



SCHOOL OF
ECONOMICS AND
MANAGEMENT

Bachelor's Programme in Economy and Society
Department of Economic History

Breaking the Boardroom Ceiling:

A Study on Gender Balance on the Boards of Swedish Listed Companies on Nasdaq
OMX Stockholm

By

Hedda Hövel

he3736ho-s@student.lu.se

Abstract

Sweden is considered one of the most prominent countries for gender equality, with relatively high levels of female board members at publicly listed companies. However, the EU Law on Gender Balance on Boards implemented in 2022 adds pressure for Sweden to maintain, and improve, gender distribution on boards since Sweden was able to opt out of the law. There is a lack of research on the topic for Sweden at a company level, both in terms of all listed companies but also on differences between sectors. Thereby, this thesis investigated to what extent Swedish listed companies have complied with the requirements of the EU law on Gender Balance on Boards between the years 2015-2022, as well as investigated potential differences between sectors. Through a quantitative approach and the usage of secondary data collected from reliable databases, examined in the light of three theoretical frameworks and previous literature, this thesis finds that a majority (67%) of the companies in the sample complied with the EU law in 2022. Additionally, significant differences between sectors were identified, with a majority of the companies within the STEM field having lower levels of female board members than the companies of other fields.

Keywords: corporate governance, gender equality, female board members, Nasdaq OMX Stockholm

Programme Code: EOSK12

Bachelor Thesis (15 ECTS)

24 May 2023

Supervisor: Kirk Scott

Examiner: Helene Castenbrandt

Word Count: 12 597

Acknowledgements

I would firstly like to thank my supervisor, Kirk Scott, for his feedback and support throughout the process of writing the thesis. I would also like to thank my family and friends for their constant support during the last few months.

Table of Contents

Abstract	1
Acknowledgements	2
Table of Contents	3
Figures and Tables	4
1. Introduction	5
1.1 Aim of the Study.....	6
1.2 Research Questions.....	6
1.3 Relevance.....	6
1.4 Delimitations.....	7
1.5 Definitions of Concepts.....	8
1.6 Outline of the Thesis.....	9
2. Background	9
2.1 The Stock Market and Corporate Governance in Sweden.....	10
2.2 Gender Balance on Boards at Publicly Listed Companies in Sweden.....	11
2.3 The EU Law on Gender Balance on Boards.....	11
3. Literature Review	12
3.1 Women on Boards.....	13
3.2 Sectoral Differences.....	15
3.3 Previous Research on Other European Countries.....	15
3.3.1 Norway's Path to Gender Equality: The Impact of Gender Quotas on Boards.....	15
3.3.2 France's Strive for Gender Balance: Breaking Barriers in Corporate Leadership.....	16
3.3.3 Denmark's Corporate Landscape: Unraveling Gender Dynamics Beyond Quotas.....	17
4. Theoretical Framework	18
4.1 The Glass Ceiling.....	19
4.2 Tokenism.....	20
4.3 Critical Mass.....	23
5. Data and Method	25
5.1 Research Method.....	25
5.2 Selection of Data and Sources.....	25
5.3 Hypotheses.....	26
5.4 Recruitment Summary for the Sample.....	26
5.5 Limitations.....	27
6. Results and Analysis	28
6.1 Gender Balance on Boards at Swedish Listed Companies.....	28
6.2 Share of Swedish Listed Companies with at Least 33% Female Board Members.....	30
6.3 Examining Companies with a Single Female Board Member in 2015 Over Time.....	32
6.4 The Differences Between Sectors in Terms of Female Board Members.....	33
7. Concluding Discussion	35
10. References	39
11. Appendix	46

Figures and Tables

List of figures:

Figure 1: The Glass Ceiling illustrated. Illustration by the author, based on the works of Boschini (2004, p.77)

Figure 2: Compliance Levels of Swedish Firm with the EU Law on Gender Balance on Boards 2015-2022

Figure 3: Gender Composition of Boards on All Swedish Listed Companies

Figure 4: The change in board composition for companies that had one female board member in 2015, the years 2015-2022.

List of tables:

Table 1: Number of Board Members and Share of Women on Boards

Table 2: Sectors and the Average Share of Women on Boards

1. Introduction

In 2006 the Swedish Government presented a goal of listed companies to consist of at least 40% of the underrepresented gender by 2016 or mandatory regulations on gender quotas would be imposed. (Swedish Ministry of Justice, 2016).

Despite Sweden being widely recognized as one of the most gender-equal countries globally (European Institute for Gender Equality, 2022), the country was only one of three EU member states to vote against the EU directive for Gender Balance on Corporate Boards in 2022, along with Poland and Hungary (European Commission, 2022b). Due to the high average of women on boards in Sweden, the country is exempted from the law, as long as the share of female board members does not start to decrease drastically. Although traditional gender studies assert that for a significant increase of female board members to occur, mandatory regulations concerning gender quotas must be imposed (Ahern and Dittmar, 2012; Mateos de Cabo et al., 2019), a majority of Sweden's politicians continue to oppose all such suggestions.

According to data from the European Institute for Gender Equality (EIGE) (2022), Sweden tops the Gender Equality Index with a score of 83.9 out of 100, 15.3 points above the EU average. The institute measures the domains of Work, Money, Knowledge, Time, Power, and Health. One of Sweden's most significant areas of improvement since 2010 includes the sub-domain of economic power, with an increase of 10.7 points since 2010. Included in the sub-domain is the area of equality within company leadership. Sweden has levels of 37.5% women for "share of members of boards in largest quoted companies, supervisory board or board of directors (%)", scoring higher than the EU average of 31.6% (EIGE, 2022). However, there is little research focusing on the company levels and examining listed companies based on their respective sector.

In November of 2022, the European Union formally adopted a new EU law concerning the composition of corporate boards. As of 2026, the non-executive directors at all publicly listed companies with more than 250 employees must consist of at least 40% of the underrepresented sex or have 33% among all directors (European Commission, 2022a). As for Sweden, there has been a long-standing reluctance to establish gender quotas. Motions on

the issue presented in the Swedish parliament during the 21th century have so far been rejected (Swedish Committee on Civil Affairs, 2008 & 2018). Prior to being rejected in the Swedish parliament, the motion was dismissed by the Committee on Civil Affairs, with the motivation that “although it is of importance that the gender distribution on boards become more equal, it is ultimately the responsibility of the shareholders to ensure that the board is diverse” (Committee on Civil Affairs, 2018).

1.1 Aim of the Study

The aim of this thesis is to investigate Swedish publicly listed companies at Nasdaq OMX Stockholm and the gender balance of their respective boards between the years of 2015 and 2022. The criterias of the recently passed EU law on Gender Balance on Boards will determine the chosen companies and their data (European Commission, 2022a). The criteria mostly focused on will be on the total number of board members at a company and, more specifically, if the share of the underrepresented gender reaches levels of at least 33% (ibid). Therefore, less emphasis will be placed on the share of executive directors.

1.2 Research Questions

In order to further investigate and discuss the topic of the unequal distribution of men and women on company boards, the following research question will be answered:

Research Question:

To what extent have Swedish listed companies complied with the requirements of the EU law on Gender Balance on Boards between the years 2015-2022?

The following sub-research question will also be answered:

Sub-Research Question:

To what extent did the share of female board members of Swedish listed companies differ across sectors between the years 2015-2022?

1.3 Relevance

The topic of corporate board composition with respect to gender has been of significant relevance for several decades. The successful vote on gender balance on boards in the European Parliament in 2022 serves as a testament to the fact that gender equality has

become a priority for a majority of the EU member states (European Commission, 2022a). Despite being one of the most gender-equal nations, Sweden has yet to fully achieve its goal of a 40:60 gender balance on boards established already in 2006 (Swedish Ministry of Justice, 2016). As such, there is a pressing need for continued discussion on the current unequal distribution of genders on corporate boards. Further investigation on a company level is needed to examine the gap in representation of women on publicly listed company boards and to determine if there is a pattern within sectors. Since the Swedish government has decided against implementing the EU law with the underlying reasoning that Swedish companies are already reaching, or will shortly reach, sufficient levels of gender balance on boards. Despite having no mandatory regulations on gender quotas it is of interest to investigate to what extent Swedish companies comply with the requirements, and compare their development to those in other countries with already imposed mandatory quotas.

1.4 Delimitations

The study is limited to all Swedish companies listed on Nasdaq OMX Stockholm during the period of June 2015 to June 2022. For the scope of the study, only companies with complete data for all years are included, meaning that companies that were listed or delisted during the time frame are not included. Some companies changed their name over the years but remained intact as an organization as a whole. In those instances, the company name of 2022 is used throughout the study. This allows for analysis over a longer period of time, and the data had to be consistent for the companies studied. It could, however, have an effect on the generalizability of the findings. Since data was unavailable for specific years, i.e., due to the delisting of a company, the final sample is reduced from the entire span of all listed companies. There are also methodological considerations to be made. All data was gathered from secondary sources such as Orbis (2022), Nasdaq (2022), and the Swedish Corporate Governance Board (2015-2022). It was not only motivated due to time constraints, but by relying on established and reputable sources, the information obtained is likely to be accurate and comprehensive (Vartanian, pp. 13-14, 2011). Using these sources also ensures transparency and allows for independent data verification, enhancing the credibility of the research.

In order for an analysis of how Swedish companies would comply with the recruitments specified by the recently passed EU law on gender balance if it ever were to be implemented in Sweden, only companies who could be affected by the law will be considered. Specifically,

this entails companies that are publicly listed, excluding small and medium-sized enterprises (SMEs), as per the definition of the European Commission (2022b). The definition concludes that an SME has less than 250 employees and a turnover of no more than €50 million (ibid). Therefore, all Swedish listed companies that were considered SMEs in 2015 were excluded from the sample. Finally, the EU law refers to “the underrepresented gender” of a board (European Commission, 2022b). When examining the data, no Swedish company in the sample had a board with more than 67% women for any of the years, therefore women are considered “the underrepresented gender” in all instances.

There are two different types of board members, those elected as representatives of the employees and those suggested by the nomination committee, which are later approved at the general meeting of the shareholders (The Swedish Corporate Governance Board, 2020). A board member who is employed by or serves as a board member of a company that is a major shareholder should not be considered independent. Furthermore, at least two board members, independent of the company and its executive management, should also maintain independence concerning the company's major shareholders (ibid). The Codetermination Act in 1976 provided labor union representatives with board representation, however in a strict minority capacity (Högfeldt, 2004). The legislation was specifically tailored to address the needs and circumstances of the largest firms, and employee representatives are to a great extent visible in the industrial sector (ibid). For the purpose of the study, since not all boards have members that are employee representatives, no differentiation is made between the two types of board members; they are only referred to as "board members" throughout the paper.

All companies in the study were categorized into eleven sectors based on the Global Industry Classification Standard (GICS). It is a classification standard established by Morgan Stanley Capital International (2023) and S&P Dow Jones Indices (2023) to provide investors with comprehensive industry definitions. It allows all listed companies to be divided into four tiers: Sectors, Industry Groups, Industries, and Sub-Industries (MSCI, 2023). In this study, the only tier used will be “sectors” since the incorporation of the remaining tiers would require a significant investment of time and resources, which may not be feasible within the scope and limitations of this thesis.

1.5 Definitions of Concepts

“Publicly listed Swedish companies” is the terms used throughout the paper which entails the Swedish companies listed on the Nasdaq OMX Stockholm Stock Exchange.

“Gender balance” refers to the share of men and women in a group, most often used when discussing boards of directors in the paper.

“Board” refers to the board of directors of a company.

1.6 Outline of the Thesis

This thesis aims to analyze gender balance on the boards of publicly listed Swedish companies on the Nasdaq Stockholm OMX stock exchange. This next section will present background information on the history of the Swedish stock market and the topic of corporate governance, as well as explain the EU law referred to throughout the paper. Then, previous literature will be introduced to explain concepts but also provide a description of other countries and their advancements within gender equality. Following, the study will incorporate three theoretical frameworks suitable for research on gender distribution on company boards, which will be applied to the results and previous research. The first will incorporate the concept of the “glass ceiling”, which provides an explanation as to why gender balance at entry level roles and lower management does not automatically result in gender balance at the top of the corporate hierarchical ladder (Boschini, 2004). The second and third frameworks were established by Rosabeth Moss Kanter (1977) and focuses on the theories of “tokenism” and “critical mass”. The former explains how some companies might appoint one woman to the board of directors, but only with the aim of appearing more diverse. The solo female board member becomes a representation of women as a category and is not fully considered an equal. The concept of “critical mass” focuses on the composition of groups based on the “dominant group” and the minority and how it affects group dynamics (Kanter, 1977). In this study, the role of gender is used within the framework. Furthermore, data collected from secondary sources such as Orbis (2023), and Nasdaq (2023) is introduced to provide a description of the gender balance on Swedish listed companies. Finally, a discussion and conclusion will follow where the final analysis will be presented, as well as answers to the research questions and hypotheses.

2. Background

To gain insights into Sweden's position as one of the most gender-balanced countries in terms of corporate board representation, it is crucial to examine how the historical development of female participation on boards has developed over time. Therefore, the next section will delve into the history of the Swedish stock market and corporate governance, along with providing a background on the presence of women on boards. Additionally, the background will provide a detailed description of the EU law on Gender Balance on Boards as it is essential for understanding its specific requirements. It will allow for a deeper comprehension of the extent to which Swedish listed companies are effectively meeting these requirements. This will also be further explored and analyzed in the subsequent data analysis.

2.1 The Stock Market and Corporate Governance in Sweden

The Swedish stock market was established in the mid-19th century, with the founding of the Stockholm Stock Exchange in 1863, when the city authorized a broker to conduct the first securities auction (Waldenström, 2014). Waldenström (2014), explains that although trade activity remained low throughout the 19th century and mid-20th century, the levels increased considerably during the early and late 20th century due to continued industrialization. Meanwhile, corporations increasingly issued stocks, and the number of investors grew. In 1901, there was a reorganization of the Stockholm Stock Exchange, to a great extent copying the mechanisms of the Copenhagen Stock Exchange. However, it was not until 1919 and 1920 that acts were passed by the Swedish parliament that incorporated the Swedish stock market in the national legislation (ibid).

The Swedish Companies Act (2005) divides all Swedish limited liability companies into two categories: private companies and public companies. Public companies are the only type that can raise capital from the general public. As for governance, the act determines that the board is responsible for the organization of the company and the management of the company's affairs. Furthermore, the chairman of the board may not also be the CEO of the company (SFS 2005:551).

In addition, the Swedish Corporate Governance Board (2020) explains that all Swedish-listed companies have agreed to the Swedish Corporate Governance Code, first presented in 2004. It was initially a collaboration between the National Commission on Business Confidence

and several corporate sector organizations. The Code Group was later established to handle further activities related to implementing a code (ibid). Although the code is not legally binding, *“it is considered good stock exchange practice for Swedish companies whose shares are admitted to trading on a Swedish regulated market to apply the Code”* (Swedish Corporate Governance Board, 2020a, p.12). Point 4.1 on the code concerns the dimensions and structure of the board and stipulates that *“the board members elected by the shareholders’ meeting are collectively to exhibit diversity and breadth of qualifications, experience, and background. The company is to strive for gender balance on the board”* (Swedish Corporate Governance Board, 2020a, p.17). As all listed companies have agreed to follow the code, they are thereby obligated to work towards achieving gender parity on their boards.

2.2 Gender Balance on Boards at Publicly Listed Companies in Sweden

Since Lil Karhola Wettergren was elected as the first female board member of a listed company in Sweden in 1970 (Föreningen Stockholms Företagsminnen, 2004), there has been noteworthy advancement in terms of the representation of women on the boards of Swedish listed companies. The Swedish Corporate Governance Board (2022) reports that the share of women on boards at listed companies in 2022 had reached 36 %, which represents a substantial increase from the 6% share recorded in 2002 (Andra AP-fonden, 2022). However, the rate of progress has slowed down since 2018, with only a two percentage point increase to 2022 (Swedish Corporate Governance Board, 2022).

The chairman of the board holds one of the most significant roles in a company. According to the Swedish Companies Act (2005:551), all boards with more than one director must have a chair. The role of the chair is to lead the work of the board and supervise to ensure that the board fulfills its duties. In the event of a tie vote, the chairman has the casting vote. As of 2022, all board chairs at Swedish listed companies consisted of only 8.4% women, while the highest figure recorded was in 2019 with 9.2% female board chairs. (Andra AP-fonden, 2022). Evidently, while progress has been made in increasing the representation of women on boards, the proportion of women serving as chairpersons of boards has decreased over the last five years.

2.3 The EU Law on Gender Balance on Boards

In 2012, a proposed directive of the European Parliament and of the Council was presented to the member states by the European Commission “on improving the gender balance among non-executive directors of companies listed on stock exchanges and related measures” (EU Commission, 2012). In 2013, the European Parliament adopted its position, but the Council was unable to reach a consensus with certain Member States who believed that imposing mandatory measures at the EU level was not the most effective course of action. The Directive was formally adopted on the 22nd of November 2022, and once it is published in the Official Journal, it will enter into force after 20 days (EU Commission, 2022a). There is a two-year deadline for Member States to “transpose its provisions into national law” (ibid). By the 30th of June 2026, they must ensure that listed companies with more than 250 employees meet the target of non-executive board members consisting of at least 40 % of the under-represented gender, or 33% for all board members. The law applies to around 5,000 companies across the EU (ibid).

In 2021, six EU member states had binding quotas, ten had soft quotas, and eleven had no quotas or very loose measures, according to European Women on Boards (2022). Mateos de Cabo et al. (2019) defines a "hard quota" as a mandatory measure that prohibits companies without a gender-balanced board from maintaining their listing on a stock exchange, potentially leading to penalties, compensation for board members, or even the suspension of operations. On the other hand, a "soft quota" is non-binding, allowing companies without a gender-balanced board to continue operating without facing severe consequences. Instead, they might receive recommendations, warnings, and reports on the reasons for noncompliance, or potentially qualify for tax rebates and public subsidies to encourage compliance (ibid)

As observed by the European Women on Boards (2022), there is a noticeable difference in terms of board diversity between countries with and without quotas. The ones affected by a binding quota had an average of around 39% female board members, the ones with a soft quota had an average share of approximately 29%, and the member states with no quota, or very loose methods had an average of ca 20% women on boards. One can identify a difference of roughly ten percentage points between each category. As for the target quota specified in the national legislation of EU member states with a binding quota, the average was around 35%. Not all countries with soft quotas had a specified target, making it difficult

to achieve a fair comparison. However, one can observe that the countries with more specified measures had a higher share of women on the boards (European Women on Boards, 2022).

3. Literature Review

The representation of women in corporate leadership positions has been a topic of significant interest and public debate, driven by the growing recognition of the importance of gender diversity in organizations. The following section will discuss the increased public pressure for companies to address gender imbalances and strive for greater diversity, particularly at the management level. Furthermore, the topic of sectoral differences of gender composition on boards will be discussed in light of previous research. Finally, there will be examples showcased from similar studies on the topic in other countries including Norway, France, and Denmark. In order to gain a comprehensive insight on gender inequality in Sweden, previous research on Norway and Denmark was chosen since the countries possess similar country characteristics to Sweden, which allows for a more fair comparison. Prior studies on France are included since the country is the most successful in the EU in terms of gender balance on boards and could be considered a “role model” for other member states (Bennouri et al. (2020).

3.1 Women on Boards

One of the most frequently discussed issues is the effect of public pressure for diversity on a company. Organizations such as Allbright (2022) contribute to shedding light on how well Swedish companies manage to become more diverse at the management level. The non-profit organization releases a report each year that maps the representation in the top echelons of the business sector. Included in the report is the “Green List” which marks Swedish listed companies as “green” if they reach gender balance (40/60). Companies are also classified as yellow when they have men and women in management but fail to reach gender balance (40/60). Finally, there is also a list of “red” companies that have no women at all within top management roles (Allbright, 2022). This ranking of Swedish companies, based on statistics, has become increasingly more important for companies, as more organizations value being seen as “gender equal”. The companies consider diversity to be an essential issue. However, only 4% of listed Swedish companies have measurable goals for diversity, and only 1% have a budget dedicated to improving diversity within the company (ibid). Around half of all

Swedish listed companies have a diversity policy, but it is often a direct copy of point 4.1 of the Swedish Code for Corporate Governance (Allbright, 2022: Swedish Corporate Governance Board, 2020).

The increasing public pressure for diversity could contribute to the decreasing number of “male-only” boards in many countries. However, research by Farell and Hersch (2005) indicates that the probability of a company appointing a woman to its board in a given year is adversely influenced by the existing number of women already serving on the board. In other words, many companies consider the presence of a single woman sufficient to fulfill the diversity requirement regarding female representation. However, when a female director leaves the board, the likelihood of adding another woman to the board significantly rises (ibid).

Diversity within the company is not only vital to display to the public, but the image as a potential employer is also of value. Studies by Schärpers et al. (2022) indicate that companies with gender-diverse boards are perceived as more attractive to job applicants than those with all-male boards. Furthermore, implementing gender quotas does not appear to harm a company’s attractiveness for potential employees (ibid). In fact, companies have the potential to enhance their reputation and increase their legitimacy by appointing individuals of significance or influence to serve on their board of directors (Dunn, 2012). Directors on board are crucial to the public representation of the company and can therefore have a positive impact on external perceptions of the organization (ibid).

Another area of importance to the topic is how women are recruited to boards and their qualifications. One of the most common methods is to be recommended by a board member of the company, by the CEO, or by someone with a personal connection to either a board member or the CEO (Burke, 1997). Dunn (2012) concludes that women who are hired onto boards that earlier had no women tend to have specialist competencies, such as professional bankers, lawyers, and public relations experts. When looking at all new hires, including boards that had previously had women on boards, the experience as a business manager is the most essential background for women, in addition to network relations with other directors (ibid). This statement is to a certain extent supported by Adams and Funk (2012) who explains that some firms might select female directors who demonstrate a heightened emphasis on specific values compared to their male counterparts.

A significant amount of research has been conducted on whether there are specific effects of a higher percentage of women on boards. Both in terms of the board's activity and company performance. Some scholars argue that gender diversity in boards profoundly affects board inputs (Adams & Ferreira, 2009; Adler, 2001). One of the areas mentioned is attendance. Not only is the share of attendance related problems lower among female board members but the greater the share of women on the board, the better is also the attendance behavior of the male directors. Boards that have a higher representation of women are also more likely to hold the CEO of the company accountable for poor stock price performance, as these boards experience a stronger correlation between CEO turnover and stock return performance (Adams & Ferreira, 2009). Furthermore, female board members contribute to governance by promoting power distribution, which helps reduce potential CEO dominance (Burgess & Tharenou, 2002). In addition, the process of decision-making within a board of directors is improved when its members possess a range of divergent views and perspectives, and these are debated and discussed constructively, as long as such discussions do not escalate into conflicts that may hinder the board's ability to operate effectively (Finkelstein and Mooney, 2003).

3.2 Sectoral Differences

The Women on Boards and In Corporate Leadership Gender Diversity Index by European Women on Board (2021) presents research on sectoral differences in the gender diversity of corporate leadership in European countries. The index displays that in general, the disparities between sectors are not statistically significant. From 2019 to 2021, the variations among countries are considerably larger than the variances observed across sectors. This implies that the matter of gender equality in leadership is influenced more by national culture and potentially systemic factors, rather than the inherent characteristics of a particular economic sector. Adams and Kirchmaier (2016) have researched the representation of women on corporate boards in the fields of science, technology, engineering and math (STEM) and the finance sector, compared to other sectors. Women are underrepresented in STEM fields in general, but also on the boards. These findings indicate a potential worsening of women's underrepresentation in STEM occupations as they ascend to management levels within the fields (ibid).

3.3 Previous Research on Other European Countries

3.3.1 Norway's Path to Gender Equality: The Impact of Gender Quotas on Boards

Norway was the first country to introduce a quota law for company boards, which proposed voluntary gender quotas for corporate boards as early as 2002 (Seierstad et al., 2017). The law led to an increase in the percentage of women on boards from 5% in 2001 to 15% in 2005. However, the increase was deemed insufficient, leading to legislation in 2006 that ensured that both men and women must be represented at levels of 40% on boards within two years of the implementation of the law. Failure to comply with the law could result in forced liquidation and resulted in a further increase in women's representation on boards to 40% in 2008 (ibid). Since then, other countries such as France and Italy have implemented laws regarding the representation of women and men on boards (European Women on Boards, 2022). Since the introduction of gender quotas in Norway, numerous studies have been conducted to examine the effects beyond the obvious outcome of increased female board members, which is the contributions to more gender-balanced boards.

The effect of gender quotas in Norway on the performance of a company is however ambiguous, between authors such as Matsa and Miller (2013) arguing that the introduction of gender quotas in 2006 led to increased labor costs and relative employment, resulting in reduced profits for companies, and scholars such as Adams & Ferreira (2009) who instead found several positive implications of more women on a board. However, Ahern and Dittmar (2012) argue that the implementation of quotas resulted in boards that were younger and less experienced, accompanied by increased leverage and acquisitions and a decline in operating performance. These findings suggest that the quotas resulted in less capable boards at first. Gender quotas in Norway have, however, resulted in increased female representation on Norwegian corporate boards. Wang and Kelan (2013) observed a significant increase in firms with a female board chair and female CEO. More specifically, the yearly number of appointments of female board chairs increased substantially in 2008 after the deadline for compulsory compliance with the gender quota. However, Ahern and Dittmar (2012) argue that the growth of female board chairs and CEOs, which are not affected by gender quotas, has been considerably slower than the increase in female board members. The percentage of female board chairs and female CEOs remained below 5% from 2001 to 2009 in Norway (ibid).

3.3.2 France's Strive for Gender Balance: Breaking Barriers in Corporate Leadership

Gender quotas for corporate boards were gradually introduced in France starting in 2017. Today, France has the highest percentage of women on boards in the largest publicly listed companies among all OECD countries, at 43.2 percent in 2021 (Deloitte, 2021). However, the representation of women in senior executive positions in large companies in 2020 was only 17 percent (Swedish Ministry of Foreign Affairs, 2021). As a result, in 2021, the French Parliament recently passed legislation mandating gender quotas for executive teams and leadership pipelines of companies with over 1,000 employees (Wittenberg-Cox, 2021). According to the new law, companies are required to achieve a minimum representation of 30% for either gender by 2027 and a target of 40% by 2030. This legislative move aims to promote gender diversity and enhance female representation in top corporate positions (ibid). Comi et al. (2020) explain that the political discourse surrounding the implementation of gender quotas in corporate boards was relatively limited and primarily focused on the formal endorsement of the legislation. Furthermore, the law underwent minimal alterations in the years following its initial reform. (ibid).

Scholars such as Bennouri et al. (2020) have compared France, a country with mandatory gender quotas, to the United Kingdom where the regulations are only considered “advisory”. The research shows that the increase of women on corporate boards is more significant in countries such as France with mandatory regulations, than in countries with “soft” quotas. In addition, they found that the implementation of the quota regulation resulted in the improvement of various measures concerning board quality. In their study, Bennouri et al. (2020) conclude that gender quotas have not influenced the probability of women being selected as executives or board chairs in either France nor the UK. This finding corresponds with the data presented by (Deloitte, 2021), showing that the level of board chairs that are women in France is 9,8%, and only 9,7% of the CEOs are women.

3.3.3 Denmark's Corporate Landscape: Unraveling Gender Dynamics Beyond Quotas

As Denmark and Sweden have several societal aspects in common, due to their geographical proximity and cultural similarities, it is of importance to comprehend the connection of both countries imposing non-binding regulations on gender quotas

In Denmark, there are currently recommendations on corporate governance with the obligation for listed companies to establish goals for gender equality on their boards (Women

on Boards, 2022). The share of women on company boards in Denmark was 34,9% in 2022. Smith and Parrotta (2015) are two scholars with extensive research on the representation of women on boards of directors by studying privately owned and listed Danish firms. They found evidence that firms with a female chair also appeared to have fewer women on the board overall, approximately a 4% lower share than those with a male chair. This would indicate that having a female chair does not necessarily positively impact the recruitment of women to the board of directors. The companies did, however, have a larger share of female employees overall (ibid). Finally, Smith and Parrotta (2015) found evidence to support the statement that the size of the board matters. Boards with fewer than seven members have a noticeably lower representation of female non-employee elected board members compared to larger boards with seven or more members. Brammer et al. (2007) investigated companies in the UK and they found similar evidence. The scholars discovered a notable association between gender diversity and both the size and composition of corporate boards. Research by Burke and Mattis (2000, p. 164) also showed that larger boards demonstrated a higher proportion of women directors. Therefore, a recommendation would be to increase the size of corporate boards, as adding a woman director to each board would result in a substantial shift in their composition. However, Burke and Mattis (2000, p. 164) explains that it is unlikely for board sizes to increase, as there is an ongoing belief that boards are more likely to decrease in size, particularly due to the rise in company mergers and acquisitions.

Goodstein et al. (1994) presents insight on the challenges large and diverse boards might face. It mainly concerns the ability of boards to effectively and promptly address strategic actions in response to evolving external circumstances. Factors such as decreased cohesiveness, lower motivation, and coordination difficulties can affect the ability to reach a consensus on important decisions (ibid).

Smith et al. (2006) conducted research on Danish firms between the years 1993-2001. They found that female board members elected by employees correlated with higher profitability. However, the authors do not find the same positive correlation, but instead a negative correlation, between other female board members and profitability. Smith et al. (2006) argue that it can be attributed to the fact a significant part of the women on boards studied had family ties to the owners. The authors argue that the result indicates the importance of qualifications among board members and the need for a sufficiently large group of qualified women to recruit as board members. The significance of increasing the recruitment of women

into senior positions to increase the number of women with the right qualifications for board positions is emphasized (ibid).

4. Theoretical Framework

To further explore and understand underlying reasons for the low levels of female board members present in most countries, three theoretical frameworks will be discussed in the following section.

4.1 The Glass Ceiling

The concept of "the glass ceiling" will be discussed in the context of how women are promoted to higher roles within an organization, focusing on board members. The theory describes the invisible barrier that prevents women and minorities from being promoted to leadership positions within an organization (Davidson & Burke, 2000). The expression was coined by Marylin Loden at the Women's Exposition in New York in 1978 (Vargas, 2018). The term "glass ceiling" describes the difficulties women face when trying to move into higher roles in a male-dominated hierarchy. The term refers to the difficulties women face when trying to move into higher roles in a male-dominated hierarchy. These barriers are often unwritten and based on accepted norms and implicit biases rather than defined company policies, which makes the theoretical framework more difficult to measure in real-world scenarios, but applicable in theory. In parallel with the glass ceiling metaphor, the so-called "glass elevator" concept is also used in gender equality discussions. As more men join previously female-dominated industries such as healthcare and education, they are often promoted and given more opportunities than women. It is as if men take the "glass elevator" and women take the stairs. Hence their career is moving at a slower pace (Davidson & Burke, 2000).

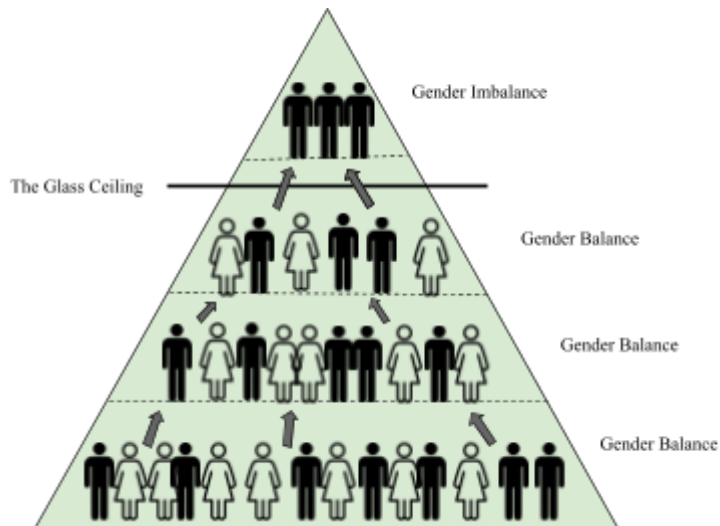


Figure 1: The Glass Ceiling illustrated. Illustration by the author, based on the works of Boschini (2004, p.77)

Figure 1 depicts an organization where men are overrepresented at higher levels despite a balanced distribution at lower levels (Boschini, 2004, p.77). The image illustrates how the glass ceiling acts as a barrier before reaching the top positions, making it more challenging for women to break through. The figure indicates that the underrepresentation of women at the highest levels should not be attributed to a lack of qualified women, as gender distribution remains even until the glass ceiling. Based on the analysis of the figure, Boschini (2004, p.77) explains that some might explain the issue as women not aspiring to reach higher positions to the same extent as men do or that discrimination is at play. However, there is no definitive explanation for the existence of the glass ceiling or the necessary measures to eliminate it (ibid). Boschini (2004, pp.78) further argues that the glass ceiling is not founded on the basis of the presence of different competency profiles between women and men but rather the employers' way of valuing their competencies. However, studies indicate that when there are senior female board members, it sends a positive signal that competent and qualified female managers can excel in top management roles (Abdullah et al., 2016). This signal also demonstrates organizational support for gender diversity on boards, encouraging women working within lower and middle management to strive to break through the glass ceiling (McDonald & Westphal, 2013). Nonetheless, the glass ceiling must be eliminated for a balanced gender representation to be achieved at the top of organizations.

In addition, Albrecht et al. (2003) have conducted research on the wage gap in Sweden and argue that a prominent glass ceiling effect exists, with a significant wage disparity between

men and women in senior positions. The author finds the disparity remarkable considering Sweden's relatively small average gender pay gap internationally. Moreover, the glass ceiling effect has not diminished over time and is more pronounced in Sweden compared to the United States, despite the smaller average gender pay gap in Sweden. The analysis presented by Albrecht et al. (2003) indicates that gender-based pay discrepancies, independent of occupation, contribute to this phenomenon. Potential explanations rooted in individual preferences do not align with their findings. Instead, attention should be directed toward the general work environment in Sweden, particularly policies surrounding parental leave and daycare (ibid).

4.2 Tokenism

Research indicates that the percentage of companies that have at least one woman serving on their board is significantly higher than the percentage of women holding board seats (Burgess & Tharenou, 2002). This results in the assumption that the few women that are appointed board members are seen as mere “tokens” of gender equality (Kanter, 1977).

The second theoretical framework of the study focuses on investigating boards with only one female board member and any potential "tokenism," a concept extensively explored by renowned American social scientist Rosabeth Moss Kanter (1977). She determined that organizations may hire individuals from underrepresented groups to create the appearance of diversity. In reality, these individuals are marginalized and have limited opportunities for advancement on the hierarchical corporate ladder. This results in them being seen as tokens rather than valued contributors and are often considered representatives of their "category", for example as women. Her research demonstrates that the rarity of tokens in proportion to the majority group gives rise to three psychological perceptions: visibility, polarization, and assimilation.

Firstly, Kanter (1977) explains that individual tokens experience higher visibility than the dominants, which refers to the majority group, as tokens capture a larger share of awareness. As the proportion of individuals belonging to a specific social type increases within the group, a group member's awareness share declines when averaged with others of the same type, and each individual becomes less noteworthy. Furthermore, as individuals of the token type become a smaller share of the overall group, they have the potential to capture a larger portion of attention from other group members (ibid). In light of these findings, studies by

Burke and Mattis (2000) indicate that visibility was crucial for career success among directors in British companies. The directors, including both men and women, gained visibility through early experiences as personal assistants to senior managers, excelling at challenging tasks, and being visible to influential individuals within the company. Additionally, several female directors believed that their gender increased their visibility within the company but did, however, not perceive it as a hindrance to their career development (ibid). This contrasts the findings of Kanter (1977) that emphasizes the challenges faced by women in token positions, such as increased pressure due to unwanted visibility as a minority.

Secondly, there is a tendency for polarization or exaggerating differences in perception. According to Kanter (1977), the presence of a person with different social characteristics from the numerically dominant group members increases the awareness of the similarities and differences between the token and the group. The extent of the differences tends to be exaggerated, mainly because tokens are too few to counteract the application of familiar generalizations or stereotypes. As a result, the similarities among the dominant group members can be defined with greater ease in contrast to the token, particularly in situations with an unequal numerical distribution. Furthermore, perceiving and isolating an individual as separate from the group is more straightforward when there are fewer tokens, as the tokens does not represent a significant proportion of the overall group (ibid).

Finally, assimilation, the third perceptual tendency, revolves around using stereotypes or familiar generalizations. Kanter (1977) argues that the characteristics of a token tend to undergo distortion to fit pre-existing stereotypes. When the share of tokens increases to the extent when the group is more balanced, the behavior of the tokens can have an effect on the generalization. However, when individuals of the token's type are a small fraction of the group, it's easier to maintain the existing stereotypes and distort the perception of the token. (ibid)

To a certain extent, arguments presented by Adams and Funk (2012) on the possibility that companies select female directors who display other values compared to their male counterparts, might contradict the stance on assimilation of Kanter (1977). While Kanter (1977) argues that tokens' characteristics are distorted to fit stereotypes, especially when they are a small fraction of the group, Adams and Funk (2012) suggest that companies select

female directors with values that are essential for thriving in non-traditional roles. These women are expected to break away from traditional norms and embrace change and innovation.

The analysis of tokenism indicates that simply adding a few women to an organization at a time is likely to result in the consequences associated with token status (Kanter, 1977). In regard to the debate on gender quotas, Kanter (1977) argues that numbers do play a significant role in shaping outcomes for disadvantaged individuals. To counteract the effects of tokenism, women need to be appointed directors in a sufficient proportion. Even if tokens succeed, they often do so at a cost. They must overcome social disadvantages, exert extra effort, and face additional stresses that members of the numerically dominant group do not experience (Adams and Funk, 2012). Furthermore, merely having a few tokens present does not automatically generate opportunities for others. Instead, it often has the opposite effect, often impeding progress for additional individuals (Kanter, 1977).

4.3 Critical Mass

The last theoretical framework of the study, “critical mass”, focuses on the effect of gender composition on group behavior and the differences between the “tokens” and the “dominants” of a group (Kanter, 1977).

The concept of "the critical mass" is another theory examined by Kanter (1977) and it suggests that for minority individuals to overcome discrimination and achieve influence within an organization, a certain threshold of representation must be reached. This critical mass is when minorities are no longer seen as token representatives but instead, form coalitions and gain sufficient power to challenge the prevailing majority culture (ibid).

Kanter (1977) describes that women on boards of directors often find themselves entirely or nearly alone, thus occupying a "token" position. Tokenism refers to a symbolic representation of the minority, which cannot impact the decision-making of a group. The theory thus explains that a group must achieve a certain critical mass to influence the group's behavior and decisions. More specifically, this theory means that one or two women on board with a total size of nine are too few and will, therefore, be neglected and thus not impact the group. Based on the theory, Kanter (1977) has classified four groups based on how each group's

individuals are represented proportionally. These are categorized as uniform groups, skewed groups, tilted groups, and balanced groups. The groups are all described below:

- Uniform Group: A group of individuals of only one type, making it completely homogeneous (Kanter, 1977). However, these individuals may develop differentiations but will always remain homogeneous regarding "master statuses" such as gender or ethnic group. The distribution between men and women in this group is 100:0, meaning that the group consists of either only men or women.
- Skewed Group: This group consists of a numerical majority of one type of individual who controls the group and its culture, and this majority can be seen as dominant (Kanter, 1977). When men dominate a group, women become "tokens" and are seen as representatives. Although the minority may consist of more than one individual, Kanter argues that even if they form an alliance, they cannot have a powerful impact on this group. The gender balance of the group is approximately 85:15, signifying that the group consists of ca 85% men and 15% women or vice versa.
- Tilted Group: In this group, the minority is no longer seen as a representative of their category but as individuals (Kanter, 1977). In addition, the group is not as extremely unevenly distributed as the previously mentioned groups, but the minority and majority are still identifiable. Minorities can form alliances together and thus influence the group's culture. The gender distribution in a tilted group is approximately 65:35, indicating that the group consists of ca 65% men and 35% women or vice versa.
- Balanced Group: In the final group, there is a complete balance between the individuals, and there is no minority or majority (Kanter, 1977). The balance also reflects the group's culture and interaction. The individuals' outcome in the group will depend to a large extent on personal and structural factors and abilities. The group distribution between men and women follows a ratio ranging from 60:40 to 50:50.

According to Kanter (1977), tokens must achieve a critical mass to be fully considered as individuals with their own opinions and thoughts to impact the group. Based on this, there are studies on the topic to find the critical point where the minority group influences the majority of the so-called dominant group. According to Kanter (1977), the critical point lies around

30% and women will not impact the group if the critical point falls below 20%, despite their presence in the boardroom. Konrad et al. (2008) explains that when three board members strongly support a particular point, others are likely to follow their decision. Since the average size of a board at a publicly listed Swedish company is nine, three board members can be considered as achieving critical mass (Orbis, 2023; Kanter, 1977). Secondly, if even one board member persistently disagrees with the majority, it can lead to better decision-making by thoroughly considering the issue. Thus, minority views are important for effective board processes.

Finally, Konrad et al. (2008) explains individuals with minority opinions are more likely to speak up when they have an ally in the room. When individuals who hold a different opinion feel isolated, they are less likely to share their differing views and more likely to conform. However, if women directors are perceived as sharing important similarities, their collective agreement can influence board discussions. In conclusion, when three women directors present a unanimous opinion, it can substantially influence board discussions through the critical mass effect (ibid).

5. Data and Method

5.1 Research Method

In addition to contextual literature and theoretical discussion, this study will employ descriptive statistics to address the research questions. A quantitative method was used with a deductive approach, meaning that logical conclusions are drawn from hypotheses based on the theoretical framework of the study and the literature review. The hypotheses will be confirmed or rejected based on the statistical data collected for the study. The choice of a quantitative research method was based on the fact that the preferred method for answering the formulated hypotheses is through the usage of numerical data and a deductive research method is traditionally preferable when working with quantitative data (Cresswell & Cresswell, 2017, pp.34-35). Additionally, a quantitative method provides the opportunity to process more data, which a qualitative method does not allow. Furthermore, the study uses panel data to study companies over a more extended period. Panel data is a type of longitudinal data that involves repeated observations of the same individuals, groups, or entities over time (Bonhomme, & Davezies, 2019). The advantage of using panel data is that

it allows for the identification of causal relationships, not just associations, by considering factors over time (ibid).

5.2 Selection of Data and Sources

The study's population consisted of Swedish companies, where the selection included companies listed on Small-, Mid-, and Large Cap on Nasdaq OMX Stockholm.

The study used panel data between June of 2015-June of 2022, where the selection was based on the selection of companies having complete data available for each year. All companies were listed in 2015 at the latest, and no new listings between 2016 and 2022 were included in the study. All companies that were delisted during any of the years were also removed from the study since the focus is on companies listed on Nasdaq OMX Stockholm. A typical mandate period for board members ranges from 1-4 years (SFS 2005:551), which is another reason for investigating the data over a longer period. It was also important that the companies had their headquarters in Sweden. Therefore, foreign companies were excluded as the study aims to investigate companies in Sweden.

The company data was collected through the database Orbis (2022), Nasdaq (2022), and through reports published by the Swedish Corporate Governance Board (2015-2022). Orbis is owned by the global information services company Bureau van Dijk (2023), which is known for providing high-quality data and analysis. Nasdaq is a well-established and reputable stock exchange subject to strict regulations and requirements (Nasdaq, 2023). As such, companies listed on the exchange are required to meet specific standards and disclosure requirements, which means that the information available through Nasdaq can be considered accurate and reliable. The Swedish Corporate Governance Board (2023) is an independent organization aiming to develop and promote good corporate governance in Swedish companies. The provided guidelines and recommendations by the SCGB are widely followed and respected by Swedish companies and their stakeholders. The organization operates with complete transparency and accountability. (ibid).

5.3 Hypotheses

Based on the presented literature review, two hypotheses will be introduced. Hypothesis 1 will contribute to answering the main research question on compliance of Swedish listed companies in regards to the requirements of the EU law on Gender Balance on Boards. It is primarily based on high general levels of Swedish female board members, but also assumes

that since the Swedish government strongly opposed the EU law Gender Balance on Boards, there must be a majority of Swedish listed companies that are already complying with the requirements of the law. Hypothesis 2 will contribute to answering the sub research question on differences between sectors in terms of share of female board members. It is based on previous research for other countries that shows a lower share of female board members within the STEM field (Adams and Kirchmaier, 2016). Therefore, the two hypotheses of the study are the following:

Hypothesis 1: At least 50% of Swedish listed companies have complied with the requirements of the EU law on Gender Balance on Boards between the years 2015-2022

Hypothesis 2: Swedish listed companies within the STEM field had lower shares of female board members than the remaining sectors between the years 2015-2022

5.4 Recruitment Summary for the Sample

The companies must:

- Be listed on Nasdaq OMX Sweden during the period of June 2015 to June 2022
- Have its headquarters in Sweden
- Not be considered an small- or medium sized enterprise in 2015
- Have their data available on Orbis, Nasdaq or in reports by the Swedish Corporate Governance Board

5.5 Limitations

One must note that a disadvantage of using secondary, as highlighted by Vartanian (pp. 15, 2011) is that the data collection is done by someone else, which means that the authors are limited to the measures presented in the chosen source. It becomes time-consuming if the researcher needs additional measures that are not found in the selected source, requiring the use of additional sources as a supplement. In the study, this was perceived as problematic since several measures and variables were missing in the Orbis (2022) database and data collected by the Swedish Corporate Governance Board (2015-2022). This meant that the study had to rely on other sources as supplements, Nasdaq (2022) company reports, which contributed to a time-consuming process.

The method used for choosing the companies, by determining certain recruitments could be considered sampling bias, since the sample did not truly represent the population due to the exclusion of SMEs. However, for an analysis of the panel data to be possible, one had to take certain factors such as data availability into account. The sampling bias could however affect the accuracy of the study and the level of generalizability. An increased sample size could have been an effective approach to minimize the occurrence of sampling errors, however that was not possible since the sample was determined based on certain conditions. As for the data on sectors, there was one sector with no companies present from the sample, which was the sector on utilities. However, there is only one Swedish company listed on Nasdaq as belonging to the utilities sector (Nasdaq, 2022). Nonetheless, the sector is excluded from the analysis. As for the share of the population within each sector that is included in the sample, data is presented in Appendix B to highlight the differences between all the sectors and their respective sample. The average share of the sample within each sector was 48 %, contributing to a higher generalizability for the results related to sector analysis.

6. Results and Analysis

This next section aims to present and analyze the findings of the data collection, using insights from both the literature review and the theoretical framework. Firstly, the data on overall gender balance on board at listed companies in Sweden will be analyzed, followed by an analysis of to what extent the companies in question manages to meet the requirements in the EU Law on 33% of the underrepresented gender being present in the board. This next section will also examine the companies that had only one female board member in 2015 and their development over time. Finally, the differences between sectors for gender distribution on boards will be analyzed.

6.1 Gender Balance on Boards at Swedish Listed Companies

The total number of men and women on boards at the chosen sample of Swedish listed companies is visible in Table 1. As for the male board members, there were initially 922 members in 2015. Continuously decreasing throughout the years, the number of male board members was 845 in 2022. The development of women on boards has on the contrary been the opposite, with an increase over the years. With a starting level of 399 members in 2015, the total number of female board members increased to 448 in 2022. The positive increase of females can be attributed to the fact that more companies are prioritizing diversity within the

board (Allbright, 2022). The increase of female board members has however occurred at a slower rate than the decrease of male board members, and one must note that the increase has not been as consistent throughout the years. Between 2017-2018 the number of female board members in fact decreased by 16 women and a similar scenario occurred between 2020-2021 with a decrease of 9 female board members. These findings align with the theory of tokenism (Kanter, 1977) , meaning that some companies might appoint one woman to the board to act as a token to appear more gender equal. That female board member is then considered a representative for women in general, therefore no additional women are appointed board members the following year, which is supported by the findings of Farrell and Hersch (2005).

Table 1: Number of Board Members and Share of Women on Boards

Year	Total Number of Male Board Members	Total Number of Female Board Member	Total Share of Women on Boards	Average Number of Members per Board	Average Number of Women per Board
2015	922	399	30,2%	8,93	2,70
2016	899	435	32,6%	9,01	2,94
2017	893	448	33,4%	9,06	3,03
2018	874	432	33,1%	8,82	2,92
2019	857	451	34,5%	8,84	3,05
2020	852	454	34,8%	8,82	3,07
2021	847	445	34,4%	8,73	3,01
2022	845	448	34,6%	8,74	3,03
Average:	874	439	33,5%	8,9	2,97

As for the total number of board members, the levels have stagnated to a certain extent at approximately around 1300 members, with the highest value recorded in 2017 with 1341 members and the lowest in 2021 with 1292 members. The average number of members per board over the period also remained at approximately nine members, with the lowest value of 8,73 members on average in 2021 and the highest value of 9,06 members on average in 2017. It appears reasonable that the year with the highest number of total board members (2017) also was the year with the highest average number of members per board, and vice versa for the year with lowest number of total board members (2021). As for the precedence of women on boards, the highest year recorded for total share of women on boards was in 2020 with a

share of 34,4%. The year also corresponds with the highest average of women per board, 3,07. One must however acknowledge the fact that the value did not correspond with the year with the highest average number of members per board, which was in 2017 with 9,06 members. This finding can therefore not be explained entirely by scholars that argue that the size of the board has an impact on the number of female board members (Smith & Parrotta, 2015; Brammer et al., 2007; Burke & Mattis, 2000, p.164). These scholars essentially argue the larger the board of directors, the more female board members present. However, one must take into consideration that the variations between average number of women per board were minuscule, with a difference of only a few hundredths of a decimal. The lowest value for total share of women was in 2015 and it was also the year with the lowest average number of women per board, 2,70 members. It was however, not the year with the lowest average of board members, which was in 2021 with 8,73. Again, the size of the board did not correspond with the number of women per board. This finding contradicts the research of Burke and Mattis (2000, p.164) since he argues that as boards shrink in size, so will the share of female board members due to the challenges related to the recruitment of female board members over male.

6.2 Share of Swedish Listed Companies with at Least 33% Female Board Members

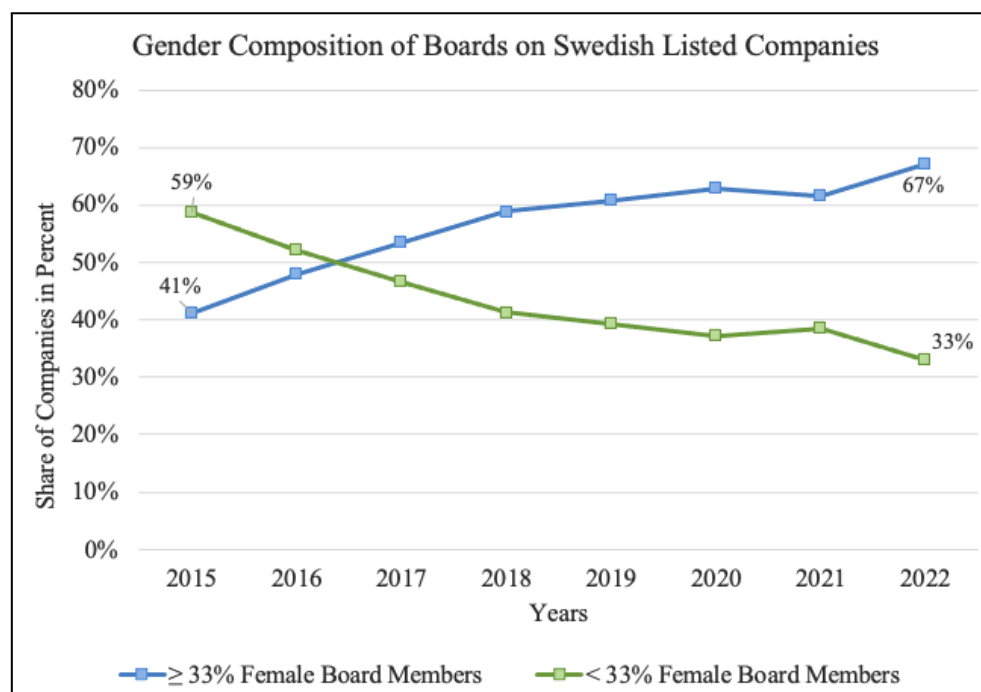


Figure 2: Compliance Levels of Swedish Firm with the EU Law on Gender Balance on Boards 2015-2022 (Orbis, 2022, Nasdaq, 2022, Swedish Corporate Governance Board, 2015-2022)

The criteria of the EU law is based on two areas, the gender composition of boards where the executive directors are included, or the gender balance of the total board. A company does not have to pass both criterias, one is sufficient (European Commission, 2022a). Since the scope of this study is to investigate the requirement for 33% of the underrepresented gender being present within the total number of board members for the companies in the sample. In this study women are the underrepresented gender for all boards. Figure 2 displays the progress of companies in the study with 33% or more women on the boards, and the development of companies that had fewer than 33% female board members. At the start of the time series in 2015 a majority (59%) of the listed companies had fewer than 33% board members. An intersection is visible during mid-2016 where companies with 33% or more became the majority. Apart from a minor decrease in 2020 to 2021, one can observe a continued increase of boards with or more than 33% women, reaching an all time high in 2022 of 67% of the companies in the study. When the underrepresented group on a board is the size of 33%, Kanter (1977) considers the whole group to be “tilted”, and the minority is no longer seen as a representative of their category but as individuals. In addition, minorities are able to ally and thus influence the culture and decision making of the group. Konrad et al. (2008) further explains that since 33% is often 3 out of nine board members, three female board members is often considered achieving critical mass and women have a greater opportunity to influence the group as a result.

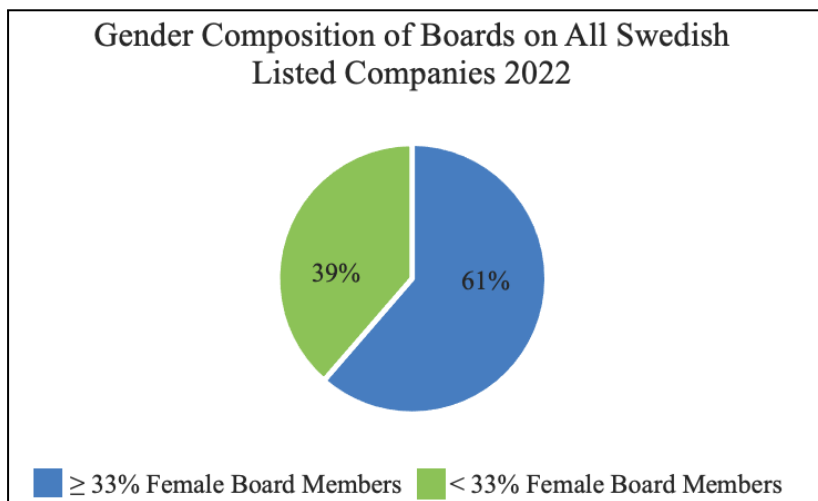


Figure 3: Gender Composition of Boards on All Swedish Listed Companies (Orbis, 2022, Swedish Corporate Governance Board, 2022)

To test the generalizability of the findings in Figure 2, data for the population of the study is presented in Figure 3. The gender composition of boards on all listed companies on Nasdaq OMX Stockholm in 2022 is displayed in Figure 3. Similar to the share displayed for the year 2022 in Figure 3 for the sample, the share for all listed companies with less than 33% women on the board is 39% and for companies with 33% or more women, the share is 61%. The sampling error between the sample and population of the study is noticeable when comparing the values displayed in Figure 2 for 2022 and Figure 3. The discrepancy of the values between the two figures is 6% for both shares measured. The occurrence of the sampling error could be a result of the biased sampling method used during the selection process of the companies included in the sample.

6.3 Examining Companies with a Single Female Board Member in 2015 Over Time

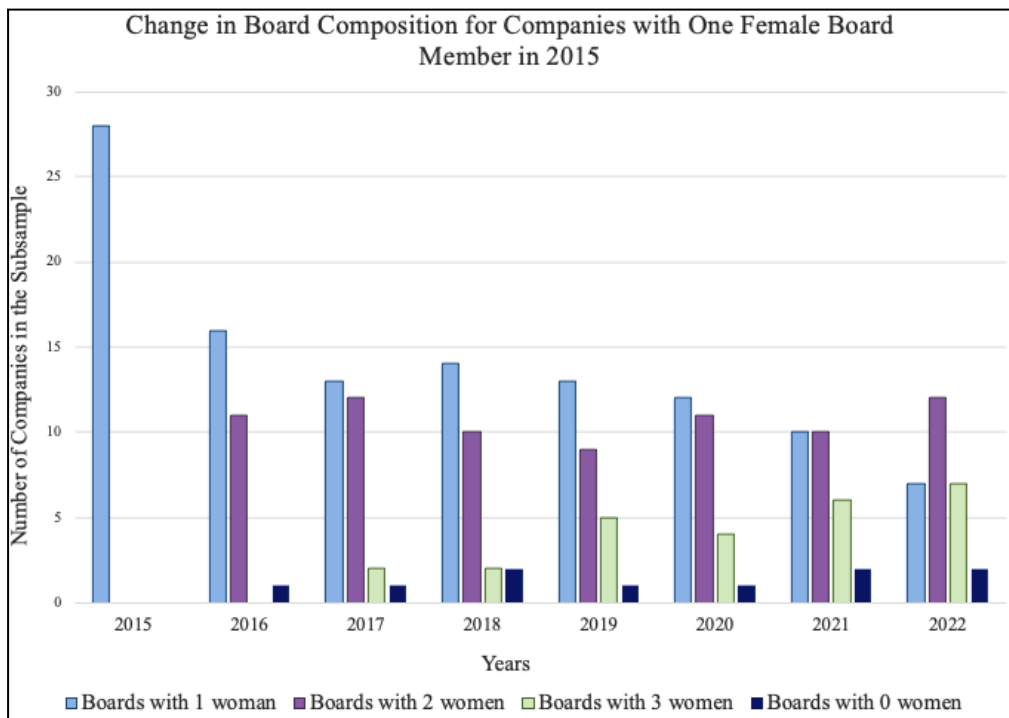


Figure 4: The change in board composition for companies that had one female board member in 2015, the years 2015-2022. Source: A subsample of all companies which had one female board member in 2015

The aim of Figure 4 is to investigate the development in board composition for the companies that only had one female board member in 2015. As previously explained, organizations may appoint women to the board with the intention of presenting a facade of diversity (Allbright, 2022). However, this approach often leads to these individuals being perceived as mere

tokens rather than esteemed contributors (Kanter, 1977). For Figure 4, a subsample was created of all companies that only had one female director on the board in 2015, which is the starting point of the analysis. One year later, 11 of those companies held one additional woman on the board, while one company saw the departure of their only female board member. The fact that almost 40% of the companies in the subsample did not appoint a second female board member within the next year could be explained by the research of Farrell and Hersch (2005), which shows that the likelihood of a company appointing a woman to its board in a given year is negatively affected by the current number of women already serving on the board.

Since the average size of a board throughout all years is around nine members, the boards with only one woman could be considered as a *skewed group* since the group's distribution between men and women was approximately 89:11, with 89% men and 11% women (Kanter, 1977). In a skewed group, the dominant category (in this case the men) often holds more power, influence, and control, while the underrepresented category (the single female board member) face challenges in having their voices heard and their perspectives considered (Konrad et al., 2008). In 2017 however, the shares of boards with one respectively the shares of board with two female boards members had a discrepancy of one. It was also the first year where two of the companies had three women on the board. In these cases, tokenism could not be identified since the boards most likely consisted of approximately 33% women, due to the average size of a board being nine members in total, and the group instead became “titled” and the female board members could form alliances (Konrad et al., 2008, Kanter, 1977).

As of 2018, the share of boards with one woman continued to decrease to a low of 10 companies. In 2022, a majority of the subsample had two or three female board members. Two companies still had no women on the board in 2022. These two boards can be considered *uniform groups* since the boards are completely homogeneous. Although the individual board members may develop differentiations, they will always remain homogenous in terms of their "master status" which in this case is gender (Kanter, 1977). When analyzing these results in regards to the theoretical framework of tokenism, one could argue that the companies that only had one woman on the board throughout the entire time period could have been instances where the female board member was seen as a token, and perhaps even as representation of the group of women (Allbright, 2022; Kanter, 1977).

6.4 The Differences Between Sectors in Terms of Female Board Members

As for potential differences between sectors, the average share of female board members within each sector was calculated to demonstrate the progress of gender balance on a sector level. The recruitment in the EU Law on Gender Balance on Boards of having 33% of the underrepresented gender (women in this case) on the board is referenced throughout the section and acts as a benchmark of gender equality.

Table 2: Sectors and the Average Share of Women on Boards

Years	2015	2016	2017	2018	2019	2020	2021	2022
Energy	23%	21%	25%	27%	25%	25%	25%	25%
Materials	23%	26%	27%	25%	29%	30%	30%	29%
Industrials	25%	27%	30%	31%	31%	33%	33%	34%
Consumer Discretionary	31%	33%	36%	34%	40%	38%	38%	37%
Consumer Staples	38%	39%	36%	39%	36%	32%	38%	36%
Health Care	36%	38%	37%	34%	41%	39%	37%	35%
Financials	37%	41%	41%	40%	40%	38%	33%	38%
Information Technology	30%	33%	31%	29%	34%	37%	35%	34%
Communication Services	39%	42%	42%	38%	37%	40%	42%	40%
Real Estate	35%	41%	39%	38%	40%	38%	37%	37%
All Sectors	32%	34%	35%	34%	35%	35%	35%	35%

In Table 2, the industrial sector stands out as the sector that has made the most significant strides in achieving gender diversity on boards. It consistently increased its representation from 25% in 2015 to 34% in 2022, which is commendable progress towards promoting gender balance since the sector achieved the target of 33% female board members. Similarly, the financial sector has also shown positive growth in gender representation, with an increase from 37% in 2015 to 41% in 2021. The consumer discretionary sector demonstrated high levels of women already in 2015, with 31%. There was an impressive increase to 40% in 2020 but the average share in 2022 ended at 37%. A similar pattern was visible within the

communication services. Levels of 39% in 2015, the highest value of the year, were sustained throughout the years, even demonstrating a small increase by reaching 40% in 2022. The sector of consumer staples experienced a decrease of 38% in 2015 to 36% in 2022, but also reached the recruitment. The development of the health sector was very similar. The information sector managed to reach the target by reaching 34% in 2022, an increase of four percentage points since 2015. Although the initial shares in 2015 for the real estate sector exhibited relatively high levels with a share of 35% women, there was only an increase of two percentage points until 2022. While the materials sector experienced an overall positive trend, with a noticeable increase from six percentage points from 2015 to 2022, the sector failed to reach the target of 33%. The energy sector also failed to reach the requirement of 33%, with levels of around 25% throughout the time period.

When examining the sectors in 2022, it is worth noting that only two sectors, energy and materials, did not meet the 33% representation requirement set by the EU law. Despite progress made in increasing gender diversity across various sectors, these two sectors fell short of achieving the target. In addition, the information technology and industrial sectors just reached the target by achieving 34% and the health care sector had a share of 35%. All five sectors mentioned could be considered as part of the STEM field. These findings correspond with the research of Adams and Kirchmaier (2016) that found that STEM companies had a lower share of female board members than the other sectors. They highlight the underrepresentation of female workers within the fields as a potential explanation. The communication services sector could also be considered a STEM field due to engineering being a key competency of the field, but the sector did not correspond with the pattern of other STEM sectors as the share of 40% in 2022 was the highest value of the year. Adams and Kirchmeier (2016) also consider the financial sector to be “STEM-intensive”. However, the sector is not fully considered to operate within the STEM field and is therefore not included.

7. Concluding discussion

The findings in the results, along with the theoretical frameworks and literature aims to answer the following research question:

“To what extent have Swedish listed companies complied with the requirements of the EU law on Gender Balance on Boards between the years 2015-2022?”

As presented in the introduction and background, the Swedish parliament has consistently stopped any attempts to implement “hard” gender quotas in the business sector. In the meanwhile, the share of women on boards at Swedish listed companies has continued to increase from 30,2% in 2015, to 34,6% in 2022, despite the imposed quotas only being considered as “recommendations”. Therefore, there is a need to examine gender balance in Sweden on a company level to understand to what extent Swedish companies are reaching the requirement of the EU law on Gender Balance on Corporate Boards, which also corresponds with the goal of the Swedish government, without the precedence of any “hard” gender quotas on corporate governance. Due to Sweden being considered as one of the most gender equal countries in the EU, and the overall high levels of female board members in listed companies the following hypothesis was formulated to further contribute to answering the research question:

“At least 50% of Swedish listed companies have complied with the requirements of the EU law on Gender Balance on Boards between the years 2015-2022.”

As for the EU requirement on the gender composition consisting of at least 33% of the underrepresented gender, Figure 3 demonstrates to what extent Swedish listed companies are complying with the directive. As of 2022, 67% of the companies in the study have reached the target of having at least 33% women on the board. However, it was not until mid-2016 when the share of companies with at least 33% women on the board became a majority. Although their time period measured pre mid-2016 was shorter than the period after mid-2016, the hypothesis is rejected. Evidentially, a third of the companies studied did not meet the requirements for any of the years. Worth noting is that the share of 33% of the underrepresented gender on a board is still significantly lower than the goal set by the Swedish government.

To understand any psychosocial patterns related to the lack of female board members in publicly listed companies, three theoretical frameworks were discussed. The concept of “the glass ceiling” contributed to greater understanding of the underlying factors that prevent women and minorities from being promoted to leadership positions within an organization

((Boschini, 2004, p.77). Since these obstacles are frequently unspoken, rooted in accepted societal norms and implicit biases rather than explicit company regulations, applying the theoretical framework becomes more challenging when assessing or discussing real-world scenarios. Nevertheless, the framework remains relevant to use in theoretical discussions and to explain potential hindrances women face when trying to climb the corporate hierarchical ladder.

The framework “tokenism”, coined by Kanter (1977) contributed to explaining the structures of groups with only one or very low shares of women. The framework was a valuable contribution to the discussion of potential reasons as to why a significant share of Swedish listed companies only had one woman on the board in 2015, as displayed in Figure 5. It was evident as some companies continued having only one female board member for several consecutive years, the purpose of the initial appointment of the first woman could have been to improve the companies’ appearance as “diverse”, which was also supported by multiple scholars (Allbright, 2022; Kanter, 1977; Burgess & Tharenou, 2002).

The final framework by Kanter (1977), on “critical mass” focused on how gender distribution affects a group. Not only did the framework explain how the behavior of a group’s change in line with the changes in the gender distribution of the group. It is not until the ratio of men and women is approximately 65:35, a “titled group”, that women have the opportunity to truly impact the rest of the group members. This is also when the “critical mass” is achieved. For boards of directors, this is when the minority (women) is of the size to have a positive effect on matters such as board governance and attendance of the board (KÄLLOR).

Only looking at a sample of Swedish companies without taking sectors into account would be to oversimplify the issue. Therefore, to further investigate any potential difference between sectors, the study aimed to answer the following sub research question:

“To what extent did the share of female board members of Swedish listed companies differ across sectors between the years 2015-2022?”

As for the share of female board members within each sector, the values displayed in Table 2 varied between 23-39% in 2015 and between 25-40% in 2022. These findings demonstrate a scenario of large variation across sectors. While the sector with the highest value in 2022,

communication services, scored substantially above the EU directive of 33%, the sector with the lowest value, energy, failed to meet the requirements by eight percentage points.

Previous studies showed that companies within the STEM field had lower shares of female board members than the rest (Adams & Kirchmaier, 2016) Therefore the following hypothesis was created to assist in answering the sub research question:

“Swedish listed companies within the STEM field had lower shares of female board members than the remaining sectors between the years 2015-2022”

To display the differences between sectors, relevant data was collected and presented in Table 2. It showed that a majority of the sectors, eight, reached the requirement set by the EU of having at least 33% of the underrepresented gender on the board. The two sectors that did not achieve levels of at least 33% were energy and materials. Furthermore, the sectors on information technology, industries, and health care reached levels of just above 33%. All five sectors mentioned could be considered as part of the STEM field, thus corresponding with the research of Adams and Kirchmaier (2016), arguing that STEM companies have a lower share of female board members than remaining sectors. However, the communication services sector could also be considered a STEM field due to engineering being incorporated on multiple levels within the sector. In contrast, the sector did not correspond with the pattern of other STEM sectors as the share of 40% in 2022 was the highest value of the year. Although five out of six sectors within the STEM field had lower levels of female board members than the rest of the sector, the hypothesis was rejected due to the high levels of female board members within the communications technology sector.

Limitation connected to the study mostly concerns the usage of secondary data, since it is limited to available measures and required additional sources. Missing measures led to reliance on supplementary sources, making the process time-consuming. The method used for selecting companies introduced potential sampling bias by excluding SMEs and companies that lacked data for certain years. The study could, however, not increase the sample size due to predetermined conditions.

Although Sweden is not obligated to follow EU Law on Gender Balance on Boards, the findings of these studies are relevant since they allow for comparisons of Swedish companies

to foreign companies. The study also included the aspect of differences between Swedish company sectors, and filled a research gap due to the lack of previous research on the topic. As for recommendations for future studies, there are multiple areas that could be further explored. It would be of interest to conduct more qualitative research on Swedish listed companies to improve our understanding of the underlying factors in recruitment processes of board members. Furthermore, additional research on predicting the future for gender equality in Sweden based on the country's decision to opt out of the EU Law on Gender Balance on Boards and perform cross country comparisons with countries that introduced binding quotas on gender balance on corporate boards.

10. References

Adams, R. & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance, *Journal of Financial Economics*, vol. 94, no. 2, pp.291-309. Available online: <https://doi.org/10.1016/j.jfineco.2008.10.007> [Accessed 23 May 2023]

Adams, R. & Funk, P. (2012). Beyond the Glass Ceiling: Does Gender Matter? *Management Science*, vol. 58, no. 2, pp.219-235. Available online: <http://dx.doi.org/10.1287/mnsc.1110.1452> [Accessed 23 May 2023]

Adams, R. & Krichmaier, T. (2016). Women on Boards in Finance and STEM Industries, *American Economic Review*, vol. 106, no. 5, pp.277-81. Available online: <https://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.p20161034> [Accessed 23 May 2023]

Adler, R. (2001). Women in the Executive Suite Correlate to High Profits. *Harvard Business Review*, vol. 79, no. 3, pp.15-30.

Ahern, K. & Dittmar, A. (2012). The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation, *Quarterly Journal of Economics*, vol. 127, no. pp.137-197, Available online: <http://dx.doi.org/10.2139/ssrn.1364470> [Accessed 23 May 2023]

Albrecht, J., Björklund, A. & Vroman, S. (2003). Is There a Glass Ceiling in Sweden? *Journal of Labor Economics*, vol. 21, no.1, pp.145-177. Available online: <https://www.journals.uchicago.edu/doi/10.1086/344126> [Accessed 23 May 2023]

Allbright. (2022). The Allbright Report November 2022: No New Female Executives, Available online: https://static1.squarespace.com/static/5501a836e4b0472e6124f984/t/63ee1f443f072e4f40846dac/1676549962255/Allbright_report_2022_eng.pdf [Accessed 23 May 2023]

Andra AP-fonden, 2022. Kvinnoindex [pdf], Available at:
<https://ap2.se/wp-content/uploads/2022/06/AP2-Kvinnoindex-2022.pdf> [Accessed 23 May 2023]

Bennouri, M., De Amicis, C. & Falconieri, S. (2020). Welcome on board: A note on gender quotas regulation in Europe, *Economics Letters*, vol. 190. Available online:
<https://doi.org/10.1016/j.econlet.2020.109055> [Accessed 23 May 2023]

Bonhomme, S., & Davezies, L. (2019). 2019: Panel Data, Old and New, *Annals of Economics and Statistics*, vol. 134, pp.1–4. Available online:
<https://doi.org/10.15609/annaeconstat2009.134.0001> [Accessed 23 May 2023]

Boschini, A. (2004). Balans på toppen - incitament för en jämnare representation av kvinnor och män i näringslivets ledning. Stockholm: SNS

Brammer, S., Millington, A. & Pavelin, S. (2007). Gender and Ethnic Diversity Among UK Corporate Boards, *Corporate Governance: An International Review*, vol. 15, pp. 393-403. Available online: <https://doi.org/10.1111/j.1467-8683.2007.00569.x> [Accessed 23 May 2023]

Bureau van Dijk. (2023). Orbis. Available at:
<https://www.bvdinfo.com/en-us/our-products/data/international/orbis> [Accessed 23 May 2023]

Burgess, Z. & Tharenou, P. (2002). Women Board Directors: Characteristics of the Few, *Journal of Business Ethics*, vol. 37, pp. 39–49. Available online:
<https://doi.org/10.1023/A:1014726001155> [Accessed 23 May 2023]

Burke, R. (1997). Women on Corporate Boards of Directors: A Needed Resource, *Journal of Business Ethics*, vol. 16, pp. 909–915. Available online:
<https://doi.org/10.1023/A:1017987220508> [Accessed 23 May 2023]

Burke, R. & Mattis, M. (2000). Women on Corporate Boards of Directors International Challenges and Opportunities. Dordrecht: Kluwer Academic.

Comi, S., Grasseni, M., Origo, F., & Pagani, L. (2020). Where women make a difference: Gender quotas and firms' performance in three European countries, *Industrial and Labor Relations Review*, vol. 73, no. 3, pp. 768–793. Available online:
<https://doi.org/10.1177/0019793919846450> [Accessed 23 May 2023]

Committee on Civil Affairs (2008). Könsfördelningen i bolagsstyrelser m.m. (2008/09:CU14). The Swedish Parliament

Committee on Civil Affairs (2018). Könsfördelningen i bolagsstyrelser (2018/19:CU9). The Swedish Parliament

Davison, H. K. & Burke, M. J. (2000). Sex discrimination in simulated employment contexts: A meta-analytic investigation. *Journal of Vocational Behavior*, vol. 56, no. 2, pp. 225–248. Available online: <https://doi.org/10.1006/jvbe.1999.1711> [Accessed 23 May 2023]

Dunn, P. (2012). Breaking the boardroom gender barrier: The human capital of female corporate directors, *Journal of Managerial Governance*, vol. 16, pp. 557–570. Available online: <https://link.springer.com/article/10.1007/s10997-010-9161-2> [Accessed 23 May 2023]

European Commission. (2022a). Gender Equality: The EU is breaking the glass ceiling thanks to new gender balance targets on company boards, Available online: https://ec.europa.eu/commission/presscorner/detail/en/statement_22_7074 [Accessed 23 May 2023]

European Commission. (2022b). SME Definition, Available online: https://single-market-economy.ec.europa.eu/smes/sme-definition_en [Accessed 23 May 2023]

European Commission. (2012). DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on improving the gender balance among non-executive directors of companies listed on stock exchanges and related measures, COM(2012) 614 final, Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012PC0614&from=EN> [Accessed 23 May 2023]

European Institute for Gender Equality. (2022). Gender Equality Index 2022: The COVID-19 pandemic and care, Available online: <https://eige.europa.eu/publications-resources/publications/gender-equality-index-2022-covid-19-pand> [Accessed 23 May 2023]

European Women on Boards. (2022). Gender Balance quota and targets in Europe [pdf], Available at: <https://europeanwomenonboards.eu/wp-content/uploads/2022/05/Overview-Gender-balance-quota-and-targets-in-Europe-April-2022.pdf> [Accessed 23 May 2023]

Farrell, K. A., & Hersch, P. L. (2005). Additions to corporate boards: The effect of gender. *Journal of Corporate Finance*, vol. 11, no.1, pp. 85–106. Available online: [http://www.sciencedirect.com/science/article/pii/S0929-1199\(04\)00026-4](http://www.sciencedirect.com/science/article/pii/S0929-1199(04)00026-4) [Accessed 23 May 2023]

Föreningen Stockholms Företagsminnen. (2004). Stockholms Företagsminnen 30 år! Företagsledare, forskare, politiker & journalister om näringslivshistoria, Available online: <https://www.naringslivshi.cdn.triggerfish.cloud/uploads/2018/12/nummer-3-2004.pdf> [Accessed 23 May 2023]

Goodstein, J., Gautam, K. & Boeker, W. (1994) The Effects of Board Size and Diversity on Strategic Change, *Strategic Management Journal*, vol. 15, no. 3, pp. 241- 250. Available online: <https://www.jstor.org/stable/2486969> [Accessed 23 May 2023]

Guldiken, O., Mallon, M., Fainshmidt, S., Judge, W. & Clark, C. (2019). Beyond tokenism: How strategic leaders influence more meaningful gender diversity on boards of directors. *Strategic Management Journal*, vol. 40, no. 12, pp. 2024-2046, Available online: <https://doi.org/10.1002/smj.3049> [Accessed 23 May 2023]

Hasselgren, R. (2010). Corporate Governance in Swenglish: A combination of International Corporate Governance Discipline and Swedish Cases, *Global Corporate Governance Forum*, Available online: https://www.ifc.org/wps/wcm/connect/6afce8b1-0399-4614-8114-3c51d88dacbd/BICG_CG%2Bin%2BSwenglish%2Bsmall.pdf?MOD=AJPERES&CVID=jtCwoG0 [Accessed 23 May 2023]

Högfeldt, P. (2004). The History and Politics of Corporate Ownership in Sweden, A National Bureau of Economic Research Conference Report, Available online: <https://www.nber.org/system/files/chapters/c10276/c10276.pdf> [Accessed 23 May 2023]

Kanter, R. (1977). Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women, *American Journal of Sociology*, vol. 82, no. 5, pp. 965–90, Available online: <https://www.journals.uchicago.edu/doi/abs/10.1086/226425> [Accessed 23 May 2023]

King, E., Hebl, M., George, J. & Matusik, S. (2010). Understanding Tokenism: Antecedents and Consequences of a Psychological Climate of Gender Inequity, *Journal of Management*, vol. 36, pp. 482-510. Available online: https://www.researchgate.net/publication/247570267_Understanding_Tokenism_Antecedents_and_Consequences_of_a_Psychological_Climate_of_Gender_Inequity [Accessed 23 May 2023]

Lekvall, P. (2014). The Nordic Corporate Governance Model, Stockholm: SNS

Mateos de Cabo, R., Terjesen, S., Escot, L. & Gimeno, R. (2019). Do ‘soft law’ board gender quotas work? Evidence from a natural experiment, *European Management Journal*, vol. 37, no. 5, pp. 611-624, Available online: <https://doi.org/10.1016/j.emj.2019.01.004>. [Accessed 23 May 2023]

Morgan Stanley Capital International. (2023). The Global Industry Classification Standard (GICS®), Available online: <https://www.msci.com/our-solutions/indexes/gics> [Accessed 23 May 2023]

Nasdaq. (2022). Companies Listed on Nasdaq Stockholm, Available at: <https://www.nasdaqomxnordic.com/aktier/listed-companies/stockholm> [Accessed 23 May 2023]

Nasdaq. (2023). Nordic Main Market Rulebook for Issuers of Shares: Regelverk för aktieemittenter på huvudmarknaden [pdf], Available at: [https://www.nasdaq.com/docs/2023/02/27/Nasdaq_Nordic_Main_Market%20_-_Shares_-_Rulebook_\(SWE\).pdf](https://www.nasdaq.com/docs/2023/02/27/Nasdaq_Nordic_Main_Market%20_-_Shares_-_Rulebook_(SWE).pdf) [Accessed 23 May 2023]

Orbis. (2023). Available at: <https://orbis-r1.bvdinfo.com/version-20230324-3-3/Orbis/1/Companies/List> [Accessed 23 May 2023]

Pagano, M. & Volpin, P. (2001). The Political Economy of Finance, *Oxford Review of Economic Policy*, vol. 17, no.4, pp. 502–519, Available online: <https://doi.org/10.1093/oxrep/17.4.502> [Accessed 23 May 2023]

Seierstad, C., Warner-Söderholm, G., Torchia, M. & Huse, M.. (2017). Increasing the Number of Women on Boards: The Role of Actors and Processes, *Journal of Business Ethics*, vol. 141, no. 2, pp. 289–315. Available online: https://www.researchgate.net/publication/279220502_Increasing_the_Number_of_Women_on_Boards_The_Role_of_Actors_and_Processes [Accessed 23 May 2023]

SFS 2005:551. Swedish Companies Act. Swedish Ministry of Justice

Snyder, K. & Green, A. Revisiting the Glass Escalator: The Case of Gender Segregation in a Female Dominated Occupation, *Social Problems*, vol. 55, no.2, pp. 271–299, Available online: <https://doi.org/10.1525/sp.2008.55.2.271> [Accessed 23 May 2023]

Smith, N. & Parrotta, P. (2018). Why so Few Women on Boards of Directors? Empirical Evidence from Danish Companies in 1998–2010, *J Bus Ethics*, vol. 147, pp. 445–467. Available online: <https://doi.org/10.1007/s10551-015-2974-9> [Accessed 23 May 2023]

Swedish Corporate Governance Board. (2020a). The Swedish Corporate Governance Code [pdf], Available at: https://www.bolagsstyrning.se/UserFiles/Koden/2020/SvenskKodBolagsstymn_justerad_ENG_211220.pdf [Accessed 23 May 2023]

Swedish Corporate Governance Board. (2015). Statistik könsfördelning 2015-05-15, Available online: https://www.bolagsstyrning.se/userfiles/archive/470/bk20150612_pdf.pdf [Accessed 23 May 2023]

Swedish Corporate Governance Board. (2016). Statistik könsfördelning 2016-06-10, Available online:
https://www.bolagsstyrning.se/userfiles/archive/611/statistik_konsfordelning_2016-06-10.pdf
[Accessed 23 May 2023]

Swedish Corporate Governance Board. (2017). Statistik könsfördelning 2017-06-10, Available online:
https://www.bolagsstyrning.se/userfiles/archive/3696/statistik_konsfordelning_20170610.pdf
[Accessed 23 May 2023]

Swedish Corporate Governance Board. (2018). Statistik könsfördelning 2018-06-10, Available online:
https://www.bolagsstyrning.se/userfiles/archive/3697/statistik_konsfordelning_20180610.pdf
[Accessed 23 May 2023]

Swedish Corporate Governance Board. (2019). Statistik könsfördelning i bolagsstyrelserna 2019-06-10, Available online:
https://www.bolagsstyrning.se/UserFiles/Archive/Statistik_konsfordelning_2019.pdf
[Accessed 23 May 2023]

Swedish Corporate Governance Board. (2020b). Statistik könsfördelning i bolagsstyrelser 2020-06-30, Available online:
https://www.bolagsstyrning.se/userfiles/archive/3920/statistik_konsfordelning_2020.pdf
[Accessed 23 May 2023]

Swedish Corporate Governance Board. (2021). Statistik könsfördelning i bolagsstyrelser 2021-06-10, Available online:
https://www.bolagsstyrning.se/UserFiles/Archive/3951/Statistik_konsfordelning_i_bolagsstyrelser_2021-06-10.pdf [Accessed 23 May 2023]

Swedish Corporate Governance Board. (2022). Statistik könsfördelning i bolagsstyrelser 2022, Available online:
https://www.bolagsstyrning.se/UserFiles/Archive/3974/Statistik_konsfordelning_i_bolagsstyrelser_2022.pdf [Accessed 23 May 2023]

Swedish Corporate Governance Board. (2023). The story of the Code, available at:
https://www.bolagsstyrning.se/the-code/history__3726 [Accessed 23 May 2023]

Swedish Ministry of Foreign Affairs. (2021). FRANKRIKE – Mänskliga rättigheter, demokrati och rättsstatens principer: situationen per den 15 maj 2021. Available online:
<https://www.regeringen.se/contentassets/a21223e80c46498083e7df6038991fdc/frankrike----manskliga-rattigheter-demokrati-och-rattsstatens-principer-2021/> [Accessed 23 May 2023]

Swedish Ministry of Justice. (2016). Jämn könsfördelning i bolagsstyrelser, The Swedish Parliament, Available online:
<https://data.riksdagen.se/fil/1215A09E-1422-4446-8013-86F126A8C9CB> [Accessed 23 May 2023]

S&P Dow Jones Indices. (2023). Global Industry Classification Standard (GICS®) Methodology [pdf], Available at:
<https://www.spglobal.com/spdji/en/documents/methodologies/methodology-gics.pdf> [Accessed 23 May 2023]

Vargas, T. (2018). She coined the term ‘glass ceiling.’ She fears it will outlive her, The Washington Post, March 1, Available online:
<https://www.washingtonpost.com/news/retropolis/wp/2018/03/01/she-coined-the-phrase-glass-ceiling-she-didnt-expect-it-to-outlive-her/> [Accessed 23 May 2023]

Vartanian, T. (2011). Secondary Data Analysis. New York: Oxford University Press

Waldenström, D. (2014). Swedish Stock and Bond Returns, 1856–2012, in R. Edvinsson, T. Jacobson & Daniel Waldenström (eds), *Historical Monetary and Financial Statistics for Sweden, Volume II: House Prices, Stock Returns, National Accounts, and the Riksbank Balance Sheet, 1620–2012* (pp. 223–292). Stockholm: Sveriges Riksbank & Ekerlids Förlag.

Wang, M. & Kelan, E. (2013). The Gender Quota and Female Leadership: Effects of the Norwegian Gender Quota on Board Chairs and CEOs, *Journal of Business Ethics*, vol. 117, no. 3, pp. 449–66. Available online:
https://www.researchgate.net/publication/257541964_The_Gender_Quota_and_Female_Leadership_Effects_of_the_Norwegian_Gender_Quota_on_Board_Chairs_and_CEOs [Accessed 23 May 2023]

Wittenberg-Cox, A. (2021). France Unanimously Votes Gender Quotas For Executive Leadership, Forbes, May 15, Available online:
<https://www.forbes.com/sites/avivahwittenbergcox/2021/05/15/france-unanimously-votes-gender-quotas-for-executive-leadership/?sh=4c7fdc92b8eb> [Accessed 23 May 2023]

Zimmer, L. (1988). Tokenism and Women in the Workplace: The Limits of Gender-Neutral Theory, *Social Problems*, vol. 35, no. 1, pp. 64-77. Available online:
<https://www.jstor.org/stable/800667> [Accessed 23 May 2023]

Appendix

Appendix A: List of companies in study and the corresponding sector

Sector	Companies
Energy	Orrön Energy Tethys Oil
Materials	BE Group Beijer Alma Bergs Timber BillerudKorsnäs Boliden HEXPOL Holmen ProfilGruppen SAAB SCA SKF SSAB Rottneros Troax Group
Industrials	Addtech AFRY Alfa Laval ASSA ABLOY Atlas Copco Beijer Electronics Group Beijer Ref Bong BTS Group Bufab Concejo Concentric Concordia Maritime Elanders Eltel Ework Group Fagerhult Indutrade Inwido ITAB Shop Concept Lifco Lindab International Loomis Malmbergs Midway Holding NCC Nederman Holding NGS Group NIBE Industrier Nolato NOTE OEM International Peab PION

	Rejlers Sandvik Securitas Skanska Studsvik SWECO Systemair Trelleborg XANO Industri Volvo
Consumer Discretionary	Besqab Betsson Bilia Björn Borg Bulten Byggmax Group Clas Ohlson Dustin Group ELON Electrolux Eniro Group Gränges Hennes & Mauritz Husqvarna Kabe Group Lammhults Design Group MEKO Modern Times Group MTG Nelly Group New Wave Group Nobia SAS SkiStar Thule Group VBG Group
Consumer Staples	AAK Axfood Cloetta Duni Midsona Scandi Standard
Health Care	BioGaia Biotage Elekta Elos Medtech Dedicare Getinge Medivir Orexo Sectra Swedish Orphan Biovitrum Vitrolife
Financials	Avanza Bank Holding Bure Equity Collector

	Hoist Finance Industrivärden Investor Kinnevik SEB Latour Ratos Swedbank Öresund
Information Technology	Addnode Group Enea Hexagon Knowit Lagercrantz Group Mycronic Prevas Pricer Proact IT Group Softronic Tobii TradeDoubler Vitec Software Group
Communication Services	DORO Ericsson HMS Networks Tele2 Telia Company
Utilities	-
Real Estate	Atrium Ljungberg Castellum Corem Property Group Diös Fastigheter Balder Fabege Fastpartner Hufvudstaden JM Platzer Fastigheter Sagax Wallenstam Wihlborgs Fastigheter

Appendix B

Sector	Sample/Population	Share of Population
Energy	2/9	0,2222 = 22%
Materials	14/16	0,875 = 88%

Industrials	44/87	0,505 = 51%
Consumer Discretionary	25/50	0,500 = 50%
Consumer Staples	6/7	0,857 = 86%
Health Care	11/59	0,186 = 19%
Financials	12/36	0,333 = 33%
Information Technology	13/35	0,371 = 37%
Communication Services	5/10	0,500 = 50%
Utilities (Not included in the study)	0/1	0,000 = 0%
Real Estate	13/37	0,351 = 35%
Total number of sectors included in the study: (Utilities is not included in the study)	Total Sample/Population: (Companies included in the sample/companies listed on Nasdaq OMX Stockholm in June 2022)	Average Share of Population:
10	148/347	47%