

Sarah Chen: Shelly Porges, my co-founder, and I both have deep roots in the world of venture capitalism and entrepreneurship, and importantly were determined to see more women at the helm. As investors, we were seeing great women innovators meet every criterion from traction, market size, moat, but were not getting the funding at the scale they deserved. This frustration led us to launch The Billion Dollar Fund for Women (TBDF) at the World Bank meetings in Bali in October 2018, with an audacious goal of catalyzing one billion dollars into the hands of female founders. We're proud that, to date, the consortium consists of over 100 venture funds and limited partner investors who have pledged to invest beyond one billion dollars and are actively deploying capital into 30 countries, and already have invested into eight female-founded unicorns!



Sarah Chen is an investor, entrepreneur and executive whose career spans across venture capital and innovation in Asia and the USA. She is co-founder of The Billion Dollar Fund for Women and Beyond The Billion. She has been at the forefront of multiple-million-dollar cross-border investments, structuring and executing commercialization plans for her portfolio companies. Named Forbes 30 Under 30, she is a recognized speaker and adviser on VC/innovation and women in leadership, and currently sits on multiple boards including 131 & counting, a bipartisan effort to fete the unprecedented number of women serving in the House and Senate in the USA, and Lean In Malaysia, which she co-founded as a platform accelerating women into leadership.

It is widely reported that female entrepreneurs have less access to venture capital funding than their male peers, what do you think could be the biggest challenge?

The answer is really a combination of well-documented issues, including unconscious bias, lack of diversity in venture capital and structural barriers. There is another piece of the puzzle that doesn't often make the main headlines, which really has a significant impact: the role limited partners (LPs) can and should play in fueling funds that over-index in diversity, while holding VCs/General Partners (GPs) accountable for practices that widen the gap. For example, despite a growing supply of more diverse firms and a lot of talk about proxy indicators, LPs still require an "attributable track record," which favors GPs who have already been decision-makers at more established firms. Only 1.3% of all US financial assets are managed by women and this has a domino effect on who and what gets funded.

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Bold systemic change across the capital stack is needed

What is the primary motivation for venture capital investors seeking to invest in female-founded businesses?

The majority of investors are ultimately driven by returns. We see women as an "outperforming asset class" with 63% higher performance, and many of our partner funds reporting higher revenues, up-rounds and retention rates within their gender-diverse-led companies. Further, our recent report with Pitchbook found that female founders were exiting quicker and at higher valuations, a key metric for private investors.

How do you think the COVID-19 pandemic has impacted investor appetite for investing in female-founded businesses?

In the pandemic, female-founded companies were disproportionately affected, since they were not fueled by robust capital to begin with. The pandemic has made some investors more wary of risks and caused them to revert to bad "pattern-matching habits," which can be a mask for unconscious bias. Only about 12% of decision-makers at venture capital firms are women, and most firms still don't have a female partner. Of all partners at these firms, only 2.4% are female founding partners – who, as our partners Women In VC note, "control an outsized proportion of a firm's investment decisions."

In your view, what are the most important factors that need to change in order to level the playing field for female entrepreneurs to access venture capital funding?

Bold systemic change across the capital stack is needed. First, LPs can integrate gender diversity reporting and ensure it's part of the investment process. While 65% of LPs have said that diversity is important, only 25% raise the question in diligence. Beyond a diversity audit, this data could be tied to performance and payouts for investment managers. Assessment criteria could also be extended such that the track record includes GPs' past performance as start-up operators, executives and ecosystem players, which reflect their ability to source, pick and manage investments.

The information and views expressed herein are those of the interviewees at the time of writing and not necessarily those of Credit Suisse.

Sara Carnazzi Weber: Janneke, female entrepreneurs seem less likely than men to obtain funding for their ventures. What is your experience in the technology world?

Janneke Niessen: Last spring when media coverage of racial injustice exploded, the tech industry, again, pledged to “do better” in all realms of diversity. But demonstrable progress remains slow on all fronts, including funding for female and diverse founders. Despite a USD 156+ billion record-setting year for venture capital and data continuously showing that investments in diverse companies yield above-market returns, funding for these founders dropped. Funding to female-led and mixed-gender founding teams fell to 14.4% from 16.9%. Women got just 2.3% of VC funding in 2020, down 0.5 percentage points from 2019, and Black and Latinx women received just 0.64% of funding.



A lack of team diversity at VCs leads to lack of investment in diverse teams

So, while diverse teams boost financial returns, diverse founding teams only receive a fraction of venture capital funding. To make things worse, when female-led and mixed-gender teams do get money, at every stage, rounds are significantly lower in size (15%–49%) than those backing their male counterparts. There is no shortage of female entrepreneurs in need of investment; firms are just not putting in the effort to find or fund them. Solving the diversity and funding gap in the start-up world doesn't require more data or proof, further fueling the talent pipeline or creating another initiative that just pays lip service to the issue. What we need, quite simply, is for VCs to start actually funding startups of women and people of color.



Janneke Niessen is founding partner at CapitalT, serial entrepreneur, angel investor, board member and diversity advocate. She has started and exited two international technology companies. She is on the board of several organizations and regularly advises the government about technology, talent, investing and diversity. She speaks regularly at international events, appears in podcasts and writes for several publications such as Fortune MPW, TNW, Wonder Women Tech, Inc, Cambridge and Jinek. As the co-initiator of InspiringFifty – an initiative to increase diversity in technology by raising the visibility of female role models – Janneke published *The New Girl Code* to inspire young girls to pursue careers in technology. She has been named one of Harper's Bazaar Women of the Year, one of the ten most prominent angel investors, Most Innovative Leader and EY Entrepreneur of the Year.

Are women asking for less or is there an inherent bias is shaping investor decisions?

Network, bias, stereotypes and pattern-matching continue to drive decision-making in venture capital. It's human to navigate towards things you know, understand and like. Women investors invest two to three times more often in women founders. Data shows a similar pattern for under-represented groups. Or to put it more simply, a lack of team diversity at VCs leads to lack of investment in diverse teams. The traditional white, male-led firms continue to invest in entrepreneurs that, quite literally, look like they do. According to HBR, only about 12% of decision-makers at VC firms are women, and just 2.4% are founding partners. This nets out to white men controlling 93% of all venture capital dollars. As seven out of the ten most valuable companies in the world trace their success back to funding from venture capital, it seems an incredibly homogeneous group of people has a near monopoly on innovation.

In your opinion, could a more diverse environment in the technology world contribute to fostering innovation?

A more diverse environment in the technology world will foster innovation and have a positive impact beyond just tech itself. It is about raising the bar for everybody. More diverse companies will create more inclusive products and services designed to serve wider communities. Bias is often unconscious, which proves the importance of more diversity in ensuring different experiences and viewpoints are incorporated into building things to solve a variety of problems. If you think your taxi is late, you invent Uber. What company do you start when you grow up without clean drinking water? When you face harassment? When you are directly impacted by climate change?

Where would you concentrate your efforts in working against bias and stereotypes confronting women in the technology world?

The current situation in which we invest in a homogeneous group of entrepreneurs is problematic. We do not only leave a lot of opportunity on the table, but a lot of unused potential as well. We need to create a level playing field with equal opportunity for everybody. There is no one silver bullet. Funding is a key piece of the puzzle, but work needs to happen in several areas concurrently – education, the workplace and, last but not least, in the investment firms themselves.

The people and institutions funding venture capital firms can accelerate this change by demanding that the funds they invest in put in the work to diversify their portfolios and their own investment teams – by investing in diverse and emerging fund managers. Doing so will make a lasting impact on the entrepreneurial ecosystem by creating a ripple effect of investment and innovation that benefits diverse founders, teams and communities. So why not reap potentially impressive long-term returns while creating systemic change that literally improves the world?

Data sources: The BLOOMBERG PROFESSIONAL™ service, Allraise, ProjectDiane, HBR, Forbes

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Interview with Dr. Effy Vayena, Chair in Bioethics, ETH Zurich

Sara Carnazzi Weber: Effy, despite some progress, there is still a big gender gap when it comes to successful scientific careers in academic institutions. What do you think are the main obstacles women are facing in the scientific world?

Effy Vayena: There is still a serious gap indeed and this is very obvious when we look at the numbers of tenured professors as well as at the higher rankings of academic leadership, but also in other indicators such as inventors and patent assignees. Although countries vary somewhat, the percentage of female tenured professors in most European countries is around 25%–30%, but in engineering, for example, significantly lower in the single digits. While more women are starting careers in science today, fewer women than men continue. The obstacles are multiple, interlinked and well-documented. Bias is on the top of my list because it comes in so many shapes and flavors that make it extremely difficult to address effectively. The stereotype of “science” as “male,” paired with “authority” as “male,” has enormous costs for women. To understand the depth of this problem one should not only look at, for example, how hiring committees evaluate women scientists, but also how students evaluate them.

Studies have also shown that students hold female professors to higher standards than male professors. There is also evidence that women in academic settings are given more service tasks, which take time off research. Other well-documented obstacles such as parental roles and caregiving, that still fall disproportionately on women, maternal and paternal leave options, are also contributing to holding back women from successful scientific and academic careers. Workplace culture which includes attitudes, expectations, role models, infrastructure and policies, discourage women systematically. A recent study showed that women in scientific areas that value brilliance are more likely to feel inadequate and even like frauds. Women in these fields (for example in math and physics) were more likely to doubt their own abilities. Environments that make women feel this way, and cultures that continue making women internalize these perceptions are the deeply rooted obstacles.

What does this mean for the development of new technologies and innovations?

It really means that we are missing not only the talent and creativity that these women would bring to technological development, but also their perspective and experience as to what kind of needs technology should respond to and



Effy Vayena is a Professor of Bioethics at the Swiss Institute of Technology (ETH) and renowned expert in medicine, data and ethics. Her work focuses on important societal issues of data and technology as they relate to scientific progress and public and personal health. She was awarded a research professorship by the Swiss National Science Foundation and founded the Health Ethics and Policy Lab to study the ethical implications of technological advances such as genomic technologies in health care and research and the ethics of digital health. She was a lecturer at the Center for Bioethics at Harvard Medical School and a Faculty Associate at the Berkman Klein Center for Internet & Society at Harvard University. Dr. Vayena has recently collaborated with the World Health Organization on developing guidance for ethics and governance for Health AI.

how. The worst loss of all is that, by missing these perspectives, we create technologies that perpetuate bias and continue to neglect women's needs and interests. Artificial intelligence, for example, is an area of technological development that has fascinated us, and on which we have (maybe unwisely) pinned so much hope for progress. AI is mainly a male field of research whether in the academic setting or in the private sector. We have already seen products such as face recognition, search engines, recruitment tools, robotics that carry and reproduce bias that harms women. Another loss is that keeping women out of powerful fields of scientific and technological development essentially deprives women from the opportunity to acquire power and lead those fields.

Do you think the spread of remote work due to the pandemic could contribute to establishing more sustainable work models for female scientists?

I would love to entertain this possibility, but I would like us to be cautious when we talk about "flexibility." A flexible schedule can help. Cutting out travel time, or presence when it is not necessary, can certainly allow all workers, not just women to arrange their lives better.

However, when flexibility means that women keep accumulating more tasks for family and career, because remote work allows for that, I do not think it is going to help in much other than creating more exhaustion for women. If flexible means that women can skip the networking activities because they can be online just for a part of it, while their male colleagues can use the same opportunity to advance their careers, or that they serve in one more committee and still pick up the kids from school, being in two places at the same time, I am not convinced we are offering meaningful help. The question for me is not how to make it possible for women to be super-humans in order to succeed in scientific careers and in leadership positions – the question is how to take meaningful steps that make it possible for women to succeed in scientific careers and leadership.

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The stereotype of “science” as “male,” paired with “authority” as “male,” has enormous costs for women

The information and views expressed herein are those of the interviewees at the time of writing and not necessarily those of Credit Suisse.

Appendix 1: Current gender quotas and disclosure requirements

Jurisdiction	Compliance date/effective from	Board quota or target	Mandatory or voluntary disclosure	Board or senior management disclosure
Australia	February 2019	<p>The 4th edition of the ASX Corporate Governance Council states a non-binding target of 30% of women on board if the company is listed on the ASX 300 Index.</p> <p>The ASX Corporate Governance Council would encourage larger listed entities with significant numbers of employees to provide more granular disclosures of the relative participation of women and men in senior executive roles.</p>	Comply or explain	Board and senior management
Austria	January 2018	From 1 January 2018, appointments and postings to supervisory boards of listed stock companies, and of companies with more than 1000 employees whose boards consist of at least six seats, must consist of a minimum of 30% of the underrepresented sex.	Mandatory	Board and senior management
Belgium	January 2012	At least one-third of the board members should be of a different gender than other members of the board	Mandatory	Board
Canada	January 2020	Effective January 2020, the Canada Business Corporations Act requires that publicly listed companies provide certain diversity information relating to woman, visible minorities, persons with disabilities and Aboriginal peoples.	Comply or explain	Board and senior management
Denmark	January 2018	The Danish Corporate Governance Code requires listed companies to develop and implement policies that promote a “relevant degree of diversity”.	A diversity policy should be included in the management commentary and/or available on the company’s website	Board and senior management
Finland	January 2010	For companies listed on the Helsinki Stock Exchange, the Finnish Corporate Governance Code requires that both genders are represented on the board of directors.	Comply or explain	Board
France	Transition period effective from January 2011	Listed companies and companies with more than 500 employees or revenues over 50 million euros should have at least 40% female representation.	Mandatory	Board
Germany	January 2016	<p>Large, publicly listed companies should have at least 30% female nonexecutives on the supervisory boards.</p> <p>In June 2021, the lower house of parliament passed legislation that requires publicly listed companies with more than three management board seats to include at least one woman management director.</p>	Mandatory	Board
Greece	July 2021	Greece first adopted a 25% quota of woman on boards in July 2020.	Mandatory	Board
Hong Kong SAR	Consultation paper published in April 2021	To promote gender diversity, the consultation on review of the corporate governance code and related listing rules requires all listed issuers to set numerical targets and timelines.	Mandatory disclosure requirement	Board level and across the workforce (including senior management)

Jurisdiction	Compliance date/ effective from	Board quota or target	Mandatory or voluntary disclosure	Board or senior management disclosure
Iceland	September 2013	Parliament passed an act on gender quota in company boards in 2010, which requires that companies (including state-owned enterprises and private companies) with more than 50 employees must have at least 40% of both sexes represented on their boards by September 2013.	Mandatory	Board
India	April 2020	<p>Every listed company and every other public company having paid-up share capital of one hundred crore rupees or more or turnover of three hundred crore rupees is required to appoint at least one female director, according to the Companies Act 2013.</p> <p>The Securities and Exchange Board of India (SEBI) further requires, since April 2020, that the top 1000 listed companies by market capitalization have a woman board member who is also an independent director.</p>	Mandatory	Board
Israel	April 1999	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	Board
Italy	January 2020 (the Gender Parity Law was first passed in 2011)	<p>The Gender Parity Law, passed by Parliament in 2011, requires that at least 33% of the board positions must be filled by the underrepresented gender.</p> <p>Law 160/2019 increased the gender quota from 33% to 40%, effective starting from 2020.</p>	Mandatory	Board
Japan	June 2021	<p>The Tokyo Stock Exchange revised Japan's Corporate Governance code, effective from June 2021. Companies should present policies and voluntary and measurable goals for ensuring diversity.</p> <p>Furthermore, the OECD Corporate Governance Factbook 2021 states that the current voluntary target is to reach 12% gender diversity for listed companies on the First Section of the Tokyo Stock Exchange by 2022.</p>	Voluntary	Board
Malaysia	April 2021	All boards should comprise at least 30% women directors.	If the composition of women on a board is less than 30%, the board should disclose the action it has or will be taking to achieve 30% or more and the timeframe to achieve this.	Board

Jurisdiction	Compliance date/ effective from	Board quota or target	Mandatory or voluntary disclosure	Board or senior management disclosure
Netherlands	January 2013	Management and supervisory boards of Dutch N.V.s and B.V.s that qualify as “large companies” to have at least 30% female representation.	Comply or explain	Board
New Zealand	June 2018	New Zealand’s government set a target to have 50% female representation on state sector boards by 2021.	Voluntary	Board
Norway	First adopted in 2003 and requiring full compliance by 2008	The 1997 Norwegian Public Limited Liability Companies Act, amended in 2003, requires 40% female representation on the board of director in public companies.	Mandatory	Board
Portugal	January 2020	The quota first required 20% of women on boards of listed companies from January 2019 and now requires 33.3% of female participation since 2020.	Mandatory	Board
Singapore	September 2020	The Council for Board Diversity has a target for woman on boards of 20% by 2020; 25% by 2025; and 30% by 2030 for top 100 listed companies.	Voluntary	Board
South Africa	November 2016	Although no quota or target has been adopted, the corporate governance code within the King IV Report encourages companies to promote greater board diversity on an “apply or explain” basis.	Apply or explain	Board
Spain	Grace period of eight years starts in March 2007	The Law on Equality requires a minimum presence of each gender of 40%.	Voluntary	Board
Sweden	December 2016	The Swedish Corporate Governance Code sets gender balance on boards as a goal for all companies.	Comply or explain	Board
Turkey	December 2012	The Capital Markets Board of Turkey amended its Corporate Governance Guidelines in 2012, recommending that companies set a target level of no less than 25% women on their boards.	Voluntary	Board
UK	To be confirmed (the FCA aims to implement the rules by late 2021)	In July 2021, the FCA launched a consultation on changes to its listing rules to require companies publish whether they have achieved certain proposed targets for gender and ethnic minority representation on their boards. As part of the same annual disclosure obligation, the FCA requires disclosures on the make-up of their board and most senior level of executive management in terms of gender and ethnicity.	Comply or explain	Board and senior management
USA	At least one Diverse director by August 2023 and two diverse directors by August 2026	In August 2021, the SEC approved Nasdaq’s proposed rule changes related to board diversity and disclosure. The new listing standards will require each Nasdaq-listed company, subject to certain exceptions, to have at least two diverse board members or explain why it does not. The new listing standards also will require disclosure of information on the voluntary self-identified gender, racial characteristics, and LGBTQ+ status of the company’s board.	Comply or explain	Board

Source: Paul Hastings, ASX Corporate Governance Council (4th edition – February 2019), OECD Corporate Governance Factbook 2021- Chapter 4: the corporate board of directors, Thomson Reuters Practical Law, Danish Recommendations on Corporate Governance 2020, Hong Kong Exchanges and Clearing (Consultation Paper on review of Corporate Governance Code 2021), Wall Street Journal, European Parliament, The Securities and Exchange Board of India, Japan’s Corporate Governance Code (2021), Malaysian Code on Corporate Governance (2021), KING IV – Report on Corporate Governance for South Africa 2016, The Swedish Corporate Governance Code, U.S. Securities and Exchange Commission, Nasdaq, Financial Conduct Authority, The 30% Club, Finnish Corporate Governance Code 2020, L&E Global .

Appendix 2: How has the CS Gender 3000 changed over time?

Supplementary information

Figure 1: Women in management by market
Based on the matched dataset and sample size > 15 companies

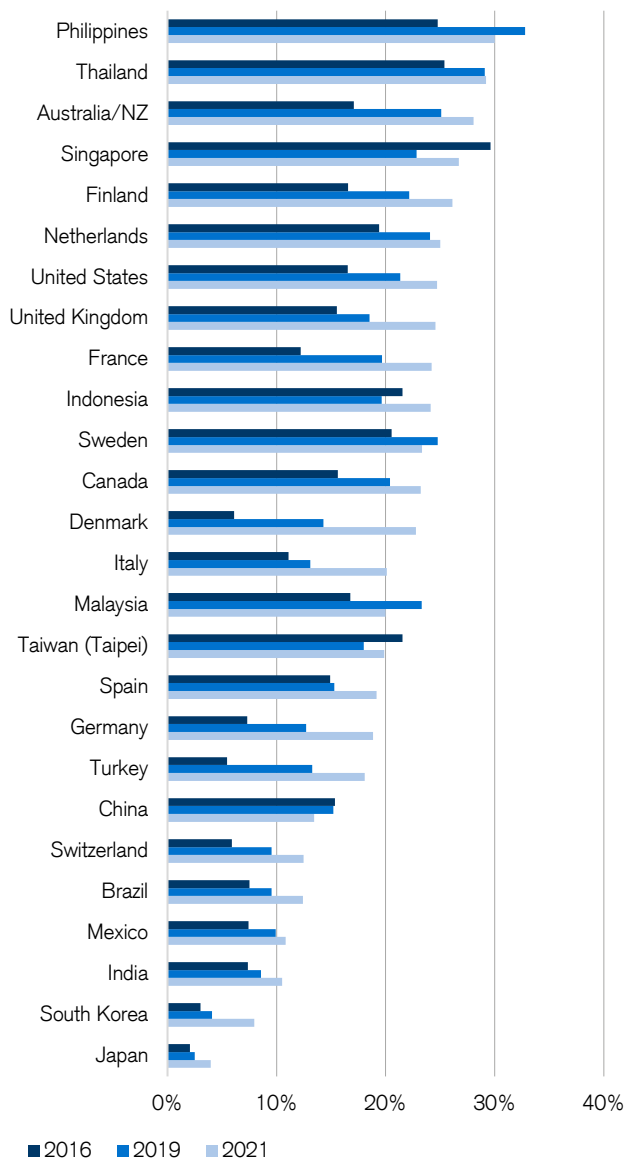
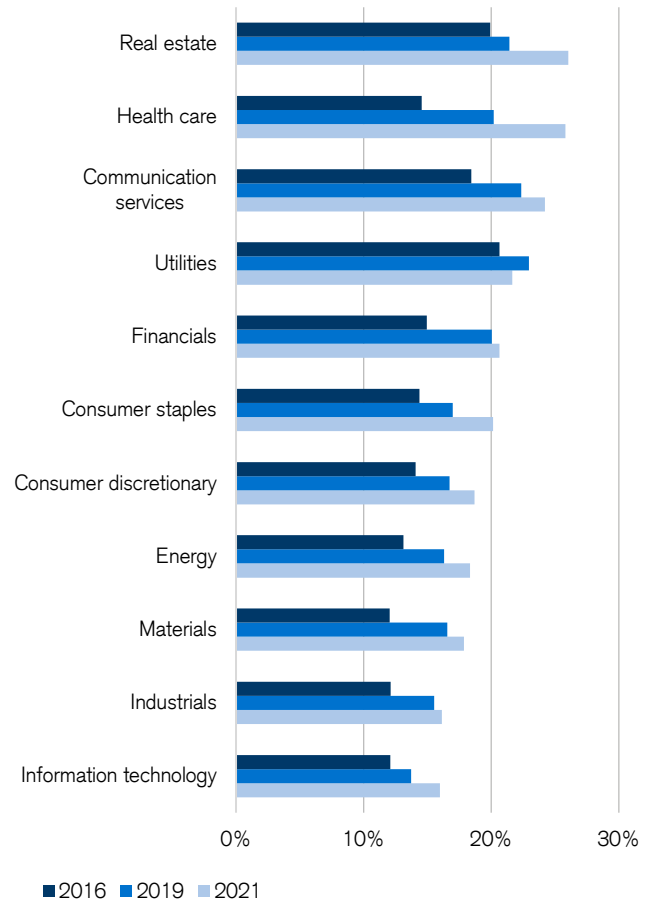


Figure 2: Women in management by sector
Based on the matched dataset



Source Figures 1 and 2: Credit Suisse Research, CS Gender 3000

Figure 3: Women in management by market – momentum (2021 versus 2016)

Based on the matched dataset

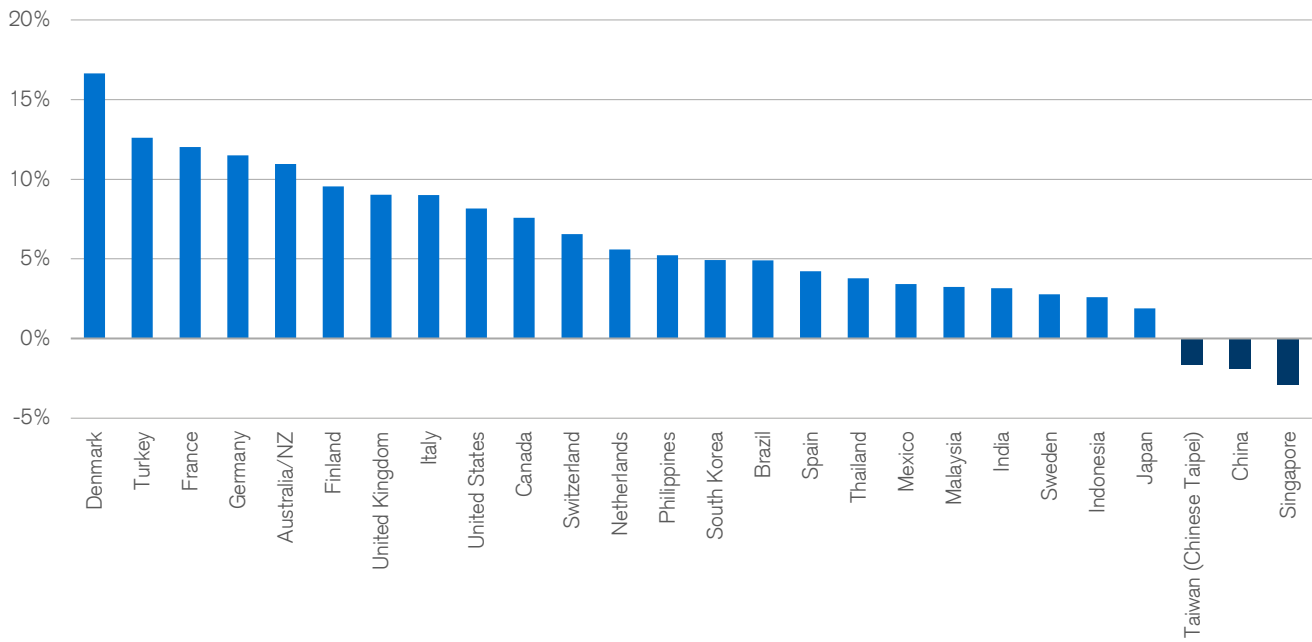
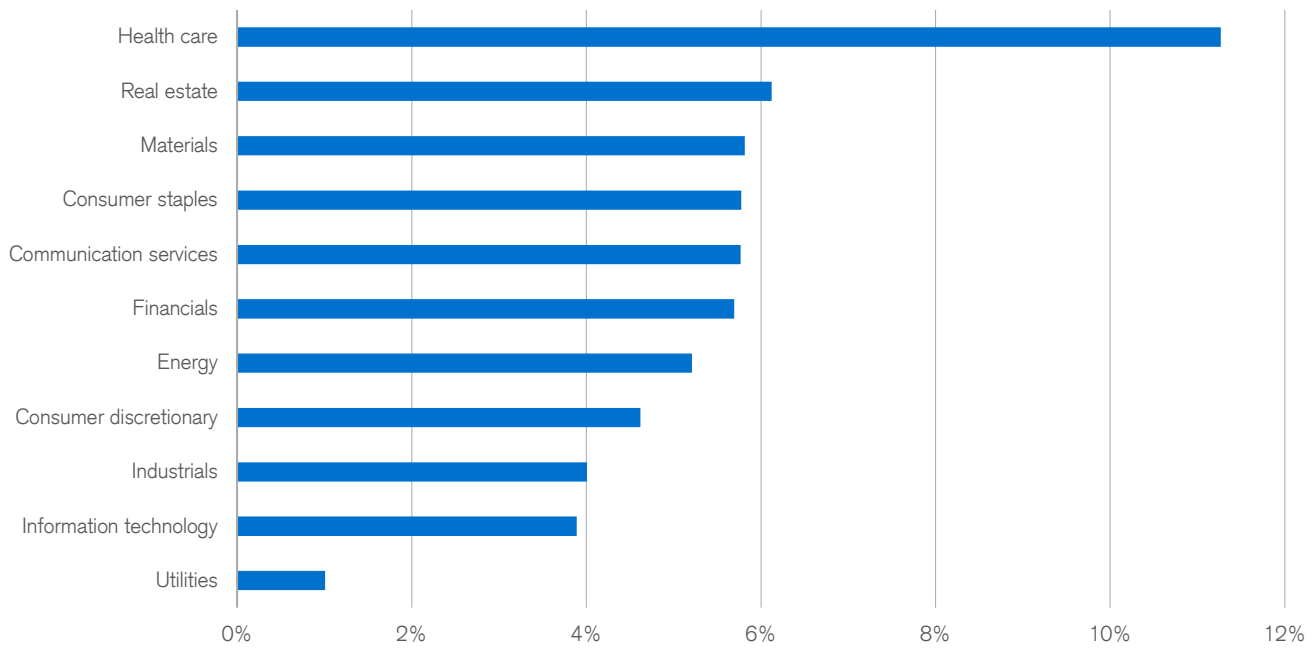


Figure 4: Women in management by sector – momentum (2021 versus 2016)

Based on the matched dataset



Source Figures 3 and 4: Credit Suisse Research, CS Gender 3000

Figure 5: Female CEOs by region
Based on the matched dataset

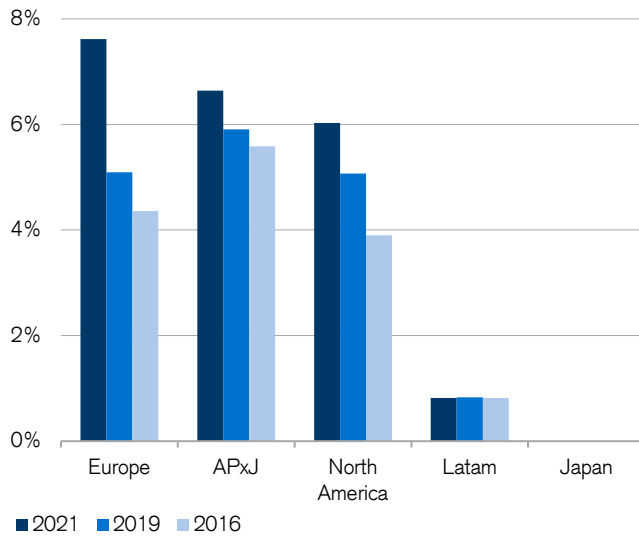


Figure 6: Female CEOs by sector
Based on the matched dataset

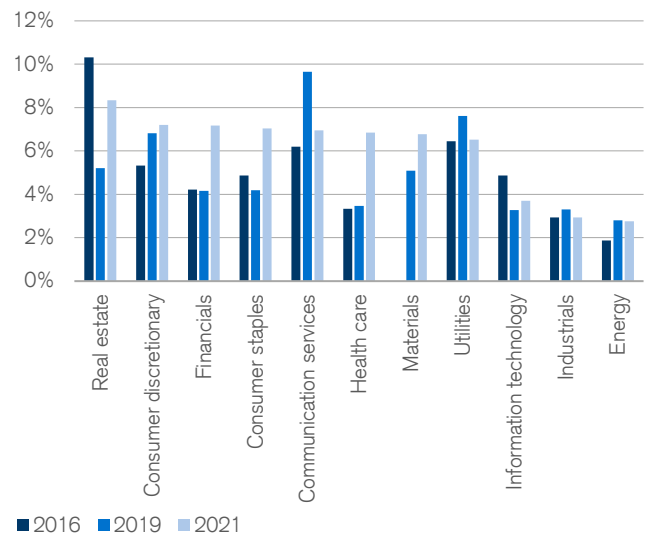


Figure 7: Female CFOs by region
Based on the matched dataset

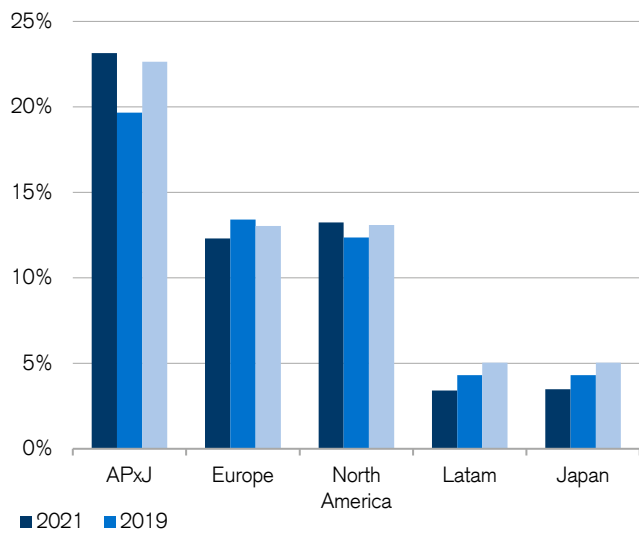
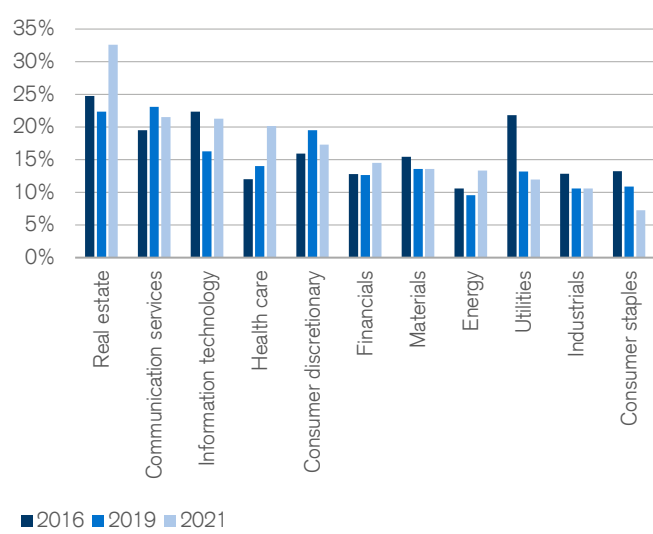


Figure 8: Female CFOs by sector
Based on the matched dataset



Source Figures 5–8: Credit Suisse Research, CS Gender 3000

Appendix 3: Financial metrics for the Gender 3000

Supplementary information

Table 1: Comparative financial statistics globally, by region and sector

	EBITDA margin	CFROI (%)	Net debt/EBITDA (x)	EV/EBITDA (x)	12mF P/E (x)
Senior management					
Women <15%	17%	5.63	1.46	11.12	17.93
Women >20%	19%	7.88	1.51	13.63	19.09
Premium	2%	2.24	4%	23%	6%
Senior management by region					
Europe					
Women <15%	17%	5.25	2.14	9.95	9.38
Women >20%	20%	5.26	1.87	10.34	15.69
Premium	2%	0.02	-13%	4%	67%
North America					
Women <15%	18%	8.85	1.97	16.81	40.18
Women >20%	17%	10.17	1.65	16.73	21.79
Premium	-1%	1.31	-16%	-1%	-46%
Asia Pacific (ex Japan)					
Women <15%	16%	5.35	1.28	9.94	9.44
Women >20%	22%	6.18	0.96	10.79	13.75
Premium	6%	0.83	-25%	9%	46%
Senior management by sector					
Communication services					
Women <15%	36%	5.06	1.00	7.29	16.79
Women >20%	33%	7.45	1.56	11.89	26.90
Premium	-4%	2.39	56%	63%	60%
Consumer discretionary					
Women <15%	14%	3.87	1.68	9.75	39.20
Women >20%	15%	9.27	0.85	16.30	30.34
Premium	1%	5.41	-49%	67%	-23%
Consumer staples					
Women <15%	12%	10.17	1.38	15.36	23.56
Women >20%	11%	12.84	2.06	15.85	21.85
Premium	-1%	2.67	50%	3%	-7%
Energy					
Women <15%	16%	3.07	1.61	6.56	8.71
Women >20%	18%	2.74	2.02	7.75	10.28
Premium	2%	-0.33	26%	18%	18%

Source: Credit Suisse Research, CS Gender 3000, Refinitiv

Table 1: Comparative financial statistics globally, by region and sector, cont.

	EBITDA margin	CFROI (%)	Net debt/EBITDA (x)	EV/EBITDA (x)	12mF P/E (x)
Health care					
Women <15%	14%	7.45	1.64	15.65	33.98
Women >20%	14%	12.93	1.57	15.99	19.49
Premium	0%	5.48	-4%	2%	-43%
Industrials					
Women <15%	13%	6.14	1.97	12.31	19.12
Women >20%	14%	6.18	1.76	13.60	22.93
Premium	1%	0.04	-11%	10%	20%
Information technology					
Women <15%	20%	10.01	nm	16.32	24.80
Women >20%	26%	17.60	0.44	20.51	28.04
Premium	6%	7.59	nm	26%	13%
Materials					
Women <15%	17%	7.92	1.40	8.45	11.70
Women >20%	27%	8.65	0.70	7.08	10.77
Premium	10%	0.73	-50%	-16%	-8%
Real estate					
Women <15%	24%	5.72	3.97	11.46	11.94
Women >20%	25%	4.80	3.53	11.17	13.49
Premium	1%	-0.92	-11%	-3%	13%
Utilities					
Women <15%	24%	2.96	3.88	9.93	15.79
Women >20%	23%	3.26	3.77	10.29	16.99
Premium	-1%	0.30	-3%	4%	8%

Source: Credit Suisse Research, CS Gender 3000, Refinitiv

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