

Who is elected to the board of directors and why?

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The composition of a company's board of directors is crucial for its success. In this study, we examine the professional competencies of board members and their impact on firm performance, governance policies, and election results. Our novel dataset reveals that the mix of competencies has evolved, but the increase in the proportion of women on boards does not primarily drive this change. Our results suggest that board members' professional qualifications, such as CEO experience and expertise in digitalization, are more influential than their demographic characteristics, including gender, nationality, and age. Specifically, directors with digitalization expertise show a positive correlation with Tobin's Q. These candidates not only become more prevalent but also receive substantial support from shareholders during annual general meetings. Furthermore, our findings emphasize that the absence of specific competencies, rather than the existing board composition, significantly negatively impacts firm performance.

JEL-Classification: G30; G34

Keywords: Corporate governance; Board of directors; Director competencies; Director elections

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1. Introduction

The board of directors is elected by shareholders at the annual meeting and serves as the supreme body of a company. Its primary responsibility is to guide the company in the best interests of shareholders, ultimately aiming to generate company value. Bad corporate performance is often ascribed to weaknesses in corporate governance in general and poor board composition in particular (see, e.g., Shleifer and Vishny, 1997; Daily, Dalton, and Cannella, 2003). The lack of board independence, diversity, or business skills may lead to weak monitoring, poor managerial advice, and suboptimal strategic decisions. Consequently, the composition of the board of directors plays a crucial role in a company's success (see, e.g., Adams, Hermalin, and Weisbach, 2010, and Johnson, Schnatterly, and Hill, 2013, for an overview of board research).

As a result, the “right” composition of the board of directors is extensively debated in academia and practice. Several stakeholders outside the boardroom exert influence. Responding to social and political imperatives, policymakers impose quotas to enhance gender diversity on boards (e.g., Adams and Ferreira, 2009; Ahern and Dittmar, 2012). They postulate that a higher proportion of women is an important socio-political issue and beneficial to the company's performance. Women are assumed to bring different perspectives to board discussions due to their different life experiences, which help solve problems. The factual situation here, however, is not clear-cut. Shareholders have received much more rights and are expected to use their voting power actively to influence the board's composition, corporate governance in general, or firm strategy (e.g., Yermack, 2010). In this context, proxy advisors play a pivotal role in guiding shareholders, advising them, for instance, to reject board members perceived as lacking independence (e.g., Choi, Fisch, and Kahan, 2008; Malenko and Malenko, 2019). Simultaneously, shareholder activists seek board representation to influence the companies' strategies (e.g., Kang, Kim, Kim, and Low, 2022).

The board of directors is particularly exposed to pressure if seen as unbalanced (e.g., McKinsey & Company, 2022). Accordingly, the boards of directors regularly review whether their composition is still appropriate for fulfilling their duties. The nomination committee plays a crucial role in proposing suitable candidates for election at the annual general meeting. They can also commission specialized headhunters to help them in their search. Typically, a competency matrix is drawn up for this purpose, in which the members' specialist skills are compared with the required skills on the board. Identified gaps are then addressed by introducing new board members. Hermalin and Weisbach (2003) argue that boards are endogenously determined by such firm-specific challenges. For instance, companies expanding abroad will likely nominate board members with international experience (e.g., Oxelheim, Gregorič, Randøy, and Thomsen, 2013). It is, therefore, not surprising that the board of directors has significantly evolved over the past decades (e.g., Lehn, Patro, and Zhao, 2009).

The board of directors is accountable to the shareholders and plays a crucial role in corporate governance. The answer to the question of who is elected on the board of directors and why is therefore important for academics and practitioners. Shareholders should have a vested interest in electing the best board members to represent their interests. More recently, researchers have begun to investigate how shareholders influence director elections. In an early study, Cai, Garner, and Walkling (2009) found that firm performance, governance, director performance, and voting mechanisms affect director elections. Generally, board members are usually elected with 95% or more of the votes. Ertimur, Ferri, and Oesch (2018) argue that proxy advisors' recommendations are key in affecting voting outcomes, highlighting also that lower yes-votes to individual members prompt the board to address related issues. Aggarwal, Dahiya, and Prabhala (2019) find that even when directors are not dismissed, low voting approval may lead directors to depart the board or to move to less prominent board positions.

Lack of diversity, considered a major investor concern, has prompted research into shareholders' voting behavior in director elections, focusing on gender and race. Gow, Larcker, and Watts (2023) investigate the relationship between shareholders' voting behavior and (gender) diversity, revealing that while shareholders express support for increased gender diversity, the absolute impact on voting outcomes is relatively small. Furthermore, Sulaeman and Ye (2023) find that shareholders tend to vote more favorably for same race directors. The studies reveal the dynamics of shareholder preferences in director elections, emphasizing the intricate considerations related to diversity.

In our study, we explore the selection criteria for directors on corporate boards and the reasons behind their election. We extend our analysis beyond demographic characteristics, such as gender, to focus on professional attributes. One crucial aspect is the provision of human capital, as highlighted by Volonté and Gantenbein (2016). Boards navigate companies through complex challenges created by disrupting technologies and global economic shifts. We investigate whether the composition of board members in terms of professional competencies has changed over the past years. As board diversity is an important topic, we examine whether directors' demographics are associated with professional competencies. Secondly, we analyze whether the skills of board members have an impact on company performance and decisions. Finally, we are interested in whether these findings are also reflected in the voting behavior of shareholders.

The paper contributes significantly to the literature by addressing a gap in research. While past studies extensively explored the impact of board independence or diversity on firm performance and decision-making, the influence of directors' professional competencies has been under-researched. Since it is argued that greater board diversity is particularly valuable because it brings different views and opinions into the solution-finding process, measuring the different characteristics more directly based on professional skills makes sense. It can be assumed that people with a legal background think

differently from digital experts. The difference in thinking can be greater than between a female and a male lawyer. This gap exists mainly due to the difficulty in obtaining data on the professional characteristics of board members. However, we overcome this challenge by leveraging exclusive data from the Swiss proxy advisor Inrate Ltd. The data is drawn from hand-collected CV information in annual reports, AGM invitations, and other publicly available sources like LinkedIn. Our research focuses on traditional 'hard' skills, such as financial expertise, rather than interpersonal 'soft' skills.

We conduct our research in Switzerland to investigate the relevance of directors' professional competencies. The setting provides several advantages. Since the amendment to the law following the adoption of a popular initiative against rip-off salaries, effective from January 1, 2014, members of the board of directors must be elected annually and individually, prohibiting staggered election systems. Furthermore, agenda items at Swiss general meetings are accepted by a majority vote of the shareholders, contrasting with the U.S., where plurality voting is also possible (see Cai, Garner, and Walkling, 2013).

The amendment to the law also strengthened other shareholder rights, particularly regarding votes on remuneration. This enhancement has rendered participation in general meetings more appealing. In addition, a voting obligation has been introduced for pension funds. Pension funds must vote on specific proposals (including elections to the board of directors). As part of this obligation, pension funds must disclose their voting behavior to the insured persons.

Notably, increasing numbers of shareholders are committing to the UN Principles for Responsible Investment (Gibson, Glossner, Krueger, Matos, and Steffen, 2022). Doing so affirms their commitment to being active owners and exercising their voting rights. The list of participants has notably expanded in recent years. The shares of many companies in Switzerland are in the hands of large foreign institutional investors. These investors often exercise their voting rights following the recommendations of the major proxy advisors. Therefore, the decision to vote for or against a board of directors is backed by more information than in the past.

Furthermore, the Swiss Stock Exchange, since 2002, mandates the disclosure of board member characteristics. Information on the competencies of the board of directors is mainly available in the CVs published in the annual report. The adjustments to the corporate governance system and the strong internationalization of Swiss companies also impacted the boards of directors. As a result, Swiss boards of directors have undergone significant changes in the past 30 years (see e.g., Volonté, 2019).

Our results indicate that there has been a tremendous shift in board composition. We find that more women (+11.6 %) and foreigners (+4.4 %) are present today than in 2017. In 2023, 44 % of newly elected directors are female (22 % in 2017). Regarding professional competencies, we find that while

experience in digitalization has increased (+7.2 %), CEO experience is less prevalent (-8 %). The competencies also depend on the director's demographics. We find significant differences in the skill set of females (vs. males), foreigners (vs. Swiss), and directors under 60 years. Women and younger directors are less likely to have CEO experience. In contrast, foreign and younger directors are more likely to be digital experts. From all the professional competencies this study considers, female directors are only positively related to legal know-how. In contrast, foreign (CEO, international, emerging markets, digitalization) and younger directors (finance, M&A, digitalization) appear to dispose of several competencies. Younger directors are also those who improve the competencies on the board the most. At the same time, this seems invalid for female or foreign directors.

Similarly, we do not find that female directors are positively related to Tobin's Q. The results suggest that professional competencies rather than demographic features of directors more strongly explain firm performance. In particular, digitalization is positively associated with Tobin's Q. However, the impact when competencies are missing on the board is more important than the proportion of directors having specific skills. If experiences in industry, CEO experience, finance, emerging markets, or digitalization are entirely missing on the board, it has a negative impact on Tobin's Q. Again, missing demographic features seem not to be associated with firm performance. In contrast, female directors are positively related to governance policies, such as the number of meetings, number of committees, ESG rating, or ESG criteria in the compensation system. Female directors appear to drive what is seen as "good governance" or "sustainable." Conversely, experience in digitalization is not linked to any of the governance policies defined. In voting outcomes, however, demographic characteristics matter less than directors' competencies. The gender, nationality, or age of directors does not influence shareholders' support. However, directors with CEO experience receive significantly less, and directors with digitalization experience receive significantly more support.

Overall, our results suggest that professional competencies matter more than demographics. The changing company environment affects board composition as more and more boards appoint directors with experience in digitalization. Furthermore, this skill is also associated with higher Tobin's Q, and shareholders support the nomination of such directors. Missing competencies rather than the proportion of competencies already on the board matter for firm performance.

2. Background on the board of directors

The board of directors is usually assigned two main functions: monitoring and advising a company's management team (Adams, Hermalin, and Weisbach, 2010; Johnson, Schnatterly, and Hill, 2013). The board's monitoring role is stressed in Agency Theory, where independent board members are primarily responsible for ensuring that management (agents) spends money in the interests of shareholders (principals) and not in their own interests (e.g., on luxurious office furnishings, private use of the company jet, empire building, etc.) (see, e.g., Fama and Jensen, 1983). The advising role is based on

the Resource Dependence Theory, where board members are particularly valuable if they have good networks and knowledge relevant to the company and its management (Pfeffer and Salancik, 1978).

Hermalin and Weisbach (2003) examine the empirical studies on the relationship between independent boards of directors and corporate performance. They find no consistent results and conclude that the effect of independent boards of directors depends on the corporate environment. They can be valuable in certain constellations and not in others. There is more evidence that the board's composition affects board actions such as CEO replacement (i.e., governance policies). Similarly, Adams and Ferreira (2009) show that women on the board of directors influence corporate governance. Like independent directors, female board members strengthen the board's monitoring role. Their empirical evidence, however, also indicates that more women on boards of well-governed companies decrease firm value because of over-monitoring.

Hermalin and Weisbach (2003) argue that it is essential to consider all critical factors that influence company performance or board composition in empirical analyses. If no statistically significant correlations are found, it may mean that board composition is optimal on average and that no adjustment is necessary. In other words, the proportion of independent or female board members is suitable for the companies (given their circumstances) ("equilibrium"). In contrast, the often-missing relationship between board independence or board diversity and firm performance found in past research may also suggest that these director characteristics are irrelevant. Other features like directors' know-how and experience may be more critical. As a result, directors' professional competencies have increasingly been considered in board studies (see Johnson, Schnatterly, and Hill, 2013). For example, Dass, Kini, Nanda, Onal, and Wang (2014) find that directors with industry experience help companies.

From a legal perspective, the responsibility of board members is high. It is, therefore, hardly surprising that the board of directors is called into question in the event of a corporate crisis and must initiate measures such as dismissing a CEO. It is also evident that activist investors often insist on a seat on the board of directors to influence corporate strategy. In the case of takeovers, the majority of the board of directors is also reshuffled. Shareholders should, therefore, be interested in electing the right board members (e.g., Cai, Garner, and Walkling, 2009). Especially as they are expected firstly to actively exercise their voting rights and secondly to do so in such a way as to increase the value of the company.

It is, therefore, not only interesting to examine how the composition of boards of directors has changed in recent years to understand the prioritization of companies or which characteristics of boards of directors influence company performance or corporate policy. One major change has been that more women are now on the board of directors than in the past. As it is assumed that they have a different

background and are, therefore, important in bodies that white men predominantly dominated, we are looking to see whether they also have other (missing) skills. Furthermore, it is also interesting to see whether specific characteristics (e.g., if they positively influence company performance) are also assessed in the same way by shareholders during elections. This study explores these relationships in-depth.

3. Sample and Variable Definition

3.1 Sample

We gathered information on firms from the Swiss Performance Index (SPI) from 2017 to 2023, for which Inrate Ltd. has researched their corporate governance characteristics. We exclude companies with only one firm-year observation (e.g., Actelion). We exclude companies that have no significant foreign sales. In these cases, the professional competencies of international or emerging markets may be less critical (e.g., Cham Group). As a result of this restriction, we foremost exclude real estate companies (e.g., Allreal) and cantonal banks (e.g., Berner Kantonalbank). Our sample consists of 919 firm-year observations (from initially 1'201). The restriction reduces our sample of individual directors from 2,102 to 1,567 observations. We also have information on 7,268 agenda items relating to director elections (9,101 including all companies). For our purpose, we only consider agenda items for which exact voting results in percentage are available (not only the outcomes of “accepted” or “declined”). We excluded 44 agenda items based on shareholder proposals or were a particular type of vote. This leads to 6,039 agenda items. Further corporate governance data has been provided by Inrate Ltd (Swiss sustainability rating agency). Financial data has been obtained from Refinitiv Eikon.

3.2 Definition of Variables

3.2.1 Demographic characteristics

Female denotes directors who are women. *Foreign* denotes directors who are foreigners. Double citizenship with one or more foreign nationalities and Switzerland are counted as non-foreign directors. *Below 60* denotes directors who are 60 years old or younger.

3.2.2 Professional board competencies

Industry denotes directors who have work experience in the same industry in which the company operates. *CEO* denotes directors who are actual CEOs or have been CEOs in the past. *Finance* denotes directors with experience in finance, business, or economics (e.g., they have studied finance or worked at a bank). *M&A* denotes directors who have experience in M&A (e.g., they have been involved with M&A, or they work as an investment banker). *International* denotes directors who have worked and lived outside of Switzerland. *Emerging Markets* denotes directors who have worked and lived in emerging markets countries. *Legal* denotes directors who have a university degree in law.

Digitalization denotes directors who have studied or worked in digitalization (e.g., IT studies or worked in the software industry).

3.2.3 Control variables

In our regression analyses, we employ control variables commonly used in the corporate finance literature (e.g., Lin, Ma, Malatesta, and Xuan, 2011). *Firm size* is the natural logarithm of total assets. *Leverage* is the ratio of total liabilities to total assets. *Profitability* is the return on assets. *Tangibility* is the ratio of property, plant, and equipment to total assets. We include Industry effects to account for industry characteristics and Time effects for the variation during the period.

4. Empirical Analysis

4.1 Analysis of the development of the board of directors

In the first step, we analyze how the composition of the board of directors evolved between 2017 and 2023. Table 1 provides summary statistics for the variables relating to director characteristics and professional competencies. The data indicate that there has been a tremendous shift in board composition. We find that more women (+11.6 %) and foreigners (+4.4 %) are present today than in 2017 (see also Figure 1). Regarding professional competencies, we find that while experience in digitalization has increased (+7.2 %), CEO experience is less prevalent (-8 %). In 2017, the majority of the boards had no members with experience in digitalization. The proportion of such boards is reduced to 38.8 %. The development affected the overall presence of competencies on the board level. While in 2017, on only 23.5 % of the boards, all competencies were available, this number increased to 38.8 % in 2023 (see also Figure 2). Over the entire period, the competencies of industry, finance, CEO, and international experience were prevalent on almost all boards.

[Insert Table 1 here]

[Insert Figure 1 here]

[Insert Figure 2 here]

The three most frequently missing competencies are experience in emerging markets, law, and digitalization (see Figure 3). However, the gaps in digitalization have significantly been reduced in the past years.

[Insert Figure 3 here]

4.2 Analysis of the difference between directors

In the second step, we investigate whether the professional competencies differ by comparing directors' demographics. Table 2 presents significant differences in the skill set of females (vs. males), foreigners (vs. Swiss), and directors under 60 years (vs. over 60 years old). In addition, Table 3 shows that women and younger directors are less likely to have CEO experience (see also Figure 4). From all the professional competencies considered in this study, female directors are only positively related to legal expertise. In contrast, foreign (CEO, international, emerging markets, digitalization) and younger directors (finance, M&A, digitalization) appear to dispose of several competencies.

[Insert Table 2 here]

[Insert Table 3 here]

[Insert Figure 4 here]

In 2023, 44 % of newly elected directors are female (22 % in 2017). Similarly, newly elected board members have more digitalization skills (Figure 5). Table 4 depicts that younger directors are those who improve the competencies on the board the most. Accordingly, younger directors are also the drivers in reducing competencies gaps. In comparison, this seems invalid for female or foreign directors.

[Insert Figure 5 here]

[Insert Table 4 here]

4.3 Analysis of the influence of directors on firm performance and governance policies

It can be assumed that the nomination of board members with specific skills is a consequence of the board's need to consider the firm's challenges, and the board expects new members to impact the firm positively. In the third step, we examine whether the boards' reorganization influenced firm performance and governance policies.

The results in Table 5 suggest that professional competencies rather than demographic features of directors more strongly explain firm performance. Specifically, we do not find that female directors are positively related to Tobin's Q. In contrast, primarily, digitalization is positively related to Tobin's

Q. However, more important than the proportion of directors on the board that have specific competencies is the impact when competencies are missing on the board. Table 6 shows that if experiences in the industry, CEO experience, finance, emerging markets, or digitalization are entirely missing on the board, it has a negative impact on Tobin’s Q. Again, missing demographic features seem not to be associated with firm performance.

[Insert Table 5 here]

[Insert Table 6 here]

In Tables 7 and 8, the data provides information about the relationship between directors’ characteristics and governance policies. Governance experts usually say good boards meet more frequently and form more specialized committees. Some regulators also require these (e.g., audit committees concerning the Sarbanes-Oxley Act). These measures should then also lead to a better ESG rating. In connection with CEO remuneration, high remuneration in recent years has been interpreted as a sign of a failure in corporate governance rather than an alignment of interests between the CEO and shareholders. Weak performance was also sometimes compensated with high remuneration, ultimately leading to the adoption of the rip-off initiative in Switzerland. The consideration of ESG criteria when determining bonuses is also welcomed, as it provides a direct incentive to improve sustainability.

[Insert Table 7 here]

In this context, the results suggest that female directors are positively related to governance policies. They affect the number of meetings, number of committees, ESG rating, or ESG criteria in the compensation system. Female directors appear to influence policies perceived as “good governance” or “sustainable”. Conversely, experience in digitalization is not linked to any of the governance policies defined. Regarding missing competencies, the results indicate that boards without industrial expertise meet less frequently and have lower ESG ratings (Table 8).

[Insert Table 8 here]

4.4 Analysis of the shareholders' voting behavior in director elections

Lastly, in the fourth step, we investigate how the director's qualities affect shareholders' voting behavior. The candidates proposed by the board of directors enjoy generally broad support and invariably exceed the 50 % threshold. Table 9 shows that, on average, directors receive 95 % yes-votes. Nevertheless, lower support provides a visible measure of the quality of board appointments as perceived by investors. A healthy skepticism of shareholders should be taken seriously if a stringent strategy for filling board positions is lacking.

[Insert Table 9 here]

Table 10 provides information on how yes-votes at director elections are associated with director characteristics. The results show that not only CEO experience on the board has decreased over time, but they also receive significantly less support in their elections. Even though CEO experience does not mean that a director is an actual CEO, we cannot rule out that these results are driven by the perception that these directors are too busy. On the contrary, the proportion of directors with experience in digitalization increased between 2007 and 2023, and such candidates also received significantly higher support than directors without these traits. Also, demographic characteristics matter less in voting outcomes than directors' competencies. The gender, nationality, or age of directors does not influence shareholders' support. Hence, despite general agreement that demographic diversity is essential, it seems not to play an important role in voting decisions.

[Insert Table 10 here]

5. Conclusions

The "right" composition of a company's board of directors is crucial for its success and, therefore, of interest to both practitioners and academics. Past research has often focused on how directors' demographic characteristics or independence affect firm performance or governance policies and how these features affect their election at annual general meetings. In this study, we examine directors' professional competencies. Firstly, we analyze whether the skill set of the board of directors has evolved. Hermalin and Weisbach (2003) argue that boards are endogenously determined by firm-specific challenges. As companies have been confronted by technological disruptions and a changing global economy, we expected the board of directors to reflect these changes. Higher board diversity has been argued to contribute to more knowledge and viewpoints in the board room. We, therefore,

investigate how board members' demographic characteristics are associated with their professional competencies. Thirdly, we study whether demographic characteristics and professional competencies affect firm performance and governance policies. Lastly, based on prior insights, we analyze whether shareholders more strongly support directors positively associated with firm performance in their elections. Our results suggest that professional competencies matter more than demographics. The changing company environment affects board composition as more and more boards appoint directors with experience in digitalization. In contrast, CEO experience has become less critical. Furthermore, this skill is also associated with higher Tobin's Q, and shareholders support the nomination of such directors. Our study also shows that missing competencies rather than the proportion of competencies already on the board matter for firm performance. If competencies are missing altogether on the board, it negatively influences Tobin's Q. In contrast, directors' demographic characteristics appear less critical in all analyses. Our results there cast doubt on this focus. The professional skills of board members also appear to be more important to the shareholders, as the voting results show. In summary, our findings underscore the significance of directors' professional competencies in influencing firm performance and shareholder preferences. These competencies carry more weight in determining a company's success and are valued more highly by shareholders than directors' demographic characteristics.

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Figures

Figure 1: Development of board of directors demographic diversity in Switzerland (firm level)

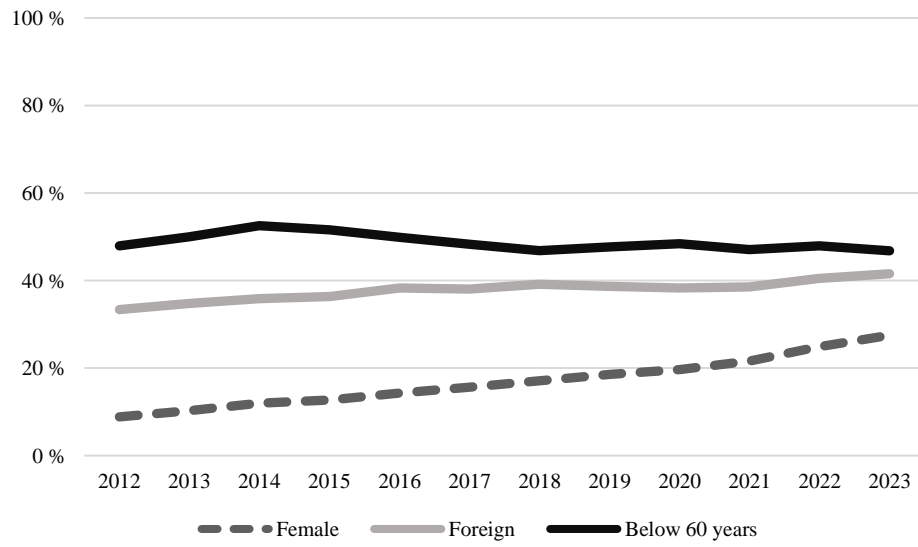


Figure 2: Development of gaps in professional competencies between 2017 and 2023

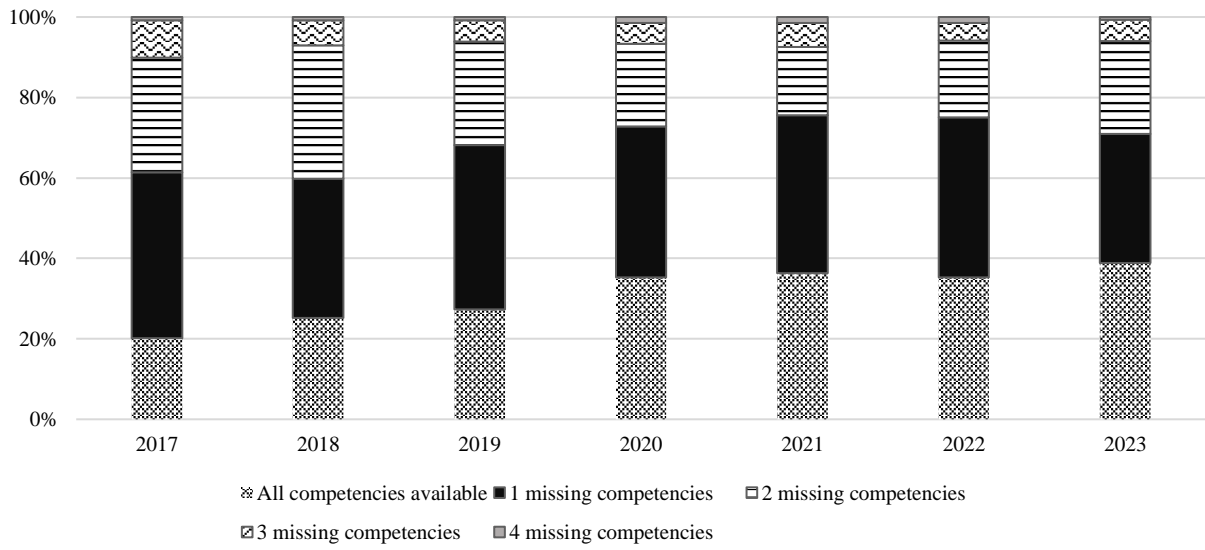


Figure 3: Development of missing competencies between 2017 and 2023

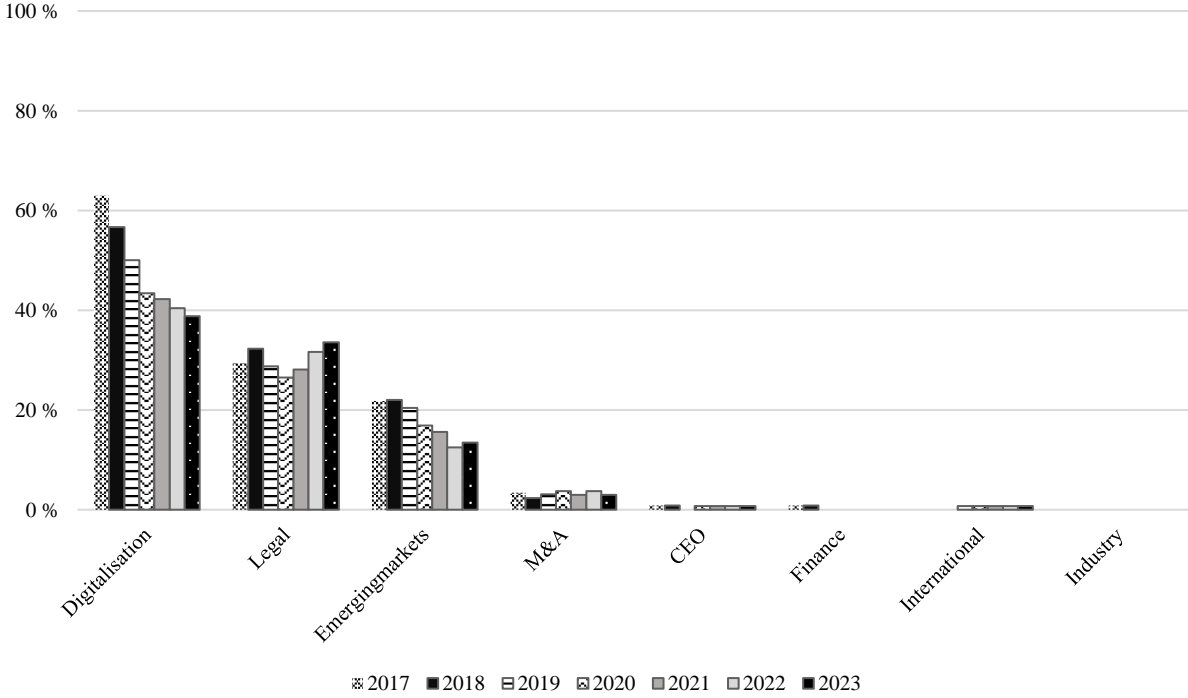


Figure 4: Differences in professional competencies across director demographics (in 2023)

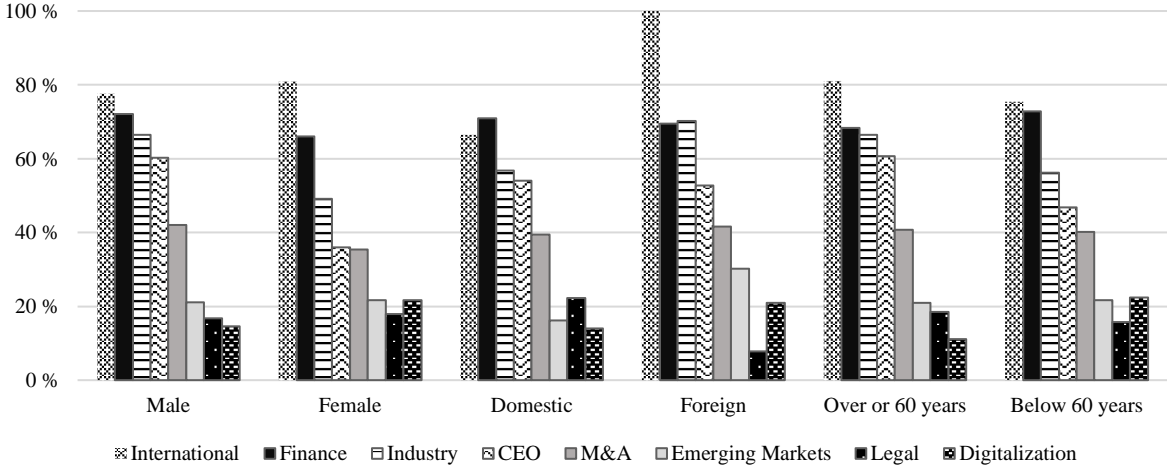
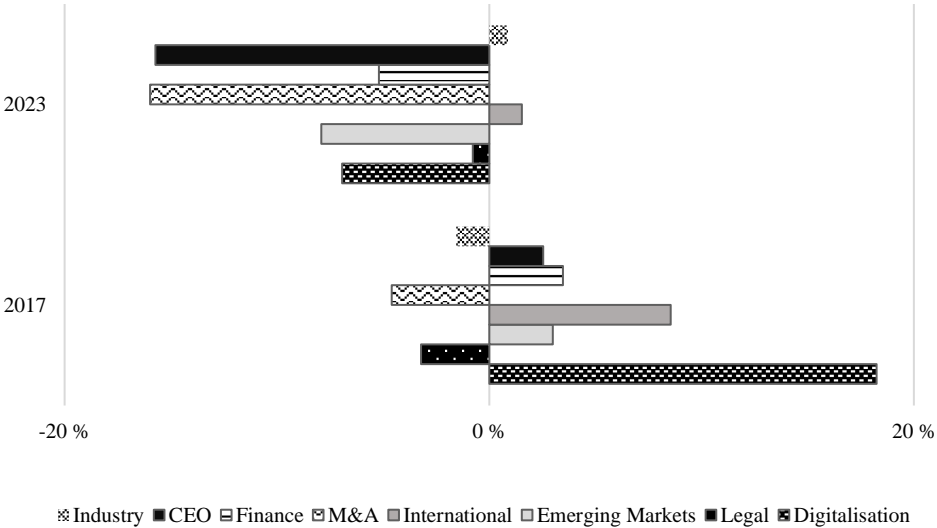


Figure 5: Competence deviation of re-elected and newly elected board members (in 2017 and 2023)



Tables

Table 1: Firm-level data on director characteristics and professional competencies

The table provides summary statistics for the variables on the firm level (i.e., board level) relating to director characteristics and professional competencies. The sample is based on 9,19 firm-year observations from 2017 to 2023.

| | Total | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|-------|--------|-------|--------|-------|-------|-------|-------|
| Firm-year observations | 919 | 119 | 127 | 132 | 136 | 135 | 136 | 134 |
| <i>Panel A: Demographic characteristics</i> | | | | | | | | |
| Female | 19.1% | 14.1% | 15.4% | 16.9% | 17.6% | 19.8% | 23.3% | 25.7% |
| Foreign | 35.4% | 34.1% | 35.1% | 34.6% | 33.5% | 34.6% | 37.2% | 38.6% |
| Below 60 years | 47.7% | 49.0% | 47.3% | 47.6% | 48.5% | 47.0% | 48.1% | 46.5% |
| <i>Panel B: Directors' professional competencies characteristics</i> | | | | | | | | |
| Industry | 65.3% | 65.5% | 64.9% | 65.2% | 65.1% | 65.7% | 65.8% | 64.7% |
| CEO | 58.2% | 61.9% | 61.5% | 60.3% | 58.9% | 56.9% | 54.8% | 53.9% |
| Finance | 68.5% | 65.8% | 66.9% | 67.7% | 69.8% | 70.0% | 70.0% | 69.1% |
| M&A | 41.3% | 38.4% | 40.0% | 39.9% | 41.2% | 42.9% | 43.9% | 42.5% |
| International | 81.7% | 78.2% | 80.5% | 81.1% | 81.3% | 82.9% | 83.7% | 84.0% |
| Emerging Markets | 22.4% | 20.8% | 22.8% | 22.3% | 22.2% | 22.7% | 23.3% | 22.6% |
| Legal | 15.5% | 16.1% | 15.3% | 15.8% | 16.4% | 15.7% | 15.0% | 14.6% |
| Digitalization | 13.5% | 9.2% | 10.5% | 12.3% | 13.7% | 15.3% | 16.7% | 16.3% |
| <i>Panel C: Type of missing competencies</i> | | | | | | | | |
| Industry | 0.1% | 0.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| CEO | 0.7% | 0.8% | 0.8% | 0.0% | 0.7% | 0.7% | 0.7% | 0.7% |
| Finance | 0.2% | 0.8% | 0.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| M&A | 1.6% | 0.8% | 0.8% | 0.8% | 1.5% | 1.5% | 2.9% | 3.0% |
| International | 0.5% | 0.0% | 0.0% | 0.8% | 0.7% | 0.7% | 0.7% | 0.7% |
| Emerging Markets | 8.5% | 10.9% | 9.4% | 9.1% | 8.8% | 7.4% | 7.4% | 6.7% |
| Legal | 30.1% | 30.3% | 31.5% | 28.8% | 26.5% | 28.9% | 32.4% | 32.8% |
| Digitalization | 44.9% | 54.6% | 52.0% | 47.7% | 42.6% | 41.5% | 39.0% | 38.8% |
| <i>Panel D: Number of missing competencies</i> | | | | | | | | |
| Number of missing competencies | 1.03 | 1.20 | 1.16 | 1.05 | 0.96 | 0.96 | 0.95 | 0.96 |
| All competencies available | 33.1% | 23.5% | 27.6% | 31.1% | 36.8% | 36.3% | 36.0% | 38.8% |
| 1 missing competencies | 37.6% | 41.2% | 35.4% | 38.6% | 36.8% | 39.3% | 39.0% | 33.6% |
| 2 missing competencies | 23.0% | 26.9% | 30.7% | 24.2% | 20.6% | 17.8% | 19.9% | 21.6% |
| 3 missing competencies | 5.9% | 8.4% | 6.3% | 6.1% | 5.1% | 5.9% | 4.4% | 5.2% |
| 4 missing competencies | 0.4% | 0.0% | 0.0% | 0.0% | 0.7% | 0.7% | 0.7% | 0.7% |
| <i>Panel E: Professional competencies gaps</i> | | | | | | | | |
| Gap closed | 5.0% | 5.0% | 7.1% | 6.8% | 5.1% | 3.0% | 3.7% | 4.5% |
| Gap reduced | 10.8% | 13.5% | 13.4% | 16.7% | 11.8% | 8.1% | 5.1% | 7.5% |
| Gap enlarged | 5.0% | 2.5% | 6.3% | 6.1% | 5.1% | 2.2% | 5.9% | 6.7% |
| Δ Missing competencies gap | -6.2% | -13.5% | -7.1% | -12.9% | -7.4% | -5.2% | 0.0% | 1.5% |

Table 2: Director-level data on characteristics and professional competencies

The table provides summary statistics for the variables on the director level. The sample is based on 1,567 individual directors who were board members between 2017 and 2023. The equality of means is tested using two-sample t-tests, and the equality of medians is tested using Wilcoxon tests. Significance at the 1 percent, 5 percent, and 10 percent levels is indicated by ***, **, * respectively.

| | Total | Male | Female | | Swiss | Foreign | | Over or 60 years | Below 60 years | |
|---|-------|------|--------|-------------|-------|---------|-------------|---------------------|-------------------|-------------|
| Number of directors | 1567 | 1224 | 343 | | 779 | 788 | | 1019 | 548 | |
| Number of directorships | | 5.2 | 4.5 | *** / (***) | 6.1 | 4.0 | *** / (***) | 5.3 | 4.6 | *** / (***) |
| <i>Panel A: Demographic characteristics</i> | | | | | | | | | | |
| Female | 0.22 | – | – | | 0.17 | 0.27 | *** / (***) | 0.13 | 0.39 | *** / (***) |
| Foreign | 0.50 | 0.53 | 0.38 | *** / (***) | – | – | | 0.49 | 0.53 | – / (–) |
| Below 60 years | 0.35 | 0.27 | 0.62 | *** / (***) | 0.33 | 0.37 | – / (–) | – | – | |
| <i>Panel B: Educational background</i> | | | | | | | | | | |
| Economics/Business | 0.60 | 0.59 | 0.62 | | 0.57 | 0.62 | ** / (**) | 0.55 | 0.67 | *** / (***) |
| Law | 0.14 | 0.14 | 0.15 | – / (–) | 0.21 | 0.08 | *** / (***) | 0.15 | 0.13 | – / (–) |
| Engineering | 0.19 | 0.21 | 0.12 | *** / (***) | 0.20 | 0.18 | – / (–) | 0.20 | 0.16 | ** / (**) |
| Natural Sciences | 0.12 | 0.11 | 0.12 | – / (–) | 0.09 | 0.14 | *** / (***) | 0.12 | 0.10 | – / (–) |
| Social Sciences | 0.02 | 0.02 | 0.03 | – / (–) | 0.01 | 0.03 | *** / (***) | 0.03 | 0.02 | – / (–) |
| Other | 0.05 | 0.05 | 0.05 | – / (–) | 0.04 | 0.06 | ** / (**) | 0.05 | 0.05 | – / (–) |
| None | 0.16 | 0.17 | 0.15 | – / (–) | 0.15 | 0.18 | – / (–) | 0.18 | 0.14 | ** / (**) |
| <i>Panel C: Professional competencies</i> | | | | | | | | | | |
| CEO | 0.54 | 0.59 | 0.34 | *** / (***) | 0.52 | 0.55 | – / (–) | 0.59 | 0.44 | *** / (***) |
| Finance | 0.66 | 0.66 | 0.66 | – / (–) | 0.65 | 0.67 | – / (–) | 0.63 | 0.72 | *** / (***) |
| M&A | 0.36 | 0.36 | 0.34 | – / (–) | 0.35 | 0.36 | – / (–) | 0.33 | 0.40 | *** / (***) |
| International | 0.81 | 0.79 | 0.85 | *** / (**) | 0.64 | 0.97 | *** / (***) | 0.79 | 0.83 | ** / (*) |
| Emerging Markets | 0.24 | 0.23 | 0.26 | – / (–) | 0.17 | 0.30 | *** / (***) | 0.23 | 0.25 | – / (–) |
| Legal | 0.14 | 0.14 | 0.15 | – / (–) | 0.21 | 0.08 | *** / (***) | 0.15 | 0.13 | – / (–) |
| Digitalization | 0.13 | 0.11 | 0.18 | *** / (***) | 0.11 | 0.15 | *** / (***) | 0.08 | 0.22 | *** / (***) |

Table 3: Demographic characteristics and professional board competencies (director level)

The table presents logit regression coefficient estimates for professional board competencies on the director level. The sample consists of 1,567 director observations. White (1980) standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | CEO (yes=1, no=0) | | Finance (yes=1, no=0) | | M&A (yes=1, no=0) | | International (yes=1, no=0) | | Emerging Markets (yes=1, no=0) | | Legal (yes=1, no=0) | | Digitalization (yes=1, no=0) | |
|----------------|----------------------|-------|--------------------------|-------|----------------------|-------|--------------------------------|-------|--------------------------------------|-------|------------------------|-------|---------------------------------|-------|
| (Intercept) | 0.36393 (0.083) | (***) | 0.49116 (0.085) | (***) | -0.68625 (0.085) | (***) | 0.51692 (0.090) | (***) | -1.56873 (0.106) | (***) | -1.33330 (0.104) | (***) | -2.61730 (0.149) | (***) |
| Female | -0.97726 (0.137) | (***) | -0.14702 (0.138) | | -0.25451 (0.138) | (*) | 0.03131 (0.198) | | 0.04987 (0.146) | | 0.37990 (0.192) | (**) | 0.15810 (0.180) | |
| Foreign | 0.24483 (0.106) | (**) | 0.08357 (0.109) | | 0.02798 (0.107) | | 2.76606 (0.215) | (***) | 0.69509 (0.123) | (***) | -1.16670 (0.165) | (***) | 0.36600 (0.157) | (**) |
| Below 60 years | -0.34981 (0.114) | (***) | 0.45278 (0.120) | (***) | 0.37441 (0.117) | (***) | 0.22230 (0.160) | | 0.03437 (0.130) | | -0.22760 (0.170) | | 1.06780 (0.163) | (***) |

Table 4: Determinants of missing professional competencies

The table presents regression coefficient estimates for missing competencies. *Large shareholder (>25 % voting rights, dual class)* is a dummy variable and equals one if the company has a large shareholder with more than 25 percent of voting rights and if the company has a dual-class share structure where voting rights and cash flow rights are decoupled. *Large shareholder (>25 % voting rights)* is a dummy variable and equals one if the company has a large shareholder with more than 25 percent of voting rights and if the company has one share class. *Large shareholder (10-25 % voting rights)* is a dummy variable and equals one if the company has a large shareholder with between 10 and 25 percent of voting rights. The sample consists of 919 SPI firm-year observations. Cluster-robust Huber/White standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | Number of missing competencies (I) | | Δ Missing competencies gap (II) | Gaps reduced (1=yes) (III) | | Gap closed (1=yes) (IV) | Missing Digitalization (1=yes) (V) | | Missing Legal (1=yes) (VI) | Missing Emerging Markets (1=yes) (VII) |
|--|---|-------|--|-------------------------------------|------|----------------------------------|---|---------------------|-------------------------------------|--|
| (Intercept) | 1.76644 (0.330) | (***) | -0.21110 (0.173) | 0.25319 (0.117) | (**) | 0.08513 (0.073) | 1.33271 (0.403) | (***) | 0.67741 (0.412) | 0.02669 (0.188) |
| Female | -0.25391 (0.210) | | -0.00416 (0.165) | 0.13225 (0.100) | | 0.12524 (0.074) | (*) | 0.12502 (0.260) | -0.24925 (0.241) | -0.19963 (0.123) |
| Foreign | 0.08417 (0.119) | | 0.06563 (0.073) | 0.00428 (0.049) | | -0.02719 (0.028) | | 0.10365 (0.136) | 0.08701 (0.140) | -0.11562 (0.057) |
| Below 60 | -0.35768 (0.101) | (***) | -0.10196 (0.063) | 0.09635 (0.040) | (**) | 0.04413 (0.027) | (*) | -0.40016 (0.135) | (***) | -0.02696 (0.135) |
| Board size | -0.06837 (0.015) | (***) | -0.01719 (0.009) | 0.00102 (0.006) | (*) | 0.01046 (0.004) | (**) | -0.05281 (0.017) | (***) | -0.03415 (0.020) |
| Board independence | -0.08986 (0.109) | | -0.17474 (0.078) | 0.12157 (0.050) | (**) | 0.05989 (0.029) | (**) | -0.31997 (0.140) | (**) | 0.27529 (0.148) |
| CEO duality | 0.02020 (0.079) | | -0.00917 (0.033) | -0.00626 (0.024) | | 0.01276 (0.019) | | 0.05312 (0.086) | | -0.14187 (0.104) |
| Large shareholder (>25 % voting rights, dual class) | -0.04478 (0.098) | | 0.06194 (0.051) | -0.04304 (0.039) | | -0.02557 (0.023) | | 0.02039 (0.131) | | -0.09509 (0.130) |
| Large shareholder (>25 % voting rights) | -0.01599 (0.077) | | -0.00394 (0.044) | 0.01716 (0.031) | | -0.00246 (0.019) | | -0.02475 (0.091) | | -0.01760 (0.094) |
| Large shareholder (10-25 % voting rights) | 0.06625 (0.072) | | 0.06652 (0.040) | -0.01111 (0.030) | (*) | -0.01996 (0.020) | | 0.02531 (0.084) | | 0.05096 (0.089) |
| Firm size | -0.01777 (0.023) | | 0.01882 (0.012) | -0.01327 (0.008) | (*) | -0.01216 (0.005) | (**) | 0.00604 (0.027) | | -0.00906 (0.032) |
| Leverage | -0.18165 (0.113) | | 0.09411 (0.053) | -0.07016 (0.040) | (*) | 0.01593 (0.024) | | -0.28377 (0.141) | (**) | -0.13795 (0.140) |
| Profitability | 0.00171 (0.002) | | 0.00007 (0.001) | -0.00078 (0.001) | | -0.00036 (0.000) | | 0.00079 (0.002) | | -0.00276 (0.002) |
| Tangibility | -0.05810 (0.179) | | 0.11045 (0.100) | 0.01684 (0.069) | | 0.02499 (0.050) | | 0.04173 (0.239) | | -0.27812 (0.274) |
| Effects | Industry, Year | | Industry, Year | Industry, Year | | Industry, Year | Industry, Year | | Industry, Year | Industry, Year |
| Adjusted R ² | 36.4% | | 1.0% | - | | - | - | | - | - |

Table 5: Competencies and Tobin's Q

The table presents regression coefficient estimates for Tobin's Q. *Tobin's Q* is calculated as the market value of equity plus the book value of total assets less the book value of equity divided by the book value of total assets. The sample consists of 919 SPI firm-year observations. Cluster-robust Huber/White standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | Tobin's Q | | | | | | Tobin's Q | | | | | |
|-------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------------------|------------------------|------------------------|--------------------------|--|--|
| | (I) | (II) | (III) | (IV) | (V) | (VI) | (VII) | (VIII) | (IX) | (X) | | |
| (Intercept) | 1.95945 (***) (0.448) | 2.26823 (***) (0.735) | 3.62848 (**) (1.556) | 5.56104 (***) (1.757) | 5.18022 (***) (1.772) | 4.21911 (***) (1.176) | 3.49899 (**) (1.682) | 4.51459 (*) (2.578) | 2.03714 (*) (2.656) | 0.34792 (1.715) | | |
| Female | 0.41223 (0.863) | | 0.84301 (0.750) | 1.31822 (1.030) | 0.75477 (1.169) | 0.82393 (0.904) | 0.93328 (1.000) | 0.56572 (1.045) | 0.24423 (1.438) | 1.64348 (1.061) | | |
| Foreign | -0.29358 (0.477) | | 0.43408 (0.478) | 0.57303 (0.491) | 1.51958 (**) (0.588) | 1.16300 (***) (0.427) | 0.81769 (0.493) | 0.64357 (0.805) | -0.11435 (0.992) | -0.73420 (0.580) | | |
| Below 60 | 0.72912 (0.618) | | 0.31045 (0.588) | 0.16786 (0.570) | 0.29139 (0.649) | 0.43813 (0.499) | 0.56111 (0.781) | 0.66955 (1.071) | 0.60774 (1.095) | 0.86167 (0.834) | | |
| Industry | | 0.40729 (0.481) | -0.27594 (0.509) | -1.30339 (*) (0.675) | -1.22041 (**) (0.558) | -0.93111 (**) (0.453) | -0.30740 (0.638) | 0.09792 (0.709) | 0.75592 (0.842) | 0.67341 (0.653) | | |
| CEO | | 0.53158 (0.555) | 0.59770 (0.513) | 0.67256 (0.678) | 0.82604 (0.549) | 0.65649 (0.426) | 0.55897 (0.563) | 1.16507 (0.941) | 0.45261 (1.152) | 0.23531 (0.650) | | |
| Finance | | -1.26659 (*) (0.706) | 0.14960 (0.700) | 0.19449 (0.529) | 0.19808 (0.742) | 0.30048 (0.549) | -0.28179 (0.895) | -0.70361 (1.103) | -0.49252 (1.460) | 0.24297 (0.862) | | |
| M&A | | 0.66045 (1.025) | 0.29346 (0.938) | 0.75780 (0.880) | 0.55391 (1.144) | 0.85754 (0.661) | 0.09959 (0.972) | -0.54811 (1.482) | 1.44985 (1.804) | 0.42258 (1.053) | | |
| International | | 0.13737 (0.766) | -0.00094 (0.680) | -0.05911 (0.558) | -0.30199 (0.720) | -0.71858 (0.525) | -0.06443 (0.785) | 0.28713 (1.242) | 0.08906 (1.543) | 0.67408 (0.835) | | |
| Emerging Markets | | -1.06577 (*) (0.629) | -0.73594 (0.591) | -0.20858 (0.543) | -0.68990 (0.737) | -0.56597 (0.587) | -0.75598 (0.764) | -0.59395 (1.058) | -1.78477 (1.093) | -1.11546 (0.679) | | |
| Legal | | -0.98297 (0.759) | -0.79071 (0.732) | -1.42959 (**) (0.652) | -0.92530 (0.787) | -0.65142 (0.591) | 0.20083 (1.015) | 0.31183 (1.316) | -1.36594 (1.413) | -1.77291 (**) (0.780) | | |
| Digitalization | | 2.30775 (**) (0.901) | 2.41503 (**) (0.959) | 2.65677 (**) (1.030) | 4.41818 (***) (1.349) | 1.97591 (**) (0.938) | 2.50862 (**) (1.041) | 2.30248 (*) (1.222) | 3.33125 (*) (1.452) | 1.40024 (*) (0.794) | | |
| Firm size | | | -0.21149 (**) (0.084) | -0.29457 (***) (0.088) | -0.32919 (***) (0.096) | -0.21713 (***) (0.066) | -0.21212 (**) (0.097) | -0.22722 (0.140) | -0.11711 (0.141) | -0.09464 (0.084) | | |
| Leverage | | | 0.37308 (0.441) | 0.47936 (0.468) | 0.79367 (0.486) | 0.09808 (0.366) | 0.63605 (0.506) | -0.27702 (0.791) | -0.20045 (0.821) | 0.98719 (*) (0.539) | | |
| Profitability | | | 0.04681 (***) (0.017) | 0.05107 (**) (0.020) | 0.08755 (***) (0.023) | 0.05462 (***) (0.013) | 0.03675 (*) (0.021) | 0.03315 (*) (0.018) | 0.07401 (*) (0.025) | 0.02489 (0.015) | | |
| Tangibility | | | -0.55229 (0.620) | -1.74010 (**) (0.728) | -0.74256 (0.794) | -0.52618 (0.591) | -0.60549 (0.787) | -1.02340 (1.013) | 0.08177 (1.423) | 1.23137 (0.812) | | |
| Effects | No | No | Industry, Year | Industry | Industry | Industry | Industry | Industry | Industry | Industry | | |
| Adjusted R ² | 0.7% | 8.2% | 22.2% | 31.6% | 36.2% | 31.6% | 12.7% | 10.4% | 18.8% | 13.1% | | |

Table 6: Missing competencies and Tobin's Q

The table presents regression coefficient estimates for Tobin's Q. *Tobin's Q* is calculated as the market value of equity plus the book value of total assets less the book value of equity divided by the book value of total assets. The sample consists of 919 SPI firm-year observations. Cluster-robust Huber/White standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | Tobin's Q | | | | | |
|--------------------------------|-----------|-------|-----------|-------|-----------|-------|
| | (I) | | (II) | | (III) | |
| (Intercept) | 4.60027 | (***) | 5.12144 | (***) | 4.71525 | (***) |
| | (1.215) | | (1.253) | | (1.311) | |
| Missing Female | | | -0.35978 | | -0.36542 | |
| | | | (0.240) | | (0.237) | |
| Missing Foreign | | | -0.01145 | | 0.00993 | |
| | | | (0.271) | | (0.269) | |
| Missing Below 60 | | | -0.18848 | | -0.33231 | |
| | | | (0.316) | | (0.327) | |
| Missing Industry | -1.21559 | (***) | -1.36281 | (***) | -1.95368 | (***) |
| | (0.366) | | (0.463) | | (0.633) | |
| Missing CEO | -0.97732 | (**) | -1.02024 | (**) | -1.49828 | (***) |
| | (0.401) | | (0.399) | | (0.495) | |
| Missing Finance | -1.40965 | (***) | -1.25428 | (***) | -1.77195 | (***) |
| | (0.261) | | (0.328) | | (0.539) | |
| Missing M&A | 2.94973 | (*) | 3.04469 | (*) | 2.37159 | |
| | (1.786) | | (1.838) | | (1.609) | |
| Missing International | -0.56222 | | -0.42084 | | -0.47931 | |
| | (0.400) | | (0.418) | | (0.427) | |
| Missing Emerging Markets | -0.79217 | (***) | -0.72827 | (**) | -1.22428 | (**) |
| | (0.286) | | (0.288) | | (0.478) | |
| Missing Legal | -0.00717 | | 0.02073 | | -0.43894 | |
| | (0.244) | | (0.244) | | (0.486) | |
| Missing Digitalization | -0.54886 | (**) | -0.52294 | (*) | -1.15839 | (**) |
| | (0.266) | | (0.269) | | (0.583) | |
| Number of missing competencies | | | | | 0.93099 | |
| | | | | | (0.743) | |
| Firm size | -0.21265 | (***) | -0.23901 | (***) | -0.21807 | (***) |
| | (0.061) | | (0.062) | | (0.065) | |
| Leverage | 0.55839 | | 0.54273 | | 0.52076 | |
| | (0.442) | | (0.440) | | (0.436) | |
| Profitability | 0.04407 | (***) | 0.04207 | (***) | 0.04058 | (***) |
| | (0.015) | | (0.015) | | (0.015) | |
| Tangibility | -1.12113 | (*) | -1.05393 | | -0.99869 | |
| | (0.672) | | (0.647) | | (0.629) | |
| Effects | Industry, | | Industry, | | Industry, | |
| | Year | | Year | | Year | |
| Adjusted R ² | 28.8% | | 29.1% | | 22.2% | |

Table 7: Competencies and governance policies

The table presents regression coefficient estimates for governance policies. *Meetings* is the number of full board meetings. *Number of committees* is the number of board committees (e.g., audit committee). *ESG rating* is Refinitiv's ESG Combined Score. *ESG criteria* is a dummy variable and equals 1 if an ESG criteria is relevant for variable CEO compensation. Transparency Comp. Report is a dummy variable and equals one if the compensation report is highly transparent as assessed by Inrate. The sample consists of 919 SPI firm-year observations. Cluster-robust Huber/White standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | Meetings (log) (I) | Number of committees (log) (II) | ESG rating (III) | CEO compensation (log) (IV) | ESG criteria (1=yes) (V) | Transparency Comp. Report (1=yes) (VI) |
|-------------------------|--------------------------|--|-----------------------------|--------------------------------------|-----------------------------------|---|
| (Intercept) | 1.09129 (***) (0.334) | 0.49767 (***) (0.164) | -77.29688 (***) (14.580) | 9.55180 (***) (0.664) | -1.60263 (***) (0.244) | -0.09816 (0.274) |
| Female | 0.47301 (**) (0.222) | 0.29126 (**) (0.129) | 32.88472 (***) (11.545) | 0.60969 (0.598) | 0.34806 (*) (0.192) | 0.06161 (0.138) |
| Foreign | 0.12176 (0.100) | 0.16443 (**) (0.067) | 6.32347 (5.417) | 0.50056 (0.169) | 0.05655 (***) (0.095) | -0.01389 (0.087) |
| Below 60 | 0.13107 (0.105) | -0.01717 (0.062) | -3.48661 (5.861) | 0.00418 (0.178) | 0.13930 (0.110) | -0.14605 (0.089) |
| Industry | 0.22762 (*) (0.131) | 0.01361 (0.071) | -4.73705 (6.189) | -0.32494 (0.209) | -0.00392 (0.118) | -0.08638 (0.104) |
| CEO | -0.11757 (0.128) | -0.16499 (**) (0.068) | 1.87106 (5.287) | -0.17599 (0.177) | 0.07648 (0.124) | 0.04538 (0.090) |
| Finance | -0.20027 (*) (0.112) | -0.03891 (0.086) | 14.41630 (*) (7.441) | 0.31900 (**) (0.162) | -0.18794 (0.139) | -0.01180 (0.097) |
| M&A | 0.24836 (*) (0.138) | 0.16579 (**) (0.082) | 6.36481 (6.690) | 0.29977 (0.248) | 0.14073 (0.139) | 0.17963 (0.141) |
| International | -0.37088 (**) (0.145) | -0.00806 (0.094) | -0.66330 (6.197) | 0.02283 (0.215) | 0.27167 (**) (0.132) | 0.07831 (0.089) |
| Emerging Markets | 0.13497 (0.130) | -0.10814 (0.091) | -0.17398 (6.809) | 0.22930 (0.316) | 0.04572 (0.137) | 0.05034 (0.101) |
| Legal | 0.00847 (0.147) | -0.03559 (0.109) | -4.09138 (7.408) | -0.72697 (**) (0.348) | 0.17791 (0.190) | -0.07490 (0.147) |
| Digitalization | -0.08625 (0.129) | 0.00271 (0.085) | 1.91281 (6.917) | 0.08188 (0.216) | -0.06777 (0.147) | 0.21698 (0.148) |
| Control variables | included | included | included | included | included | included |
| Effects | Industry, Year | Industry, Year | Industry, Year | Industry, Year | Industry, Year | Industry, Year |
| Adjusted R ² | 28.5% | 40.2% | 49.0% | 43.2% | – | – |

Table 8: Missing competencies and governance policies

The table presents regression coefficient estimates for governance policies. *Meetings* is the number of full board meetings. *Number of committees* is the number of board committees (e.g., audit committee). *ESG rating* is Refinitiv's ESG Combined Score. *ESG criteria* is a dummy variable and equals 1 if an ESG criteria is relevant for variable CEO compensation. Transparency Comp. Report is a dummy variable and equals one if the compensation report is highly transparent as assessed by Inrate. The sample consists of 919 SPI firm-year observations. Cluster-robust Huber/White standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | Meetings | | Number of committees | | ESG rating | | CEO compensation | | ESG criteria | | Transparency Comp. Report | |
|--------------------------|----------------|-------|----------------------|-------|----------------|-------|------------------|-------|----------------|-------|---------------------------|------|
| | <i>(log)</i> | | <i>(log)</i> | | | | <i>(log)</i> | | <i>(1=yes)</i> | | <i>(1=yes)</i> | |
| | (I) | | (II) | | (III) | | (IV) | | (V) | | (VI) | |
| (Intercept) | 1.30112 | (***) | 0.59925 | (***) | -66.32536 | (***) | 9.63020 | (***) | -1.30392 | (***) | -0.15850 | |
| | (0.277) | | (0.177) | | (14.342) | | (0.726) | | (0.249) | | (0.258) | |
| Missing Female | -0.12116 | (*) | -0.05736 | | -10.09199 | (***) | -0.23707 | | -0.08919 | (*) | -0.00632 | |
| | (0.063) | | (0.039) | | (2.812) | | (0.226) | | (0.051) | | (0.044) | |
| Missing Foreign | -0.01255 | | -0.07524 | (*) | 0.45263 | | -0.16199 | | -0.09109 | | -0.05403 | |
| | (0.049) | | (0.040) | | (2.372) | | (0.104) | | (0.056) | | (0.048) | |
| Missing Below 60 | -0.03087 | | 0.07949 | | -1.85450 | | -0.05593 | | -0.06837 | | -0.08144 | (*) |
| | (0.154) | | (0.062) | | (4.477) | | (0.142) | | (0.085) | | (0.044) | |
| Missing Industry | -0.59293 | (***) | -0.01113 | | -27.11162 | (***) | -0.07687 | | 0.66976 | (***) | -0.18184 | (*) |
| | (0.087) | | (0.058) | | (4.382) | | (0.254) | | (0.090) | | (0.102) | |
| Missing CEO | -0.04267 | | 0.15350 | (**) | 5.69114 | | 0.13188 | | -0.17566 | | -0.02095 | |
| | (0.068) | | (0.060) | | (4.242) | | (0.156) | | (0.112) | | (0.099) | |
| Missing Finance | 0.43541 | (***) | -0.03278 | | -13.09366 | (***) | 0.15877 | | 0.00792 | | -0.13299 | (*) |
| | (0.085) | | (0.038) | | (3.508) | | (0.233) | | (0.094) | | (0.072) | |
| Missing M&A | 0.02177 | | 0.07109 | | 2.95735 | | -0.17704 | | -0.02257 | | -0.12095 | (**) |
| | (0.085) | | (0.108) | | (7.885) | | (0.275) | | (0.071) | | (0.049) | |
| Missing International | 0.09165 | | -0.15344 | (**) | -5.94187 | | 0.67570 | (***) | -0.01565 | | 0.01352 | |
| | (0.105) | | (0.076) | | (4.412) | | (0.169) | | (0.049) | | (0.077) | |
| Missing Emerging Markets | 0.04490 | | -0.06394 | | -5.16416 | (*) | -0.24340 | (*) | 0.00349 | | -0.02420 | |
| | (0.065) | | (0.061) | | (2.806) | | (0.133) | | (0.057) | | (0.040) | |
| Missing Legal | -0.09961 | (**) | -0.03045 | | -1.97104 | | 0.08072 | | 0.10528 | (***) | 0.01514 | |
| | (0.045) | | (0.032) | | (2.492) | | (0.110) | | (0.013) | | (0.043) | |
| Missing Digitalization | 0.00016 | | -0.01809 | | 0.91873 | | -0.17403 | (**) | -0.00948 | | 0.00183 | |
| | (0.041) | | (0.030) | | (2.179) | | (0.081) | | (0.116) | | (0.053) | |
| Control variables | included | | included | | included | | included | | included | | included | |
| Effects | Industry, Year | | Industry, Year | | Industry, Year | | Industry, Year | | Industry, Year | | Industry, Year | |
| Adjusted R^2 | 26.0% | | 37.8% | | 48.9% | | 41.4% | | – | | – | |

Table 9: Annual general meeting level data

| Summary statistics | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|
| | Total | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Agenda items observations | 6083 | 675 | 771 | 884 | 945 | 923 | 935 | 950 |
| <i>Panel A: Election characteristics</i> | | | | | | | | |
| Yes-votes | 95.3% | 95.4% | 96.6% | 94.9% | 95.6% | 95.0% | 94.8% | 95.1% |
| <i>Panel B: Demographic characteristics</i> | | | | | | | | |
| Woman | 21.1% | 16.4% | 17.6% | 18.9% | 19.4% | 21.1% | 24.6% | 27.3% |
| Foreign | 38.4% | 37.0% | 39.0% | 38.7% | 38.6% | 36.8% | 38.6% | 39.6% |
| Below 60 years | 46.5% | 47.0% | 45.5% | 47.1% | 47.9% | 46.2% | 47.1% | 44.6% |
| <i>Panel C: Directors' professional competencies characteristics</i> | | | | | | | | |
| Industry | 65.2% | 65.2% | 65.2% | 64.5% | 64.3% | 66.2% | 67.0% | 64.1% |
| CEO | 59.9% | 62.4% | 62.8% | 62.3% | 61.2% | 60.1% | 57.1% | 54.7% |
| Finance | 69.8% | 66.8% | 69.3% | 68.1% | 70.4% | 70.5% | 72.0% | 70.4% |
| M&A | 43.1% | 40.3% | 42.0% | 42.1% | 42.9% | 45.4% | 45.2% | 42.8% |
| International | 84.1% | 81.5% | 83.0% | 83.9% | 83.9% | 85.4% | 85.1% | 84.7% |
| Emerging Markets | 24.7% | 23.1% | 24.6% | 24.9% | 24.7% | 25.6% | 25.7% | 23.8% |
| Legal | 16.0% | 16.4% | 16.3% | 16.1% | 16.8% | 15.8% | 15.3% | 15.2% |
| Digitalization | 14.3% | 8.9% | 11.0% | 12.4% | 14.6% | 16.4% | 18.1% | 16.4% |
| <i>Panel D: Director and governance characteristics</i> | | | | | | | | |
| Newly elected | 10.7% | 8.1% | 9.1% | 12.7% | 13.2% | 9.6% | 11.9% | 9.4% |
| Tenure | 6.64 | 6.89 | 6.99 | 6.64 | 6.63 | 6.57 | 6.33 | 6.56 |
| Independent director | 61.8% | 64.2% | 63.6% | 62.3% | 59.3% | 60.4% | 62.6% | 61.6% |
| Shareholder representative | 26.0% | 25.6% | 25.0% | 26.5% | 28.0% | 25.7% | 24.8% | 26.3% |
| Executive director | 12.2% | 11.6% | 13.0% | 13.1% | 12.4% | 12.4% | 10.7% | 12.4% |
| Inrate recommendation (1=no) | 10.8% | 7.0% | 9.5% | 9.6% | 11.9% | 12.2% | 11.1% | 12.8% |

Table 10: Determinants of director election results

The table presents regression coefficient estimates for director election results. *Director independence* is a dummy variable and equals 1 if the director is independent. *Director tenure* is the number of years the director is on the board. *Prior board size* is the number of board members before the AGM. *Prior female board representation* is the proportion of female board members before the AGM. *Prior board independence* is the proportion of independent board members before the AGM. *Inrate recommendation* is a dummy variable and equals 1 if Inrate recommends voting “no” for the election of a board member. *Voting restrictions* is a dummy variable and equals 1 if the company provides for voting caps. *Large shareholder (>25 % voting rights, dual class)* equals 1 if the company has a large shareholder with more than 25 percent of voting rights and if the company has a dual-class share structure where voting rights and cash flow rights are decoupled. *Large shareholder (>25 % voting rights)* equals 1 if the company has a large shareholder with more than 25 percent of voting rights and if the company has one share class. *Large shareholder (10-25 % voting rights)* equals 1 if the company has a large shareholder with between 10 and 25 percent voting rights. The sample consists of 6,083 agenda item observations. White robust standard errors are reported in parentheses, and significance at the 1, 5, and 10 percent levels is indicated by ***, **, and *, respectively.

| | Yes-votes | | | | | | | |
|---|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| | (I) | | (II) | | (III) | | (IV) | |
| (Intercept) | 95.49497 | (***) | 95.88519 | (***) | 90.37130 | (***) | 94.01469 | (***) |
| | (0.410) | | (0.474) | | (1.237) | | (1.078) | |
| Female | 0.91971 | (***) | 0.67562 | (***) | 0.12506 | | -0.00461 | |
| | (0.193) | | (0.197) | | (0.212) | | (0.216) | |
| Foreign | -0.10402 | | -0.19139 | | -0.31650 | | -0.15363 | |
| | (0.178) | | (0.193) | | (0.204) | | (0.187) | |
| Below 60 | 0.51612 | (***) | 0.33429 | (*) | -0.15882 | | -0.07999 | |
| | (0.167) | | (0.171) | | (0.199) | | (0.173) | |
| Industry | | | 0.02773 | | 0.22759 | | 0.19687 | |
| | | | (0.189) | | (0.200) | | (0.186) | |
| CEO | | | -0.96943 | (***) | -0.86850 | (***) | -0.85069 | (***) |
| | | | (0.169) | | (0.182) | | (0.175) | |
| Finance | | | -0.23964 | | -0.21172 | | -0.28646 | |
| | | | (0.189) | | (0.207) | | (0.186) | |
| M&A | | | -0.00021 | | 0.26564 | | 0.13569 | |
| | | | (0.174) | | (0.186) | | (0.168) | |
| International | | | 0.22357 | | -0.18014 | | -0.27255 | |
| | | | (0.239) | | (0.270) | | (0.242) | |
| Emerging Markets | | | 0.55827 | (***) | 0.35775 | (*) | 0.29462 | |
| | | | (0.198) | | (0.208) | | (0.193) | |
| Legal | | | 0.09901 | | 0.43521 | (**) | 0.27072 | |
| | | | (0.209) | | (0.212) | | (0.235) | |
| Digitalization | | | 1.10338 | (***) | 0.77806 | (***) | 0.55115 | (**) |
| | | | (0.218) | | (0.226) | | (0.236) | |
| Director independence | | | | | 2.22988 | (***) | 1.86815 | (***) |
| | | | | | (0.225) | | (0.190) | |
| Director tenure | | | | | -0.08590 | (***) | -0.12002 | (***) |
| | | | | | (0.016) | | (0.013) | |
| Prior board size | | | | | | | -0.02457 | |
| | | | | | | | (0.044) | |
| Prior female board representation | | | | | | | -0.75519 | |
| | | | | | | | (0.813) | |
| Prior board independence | | | | | | | 1.59553 | (***) |
| | | | | | | | (0.458) | |
| Inrate recommendation (1=no) | | | | | -2.93187 | (***) | -2.08672 | (***) |
| | | | | | (0.414) | | (0.281) | |
| Voting restrictions (1=yes) | | | | | -0.19460 | | 0.00330 | |
| | | | | | (0.206) | | (0.203) | |
| Large shareholder (>25 % voting rights, dual class) | | | | | 2.34412 | (***) | 2.75156 | (***) |
| | | | | | (0.318) | | (0.331) | |
| Large shareholder (>25 % voting rights) | | | | | 2.10133 | (***) | 2.11234 | (***) |
| | | | | | (0.243) | | (0.268) | |
| Large shareholder (10-25 % voting rights) | | | | | -0.63352 | (**) | -0.27998 | |
| | | | | | (0.286) | | (0.250) | |
| Firm size | | | | | 0.10090 | (*) | 0.04018 | |
| | | | | | (0.059) | | (0.067) | |
| Profitability | | | | | 0.01386 | (*) | 0.01245 | (*) |
| | | | | | (0.008) | | (0.007) | |
| Effects | Industry, | | Industry, | | Industry, | | Industry, | |
| | Year | | Year | | Year | | Year | |
| Adjusted R ² | 3.1% | | 3.9% | | 11.3% | | 11.4% | |