



WOMEN ON BOARDS AND COMPANY PERFORMANCE

SEARCH FOR ESG INVESTMENT
CRITERIA BASED ON AN ANALYSIS OF
POLISH LISTED COMPANIES

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01

SHARE OF WOMEN ON BOARDS AS AN INVESTMENT CRITERION



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01 SHARE OF WOMEN ON BOARDS AS AN INVESTMENT CRITERION

"Traditionally, we have looked at the two-dimensional world of risk and return. ESG (environmental, social, governance) adds the impact of a third dimension to investing", says Margaret Franklin, CFA, 35th CEO of CFA Institute and the first woman to hold this prestigious position. Along with the growing popularity and desire to incorporate non-financial criteria into the investment process, easy to calculate indicators can be used in practice by investors.

Research conducted by international consulting firms¹ on companies from across the globe shows a positive correlation between greater diversity on boards (in particular, higher participation of women), and better financial results and lower risk. The research suggests that higher female participation and greater diversity on company boards could benefit a wide range of company stakeholders, including capital providers. **The latest research conducted on the 140 largest Polish listed companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 showed that, in the years 2010-2019, women were a minority on the boards of these companies. Their share rarely exceeded the 30% threshold** that is described in many studies² as giving a minority a tangible influence on the decision-making process.

Of the 140 companies surveyed, there were on average eleven people on the management and supervisory boards at the end of 2019 and female participants accounted for only one to two of those seats. The number of women on these company boards has increased over the last decade, but improvement has been slow – rising from 10.0% in 2010

to 13.8% in 2019. The number of firms with all-male boards decreased in the surveyed group, and progress in that respect was more visible. Within ten years, the percentage of companies with all-male management and supervisory boards, and thus with no gender diversification, dropped from 38% to 27%.

The analysis of the median share of women on boards revealed very low female participation - or even a total absence of female involvement - on management and supervisory boards for a significant part of the analysed period, especially so in companies from the mWIG40 and sWIG80 indices. The largest companies from the WIG20 index were the most diversified in terms of gender, and the smallest companies from the sWIG80 index were the least diversified. A common feature observed in all three analysed indices was the greater representation of women on supervisory boards as compared to management boards. When considered by sector, firms from the financial and energy sectors performed best, whilst retail and medical companies lagged behind in female board representation.

The conducted research showed that the group of companies with the highest share of women on boards had a higher net profit margin and had lower volatility of share prices than the group of companies of the same size with the lowest share of women on boards. Eleven financial

indicators were subjected to statistical tests, out of which the above-mentioned two turned out to be statistically significant both in nominal terms, as well as after taking into account sector differences. It is worth emphasising that the observed relationship between the share of women and the net profit margin and the volatility of share prices was confirmed on the studied sample, despite the fact that even among the most diverse companies, only a handful achieved a share of women greater than 30%, and none of the surveyed firms have reached the level of 50% equality. The research showed no advantage to companies with all-male boards, where appointments only tap into half of the talent pool and half of the population.

The conclusions from the report conducted on the Polish capital market are consistent with global trends and previous research which show that greater gender diversity

on company boards is a business issue. Therefore, it should be of particular interest to shareholders, management and supervisory boards (especially nomination and remuneration committees), and a wider group of non-financial stakeholders. Given the slow progress achieved so far by the largest listed companies on the issue of increasing gender diversity on boards, it is hoped that this report will be a catalyst for change. A higher share of women on boards, in particular those exceeding the critical threshold of 30%, would serve for the benefit of all parties and thus deserves a higher priority than at present.

The relationship between the share of women on boards and the performance of companies, as well as statistically significant differences between diversified and non-diversified companies, may lead investors to consider including such an indicator as an important non-financial criterion (the so-called ESG criterion) in Poland. The share of women on boards could be introduced as an investment criterion by institutional investors and by other capital providers, including banks.



GENDER DIVERSITY ON BOARDS
SHOULD BE A COMMONLY USED
ESG INVESTMENT CRITERION.

Milena Olszewska-Miszuris



PROF. KRZYSZTOF JAJUGA, PRESIDENT CFA SOCIETY POLAND

Over the past thirty years the globalisation of the financial markets but also the economy as a whole has thrown up many tendencies of which diversity is among the most prominent and significant. This important social phenomenon takes many forms; cultural diversity, ethnic diversity and gender diversity. These continuing and growing changes have been documented in scientific research conducted on the financial markets. A portion of this research is devoted to the analysis of female participation on boards and the subsequent effects that the increased role of women creates in business decision-making.

On behalf of CFA Society Poland, it is my great pleasure to present this report: "Women on boards and company performance. Search for ESG investment criteria based on an analysis of Polish listed companies." The report analyses the female participation on the boards of 140 Polish publicly listed companies over the last ten years and it marks the very first such research conducted in Poland. The report initially focuses on the diversity profile and its subsequent development over the decade of the companies included

in the indices WIG20, mWIG40 and sWIG80m. The following section of the report details the relationship between female participation on boards of these companies and their financial results.

By presenting this report, CFA Society Poland supports all initiatives leading to equal opportunities for all participants on the financial markets. Undoubtedly, such a wide topic cannot be fully discussed in one report. The text identifies some properties, and it can be a base for a future discussion and an inspiration for further research with a broader scope into this ever-growing phenomenon. Such initiatives will be supported by CFA Society Poland.

We thank the authors for their involvement and the dedication of many months of hard work to create this report. We would also like to extend our thanks to the other persons mentioned, which includes employees of CFA Society Poland, for their valuable contributions to the report and the collection of data used in the report. I invite all of you to read this report and to participate in the discussion, which will give insights for future research.



OLGA SIEDLANOWSKA-CHAŁUDA, HEAD OF PROGRAMME SECTION, UN GLOBAL COMPACT POLAND

In 2015, The McKinsey Global Institute published a study that shows that if the share of women in the global economy was equal to men, world annual GDP would increase by 28 trillion dollars by 2025. For many regions this would mean double-digit GDP growth, and yet business equality is still marginalised. This is also highlighted by the report below, which shows that change in the share of women on boards of listed companies is progressing too slowly. Various other studies prove that diversity at managerial level brings not only a financial advantage, but that significant improvement is also observed in each of the ESG areas. However, for the participation of women on boards to have a strong impact on higher ESG standards, they must constitute at least 30% of the board. 140 companies surveyed for this

study had on average one or two women on the management and supervisory boards out of eleven seats. This is not enough, because a single woman on the board speaks less often and is prone to adopting the male perspective. This problem applies to studies that show a positive impact of women's participation on the company's environmental activities, but this phenomenon can only be observed when the board consists of at least two women. While the results of this report clearly show that there is still much to do, it is even more important to carry out more research, raise this topic and provide the arguments for a change. I hope that through joint action we will get to a situation where gender equality will be a fact, and arguments will not be needed at all.



This report supports Gender Equality



02 APPROACH TO THE ANALYSIS OF COMPANIES' BOARDS

02 APPROACH TO THE ANALYSIS OF COMPANIES' BOARDS

The research was conducted on 140 companies listed on the Warsaw Stock Exchange (WSE), which at the end of 2019 comprised a part of one of the three indices: WIG20, mWIG40 and sWIG80. The analysis was carried out in the period from 2010 to 2019. For each of the companies, publicly available data was collected on: the composition of management and supervisory boards at the end of individual years, financial results and key balance sheet items, and changes in share prices. The data was taken from financial statements and prospectuses, information contained in the National Court Register (Krajowy Rejestr Sądowy), as well as the Bloomberg Terminal and publicly available information on the share prices of the surveyed companies.

The Commercial Companies Code sets out the division of power for listed companies. Shareholders of companies, at general meetings, elect the supervisory board which, in turn, appoints the management board on their behalf. Only a few companies listed on WSE introduce provisions stipulating that the management board may be elected directly by the general meeting of shareholders. The management board conducts the day-to-day business affairs of the company on behalf of the shareholders and the supervisory board supervises the activities of the management board. Among the companies surveyed, especially foreign ones, there are firms which are governed by a board of directors, elected by the shareholders. In this case, executive and non-executive directors work together so for the purposes of the analysis, executive directors were assumed to be the management board, and non-executive directors to be the supervisory board. Thus, when examining the gender diversity of a company's governing authorities, the management board and the

supervisory board were analysed jointly. This approach made it possible to compare the results of the analysis on a group of Polish companies with the results of prior international research.

For the purposes of the analysis, two groups of companies have been distinguished:

- diversified companies, i.e. 50 companies with the highest share of women on boards,
- non-diversified companies, i.e. 50 companies with the lowest share of women on boards.

Historical data, and in particular data on share price developments and financial results, were not available for all companies. Some of the companies had a history of stock exchange listing that was shorter than ten years. Therefore, the analysis of the impact of diversity on boards on the companies' efficiency, market valuation and risk was carried out in the years 2015-2019. This scope of the study offered

comparability to other international analysis and it guaranteed a fuller financial and stock data string. It also allowed sector, geopolitical and market factors to be included, and made it possible to take into account their impact on the financial results and the share price. At the same time, this horizon coincided with the period which is the maximum term of office of the management and supervisory board under the Commercial Companies Code³ in Poland. At the same time, it was also a period when women's share on boards grew after the stagnation of 2010-2014. Thus, it made it possible to reveal the influence exerted by the appointed minority (if there were women on boards) on the financial results.

The aim of the study was to confirm or reject the hypothesis that gender diversity is associated with better financial performance, lower risk and higher market valuation. The aim of the study was not to look for and explain potential reasons behind it, but only to statistically verify the hypothesis on the occurrence of such differences. The report did not consider other types of board diversity such as race, ethnicity and nationality.



03

**WOMEN A
MINORITY ON
BOARDS OF POLISH
COMPANIES**

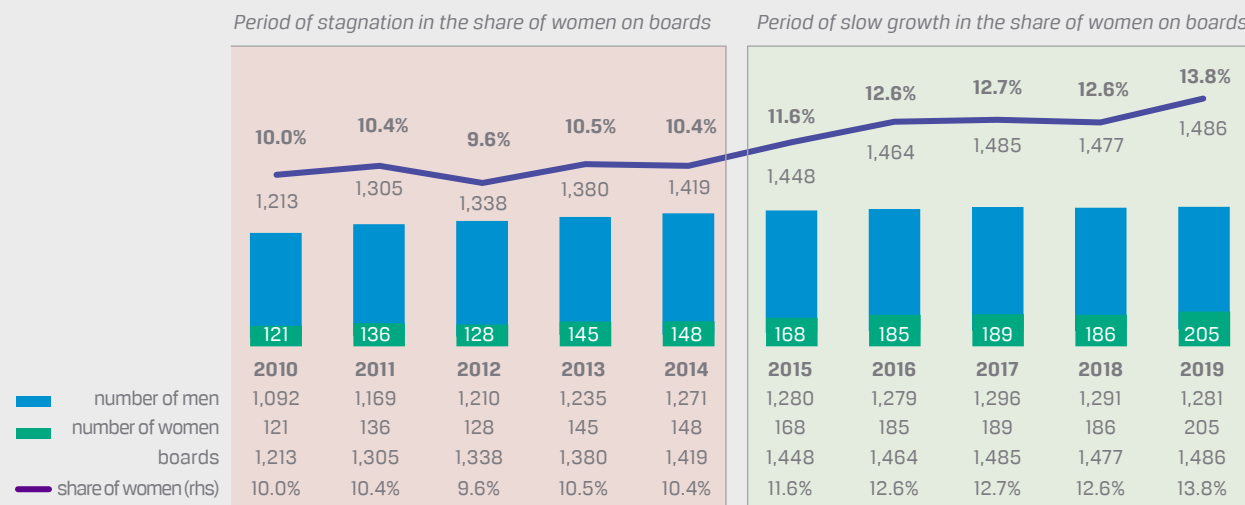


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03 WOMEN A MINORITY ON BOARDS OF POLISH COMPANIES

At the end of 2019, the share of women on boards of the 140 listed companies amounted to 13.8%. Historical data show an improvement by 3.8 pp. from 10.0% in 2010. This progress was not, however, linear - the share of women on the boards of the analysed companies did not increase in all years, but there was a marked acceleration that took place in the years 2015-2019.

Chart 1. Total composition and share of women on boards of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

The analysis of data broken down into management and supervisory boards showed that during the ten-year period of the study, the share of women was higher on supervisory boards than on management boards. The share of women on the management boards of the analysed companies at the end of 2019 amounted to 11.1%. It increased by 2.4 pp over ten years, from the level of 8.7% in 2010. In the case of

supervisory boards, there was an improvement of 4.7 pp. from 10.8% to 15.5%. It should be noted that the study uses the number of positions and not the number of people, as one person may sit in the governing bodies of more than one company. This is the case with the professional members of supervisory boards.

Table 1. Total composition and share of women on the management and supervisory boards of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019.

MANAGEMENT BOARDS										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WOMEN	41	45	40	47	52	55	62	69	67	64
MEN	432	474	474	495	502	507	511	520	508	512
TOTAL	473	519	514	542	554	562	573	589	575	576
%WOMEN	8.7%	8.7%	7.8%	8.7%	9.4%	9.8%	10.8%	11.7%	11.7%	11.1%

SUPERVISORY BOARDS										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WOMEN	80	91	88	98	96	113	123	120	119	141
MEN	660	695	736	740	769	773	768	776	783	769
TOTAL	740	786	824	838	865	886	891	896	902	910
%WOMEN	10.8%	11.6%	10.7%	11.7%	11.1%	12.8%	13.8%	13.4%	13.2%	15.5%

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

Table 2. Average number of people on the boards of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MANAGEMENT BOARD	3.8	3.9	3.7	3.9	4.0	4.0	4.1	4.2	4.1	4.1
SUPERVISORY BOARD	5.9	5.9	6.0	6.0	6.2	6.4	6.4	6.4	6.4	6.5
TOTAL	9.7	9.8	9.7	9.9	10.2	10.4	10.5	10.6	10.6	10.6

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register. Data adjusted for the number of observations.

Over the analysed decade, the number of people in governing bodies in the 140 companies sampled increased by over 20%, i.e. 273 new positions were created, of which 103 on management boards and 170 on supervisory boards. Most of the new posts were filled by male persons (approx. 69%), and this was more pronounced in the case of management boards, where there were almost four new male board members for each new female board member.

It is worth emphasizing that the appointment of a woman to a board did not have to entail the loss of a position by the man, but could have rather meant an increase in the number of available seats on the company's board. The average number of people on boards increased by approximately one between 2010 and 2019, with a greater increase in the available positions on supervisory boards.

The analysis shows that a female representative could more often be found on supervisory boards than on management boards. This is a significant distinction, as the importance of management boards in decision making is significantly greater in Polish law than that of supervisory boards. Being elected to a management board requires greater time commitment and greater responsibility and is associated with more attractive remuneration.



DESPITE EQUALITY AND THE RIGHT TO PERFORM A FUNCTION GUARANTEED IN THE LEGAL SYSTEM, WOMEN WERE A MINORITY ON BOARDS DURING THE ANALYSED DECADE.

Anna Golec



04

**WIG20 AS THE MOST
DIVERSE INDEX IN
TERMS OF GENDER
PARTICIPATION**



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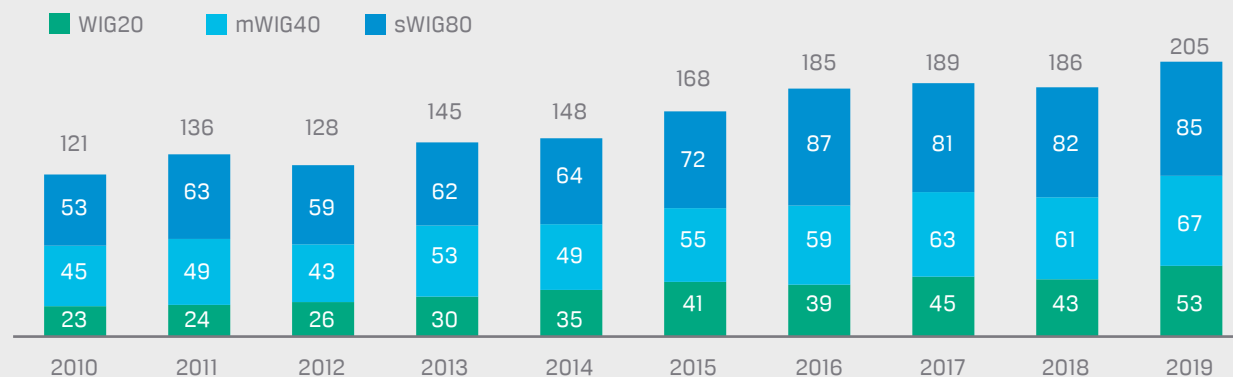
04 WIG20 AS THE MOST DIVERSE INDEX IN TERMS OF GENDER PARTICIPATION

Interesting conclusions were drawn from the analysis of the differences in the gender distribution on the boards of the companies included in the WIG20, mWIG40 and sWIG80 indices.

The WIG20 index is calculated as the value of the portfolio of shares of the twenty largest and most liquid companies on the WSE Main Market, and cannot include more than five companies from one sector. The mWIG40 index includes the subsequent forty largest companies - in terms of size - listed

on the WSE Main Market, while WIG20 companies are not included due to their inclusion in the aforementioned index. The composition of the sWIG80 index includes the next eighty companies ranked by size, but does not include companies from the WIG20 or mWIG40 indices for the same reason.

Chart 2. Number of positions on boards filled by women in companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

Table 3. Total composition and share of women on boards of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019.

WIG20	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NUMBER OF WOMEN	23	24	26	30	35	41	39	45	43	53
NUMBER OF PEOPLE	238	242	243	260	272	283	291	283	294	293
%WOMEN	9.7%	9.9%	10.7%	11.5%	12.9%	14.5%	13.4%	15.9%	14.6%	18.1%

mWIG40	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NUMBER OF WOMEN	45	49	43	53	49	55	59	63	61	67
NUMBER OF PEOPLE	400	405	418	436	441	445	465	472	462	467
%WOMEN	11.3%	12.1%	10.3%	12.2%	11.1%	12.4%	12.7%	13.3%	13.2%	14.3%

sWIG80	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NUMBER OF WOMEN	53	63	59	62	64	72	87	81	82	85
NUMBER OF PEOPLE	575	658	677	684	706	720	708	730	721	726
%WOMEN	9.2%	9.6%	8.7%	9.1%	9.1%	10.0%	12.3%	11.1%	11.4%	11.7%

TOTAL	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NUMBER OF WOMEN	121	136	128	145	148	168	185	189	186	205
NUMBER OF PEOPLE	1,213	1,305	1,338	1,380	1,419	1,448	1,464	1,485	1,477	1,486
%WOMAN	10.0%	10.4%	9.6%	10.5%	10.4%	11.6%	12.6%	12.7%	12.6%	13.8%

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register. Data adjusted for the number of observations.

The WIG20 companies had the most diversified boards in terms of gender, and the sWIG80 companies were the least diversified, placing the mWIG40 companies in the middle. Over the past decade, the largest companies from the Warsaw Stock Exchange (WIG20) recorded the most dynamic increase in gender diversity in the board structures of the analysed indices, almost doubling the share of women on boards from 9.7% to 18.1%. Among the medium sized companies from the mWIG40 and the smallest analysed companies from the sWIG80, the growth dynamics were more similar to each other than to the WIG20, although it is important to note that both groups started with different levels of gender diversification. In the case of companies from the mWIG40, the share of women on boards increased from 11.3% to 14.3% (i.e. by 3.1 pp.), and for companies included in the sWIG80 from 9.2% to 11.7% (i.e. by 2.5 pp.).

It is worth noting the difference in the average composition of boards between different indices. The data shows that the larger the company, the greater the number of people on its governing its bodies. Throughout the analysed period, the boards of the WIG20 companies were larger than those of the mWIG40 and sWIG80 companies. On average, there were 14.7 seats on the boards of the WIG20 companies at the end of 2019, compared to 11.7 for the mWIG40 and 9.1 for the sWIG80. For each of the indices, the number of seats on management boards in the analysed period was smaller than that of supervisory boards. In 2019, the management boards of the WIG20 companies consisted of an average of 6.3 seats and supervisory boards of 8.4 seats, while for the mWIG40 index this number did not exceed 5 for the management board and was lower than 7 for supervisory boards, while for the sWIG80 it was slightly more than 3 for management and less than 6 for supervisory.

Table 4. Average composition of boards broken down into management and supervisory boards of companies included in the WIG20, mWIG40 and sWIG80 at the end of 2019 in the years 2010-2019.

MANAGEMENT BOARDS	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WIG20	4.8	5.2	5.2	5.3	5.3	5.5	5.9	5.9	6.2	6.3
mWIG40	4.4	4.4	4.2	4.5	4.6	4.6	5.0	5.0	4.9	4.8
sWIG80	3.2	3.3	3.1	3.3	3.3	3.4	3.3	3.4	3.2	3.2
AVERAGECOMPOSITION	3.8	3.9	3.7	3.9	4.0	4.0	4.1	4.2	4.1	4.1

SUPERVISORY BOARDS	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WIG20	7.7	7.6	7.6	7.8	8.3	8.7	8.7	8.3	8.6	8.4
mWIG40	6.7	6.2	6.3	6.4	6.4	6.5	6.7	6.9	6.7	6.9
sWIG80	5.0	5.3	5.4	5.4	5.6	5.7	5.7	5.7	5.8	5.9
AVERAGECOMPOSITION	5.9	5.9	6.0	6.0	6.2	6.4	6.4	6.4	6.4	6.5

BOARDS	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WIG20	12.5	12.7	12.8	13.0	13.6	14.2	14.6	14.2	14.7	14.7
mWIG40	11.1	10.7	10.5	10.9	11.0	11.1	11.6	11.8	11.6	11.7
sWIG80	8.2	8.7	8.6	8.7	8.9	9.1	9.0	9.1	9.0	9.1
AVERAGECOMPOSITION	9.7	9.8	9.7	9.9	10.2	10.4	10.5	10.6	10.6	10.6

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register. Data adjusted for the number of observations.

W



THE ANALYSED DATA
SHOWED THE POTENTIAL
FOR IMPROVEMENT AMONG
COMPANIES FROM THE
MWIG40 AND SWIG80
INDICES.

Kinga Regulska-Hofses



ANN CAIRNS, EXECUTIVE VICE CHAIR OF MASTERCARD, 30% CLUB GLOBAL CHAIR

As the global Chair of the 30% Club, I would like to applaud Milena Olszewska-Miszuris and Aleksandra Włodarczyk, our partners in Poland, and the CFA Society Poland, for producing this important report.

While the findings reveal that Poland has struggled to push significant numbers of women through the corporate pipeline that leads to the boardroom, there is now great opportunity to bring about change.

When the 30% Club was founded in the UK in 2010, gender diversity in British boardrooms was at a similar level to where Poland is today. Across the FTSE 350, boards had only 9.5% female directors. Today that has grown to 33%, a remarkable change in a decade.

This improvement was largely achieved by engaging with Chairmen and CEOs who believed in the business case for better gender balance and convincing their peers to do likewise. They were able to lean on an abundance of research proving that company performance is improved by gender diversity on boards.

The support of the British government was also key to bringing about change. When business and government come together to improve outcomes for their people, potential can be realised - not just for women but the nation as a whole.

I look forward to watching Poland's progress in gender diversity at the top of corporate life in the coming months and years.



ANDRZEJ POŚNIAK, MANAGING PARTNER AT CMS POLAND

Respecting diversity holds a top spot on the list of CMS's core values. For us, one important aspect of diversity is the presence of women in business at all levels of the organisation, including in top management positions. I am proud that in our firm 8 out of the 25 partners are women. What is more, women lead half of our six main practices. They also make up half of the four members of Poland's management team. The same can be said

about CMS outside Poland: women are regional leaders in CEE and Asia. The CMS Senior Partner in London who runs our firm is also a woman. I realise, however, that the reality is different in some sectors of the economy, and that is why we strongly support initiatives that can contribute to changing this. Women can do a great job in management positions, performing at least as well as men, if not indeed sometimes even better.



05

**FEW COMPANIES
WITH HIGH SHARE
OF WOMEN ON
BOARDS**



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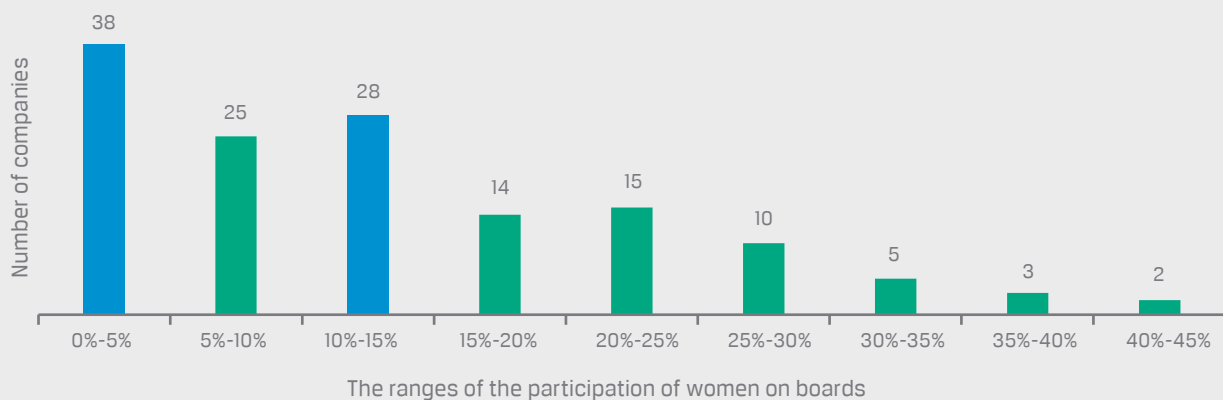
05 FEW COMPANIES WITH HIGH SHARE OF WOMEN ON BOARDS

The average share of women on boards broken down by indices does not fully reflect the characteristics of the distribution of gender diversity in the governing bodies of the analysed companies.

In 2019, the lowest result achieved in the studied group was the total lack of women on boards, whilst the highest share of women was 44%. None of the surveyed companies achieved 50%. The median share of women on boards of the 140 listed companies was 11.1%, i.e. the share of women in the governing bodies of half of the surveyed companies did not exceed this

value. The distribution of the share of women on boards is therefore asymmetric, with a clear dominance of the lower ranges of values, which means that the studied sample was dominated by companies with a lower than average level of gender diversification.

Chart 3. Distribution of the share of women on boards for companies that were included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019. The histogram with right-closed intervals.



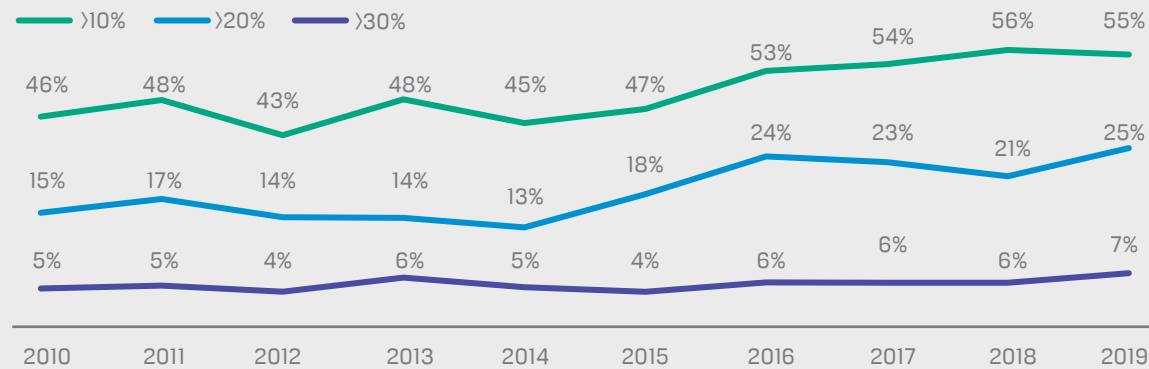
Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

Over a quarter of the analysed companies did not have any women on boards in 2019, and this was also the group with the largest representation in the study. The next most common result was the participation of women ranging from 10% to 15%, followed closely by the share of women ranging from 5% to 10%. Only ten companies (7%) achieved a share of women on boards higher than 30%, and only two companies had over 40%. Not only was the number of companies with homogeneous governing bodies high, but what is more also the percentage of companies which could be considered diversified was very low.

For a further analysis, it was necessary to define what could be considered to be low or high gender diversity on boards. For the sake of objectivity, this report defined a low gender diversity to be the complete absence of any female representation on management and supervisory boards. Specifying a high share of women - other than, say, the 50% required for parity - might be perceived as arbitrary. Therefore, the report refers to research in the field of sociology and politics, which for years has been trying to determine the level

of minority representation in the group needed to actually make changes and have a significant impact on the decision-making process. Rosabeth Moss Kanter⁴ developed the critical mass theory, later extended by Drude Dahlerup⁵. Kanter observed that with a small minority participation, its impact on team work remains small. The entire group and its work culture are fully dominated by the majority, and the minority is reduced to symbolic representation of its social category and is not treated as an equal part of the team. Only with an increase of the minority share does its influence become more important. Further research on the theory of critical mass⁶, by both sociologists, political scientists and economists, defined this critical threshold at the level of 30% and recognised it as a sufficient proportion in the group, at which a large minority can make a difference while still remaining a minority. Guided by this theory, it can be concluded that in order to achieve the greatest benefits of gender diversity, a significant dominance of either gender is not advisable. Although an equal distribution of seats is not required, it is important that each gender represent at least 30% of the board.

Chart 4. Percentage of listed companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019, with the share of women on management and supervisory boards exceeding 10%, 20% and 30% in the years 2010-2019.



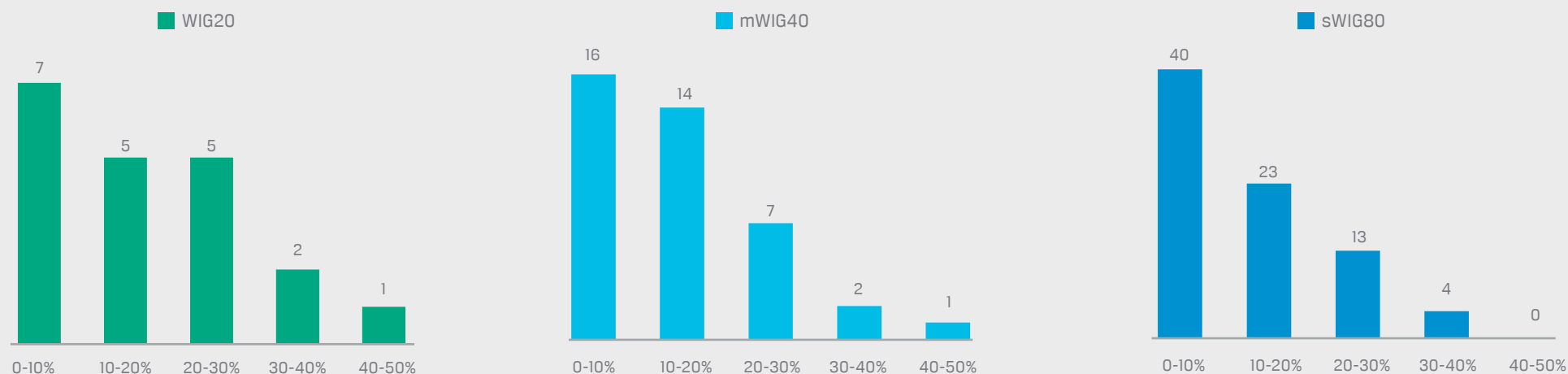
Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register. Data adjusted for the number of observations.

The percentage of companies where the representation of women on boards reached at least 10% has regularly increased. In 2010, this criterion was met by 46% of the analysed companies. Within ten years, the share of these companies in the sample exceeded half and amounted to 55%. The situation has also improved over the decade for the 20% threshold of

female representation. In 2010, only 15% of companies exceeded this level, but this share increased to 25% in 2019. There is no improvement in the key level of 30%. In 2019, only 7% of companies included in the WIG20, mWIG40 and sWIG80 indices appointed at least 30% of women to boards. The situation essentially did not change during the whole research period, as

in 2010 there were 5% of such companies. The lack of changes over the decade raises the question of whether it is possible to increase the share of women and, hence, gender diversity, on boards above this level without some additional impulse.

Chart 5. Distribution of the share of women on boards for companies that were included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019. The histogram with right-closed intervals.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

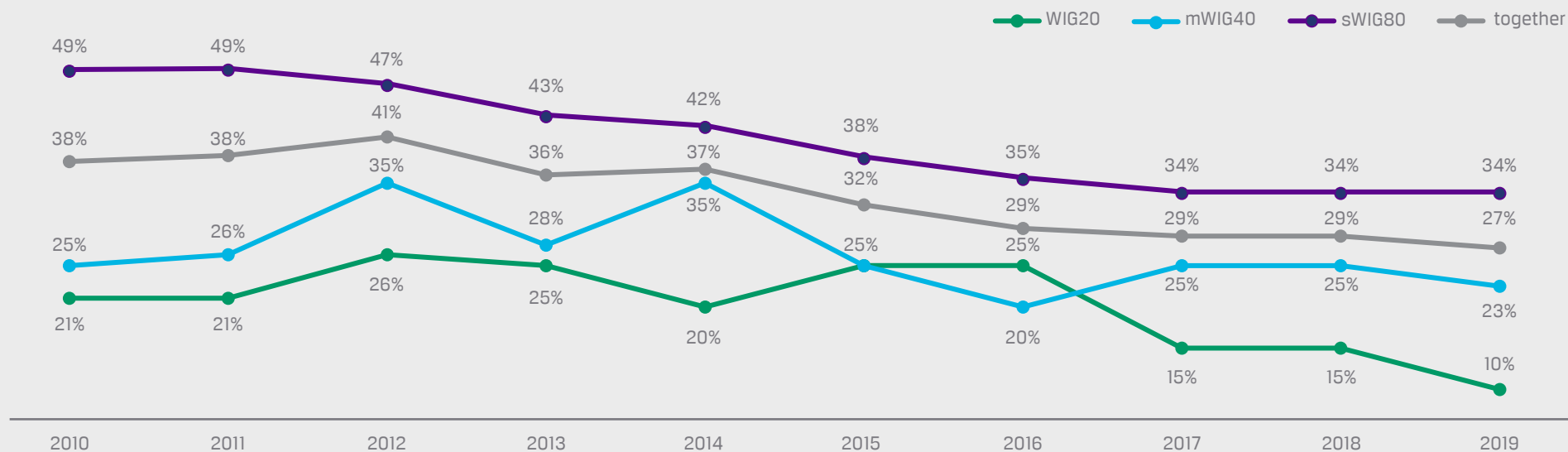
The distribution of the share of women on boards is more favourable for companies from the WIG20 index than for the mWIG40 and sWIG80 indices. In 2019, among the twenty largest listed companies in the WIG20 index, only two had no women on their boards (i.e. there was no female representation either on the management board or on the supervisory board), and three had over 30% women in their governing bodies. A comparison of the histograms from the end of 2019 for the three analysed indices of the Warsaw Stock Exchange suggests that the smaller a listed company, the greater the probability that the percentage of female participation on boards will not exceed

10%. In the case of the sWIG80 index, as many as half of the companies qualified for this category, and 27 firms did not have any female representation on the supervisory or management board, so boards were represented by only one gender. Among the mWIG40 companies, on average one in four (22.5%) had all-male boards, while only three companies (7.5%) met the criterion of 30% of women.

Over the past ten years, the representation of women on the boards of the 140 companies listed on WSE has slowly increased, while the share of companies employing no woman

on boards has analogically decreased from 38% in 2010 to 27% in 2019. As in the case of other parameters, the WIG20 index was the leader, where the number of companies with all-male boards decreased to 10% of its composition. For the mWIG40 index, the share of companies without women in governing bodies, despite periodic fluctuations, remained at a similar level and amounted to 23% at the end of 2019, compared to 25% in 2010. The sWIG80 index recorded a significant improvement, reducing the number of companies without the participation of women by 15 pp., but the share of firms in this category both in 2010 (49%) and 2019 (34%) remained higher than for other indices.

Chart 6. Percentage of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 with no woman on boards in the years 2010-2019.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register. Data adjusted for the number of observations.

The median provides a more complete picture of gender diversity of boards among the issuers included in the three analysed indices. In 2019, the median share of women on the management board for companies from the WIG20 amounted to 12%, but in the years 2010-2017 it remained at 0%, while it was 20% for the

supervisory board. For companies included in the mWIG40 index, the median share of women on the management board remained at the level of 0% in each year of the study, while the median share of women on the supervisory board reached 14% in 2019. Statistics on companies from the

sWIG80 index showed even less gender diversity. Here, too, the median share of women on the management board was 0% throughout the entire study period, and the median share of women on the supervisory board increased to 14% only in 2019, after being at 0% in the previous years.

Table 5. Median share of women on boards of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019.

MANAGEMENT BOARD	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WIG20	0%	0%	0%	0%	0%	0%	0%	0%	12%	12%
mWIG40	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
sWIG80	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

SUPERVISORY BOARD	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WIG20	11%	11%	13%	14%	18%	17%	16%	17%	13%	20%
mWIG40	5%	0%	0%	8%	0%	11%	13%	13%	13%	14%
sWIG80	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%

TOTAL	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WIG20	11%	11%	11%	11%	13%	11%	12%	13%	12%	16%
mWIG40	10%	11%	10%	11%	10%	10%	10%	10%	12%	13%
sWIG80	8%	8%	8%	8%	9%	10%	11%	11%	11%	11%

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.



DESPITE GROWING REPRESENTATION OF WOMEN ON BOARDS, EXCEEDING THE 30% THRESHOLD HAS SEEMED TO BE AN INSURMOUNTABLE BARRIER OVER THE LAST DECADE

Małgorzata Żelazko



06

**ENERGY AND FINANCE
AS LEADERS OF
DIVERSITY ON
BOARDS**

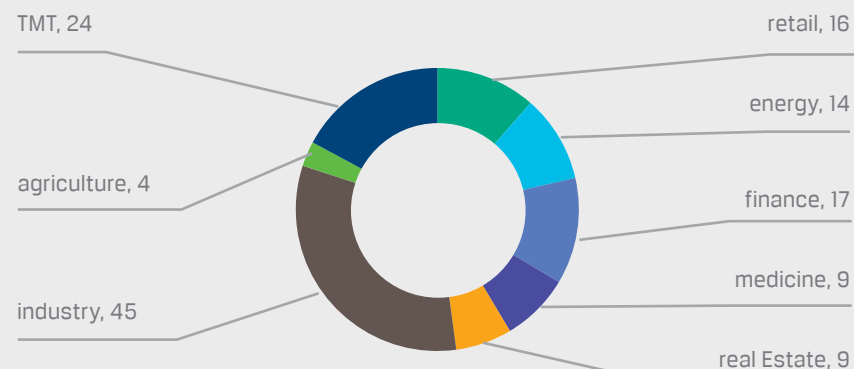


**CFA Society
Poland**

06 ENERGY AND FINANCE AS LEADERS OF DIVERSITY ON BOARDS

The analysed companies were classified into eight sectors: retail, energy, finance, medicine, real estate, industry, agriculture, and technology, media and television (TMT). The allocation to individual sectors was done not only by business model, but also by key factors which influence the revenues and costs, as well as the share price of a given company. As a result, the size of each group varied - industry was the most strongly represented (45 companies), and agriculture was the least numerous (4 companies).

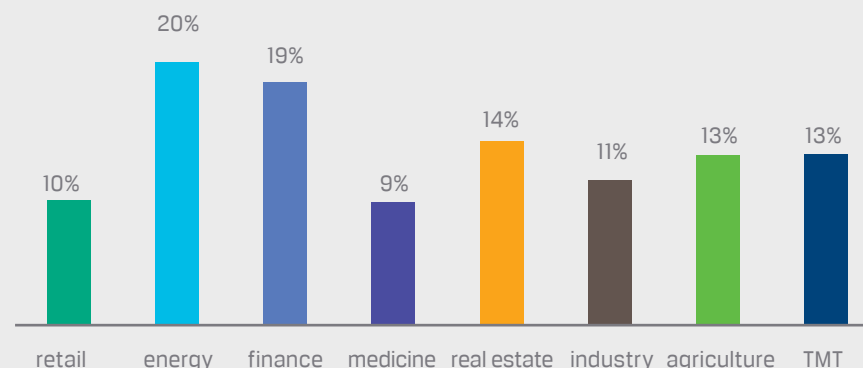
Chart 7: Companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 by sector.



Source: Authors' study.

In 2019, the medicine and retail sectors recorded the lowest representation of women on boards at 9.5% and 9.6%, respectively. The most gender diverse were the boards of companies in the finance and energy sectors, where the share of women was at 20.2% and 18.7%, respectively. It is worth adding that the last decade has been extremely unfavourable for these two sectors. As a result, even for companies with well diversified boards in terms of gender, these adverse conditions may have turned out to be the predominant factor for their financial results.

Chart 8: Share of women on the boards of the companies included in the WIG20, mWIG40 and sWIG80 at the end of 2019 by sectors.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

In the years 2010-2019 the number of positions on boards filled by women increased in each sector. The percentage of women on boards, however, has increased in all sectors, except for agriculture. The biggest increase was recorded in the real estate sector, where the share of women doubled over the decade from 7% to 14%. A significant increase in the percentage of women on boards was also noticeable in the energy and finance sectors. The energy sector, thanks to an increase from 11.5% to 20.2%, took the lead in terms of gender diversity on boards. By contrast, agriculture, which at the beginning of the decade was the leader in female employment in governing bodies at 15.4%, recorded a decrease to 13% over ten years.

Table 6. Average percentage of women on boards of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019 in the years 2010-2019 by sector.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
RETAIL	7.5%	9.0%	5.9%	5.9%	6.3%	7.9%	7.6%	10.6%	9.6%	9.6%
ENERGY	11.5%	13.4%	14.0%	13.5%	12.5%	13.2%	14.5%	15.5%	16.6%	20.2%
FINANCE	12.1%	11.0%	10.0%	12.6%	13.3%	15.3%	14.7%	16.9%	16.1%	18.7%
MEDICINE	8.5%	8.6%	9.1%	11.5%	11.0%	9.3%	11.8%	11.1%	12.8%	9.5%
REAL ESTATE	7.1%	7.3%	8.5%	8.4%	10.3%	12.2%	15.4%	11.7%	10.9%	14.1%
INDUSTRY	10.0%	10.0%	8.7%	9.8%	8.5%	9.5%	11.5%	10.6%	10.0%	11.2%
AGRICULTURE	15.4%	10.0%	9.1%	13.6%	14.3%	13.6%	9.1%	13.6%	13.6%	13.0%
TMT	9.3%	11.1%	10.1%	10.4%	11.6%	13.3%	13.9%	12.7%	13.0%	13.1%
AVERAGE	10.0%	10.4%	9.6%	10.5%	10.4%	11.6%	12.6%	12.7%	12.6%	13.8%

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register. Data adjusted for the number of observations.



THE BOARDS OF COMPANIES FROM THE FINANCE AND ENERGY SECTORS WERE THE MOST DIVERSE IN TERMS OF GENDER

Anett Szentesi



KRZYSZTOF WALENCZAK, CEO SOCIÉTÉ GÉNÉRALE BRANCH IN POLAND

Although in recent years we have seen an increase in the importance of women in business and on decision-making bodies in Polish firms, it is still insufficient. In terms of the board diversity of listed companies, Poland remains below the EU average and it is still one of the countries with the weakest dynamics of change. It seems that many years of soft recommendations are not enough to increase the share of women on boards. Therefore, it is worth considering the introduction of mandatory quotas, although the top priority in equalising opportunities for women should be a better-quality recruitment processes, a transparent career path and transparent promotion procedures.

The Societe Generale Group employs 138,000 people in more than 60 countries worldwide, representing 136 different nationalities. This diversity is our great strength. For many years now, we have been working to promote greater gender balance, the internationalisation of key positions, and the integration of people with disabilities, thus preventing all kinds of exclusions.

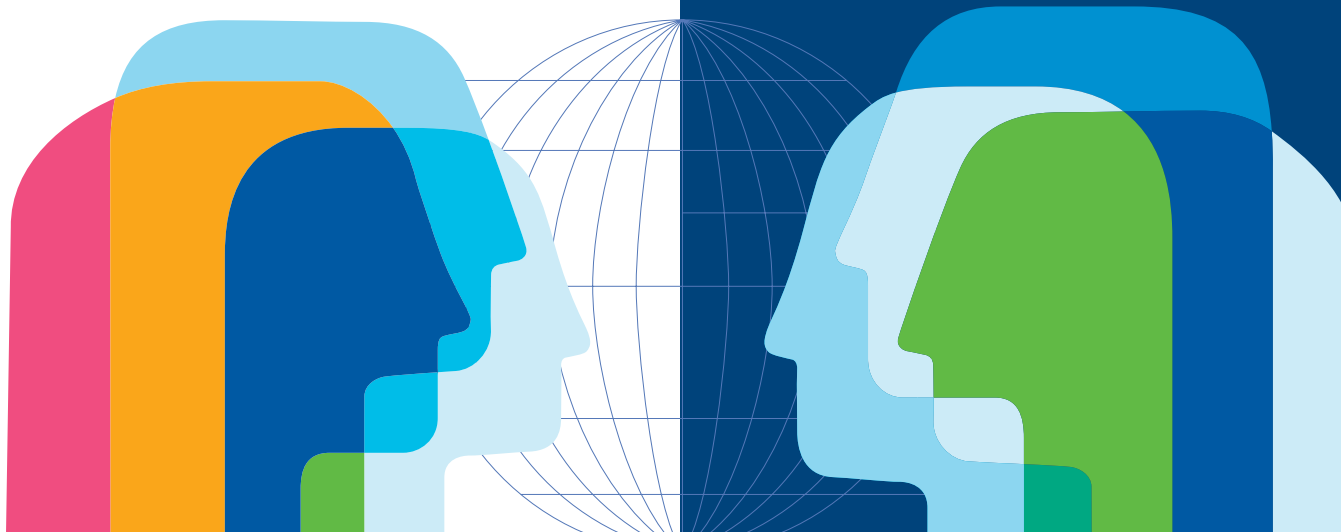
I believe that this report will make us aware of how much more there is still to be done in the field of equal opportunities for women and men and will encourage us to work together more effectively.



MAGDALENA KOŁODZIEJCZYK, CEO M+G

There is an increased investors' focus on a broad range of ESG elements, including diversity. COVID-19 pandemic has highlighted the importance of social issues, including labour standards, human rights, employee engagement and diversity in the

management team during a crisis. Research, such as this one, has showed that ESG – still considered by many companies as an element of marketing – can increase both the company's competitiveness and resilience.





07

THE SHARE OF WOMEN ON BOARDS AND PERFORMANCE OF COMPANIES



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07 THE SHARE OF WOMEN ON BOARDS AND PERFORMANCE OF COMPANIES

The next step of the research was to determine whether the current status quo is favourable for companies. Are all-male boards able to achieve better results or is the situation quite the opposite? Is there a relationship between diversity on boards on the one hand, and performance and risk of companies on the other? In today's complex world, where Polish companies are expanding their business internationally, selling goods and providing services to various groups of consumers, is there room for boards composed of only or mostly representatives of one gender? Could diversity on boards be related to generating value for capital providers?

A) INTERNATIONAL RESEARCH ON GENDER DIVERSITY ON BOARDS

Research conducted by international consulting firms on companies from around the world shows a positive correlation between greater diversity on boards (in particular, higher participation of women) and their better financial results and lower risk. In 2019, Credit Suisse published a study⁷ conducted on 3,100 companies from 56 countries, including a total of 30,000 people in senior management positions. The analysis showed that companies which employed more than 20% of women in key managerial positions performed better than companies in which female participation was less than 15%. Companies with a higher diversity ratio had an EBITDA margin higher by 2 percentage points, a net debt/EBITDA ratio lower by 6% and a P/E ratio higher by 16%.

A similar survey was also conducted by the consulting company McKinsey & Co on a sample of 1,039 companies from 15 countries. The 2020 report "Diversity Wins. How inclusion matters."⁸ showed that the performance penalty

due to the lack of diversity on boards has grown over the past few years. Companies in the fourth quartile in terms of gender diversity in executive positions are 19% more likely to underperform on profitability than companies in the other three quartiles. In 2017, this probability amounted to 15%, and in 2015, 9%.

Following the previously published international reports, the latest research was aimed at checking whether a higher share of women on management and supervisory boards influenced the performance and risk of the largest listed companies in Poland. During the analysis, the following hypothesis was formulated: Polish listed companies with a higher share of women on boards show better financial results and are characterised by lower risk than companies with less gender diversified management and supervisory boards.

B) STUDY WITHOUT SECTOR ADJUSTMENT

The study analysed key financial indicators and risk measures for 140 Polish listed companies, which were divided into three groups of similar size, taking into account the average share of women on management and supervisory boards in the years 2015-2019. The group of least gender-diversified companies, which included 50 companies with the lowest participation of women in the governing bodies, showed an average share of women on boards of only 2.8%, ranging from 0% to 8.3%. This group was compared against a category of the most gender diversified companies, i.e. 50 firms with the highest share of women in the governing bodies, which ranged from 15% to 35.3%, with an average share of 22.5%. A group of 40 companies was left between them to avoid a situation where firms on the borderline of both groups would have very similar characteristics regarding the participation of women. These companies were therefore a buffer between the diversified and non-diversified groups and were not taken into account.

The above approach made it possible to form groups that differed from each other, which was the basis for the statistical analysis of the differences between them. Due to the significant skew of the distribution, the method of dividing the studied groups into ranges between 0% and 10%, 10% and 20%, 20% and 30% and more, often used in other studies, could not be applied. On average, in the analysed five years, as

many as 65 companies had less than a 10% share of women on their boards, and only 6 companies were included in the range of 30% or more. Such a significant difference in the number of observations between the groups would not provide an adequate basis for an analysis.

For the selected groups, the differences in the average levels of the most popular financial indicators were analysed. Then the issue was examined of whether they are statistically significant at a given level of significance ($p = 0.05$). The five-year observation period made it possible to limit the impact of short-term fluctuations and shifts in time between some items in the financial statements.

Table 7: Average level of selected financial indicators for groups of diversified (D) and non-diversified (N) companies in the years 2015-2019.

	P/E	P/BV	DIVIDEND PAYOUT RATIO	DIVIDEND YIELD	NET PROFIT MARGIN	ROE	ANNUAL CHANGE IN REVENUES	ANNUAL CHANGE IN NET INCOME	DAILY VOLATILITY OF SHARE PRICE (STANDARD DEVIATION)	ANNUAL CHANGE IN AVERAGE SHARE PRICE	TOTAL SHAREHOLDER RETURN
NUMBER OF OBSERVATIONS (D)	212	244	242	244	244	249	241	202	244	236	236
NUMBER OF OBSERVATIONS (N)	196	235	246	240	240	249	245	196	240	236	236
DIVERSIFIED COMPANIES (D)	23.26	2.24	0.35	0.0224	0.153	0.04	0.12	0.43	0.0218	0.01	0.04
NON-DIVERSIFIED COMPANIES (N)	20.37	3.31	0.35	0.0352	0.055	-0.06	0.12	0.46	0.0241	0.00	0.04
DIFFERENCE (D-N)	2.88	-1.07	0.00	-0.0128	0.098	0.10	0.00	-0.03	-0.0024	0.01	0.00
PERCENTAGE DIFFERENCE	12.4%	-47.5%	-0.2%	-57.3%	63.9%	230.6%	-3.3%	-7.7%	-10.9%	66.8%	-9.1%
P-VALUE* (0,05)	0.49	0.27	0.99	0.016	0.02	0.33	0.90	0.91	0.0064	0.72	0.90

* The t-test was chosen to verify the statistical significance of differences in arithmetic means between two groups of companies.

Source: Authors' study based on financial statements, prospectuses and publicly available share price data.

MARKET RATIOS:

Companies with diversified boards had higher P/E (price to earnings) by 2.9x (12.4%) and lower P/BV (price to book value) by 1.1x (47.5%). The results are therefore divergent. They indicate that companies with a higher share of women in governing bodies were valued more favourably by the capital market on the P/E ratio, i.e. investors were ready to pay more for the same unit of net profit generated by the company. At the same time, the P/BV ratio showed an inverse relationship, i.e. the market paid less per unit of equity of diversified companies. The results are, therefore, inconclusive and could have been influenced by the sector in which the companies operated, the stage of development or the method of expansion (e.g. more focus on acquisitions than on organic growth). At a level of 0.05, none of the results were statistically significant. Therefore, it cannot be concluded that the two groups differed in terms of the average level of price ratios.

DIVIDEND RATIOS:

The dividend payout ratio (percentage of net profit paid out as dividends, excluding share buyback) for diversified companies was practically the same as for non-diversified companies. At the same time, the dividend yield (dividend as a percentage of the share price) was 1.3 pp. lower for diversified companies than for non-diversified companies. It can be concluded that the lower dividend yield is not the result of a lower dividend payout, because the dividend payout ratio is the same, but the result of the higher share price (i.e. better market valuation) of such companies. This is consistent with the higher average P/E ratio for diversified companies described above (but not P/BV). The calculated values of the statistics show that the difference in the dividend yield was statistically significant but the difference in dividend payout ratio was not.

PROFITABILITY RATIOS:

In order to be able to compare profitability between financial and non-financial companies, two ratios were used: net profit margin (net profit divided by revenues) and ROE (return on equity, i.e. net profit divided by equity). The average net profit margin of the diversified companies was 10 pp. higher than for non-diversified companies. This

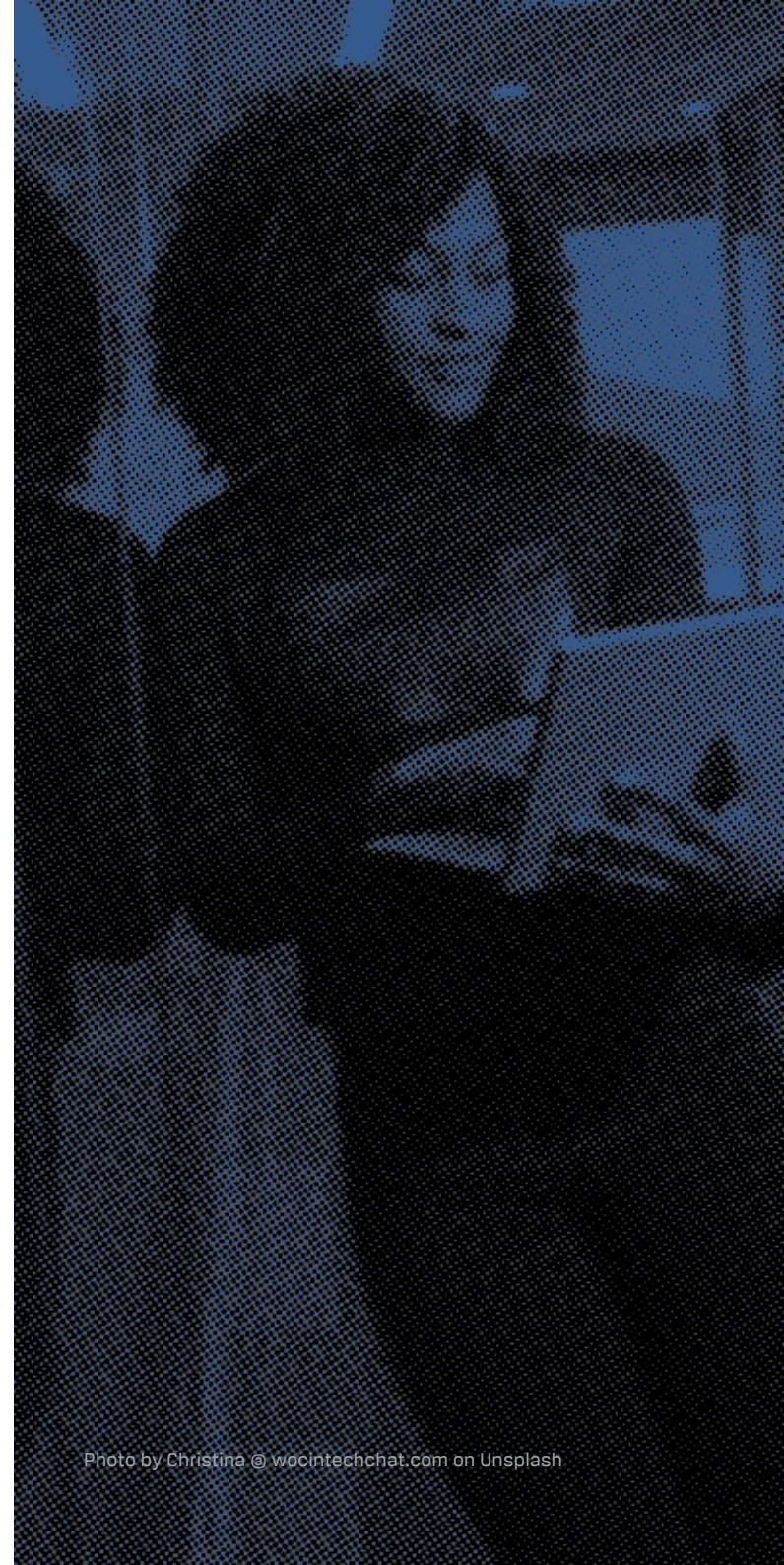
difference was statistically significant even at $p = 0.02$. The average ROE of diversified companies was 10 pp. higher than for non-diversified companies and - interestingly - diversified companies were characterised by a positive average value of this ratio (and non-diversified companies by a negative value). However, the difference was not statistically significant at the level of $p = 0.05$. The difference in signs between the net profit margin (positive) and the return on equity (negative) of non-diversified companies resulted from the scale of the dispersion between observations. Non-diversified companies were characterised by significant differences between the net profit margin, while the differences were smaller in the case of the return on equity. In addition, in the non-diversified group there were companies with almost zero revenues from sales and positive equity. For mathematical reasons, the net profit margin could not be calculated for more observations than was the case for ROE.

DYNAMICS:

Another analysed group of indicators was the annual percentage change in revenues and the annual percentage change in net profit. The annual percentage change in revenues of diversified companies was similar to that of non-diversified companies. The second tested ratio was calculated for a smaller number of observations due to mathematical limitations and the limited possibility of interpreting the indicator. In this case, the diversified companies had a 0.3 pp. lower annual change in net profit. Neither of these differences turned out to be statistically significant, so it can be assumed that the two groups did not differ in this respect.

RISK INDICATORS:

Risk indicators have been linked to share prices. The first one was the daily volatility of the share price (the standard deviation of the daily changes in the share price). The greater the daily volatility, the greater the fluctuation in the price of a company's stock, which may stem from a variety of factors, including investor expectations or uncertainty about the company's strategy, or investors' misunderstanding of the strategy. Diversified companies were characterised by a lower daily volatility of share price by 0.24pp, as compared to non-diversified companies. Although the difference seems



to be small, it accounted for 11% of the average standard deviation of daily changes in the share prices of diversified companies and was statistically significant. In the case of the annual change in the average share price, this difference turned out to be statistically insignificant. The total return for shareholders was also included in the analysis, calculated as the change in the average share price for the year increased by the dividend yield. Buybacks were not included. As this indicator mostly relied on the change in the average share price during the year, the differences between the groups of companies did not turn out to be statistically significant.

C) STUDY WITH SECTOR ADJUSTMENT

A comparison of companies from different sectors over longer time horizon may lead to several distortions. For example, one group could include companies from the sector for which the economic situation was more favourable during the analysed period (e.g. gaming, part of the TMT sector), while the other group could include companies for which the past years were more difficult (e.g. finance, mining and energy). In order to ensure that the observed differences do not result from the individual characteristics of the sectors and the years analysed, the study was re-conducted for values adjusted for the median

of a given sector in a given year. The use of the median for this purpose is justified by the observed extremes. In the case of such a dispersion, the median adjustment is a better method, as companies with extreme financial results affect the whole sector image to a lesser extent. The validity of the correction is confirmed by the medians of the indicators observed in individual years and sectors, which are attached to this report.

As it was easier to interpret the arithmetic mean was still used to examine the differences between the diversified and non-diversified groups in terms of gender. The mean was, therefore, an image of the average group performance against the benchmark determined by sector medians in individual years (level 0).

The results of the data analysis after the sector adjustment turned out to be consistent with the previous analyses in terms of indicators for which statistically significant differences were identified. Therefore, it can be assumed that previously revealed relationships did not result from differences in specific sectors or a favourable economic condition. Although the same indicators were analysed as in the case of the first study (see appendix 2), the table below presents the results of the statistics only for those indicators whose statistical significance was confirmed at $p = 0.05$.

DIVIDEND RATIOS:

After the adjustments, the scale of the difference between diversified and non-diversified companies increased. The difference in the dividend payout ratio remained negative and was lower for diversified companies than for non-diversified companies. This difference was statistically significant.

PROFITABILITY RATIOS:

Diversified companies were characterised by an average net profit margin higher by 6pp. and non-diversified - lower by almost 1pp. than the median in the sector. Thus, the difference between the groups was thus 7pp. in favour of the diversified group. The results showed that the favourable difference between the group of diversified and non-diversified companies was statistically significant.

PRICE CHANGE:

The standard deviations of the daily share price change in both groups turned out to be slightly higher than for the median in the sector. The diversified companies performed better in this respect. The average daily share price volatility of the diversified group exceeded the sector medians by only 0.65 pp, while for non-diversified companies it was as much as 0.94 pp. The difference, which can be considered to be a lower risk perception, was statistically significant.

For all three analysed indicators it can be concluded that gender diversity could have been one of the factors for the observed differences.

Table 8: Results of the analysis of selected indicators for a group of diversified and non-diversified companies after adjustment for the median of a given sector in a given year.

THE AVERAGE OF THE DIFFERENCES BETWEEN THE INDICATORS OF THE COMPANIES AND THE MEDIAN FOR EACH SECTOR IN EACH OF THE FIVE ANALYSED YEARS	DIVIDEND YIELD	NET PROFIT MARGIN	DAILY VOLATILITY OF SHARE PRICE (STANDARD DEVIATION)
Diversified companies (D)	0.0129	0.0623	0.0065
Non-diversified companies (N)	0.0271	-0.0075	0.0094
Difference (D-N)	-0.0142	0.0698	-0.0029
p-value 0.05	0.0072	0.0277	0.0149

Source: Authors' study.



AFTER APPLYING SECTOR ADJUSTMENT, THE STUDY SHOWED STATISTICALLY SIGNIFICANT DIFFERENCES IN THE LEVEL OF THE NET PROFIT MARGIN AND THE STANDARD DEVIATION OF THE DAILY CHANGE IN SHARE PRICE IN FAVOUR OF COMPANIES WITH HIGHER GENDER DIVERSITY ON THEIR BOARDS.

Aleksandra Włodarczyk



08 SUMMARY

08 SUMMARY

Research conducted on the 140 largest Polish listed companies included in WIG20, mWIG40 and sWIG80 indices during the period from 2010 to 2019 showed that women were a minority on management and supervisory boards and their share rarely exceeded the critical 30% threshold, described in the scientific literature⁹ as giving a minority influence on the decision-making process. The share of women in these companies has increased over the past ten years, but progress has been slow - from 10% in 2010 to 13.8% in 2019. The largest companies from the WIG20 index outperformed in terms of gender diversity, while smaller companies from the sWIG80 index underperformed. When analysed by sector breakdown, companies from the financial and energy sectors performed best, while retail and medical companies were lagging behind.

The gender distribution on company boards is clearly asymmetric. The companies with a low percentage of women dominate in the study group. Therefore, the arithmetic mean does not give a full picture as compared to the median, which indicates a zero share of women on the management and supervisory boards for a significant part of the analysed period, in particular for companies included in the mWIG40 and sWIG80 indices. This means that for many years only men sat on the boards of at least half of these companies. However, the number of companies with all-male boards systematically decreased in the studied group. Within ten years, the percentage of companies with all-male management and supervisory boards, and thus no gender diversification, dropped from 38% to 27%.

International research suggests that the benefits of gender diversity on boards have a financial and material aspect, and should therefore be of interest to shareholders, supervisory

boards (in particular, appointment and remuneration committees), management boards, banks, bondholders and other capital providers. This research conducted in Poland showed no advantage of companies with all-male boards, where recruitment is carried out from only half of the talent pool and half of the population. Additionally, a relatively low level in gender diversity (below the recommended 30% threshold) was associated with statistically significant differences in the level of net profit margin and standard deviation of the daily change in share prices.

Given the slow progress achieved so far, the issue of gender diversity on boards deserves a higher priority among investors and other stakeholders. The problem of the lack of representation of one gender on companies' boards seems to be more and more noticeable. In September 2020, CFA Society Poland conducted a comprehensive survey among capital market participants regarding corporate governance in

Poland. 101 respondents answered detailed questions concerning, among others, the composition of management and supervisory boards, their competences, and diversity. 38% of the respondents stated that management and supervisory boards of companies listed on the WSE were not sufficiently diversified in terms of competences and gender. Another 18% stated that neither boards were diversified in terms of gender, but were differentiated in terms of their competences. It seems, therefore, that the lack of diversity on boards is not only empirically demonstrated in this quantitative study, but that it is also a problem which is qualitatively observable by capital market participants. This may be the first step in integrating this criterion into investment decisions. It should also motivate companies themselves to act.

This report is just the beginning and many questions remain unanswered. The group of the 140 largest companies listed on WSE certainly does not give a full picture of the market situation. The analysed period covers a time of economic boom, so the question arises as to whether, in the event of the economic deterioration, the differences between the groups would have developed similarly.

The aim of the study was to statistically verify the hypothesis of outperformance of companies with diversified boards in terms of gender. The report showed that companies with boards dominated by one gender did not perform better than their more diverse counterparts. The study did not, however, look for potential reasons for this. It would be advisable to deepen the research and analyse the reasons behind the observed relationship between the participation of women on boards and the results of Polish companies. Does the reason simply lie in the differences between genders and their psychological characteristics, and hence the diversity of competences, experiences and points of view or maybe the share of women on boards reflects more than just the gender diversification, indicating a different corporate culture?

Further analysis which would include additional financial parameters (e.g. debt for non-financial companies or EBIT or EBITDA margin, FCFE yield) and indicators related to innovation (e.g. capital expenditure) is certainly worth considering. As far as non-financial parameters are concerned, attention should be paid to compliance with the principles of the Best Practice of WSE Listed Companies 2016, assessment of the integration of the UN Sustainable Development Goals into the development strategies of companies as well as environmental and climate awareness. The progress of listed companies in this regard should be closely tracked and researchers should be encouraged to analyse a larger group of firms over a longer period and on a basis of a wide range of criteria for the sustainable development.



THE RELATIONSHIP BETWEEN GENDER DIVERSITY ON BOARDS AND THE PERFORMANCE AND RISK OF COMPANIES REQUIRES A WIDER RECOGNITION AND SHOULD BE THE SUBJECT OF FURTHER RESEARCH.

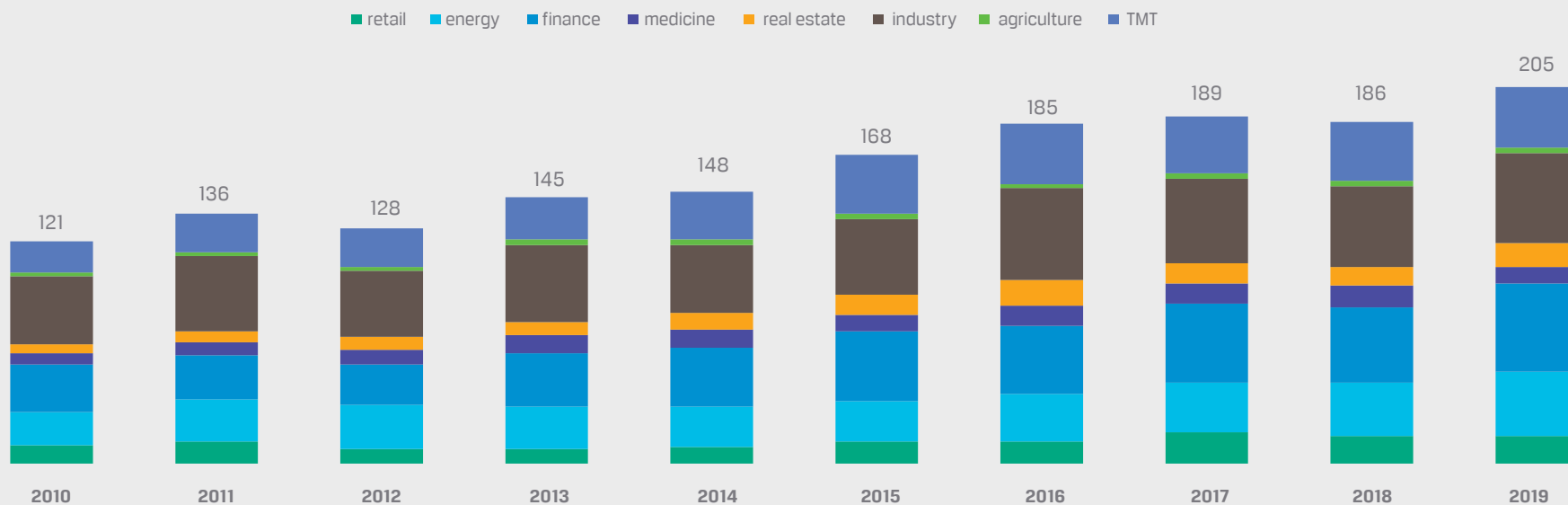
Iweta Opolska



09 ANNEXES

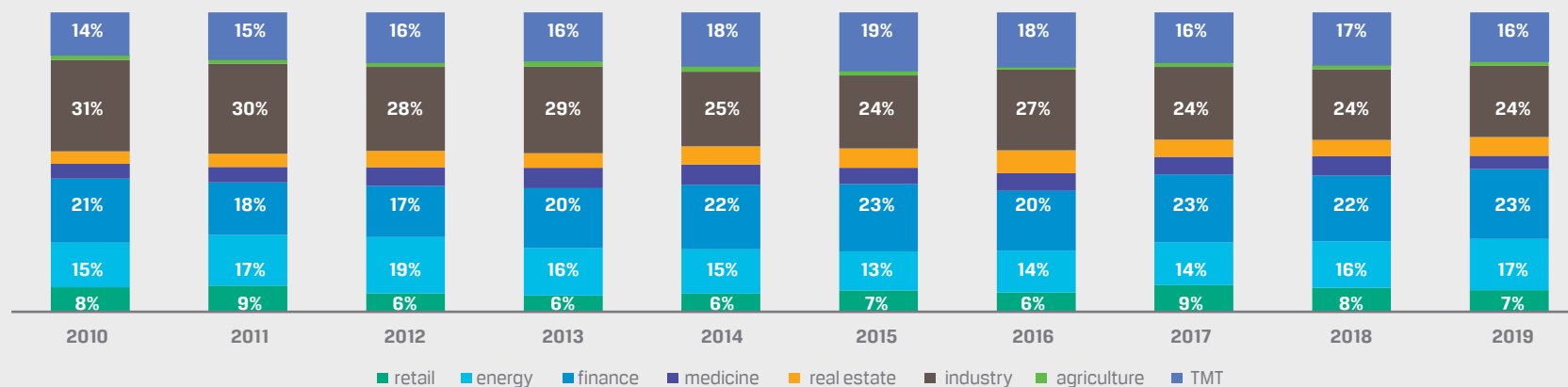
ANNEX 1. SECTOR DATA

Chart 9. The number of positions on boards held by women in companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019, broken down by sectors for the years 2010-2019, in nominal terms.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

Chart 10. The percentage of positions held by women on boards in companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019, broken down by sectors for the years 2010-2019.



Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

Table 9. The average number of board members of companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019, broken down by sectors in the years 2010-2019.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
RETAIL	8.9	8.9	8.4	8.5	8.9	9.5	9.8	10.0	9.8	9.8
ENERGY	12.1	12.3	12.2	12.1	12.6	11.9	12.8	12.4	12.5	12.4
FINANCE	12.6	12.8	12.9	13.6	14.2	14.6	14.8	15.0	14.9	15.1
MEDICINE	7.9	9.0	8.0	7.9	8.3	8.8	8.5	9.0	8.5	8.6
REAL ESTATE	8.8	9.1	9.1	9.2	9.7	10.0	10.1	10.4	10.2	10.2
INDUSTRY	8.8	9.3	9.2	9.6	9.7	9.6	9.6	9.7	9.7	9.8
AGRICULTURE	4.3	5.0	5.5	5.5	5.3	5.5	5.5	5.5	5.5	5.8
TMT	10.1	9.0	9.4	9.6	9.8	10.4	10.3	10.2	10.3	10.5
AVERAGE	9.7	9.8	9.7	9.9	10.2	10.4	10.5	10.6	10.6	10.6

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

ANNEX 2. SECTOR DATA

Chart 9. The number of positions on boards held by women in companies included in the WIG20, mWIG40 and sWIG80 indices at the end of 2019, broken down by sectors for the years 2010-2019, in nominal terms.

YEARS	P/E	P/BV	PAYOUT RATIO	DIVIDEND YIELD	NET PROFIT MARGIN	ROE	ANNUAL CHANGE IN SALES	ANNUAL CHANGE IN NET INCOME	DAILY STOCK PRICE CHANGE (STANDARD DEVIATION)	ANNUAL CHANGE OF AVERAGE STOCK PRICE	TSR
RETAIL											
2015	19.99	2.77	0.09	0.00	0.05	0.18	0.18	0.21	0.02	0.34	0.35
2016	15.82	2.57	0.13	0.01	0.05	0.16	0.21	0.21	0.02	0.12	0.16
2017	18.34	4.37	0.19	0.01	0.06	0.14	0.17	0.15	0.02	0.38	0.38
2018	20.44	2.88	0.17	0.01	0.05	0.11	0.16	0.10	0.02	-0.07	-0.05
2019	13.91	2.41	0.04	0.00	0.04	0.12	0.20	0.02	0.02	-0.09	-0.09
ENERGY											
2015	10.07	0.86	0.23	0.03	-0.07	-0.06	0.01	-0.15	0.02	-0.10	-0.08
2016	8.78	0.68	0.12	0.02	0.06	0.06	-0.05	-0.13	0.02	-0.29	-0.28
2017	6.05	0.86	0.18	0.02	0.08	0.08	0.00	0.31	0.02	0.23	0.25
2018	11.13	0.68	0.00	0.00	0.05	0.04	0.11	-0.32	0.02	-0.18	-0.17
2019	9.69	0.50	0.00	0.00	0.04	0.04	0.13	-0.23	0.02	-0.15	-0.15
FINANCE											
2015	15.02	1.59	0.00	0.00	0.27	0.11	0.03	-0.04	0.02	-0.12	-0.05
2016	13.24	1.37	0.09	0.00	0.28	0.10	0.10	0.11	0.02	-0.19	-0.14
2017	14.74	1.31	0.08	0.00	0.26	0.09	0.10	0.08	0.02	0.26	0.27
2018	13.37	1.38	0.22	0.01	0.28	0.09	0.06	0.12	0.02	-0.08	0.01
2019	14.13	1.07	0.29	0.02	0.20	0.07	0.04	-0.10	0.02	-0.09	-0.09

Source: Authors' study based on financial statements, prospectuses and information contained in the National Court Register.

MEDICINE											
2015	21.67	2.59	0.00	0.00	0.08	0.13	0.26	-0.06	0.02	0.19	0.19
2016	21.62	2.49	0.00	0.00	0.06	0.05	0.02	0.01	0.02	0.19	0.20
2017	32.55	2.34	0.00	0.00	0.07	0.10	0.21	0.34	0.02	0.10	0.12
2018	12.69	1.89	0.00	0.00	0.11	0.06	0.01	0.17	0.02	-0.06	-0.06
2019	24.57	1.77	0.00	0.00	0.02	0.03	-0.07	-0.58	0.02	-0.03	-0.03
REAL ESTATE											
2015	12.10	0.69	0.00	0.00	0.24	0.08	0.15	0.02	0.02	0.07	0.07
2016	9.68	0.88	0.40	0.03	0.18	0.10	0.22	0.25	0.02	0.08	0.15
2017	9.08	0.77	0.39	0.03	0.17	0.12	0.22	0.02	0.02	0.03	0.10
2018	7.22	0.78	0.65	0.09	0.20	0.11	0.16	0.17	0.02	-0.02	0.03
2019	8.00	0.75	0.68	0.11	0.19	0.14	0.03	0.05	0.02	-0.02	0.07
INDUSTRY											
2015	13.20	1.56	0.28	0.02	0.06	0.14	0.08	0.16	0.02	0.12	0.15
2016	12.83	1.61	0.32	0.02	0.07	0.13	0.05	0.11	0.02	0.04	0.06
2017	14.10	1.62	0.32	0.02	0.05	0.10	0.07	-0.06	0.02	0.11	0.14
2018	11.11	1.36	0.33	0.03	0.06	0.12	0.11	0.12	0.02	-0.18	-0.09
2019	11.20	1.13	0.29	0.03	0.04	0.10	0.00	-0.13	0.02	-0.16	-0.11
AGRICULTURE											
2015	6.49	0.89	0.00	0.00	0.07	0.15	0.15	-1.29	0.03	-0.10	-0.10
2016	4.06	0.96	0.00	0.00	0.17	0.23	0.14	1.18	0.02	0.31	0.32
2017	6.42	1.11	0.04	0.01	0.11	0.18	0.16	-0.22	0.02	0.25	0.26
2018	9.61	0.93	0.06	0.01	0.08	0.09	0.01	-0.26	0.02	-0.11	-0.10
2019	17.23	0.86	0.20	0.01	0.02	0.03	0.06	1.07	0.02	-0.07	-0.07
TMT											
2015	13.14	1.30	0.00	0.01	0.10	0.11	0.15	0.17	0.02	0.22	0.24
2016	15.99	1.41	0.00	0.00	0.13	0.11	0.01	0.16	0.02	0.06	0.12
2017	21.45	1.52	0.18	0.01	0.07	0.08	0.09	0.06	0.02	0.12	0.15
2018	16.56	1.75	0.19	0.01	0.09	0.10	0.17	0.25	0.02	-0.02	-0.01
2019	13.75	2.07	0.40	0.02	0.10	0.11	0.13	0.18	0.02	0.07	0.09

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- ¹ McKinsey & Co, "Diversity Wins. How inclusion matters", May 2020; Credit Suisse, "The CS Gender 3000 in 2019: The changing face of companies", October 2019.
- ² Kanter, Rosabeth Moss, "Men and Women of the Corporation", New York: Basic Books, 1977; Dahlerup, Drude, "The story of the theory of critical mass", Politics & Gender, December 2006; Danbold, F. and Unzueta, M., "Drawing the Diversity Line: Numerical Thresholds of Diversity Vary by Group Status", Journal of Personality and Social Psychology: Interpersonal Relations and Group Processes, 2019; Roth, L., "The Social Psychology of Tokenism: Status and Homophily Processes on Wall Street", Sociological Perspectives, June 2004.
- ³ Art. 369 and art. 386 of the Act of September 15, 2000 – Commercial Companies Code (consolidates text: Journal of Laws 2000 No. 94 item 1037).
- ⁴ Kanter, Rosabeth Moss, "Men and Women of the Corporation", New York: Basic Books, 1977.
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