Audit committee formation in a semi-mandatory setting. A case of an emerging European economy

Abstract:

Manuscript Type: Empirical

Research Question/Issue: This study investigates the determinants of audit committee (AC) formation in a semi-mandatory setting of a European economy where ownership and control are predominantly in the hands of families and business groups and the voluntary practice of forming an AC has not been widely accepted.

Research Findings/Insights: Our primary analysis provides evidence of an inverted association between the determinants of AC formation commonly accepted in the Anglo-Saxon world, such as number of independent members on supervisory board and accounting and finance expertise of supervisory board members. When it comes to ownership structure, companies with foreign ownership are more likely to have an AC. We also observe a learning effect that companies with a majority of shares in the hands of managers slowly adjust to the existing regulation to form an AC, while family firms are still unlikely to have an AC. Our results also point to an important learning effect related to the existence of other supervisory board committees as an important determinant of AC formation.

Theoretical/Academic Implications: Our findings related to the increased likelihood of forming an AC by companies with foreign shareholding support the theoretical assumptions of agency theory suggesting that an AC is needed to decrease the information asymmetry between managers and owners. However, when imposing a relatively foreign concept on companies operating in a different environment, a selective adaptation theory may be more successfully used to predict the behaviour of companies in the adaptation of a new regulation related to ACs.

Practitioner/Policy Implications: The results are important for supervisory bodies and regulators, as they provide insights into factors that influence audit committee formation. Of particular interest is the link between the experience of having other supervisory board committees and the likelihood of having an AC, suggesting that the AC concept may be more successfully implemented by promotion of best practices and benefits of having board committees rather than by adjusting the behaviour of companies through additional changes in regulation. This may be particularly helpful in addressing the challenges of adopting the Eighth Directive across European states.

1. Introduction

In this study, we investigate the determinants of audit committee (AC) formation in the semi-mandatory setting of a European economy. Despite the isomorphic pressures imposed by the European Union (EU) regulation (Official Journal of the European Union, 2006), AC practices vary across the EU member states (Collier & Zaman, 2005; Böhm et al., 2013). Several reasons can explain these differences. For example, Aguilera et al. (2008), Aguilera et al. (2011) and Schiehll et al. (2014) suggest that multiple configurations of firm-level characteristics and governance practices exist across countries, leading to a variety of country- and organisation-specific governance solutions that fit well within the context in which they evolved. For Continental Europe, the concept of an AC has not traditionally been part of the specific governance bundle. An AC may therefore be an effective governance mechanism in an Anglo-Saxon world, but in civil law countries, it is difficult to enforce new practices (Köhler, 2005), as laws can only be passed by the legislature. Not surprisingly, Li and Harrison (2008) point to the cultural differences related to board functioning and board processes and call for additional research in this area. The EU directive does not set stringent rules for how ACs should be designed on the national level. Thus, members are granted leeway in implementing and extending the standards set in the European regulation.

Studies of the factors associated with voluntary AC formation mainly build on agency theory. Agency theory predicts that in a situation of high agency costs, an increased number of independent members and a higher proportion of non-executive directors can be used as mechanisms to improve the information flow between principal and agent (Pincus et al., 1989). In general, researchers agree that companies that form ACs differ from those that operate without an AC (e.g. Zaman & Valentinčič, 2011). In general researchers agree that companies with foreign ownership (Mangena & Tauringana, 2007) and two governance characteristics such as independence and experience (e.g. Pincus et al., 1989; Collier, 1993; Willekens et al.,

2004; Pearce & Zahra, 1992; Collier & Gregory, 1999; Beasley & Salterio, 2001; Hillman & Dalziel, 2003) positively affect the decision to form an AC. However, studies on other AC formation determinants, which include not only governance-related factors but also company-related factors, provide conflicting results. For example, some studies present evidence that AC formation is positively associated with higher leverage (e.g. Pincus et al., 1989; Bradbury, 1990; Piot, 2004) and others fail to find a significant positive relationship between higher leverage and AC formation (e.g. Willekens et al., 2004; Zaman & Valentinčič, 2011). Moreover, while some studies have found a negative relationship between the level of management ownership and AC formation (e.g. Pincus et al., 1989; Collier, 1993; Piot, 2004), others have not found any significant relationship (e.g. Bradbury, 1990; Menon & Williams, 1994; Turpin & DeZoort, 1998; Willekens et al., 2004).

In the setting of Continental Europe, the evidence on factors affecting AC formation is limited. In short, consistent with Méndez and García (2007) (in the case of Spain), one can say that, given large shareholders' incentives to supervise managerial actions, a positive influence of such shareholders on the formation of active AC is expected. Piot (2004) observes a direct effect on the formation and independence of the AC in France. In the case of Belgium, the main determinants of AC formation are the independence of board members and the quality of external audit (Willekens et al., 2004). García-Sánchez et al. (2012), who conduct an analysis on ACs in Spain, document the determinants of AC effectiveness and investigate demand, in the form of ownership concentration and audit firm, and supply factors that characterise board structure. Moreover, Zaman and Valentinčič (2011) study determinants of AC formation in Slovenia and confirm that the size of the supervisory board as well as company characteristics such as the size of the firm and lower leverage are important factors affecting the decision to form an AC. All those papers, however, deal with voluntary AC formation before the requirement to have an AC imposed by the EU regulation.

This paper investigates the case of a semi-mandatory setting after implementation of the EU Eighth Directive for the national regulation in the case of a two-tier governance model. We draw our data from the Warsaw Stock Exchange (WSE). AC has been part of the Polish Corporate Governance Code since 2005. However, the concept of ACs has not been widely accepted by companies listed on the WSE (Dobija, 2015). In 2009, ACs became mandatory through inclusion in a new legislation on auditing (Parliamentary Act on Certified Auditors, Their Self-government, and Entities Authorized to Audit Financial Statements and Public Supervision) (Journal of Laws, 2009). The new regulation imposes formation of an AC; however, this requirement depends on the size of the supervisory board (SB).[1] The 2009 regulation states that companies with more than five members on the SB are required to have an AC; however, companies with five or fewer members on the SB can form but are not required to form an AC. This new regulation therefore has resulted in various reactions on the side of companies. First, companies with five or fewer members on the SB can form an AC or they can decide not to form an AC. At the same time, companies with an SB having more than five members can decrease the number of members to five to avoid the need to form an AC or they must form an AC. This paper investigates the determinants of AC formation after implementation of a new regulation which allows for different options when it comes to AC formation.

Companies' reaction to introduction of the new regulation gives rise to the question of which corporate governance characteristics determine AC formation in a semi-mandatory setting. To answer our research question, data for companies listed on the WSE in 2008, 2010 and 2015 are examined. In 2009, a new regulation is introduced, regulating the existence of the

[1] In Poland the board is organised along a two-tiered model consisting of a management board and a supervisory board. We use the term "board of directors" when referring to the academic literature on corporate governance, as most published research on the topic deals with the unitary system of corporate governance. When we refer to the Polish corporate governance system, the term "supervisory board" is used.

AC in Polish listed companies. Therefore, we analyse data for 2008 and 2010. In addition, we also analyse data for 2015 to check for any experience-related changes. The empirical methodology is based on the logistic regressions. We also use selective adaptation theory to explain various changes that have taken place in regulations of the Polish corporate system.

The results illustrate that, contrary to the studies of companies operating in Anglo-Saxon environments, the presence of independent board members and accounting and finance experts decreases the likelihood of AC formation. When it comes to the capital structure, we observe that after implementation of the EU directive, companies with foreign ownership are more likely to have an AC. However, we also notice that recent managerial ownership may also be an important factor in the AC formation decision. Additionally, when analysing the year 2008, family firms are less likely to form an AC while bigger companies with bigger supervisory boards are more likely to form an AC. However, in 2010 and 2015, this effect is not observed. The effects are highly statistically and economically significant. We also observe that the presence of other board committees increases the likelihood of AC formation. Our result is robust in relation to other specifications and regulation changes.

This paper intends to contribute to three streams of literature. First, the research is intended to provide insights into why some companies decide to form an AC and why some reject the concept. Prior studies have investigated various determinants of AC formation in a voluntary setting and documented the main factors affecting AC formation, such as board compositional features (Pincus et al., 1989; Bradbury, 1990; Collier, 1993; Chau & Leung, 2006) and company-specific determinants (Eichenseher & Shields, 1985; Pincus et al., 1989; Bradbury, 1990; Collier, 1993; Chau & Leung, 2006). We build on those findings and confirm that corporate governance factors as well as company-related factors matter in decisions regarding whether or not to form an AC. This paper also extends our knowledge about determinants of AC formation by drawing attention to other important factors influencing companies' decision

to form an AC. This study specifically shows that in addition to the above-mentioned factors, other characteristics like experience with other board committees also play an important role in the decision about AC formation.

Second, to date, most studies dealing with AC have been conducted predominantly in the United States and United Kingdom. It is not surprising that many authors call for additional research outside the Anglo-Saxon world (DeZoort et al., 2001; Bédard & Gendron, 2010; Carcello et al., 2011). This project can be considered a direct response to these calls as we study ACs in a European economy characterised by the two-tier corporate governance model and a medium-sized capital market characterised by large ownership stakes in the hands of managers and families. This paper also adds to our understanding of the divergent practices related to ACs across European countries.

Third, this research contributes to the literature on Polish AC regulations and settings. In a broader sense, this research contributes to the literature on the regulations and settings in Central and Eastern Europe, where the AC concept has not been widely accepted. Therefore, the findings may be useful not only to Polish regulators but also to Eastern European countries. Moreover, the findings may be used in the broader context of emerging economics regarding important factors affecting companies' decision on AC formation. The findings can help regulators shape regulations and plan promotion actions in such a way that the intended effect of an AC as an important monitoring instrument can be achieved.

The remainder of the paper is organised as follows. After the introduction, we present the context of the study and describe the Polish corporate governance bundle with a special focus on regulations and practices related to ACs. Section 3 presents the theoretical background and literature review, leading to development of the hypotheses. Section 4 provides information on the empirical design. Section 5 reports the results. Section 6 discusses the findings and the paper's implications, limitations and recommendations for future research.

2. The context of this study – the Polish governance bundle

The Polish model of corporate governance structure is currently in the development process. The model has evolved over the past 20 years, with reforms that have simultaneously encompassed ownership transformation, as well as the building of a market-oriented economy and a market-based financial system. In April of 1991, the first trading session of the WSE took place, with only five listed companies. Today, the WSE is a medium-sized stock exchange with a leading position in Central and Eastern Europe. It has a market capitalization of around €147,894.79 million (WSE Main Statistics, 2017).

Poland is a country with dependent boards (Mateescu, 2015) and a contemporary corporate governance system that can be characterized as an "insider" model of corporate governance. In this system, owners monitor, oversee, and control companies from within. Consequently, owners frequently take large ownership stakes. Ownership and control is in the hands of families and business groups (Aluchna, 2007; Dobija, 2011; Aluchna & Tomczyk, 2016).

The significant dominance of executives in ownership in Poland is the result of a pyramid approach in which many domestic companies are controlled by the executives of a parent company (Aluchna, 2007). This pyramid structure has diminished the enforceability of external monitoring mechanisms and transparency rules (Kuchenbeker, 2008). It has also led to weak investor protection (Aluchna & Koładkiewicz, 2010; Koładkiewicz, 2011).

In such an environment, controlling shareholders are usually subject to two types of incentives (Ararat et al., 2015): a positive incentive effect and a negative entrenchment effect. The positive incentive effect is from share ownership. The negative entrenchment effect is from the disproportionate control, accrued as the private benefits of control at the expense of minority investors. In addition, the qualitative research on AC effectiveness shows that an AC plays a largely ceremonial role in Poland (Dobija, 2013).

The internal corporate governance mechanisms in Poland rely on the board and its committees. The board is organized along a two-tiered model consisting of a management board (executive directors) and a supervisory board (non-executive directors). The management board is responsible for monitoring, controlling, providing information, counselling, and ensuring compliance with applicable laws and regulations. The supervisory board is in charge of monitoring the company's activities and evaluating the management board's annual report (Koładkiewicz, 2013; Słomka-Gołebiowska & Urbanek, 2016). In general supervisory boards are much smaller than the boards in one-tier governance model. The average size of supervisory board in stock listed companies in Poland is a total of six (Matyjas, 2014; Bohdanowicz, 2015).

The first corporate governance code was introduced in Poland in 2002 (Best Practices Committee at the Corporate Governance Forum (2002)), where there was no direct reference to an AC. Responsibility for the audit was given to the supervisory board. The second version of the corporate governance code, issued in 2005, recommended that a supervisory board operate in accordance with its by-laws, which should be made publicly available. The by-laws should stipulate the creation of at least two committees: an AC and a remuneration committee.

The corporate governance code also recommended that all AC members be independent. After three years of experience with the corporate governance code, a new version was created that relaxed the requirements regarding committees and their membership. The 2008 corporate governance code recommended that the supervisory board establish an AC with a minimum of one independent board member and the recommendations for a remuneration committee were abolished.

ACs became mandatory and were stipulated by the Polish Auditing Act in 2009, when Poland issued new legislation regulating the role of ACs. The new regulation was included in a Parliamentary Act on certified auditors, their self-government, and the entities authorized to audit financial statements and public supervision (Journal of Laws, 2009). The establishment

and operation of ACs on supervisory boards was now formally required, and the responsibilities of the AC became mandatory. However, where the supervisory board does not have more than five members, the tasks of the AC may be entrusted to the supervisory board. Moreover, according to the regulation, the AC must consist of at least three members, including at least one member complying with the conditions of independence and having qualifications in accounting or auditing.

The basic tasks of the Polish AC listed in the Act include supervising the area of financial reporting, operating the internal control system, internal audit activities relating to risk management, and auditing the financial statements. Moreover, the AC submits its opinion and the results of assessments and analyses to the supervisory board. They specifically regard any irregularities found, as well as any differences of opinion between the management board, the internal audit, the certified external auditor, and the AC (Szczepankowski, 2012). Furthermore, the Auditing Act also specified that the AC should recommend an audit firm.

Since the new regulation allowed for an option, in practice companies could reacted in different ways. Companies with more than 5 members on SB were required to have an AC, however, companies with 5 or less members on SB could form but they were not required to form an AC. Therefore, after introducing the new regulation, companies had different options about how to react, which were dependent upon the size of SB: (1) companies with 5 or less members on SB voluntarily form an AC; (2) companies with a SB with more than 5 members could decrease the number of members to 5 in order to avoid a need to form an AC or AC formation was mandatory. Figure 1 explains the possible actions taken by companies.

[INSERT FIGURE 1 ABOUT HERE]

The reaction of companies listed on WSE to the new regulation was twofold. One group of companies decided to form an AC (almost 19% of companies), according to the existing laws; however, a bigger group of companies decided to take advantage of the exemption and not form an AC (almost 50% of companies). Anecdotal evidence exists of cases where companies preferred to reduce the number of members sitting on a supervisory board to avoid the need to form an AC (Adamska et al., 2017).

In 2016, the Warsaw Stock Exchange passed a resolution approving a new CGC "Best Practice of WSE Listed Companies 2016." This code continued to build upon and incorporate the tradition of the Polish corporate governance movement. It stressed that decisions to elect the members of a company's management or supervisory board should ensure that the composition of these bodies is comprehensive and diverse in terms of gender, education, age, and professional experience. Moreover, at least two members of the supervisory board should meet the criteria of being independent. For the criteria related to independence, the CGC recommended the use of the EU recommendations (Official Journal of the EU, 2005). Where the functions of the AC are performed by the supervisory board, the EU recommendations should apply accordingly.

On June 21, 2017, the new regulation for AC creation was included in a Parliamentary Act on Certified Auditors, Audit Firms and Public Supervision (Journal of Laws, 2017). After the changes, companies will have to create ACs, depending on the company's size. The AC should consist of no less than three members, with the majority of the AC, including its chairman, remaining independent. Moreover, the act defines, in detail, the notion of independence. The new regulation also stipulates that at least one of the members must be an expert in financial reporting or accounting.

[INSERT FIGURE 2 ABOUT HERE]

The following Figure 2, provides an illustations of the changes in the AC regulation and provides a logic for construction of our sample. We select 2008, 2010 and 2015 for the analysis. We assume that in 2008 AC formation was voluntary, as there were no legislation regulating the formation of ACs. We analyse data for 2010 to see any changes after introduction of a new regulation. Additionally we analyse 2015 to see any additional learning effect.

3. Theory, literature review, and hypotheses development

3.1. Theoretical perspectives

In theory, companies should benefit from the presence of an AC. The agency perspective suggests that ensuring the presence of an AC increases its monitoring role in protecting shareholders' interests from the self-interests of management (Eichenseher & Shields, 1985; Pincus et al., 1989; Bradbury, 1990; Collier, 1993; Menon & Williams, 1994; Piot, 2004; de Fuentes Barbera & Pucheta Martınez, 2006; Firth & Rui, 2007). From the agency theory perspective, the establishment of ACs is regarded as a reaction to information asymmetry between the owners of a company and its management (Köhler, 2005). As the board of directors is charged with safeguarding the interests of shareholders (Alchian & Demsetz, 1972; Fama & Jensen, 1983), an AC will be employed in high-agency cost situations to improve the quality of information flows between the principal and the agent (Pincus et al., 1989), therefore reducing agency costs.

A useful perspective to better understand the process of the adaptation and implementation of international models into the domestic markets and institutions is selective adaptation theory (Zeitlin & Herrigel, 2000; Potter, 2003, 2004; Nakamura, 2011; Min, 2018). Selective adaptation theory suggests that the adoption of foreign practices, in response to external shocks, may have different results and depends on the organization's internal characteristics to perceive

and support the shocks, as well as the magnitude, of complementarity with local norms. Companies do not unconditionally accept or reject a given practice, but rather adapt it to its local system (Czarniawska-Joerges & Sevon, 1996; Mennicken, 2008; Min, 2018).

In the corporate governance setting, any changes in a given bundle of a corporate governance system should be seen as a complex process, evolving in response to external pressures, but still effected by the actions of various local main actors of the given governance system (Sanders & Tuschke, 2007; Chizema & Shinozawa, 2012; Min, 2018). Any adoption of an alien governance practice, therefore, will have to be adopted to suit the local environment, as well as the needs and interests of the local governance actors.

Böhm et al. (2013) proposed a variety of possible solutions for the adoption of an AC. This study of the design of ACs in six different "old member" states shows substantial cross-national differences in the scope of responsibilities to be addressed by ACs, in relation to the proportion of independent committee members and in the competences required of the committee members. It is possible, therefore, to expect that, in countries with less experience in building a market-driven economy (e.g., new EU member states), the divergence of the outcomes of real practice from those intended by the regulator could be significant.

3.2. Literature review – the determinants of AC formation

In this section, we identify the possible determinants of AC formation that could explain why some Polish companies have established an AC and why some have not. The prior research does not provide conclusive evidence on the influence of SB and the ownership-specific characteristics in AC formation (Bradbury, 1990; Collier, 1993; Menon & Williams, 1994; Deli & Gillan, 2000; Carson, 2002; Piot, 2004; Firth et al., 2007).

The two main categories of determinants that influence the establishment of an AC that have emerged from the literature review include: (1) board compositional features (Pincus et

al., 1989; Bradbury, 1990; Collier, 1993; Chau & Leung, 2006) and (2) company specific determinants (Eichenseher & Shields, 1985; Pincus et al., 1989; Bradbury, 1990; Collier, 1993; Chau & Leung, 2006).

Based on the existing research findings and the theoretical reasoning regarding the specific two-tiered board setting, we expect there to be a voluntary AC establishment in companies where SB members are experienced, have accounting and finance knowledge, are independent, and have a higher percentage of female participation. We also assume that a positive experience with other board committees may make a firm more willing to form an AC. Consequently, we argue that if a company already has experience with other committees, it is more likely to form an AC. Moreover, we do not expect voluntary AC establishment in companies with a higher level of managerial ownership and family companies. On the other hand, we predict that companies with a higher level of foreign ownership are more likely to have an AC. Below, we discuss the prior research and our motivation for the determinants included in this study.

3.3. Hypothesis development

3.3.1. Board compositional features and AC formation

The board of directors is viewed as one of the most important internal corporate governance mechanisms for reducing agency problems (Fama & Jensen, 1983; Kroll et al., 2008; Belkhir, 2009). In our research, we will focus on the following board composition characteristics: the experience and expertise of board members, board members' independence, and gender diversity. Additionally, we investigate whether the existence of other ACs positively influences AC formation.

3.3.1.1. Board members' experience and expertise

The size of the board of directors may positively affect the creation of an AC, as a large board allows for the inclusion of members with different backgrounds who represent various firm stakeholders (Pearce & Zahra, 1992). Other authors believe that large boards may be more valuable, due to the wide range of knowledge and experience their members possess.

Collier & Gregory (1999) and Beasley & Salterio (2001) affirm that as the board size increases, a firm's ability to appoint more independent directors with relevant financial reporting, AC knowledge and experience also increases. To exercise its monitoring function, the board needs an appropriate mix of experience and knowledge (Hillman & Dalziel, 2003). Therefore, if members hold different experience and knowledge levels, they may want to increase the monitoring process by AC formation.

The Beasley & Salterio (2001) study illustrates that firms voluntarily create audit committees composed of outside members with a breadth of relevant financial reporting and AC knowledge and experience. Consequently, we argue that the larger the number of experienced directors with accounting and/or financial knowledge on the board, the more likely the firm will be to form an AC. This prediction results in our first hypothesis:

H1a: Ceteris paribus, the greater the proportion of experienced members on the board, the greater the likelihood of the existence of an AC.

H1b: Ceteris paribus, the greater the proportion of expert members on the board, the greater the likelihood of the existence of an AC.

3.3.1.2. Board Independence

Independent members are defined as non-management or outside members of the board (Johnson et al., 1996), who are chosen in the interests of the shareholders (Salloum et al., 2015). The SB also contains inside members who have inside information. Therefore, the domination

of inside members may lead to a lack of management monitoring and increase the number of agency problems (Nicholson & Kiel, 2007). The AC should independently complete its responsibilities regarding the efficiency of auditing. Consequently, some independent members may set out to form ACs with the aim of enhancing corporate governance (Salloum et al., 2015).

Prior studies suggest that boards with a higher proportion of independent directors are more effective at monitoring managers (Huang et al., 2009). These boards are more likely to remove a poorly performing manager (Hermalin & Weisbach, 2003) and select a specialist Big 6 auditor (Beasley & Petroni, 2001). A more independent board is more likely to adopt a governance committee to watch itself (Huang et al., 2009), as independent members have incentives to reduce their legal liability by forming an AC (Collier, 1993). Moreover, board independence, and the existence of an AC, are both positively correlated with the financial reporting quality (Afify, 2009).

Bradbury (1990) considers independent directors to have an incentive to ensure the effective running of the company. Empirically, board independence has a positive relationship with AC formation (Pincus et al., 1989; Collier, 1993; Willekens et al., 2004). Consequently, we argue that the larger the proportion of independent members on the board, the more likely a firm will be to form an AC. This prediction leads us to our next hypothesis:

H2: Ceteris paribus, the greater the proportion of independent members on the board, the greater the likelihood of the existence of an AC.

3.3.1.3. Female participation on a board

Women's presence on corporate boards is one of the most highly debated issues in business. Females are expected to enrich leadership style, deliver new values, and, as a result, contribute to better performance and an increase in firm value (Aluchna, 2013). Moreover, women are considered to be more independent decision makers, more risk averse, and less tolerant of

unethical behaviour (Byrnes et al., 1999; Adams & Ferreira, 2009; Srinidhi et al., 2011; Loukil & Yousfi, 2016). This could lead to better monitoring quality and more informative financial data.

Post & Byron (2015) document that female board representation is positively related to the board monitoring function. Adams & Ferreira (2009) and Adams et al. (2011) report that women are able to think independently and are not influenced by the so-called “old-boys' club syndrome”. These tendencies should improve company monitoring, especially in companies where corporate governance is weak. Consequently, we argue that the greater the proportion of women there is on a board, the more likely it will be that a firm listed on the WSE will form an AC, assuming that the firm is willing to form an AC. This prediction leads us to test the following hypothesis:

H3: Ceteris paribus, the greater the proportion of women on the board, the greater the likelihood of the existence of an AC.

3.3.1.4. Experience with other committees’ formation

Boards are free to select their corporate governance structure from a range of possibilities. Possible decisions that relate to board structure include forming various sub-committees. Vance (1983), Carson (2002) and Spira & Bender (2004) strongly recommend the establishment of board sub-committees as a potential mechanism for improving corporate governance. These can include, among others, remuneration, strategy, and/or nomination committees.

As a confirmation that the establishment of board subcommittees positively influences company performance is the fact that outside directors may be more important on board committees that handle agency issues (e.g., audit and remuneration committees). Inside directors may best use their company knowledge on committees that focus on firm-specific issues (e.g., finance committees) (Xie et al., 2003).

Premuroso & Bhattacharya (2007) found that performance ratios (i.e., return on assets, return on equity, net profit margin) appear to be associated with firms' decisions to form board-level technology committees. Moreover, Huang et al. (2009) found that having a governance committee constrains managerial opportunism by reducing aggressive financial reporting.

We assume that a positive experience with other board committees may make a firm more willing to form an AC. Consequently, we argue that if a company already has experience with other committees, it is more likely to form an AC. This prediction leads us to test the following hypothesis:

H4: Ceteris paribus, there is a positive association between the likelihood of AC existence and the existence of other committees.

3.3.2. Company-specific determinants of AC formation

The prior literature finds that substantial shareholders (i.e., individual and institutional investors who hold a substantial stake in the firm) are related to the existence of ACs (Bradbury, 1990). Moreover, variations in the ownership structure have been identified as one of the primary reasons for the differences in corporate governance across countries (Li, 1995). We consider three types of possible ownership: managerial, family, and foreign ownership.

3.3.2.1. Managerial Ownership

ACs are one of the most important components of corporate governance, since they explicitly separate the management and monitoring duties (Köhler, 2005). From an agency theory perspective, the need to implement monitoring mechanisms stems from the divergence of interests between managers and stockholders. The intensity of this conflict is inversely related to a higher level of managerial ownership concentration (Jensen & Meckling, 1976).

According to agency theory, the higher the level of managerial ownership, the lower the probability that managers will manipulate accounting numbers to satisfy their own interests. Here, agency theory is the theoretical framework of ACs generally applied in an Anglo-Saxon setting, since ACs are primarily an institution to align the interests of owners and management (Köhler, 2005). Moreover, the concentration of ownership by managers may increase the supervisory powers of shareholders, making the presence of an AC unnecessary (Piot, 2004).

Prior empirical studies confirm the theoretical assumptions and provide evidence of a negative relationship between managerial ownership and AC formation (Pincus et al., 1989; Bradbury, 1990; Menon & Williams, 1994; Turpin & DeZoort, 1998; Collier & Gregory, 1999; Deli & Gillan, 2000; Williams, 2002; Piot, 2004; Ruiz-Barbadillo et al., 2007). The previous discussion suggests that, with increased management ownership, the need for external monitoring will be lower. Therefore, there will be a smaller likelihood of AC formation. Consequently, we develop the fifth hypothesis:

H5: Ceteris paribus, the greater the proportion of managerial ownership, the lower the likelihood of the existence of an AC.

3.3.2.2. Family ownership

ACs can be viewed as a kind of monitoring mechanism which will be formed voluntarily in high agency cost situations to improve the quality of the information flow between the principal and the agents (Bradbury, 1990). The higher the owner–manager's ownership stake in the firm means the lesser the divergence of interests, and therefore, the less likely monitoring needs to occur (Menon & Williams, 1994). Thus, the agency theory predicts the establishment of ACs as a means of attenuating agency costs through its monitoring role (Menon & Williams, 1994; Feldmann & Schwarzkopf, 2003).

We expect that the willingness to establish an AC will decrease with family ownership. Family ownership means that the founder, or his/her immediate family, holds a percentage of shares significant enough to account for the largest shareholding (Chau & Gray, 2002; Chau & Leung, 2006). These owners may influence most of the management decisions. Similar to the case of managers as owners, a concentration of family ownership may decrease the supervisory powers of the other shareholders, thus making the presence of an AC less likely. Accordingly, we expect a family firm to be less likely to form an AC. Therefore, the following hypothesis is proposed:

H6: Ceteris paribus, there is a negative association between the likelihood of AC existence and family ownership.

3.3.2.3. Foreign ownership

Foreign ownership acts as a monitoring mechanism for management's behaviour and improves corporate governance, especially in emerging markets (Bekaert & Harvey, 2002). Local investors have an information advantage relative to their foreign investors, who are geographically separated from the company, due to relatively easier access to firm-relevant information (Coval & Moskowitz, 2001; Ivković & Weisbenner, 2005). SB tasks concerning financial accounting and the other shareholder-oriented information of a company should be performed in ACs (Köhler, 2005), especially to reduce agency conflicts between local investors and foreign investors (Bushman & Smith, 2003).

Mangena & Tauringana (2007) documented a positive relationship between the percentage of shares held by foreign shareholders and the presence of ACs. Moreover, if effective corporate governance practices are of value to large investors, then we would expect to see the adoption of best practices, even in the absence of mandated requirements (Carson, 2002). Small shareholders may not have sufficiently large incentives to justify additional expenditures on the

monitoring of management (Shleifer & Vishny, 1986). Therefore, the presence of an AC may provide the audit process with more credibility to large investors (Carson, 2002). Thus, we expect that the higher the level of foreign ownership, the more likely a firm listed on the WSE will be to form an AC. As such, the following hypothesis is proposed:

H7: *Ceteris paribus, the greater the proportion of foreign ownership, the greater the likelihood of the existence of an AC.*

In the following section we will describe our sample which will be use to empirically test the above stated hypotheses.

4. Methods

4.1 Construction of the sample

To test the role of the SB and companies' compositional characteristics in AC creation, we evaluate a sample of companies listed on the WSE. The sample consists of the population of Polish nonfinancial firms listed on the WSE between 2008 and 2015, representing the following industry sectors: merchandising (about 34%), service (about 26%) and manufacturing (about 40%). The average asset size is 4,447,002 PLN (ca.1 mln EUR). In 2008, AC formation was voluntary; therefore, we take all nonfinancial Polish companies listed on the WSE in that year. In 2010 and 2015, companies could choose to decrease the number of members on the SB or form an AC. Therefore, for 2010 and 2015, we take only companies with boards consisting of fewer than six members. The details of the sample selection process are listed in table 1.

[INSERT TABLE 1 ABOUT HERE]

For this study, we collect information related to the SB and the financial results from the Notoria Service, a WSE-listed company that sells financial information. Notoria Service also sells information about the stock prices of companies listed on the WSE and provides tools for financial data analyses. The data sets available in Notoria include periodic financial statements

and financial reports (i.e. annual, semi-annual, and quarterly), together with notes and other supplementary information for all the companies listed on the WSE. Notoria is also our primary source of information on demographic data, as it features a database containing current and historical data on all management and SB members, including their biographical notes. Missing information is hand-collected from company websites and other sites (e.g. LinkedIn).

The data are collected for three years: 2008, 2010 and 2015. It is important to collect data for 2008 to investigate AC establishment in companies before the regulation. We assume that in 2008 AC formation was voluntary, as there was no legislation regulating the formation of ACs. A year after the regulation was introduced, we investigate which companies have consciously decided to form an AC and which have decided to reduce the number of SB members. Data for 2010 are relevant because ACs became voluntary only for companies with five or fewer SB members, as stipulated by the Polish Auditing Act of 2009, when Poland issued new legislation regulating the role of ACs (Journal of Laws, 2009). We also choose data for 2015 to establish a comparison of whether the determinants of AC formation had changed after six years. Overall, data for 231 companies in 2015, 147 companies in 2010 and 142 companies in 2008 are analysed.

4.2. Primary dependent variable

The dependent variable is whether, or not, a company has formed an AC at the end of the financial year. We investigates whether companies that have, on their SB, members with experience or expertise, or independent members or women, or companies with higher managerial, family, or foreign ownership, or which have sub-committees other than an AC subcommittee, controlling for firm characteristics, were more likely to have an AC, therefore the dummy variable is the most appropriate. This indicator variable is equal to 1 if an AC was

established and 0 otherwise. This variable has been used in prior research on AC formation (Bédard & Gendron, 2010; Zaman & Valentinčič, 2011).

4.3. Independent variables

The hypotheses take into consideration the board and firm characteristics. More specifically, we use the percentage of board members with experience (*EXP*), percentage of board members with finance and accounting expertise (*EXT*), percentage of independent board members *(INT),* and percentage of female representation on the board (*WOB*), as our key variables to describe the demographic aspects of the board. In order to be classified as an experienced member, a person needed to have documented professional experience. To be considered an expert, a person would need to have proven accounting or financial knowledge. To be considered an independent member, a person would need to be independent from the management board and meet the criteria of independence listed in the Parliamentary Act. The female criteria is gender dependent.

The demographic data of the board members in our sample companies were taken from the biographical notes provided by the Notoria Service. In the case of missing information, the Internet (e.g., LinkedIn) was searched for relevant data. We also used an additional governance variable: the presence of sub-committees (*SC*). Again, the Notoria Service and corporate websites were used to locate information on governance committees.

A set of variables related to the ownership structure of a firm were included in the analyses. These included: managerial ownership *(MANOWN*), family ownership (*FAMOWN*), and foreign ownership (*FRGOWN*). The data on the ownership structure were collected from the Notoria Service. The variable MANOWN represents the proportion of shares held by management at the end of the year. FAMOWN is a dummy variable with a value of 1, when the majority of shares is held by a family at the end of the year, and 0 otherwise. Following Chau & Leung (2006), we assume that, at a high level of family shareholding (more than 25%),

the family owners "voice" is dominant. The variable FRGOWN represents the proportion of shares held by foreign investors at the end of the year.

Consistent with prior studies, we include a set of control variables. Following Rainsbury et al. (2008) and Zaman & Valentinčič (2011), we use board size (*BSIZE*), measured as the total number of board members in 2008, as our first control variable. We do not control for board size in 2010 and 2015 because, according to regulation, AC formation depended on number of SB members. We also use the frequency of board meetings (*MEET*), measured by the number of meetings per year (Mangena & Tauringana, 2008; Ntim, 2009). We control for the type of auditor (*BIG4*) (Firth & Rui, 2007; Zaman & Valentinčič, 2011). Additionally, we include leverage (*LEV*) (Piot, 2004; Zaman & Valentinčič, 2011). Firm size (*SIZE*) is measured by the natural logarithm of the firm's assets (Guest, 2009; Zaman & Valentinčič, 2011).

Following the empirical literature, we control for the time of being listed, as the existing research shows that older companies are more willing to operate in accordance with the law (*LIST*) (Kaczmarek et al., 2012). Additionally, in our regressions, we use the market growth potential ratio (*GROWTH*), defined as the ratio of the firm's market and book value of equity (Deli & Gillan, 2000; Klein, 2002). We assume that AC will be able to evaluate managers on the basis of future growth options, rather than on present performance.

We control for the sectors manufacturing (*SECMAN*) and merchandising *(SECMER*), as we assume that, in some sectors, the tendency to form ACs is higher. We also control for a loss in the previous year (*LOSS*). We expect that if a company reports a loss in year t-1, then in year t, it will be more willing to form an AC. Table 2 summarizes each aspect studied, provides information about the supporting literature, and points to the expected signs of the relationship.
[INSERT TABLE 2 ABOUT HERE]

4.4. Methodology and statistical models

The dependent variable is an indicator variable, while the independent variables are either continuous or dichotomous. Hence, we test our hypotheses using the following logistic regression model:

$$AC_{jt} = \beta_0 + \beta_1 \text{Board and Firm Controls}_{jt} + \beta_2 BSIZE_{jt} + \beta_3 MEET_{jt} + \beta_4 BIG4_{jt} + \beta_5 \%LEV_{jt} + \beta_6 FSIZE_{jt} + \beta_7 LIST_{jt} + \beta_8 GROWTH_{jt} + \beta_9 SECMER_{jt} + \beta_{10} SECMMAN_{jt} + \beta_{11} LOSS_{jt-1} + r_{jt}$$

where:

β_0	= Intercept term
$\beta_1 - \beta_{11}$	= Coefficients on the experimental and control variables
j	= Firm's identifier
t	= Time as year
r	= Error term

Following Bradbury (1990), Collier (1993), Beasley & Salterio (2001), Carson (2002), Piot (2004), Willekens et al. (2004), Chau & Leung (2006), Firth & Rui (2007), Chen (2009), Zaman and Valentinčič (2011), Román-Martínez et al. (2012), and Hassan & Hijazi (2015), we used a logistic regression for our analyses. These authors also used a similar approach to determine the factors of AC formation. Due to the dichotomous nature of the dependent variable, a logit model was appropriate to test the hypotheses[2]. The dependent variable AC was set to 1 if the firm had an AC, and 0 otherwise.

4.5. Summary statistics

Tables 3 and 4 present the summary statistics for the variables used in the regression for the companies that did and did not form an AC, respectively. The differences between the groups were tested using an independent sample t test (for the variables measured on a ratio scale with

[2] It is worth noting that we cannot conduct difference-in-difference models, because the regulations concern all listed entities and because we do not have a control group. Moreover, some entities formed AC before the regulations were introduced.

distributions close to normal), Mann-Whitney U (for non-normally distributed variables) and a chi squared test (for the dummy variables).

[INSERT TABLE 3 ABOUT HERE]

[INSERT TABLE 4 ABOUT HERE]

The descriptive statistics results illustrate that, in 2008, on average, in companies that had formed an AC, there were more experienced members, less experts, and independent members, and women. In 2010, in companies where an AC had been formed, there were less experts and more experienced and less independent members; there were also more women. In 2015, on average, in companies that had formed an AC, there were more experienced members, less experts, and independent members, while there were more women. These results confirm the tendencies in 2008, 2010, and 2015. More specifically, in companies that an AC had not been established, there were more experts and independent members.

In addition, in 2008, in companies that had established ACs, managers held, on average, 8% of the shares, while international investors held, on average, 15%. Board size averaged six members, who met an average of five times a year. The level of the average leverage of the companies was 0.55. The mean size of the companies in 2008 was PLN 11,441.9 million. Finally, the average time on the stock exchange was six years and the indicator of potential growth of the company was 1.41.

In 2010, in companies that had established an AC, managers held, on average, 16% of the shares, while international investors held, on average, 12%. Board met an average of six times per year. The level of average leverage of the companies was 0.51 and the mean size of companies in 2010 was PLN 8,127.7 million. Finally, the average time the companies had been listed on the WSE was seven years, and the average indicator of potential growth of companies was 3.63.

In 2015, of those companies that established an AC, 21% of the shares, on average, were held by managers and 6%, on average, was held by international investors. The board met an average of six times a year. The level of the average leverage of the companies was 0.45 and the mean size of the company, in 2015, was PLN 8,143.1 million. Finally, the average time the companies had been listed on the WSE was 14 years and the indicator of the potential growth of the company was 2.34.

In summary, the data from 2008, 2010 and 2015 shows that companies with a lower share of experienced members and women, a higher share of international investors, which met more frequently, had been listed on the WSE for a longer period of time, had higher market growth potential, were not family companies, were audited by a Big 4 audit company, had sub-committees, other than an AC, and had achieved profits were more likely to form an AC.

4.6. Correlation matrix

Table 5 presents the results of the Spearman's rho correlations matrix to test for multicollinearity.

[INSERT TABLE 5 ABOUT HERE]

The correlation between most of the pairs is low, generally below 0.3. None of the correlation coefficients is high enough (>0.80) to cause multicollinearity problems (Archambeault & DeZoort, 2001; Carcello & Neal, 2003). Moreover, multicollinearity was also assessed using variance inflation factor (all VIF's below 2.68).

5. Results of the multivariate analyses

This section empirically investigates whether companies that have, on their SB, members with experience or expertise, or independent members or women, or companies with higher managerial, family, or foreign ownership, or which have sub-committees other than an AC

subcommittee, controlling for firm characteristics, were more likely to have an AC in 2008, 2010 and 2015. Tables 6, 7 and 8 present the logistic regression results for 2008, 2010 and 2015, respectively.

[INSERT TABLE 6 ABOUT HERE]

[INSERT TABLE 7 ABOUT HERE]

[INSERT TABLE 8 ABOUT HERE]

Results reported in Table 6 consistently support the predictions H4, H6 and H7 but they do not support H1, H2, H3, H5. Results reported in Table 7 consistently support the predictions H4 and H7 but they do not support H1, H2, H3, H5, H6. Results reported in Table 8 consistently support the predictions H4 and H7 but they do not support H1, H2, H3, H5, H6.

The results document that companies with members with more finance and accounting expertise and a higher share of independent members are less likely to have an AC. Moreover, firms with sub-committees, other than an AC sub-committee, were more likely to have an AC in 2008, 2010 and 2015. Additionally, in 2008 and 2010, foreign ownership was statistically significant. Hence, companies with higher foreign ownership were more likely to form an AC. On the other hand, in 2008, family companies were less likely to form an AC.

Company and board size were found to matter only in 2008 when AC formation was voluntary. These variables were positively correlated with AC presence. The results suggest that the larger the company and the board, the higher the probability that the company has an AC. We do not control for board size in 2010 and 2015 because, according to regulation, AC formation depended on number of SB members.

Our results illustrate that the presence of independent and finance and accounting expert members on the board, reduces the probability of the existence of an AC. ACs are an expensive monitoring mechanism (Pincus et al., 1989). According to the regulations, ACs should meet at least four times a year. Additional meetings could also be scheduled, if necessary. However,

these meetings are costly for the company. Therefore, we assume that if finance and accounting experts and independent members are on SB there is not necessity to form AC, as company might want to optimize costs.

The cultural aspect may also play an important role in explaining our findings, as national culture can have strong effects on corporate govenrnace (Li and Harrison, 2008). The prior literature was based on studies of the Anglo-Saxon model of corporate governance and suggest a positive correlation between AC formation and board member experience and independence. This may not be the case in a different corporate governance model, especially when considering the aspect of culture.

Poland has an intermediate position on individualism-collectivism within our group of Central European countries, but is much more collectivistic than a Western country (Kolman et al., 2003). Compared to the Americans, Poles are more inclined to form a group with strong trust relationships (Yanouzas & Boukis, 1993). That may also be the reason why Polish companies would not form an AC. Board members may prefer to work collectively, rather than leave this important aspect of monitoring to a committee. This assumption can be confirmed by the positive correlation between foreign ownership and AC presence.

Foreign investors in Poland usually come from Western countries. Our results show that, in 2008 and 2010, there was a positive correlation between foreign ownership and AC presence. Moreover, the research illustrates that individual responsibility in Poland is often avoided (Zalezka, 1996). It is likely that relatively strong collectivist values are more deeply rooted in the Polish culture (Kolman et al., 2003). Moreover, our results connected with foreign ownership are consistent with studies that claim effective corporate governance mechanisms are needed to reduce agency conflicts between local and foreign investors (Bushman & Smith, 2003). Hence, companies with higher foreign ownership are more willing to form ACs (Mangena & Tauringana, 2007). Moreower, we also notice that recently managerial ownership

may also be an important factor in the AC formation decision. According to agency theory, managerial ownership may increase the probability that managers will manipulate accounting numbers to satisfy their own interests (Piot, 2004). Therefore, this story would predict that companies with higher managerial ownership should experience a higher probability of AC presence.

Our results show that after the implementation fo the EU Dicertive family firms are less likely to form an AC. This finding is consistent with that of prior studies (Menon & Williams, 1994). Many family members that appoint themselves as board members of their firms (Ho et al., 2004), usually participate in the firm monitoring process and have sufficient control (Chau & Leung, 2006). Consequently, this may mean additional control and a monitoring mechanism are not needed.

Our results related to sub-committees are consistent with studies that claim the establishment of board sub-committees is strongly recommended as a potential mechanism for improving corporate governance (Vance, 1983; Spira & Bender, 2004). Companies that establish board subcommittees see that it has a positive influence on company performance (Premuroso & Bhattacharya, 2007; Huang et al., 2009). As such, the committee adds value to the monitoring aspect of the firm. This positive experience may influence the decision on AC formation.

Our result also document that recently there is positive corealation between frequency of board meetinga and the likelihood of the existence of an AC. Frequent board meeting improve monitoring quality (Ntim, 2009) and create and strengthen relationships between directors (Lipton & Lorsch, 1992). Moreover, we provided that firm size has a positive association with AC formation, which is consistent with previous studies (Mautz & Neumann, 1977; Pincus et al., 1989; Adams, 1997; Piot, 2004; Boone et al., 2007; Firth et al., 2007; Guest, 2009; Benzing et al., 2011; Zaman & Valentinčič, 2011).

6. Discussion and Conclusions

ACs have attracted a lot of attention from researchers, policy makers and regulators, as these committees are seen as an effective governance mechanism allowing for better monitoring of managerial actions, especially actions related to the provision of performance information to market participants. The issue of ACs has become particularly important in Continental Europe, with introduction of the requirement for entities operating in the public interest to establish an AC (European Parliament and Council, 2006).

With the amendment of the Eighth Company Directive, the AC became an essential and compulsory element of the Continental European system of corporate governance. The EU directive, however, grants considerable leeway in implementing and extending its established standards (Böhm et al., 2013).

Cernat (2004) suggests that it is difficult to achieve full convergence in Europe because the European and Anglo-Saxon models of corporate governance are weakly compatible. In addition, the EU itself is poorly equipped to propose a well-articulated governance model. Also, in the case of ACs, it cannot be assumed, without further evidence, that an effective and efficient AC in Continental Europe should be designed in the same way as ACs in the United States, the United Kingdom, Canada or Australia (Bédard & Gendron, 2010).

In contrast to the studies examining the board and AC composition, in the case of the Anglo-Saxon environment, research on corporate boards in other countries is scant. That being said, the role of other economies in the world market has increased significantly. Therefore, not surprisingly, calls to study ACs outside the one-tier governance model are increasing (Bédard & Gendron, 2010, Carcello et al., 2011).

This study examines the factors that may influence the formation of ACs in Poland, a country and economy characterised by a two-tiered board system and a corporate governance system where owners frequently hold large ownership stakes and control the company from

within, where the system regarding incentives differs from that in the widely researched companies in the Anglo-Saxon context.

The primary focus of the paper is governance and ownership-related factors. The results indicate, contrary to most studies, that the presence of members with experience and accounting and finance expertise as well as independent members on a supervisory board does not necessarily mean that a firm will be more likely to form an AC. This is a surprising finding which may indicate that in a particular corporate governance environment a board system of incentives may be different, leading to a different optimal governance package (Zaman & Valentinčič, 2011). In fact, based on our data set, the increased presence of independent and experienced members on a supervisory board decreases the likelihood of AC formation. This result is consistent and statistically significant in all three analysed years.

One important contribution of this paper is that it points out the positive association of AC formation with the existence of other board committees and some learning experiences. This result suggests that companies with positive experience related to the existence of other supervisory board committees (e.g. renumeration, strategy, information technology) are more likely to help companies see an added value in forming an AC. When it comes to the ownership structure, family ownership reduces the chances that a firm will have an AC, while foreign ownership increases the likelihood of AC formation. However, we also observe a change in attitude related to AC formation in the case of companies with managerial ownership. We observe a learning effect leading to increased chances of forming an AC in such companies over time. Our findings are therefore in line with the prediction of selective adaptation theory, which suggests that adaption of an alien practice, in this case an AC, depends on company characteristics as well as complementarity with local norms. In this light of selective adaptation theory, the findings of the paper are not surprising. Companies with foreign ownership are more likely to see the benefit of AC formation because of experience coming from the parent

company. Also, companies that have a positive experience with other supervisory committees are more likely to adapt the regulation on AC as they may see additional added value from such a committee. On the other hand, governance characteristics like independent supervisory board members or accounting and finance expertise are not necessarily sufficient reasons to form an AC given the specific Polish corporate governance bundle. With big stakes of family and managerial ownership, the agency costs related to monitoring management actions may be limited. Therefore, the concept of the AC, as promoted in the Anglo-Saxon world, may not be perceived as beneficial and adding value to the monitoring efforts, leading to general weak acceptance of the proposed regulation.

The results of this study may also be important to the regulators designing the enforcement actions aimed at further promotion of ACs. Imposing ACs by, for instance, a change in the existing regulation may not be the most effective solution to promote effective ACs. Companies may be more inclined to adapt the new practice of having an AC when the best practices and benefits of having an AC among various supervisory board committees are emphasised. Also, using the best practices of companies with foreign experience may also have an additional learning effect leading to acceptance of the AC concept as beneficial for the company.

This study has some limitations. First, we focus only on governance and ownership factors affecting the decision to form an AC. It is possible that economy-related factors, such as culture or economic history, are equally important. Hence, it may be important to examine these factors in future studies. Second, it will be interesting to look at firms that not only form an AC but also meet best practices (e.g. Rainsbury et al., 2008). Since we investigate factors influencing AC formation, we suggest that future studies investigate characteristics associated with Polish firms that voluntarily established an AC meeting best practice membership guidelines.

References

Abbott, L. J., Parker, S., Peters, G. F., & Raghunandan, K. (2003). An empirical investigation of audit fees, nonaudit fees, and audit committees. *Contemporary Accounting Research*, *20*(2)*,* 215-234.

Adams, M. (1997). Determinants of audit committee formation in the life insurance industry: New Zealand evidence. *Journal of Business* Research, *38*(2), 123-129.

Adams, R. and Ferreira, D. (2009). Women in the boardroom and their impact of governance and performance. *Journal of Financial Economics*, *94*(2), 291–309.

Adams, R., Gray, S. and Nowland, J. (2011). Does gender matter in the boardroom? Evidence from the market reaction to mandatory new director announcements. Retrieved from http://ssrn.com/abstract=1953152.

Adamska, A., Bohdanowicz, L., & Gad, J. (2017). Reakcje spółek publicznych na wprowadzenie obowiązku powoływania komitetu audytu. *E-mentor,* (4), 25-35.

Afify, H. A. E. (2009). Determinants of audit report lag: Does implementing corporate governance have any impact? Empirical evidence from Egypt. *Journal of Applied Accounting Research*, *10*(1), 56-86.

Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization Science, 19*(3), 475-492.

Aguilera, R. V., Williams, C. A., & Rupp, D. E. (2011). Increasing corporate social responsibility through stakeholder value internalization (and the catalyzing effect of new governance): An application of organizational justice, self-determination, and social influence theories. In M. Schminke (Ed.), *Managerial ethics: Managing the psychology of morality* (pp. 69-88). New York: Routledge.

Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review, 62*(5), 777-795.

Al-Najjar, B. (2011). The determinants of audit committee independence and activity: evidence from the UK. *International Journal of Auditing*, *15*(2), 191-203.

Aluchna, M. (2007). Fundamentalne założenia ładu korporacyjnego. *Nasz Rynek Kapitałowy*, (1), 55-56.

Aluchna, M. (2013). Kobiety we władzach spółek: dyskusja rekomendacji Unii Europejskiej. *Przegląd Organizacji*, (1), 30-36.

Aluchna, M., & Koladkiewicz, I. (2010). Polish corporate governance–the case of small and medium sized companies. *International Journal of Banking, Accounting and Finance, 2*(3), 218-235.

Aluchna, M., & Tomczyk, E. (2016). Dynamika struktury własności. Przypadek spółek notowanych na GPW w Warszawie. *In Management Forum*, *4*(4), 26-32.

Ararat, M., Aksu, M., & Tansel Cetin, A. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International* Review, *23*(2), 83-103.

Archambeault, D., & DeZoort, F. T. (2001). Auditor opinion shopping and the audit committee: An analysis of suspicious auditor switches. *International Journal of Auditing*, *5*(1), 33-52.

Beasley, M. S., & Petroni, K. R. (2001). Board Independence and Audit-Firm Type. *Auditing: A Journal of Practice & Theory, 20*(1), 97-114.

Beasley, M. S., & Salterio, S. E. (2001). The relationship between board characteristics and voluntary improvements in audit committee composition and experience. *Contemporary Accounting Research*, *18*(4), 539-570.

Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Neal, T. L. (2009). The audit committee oversight process. *Contemporary Accounting Research*, *26*(1), 65-122.

Bédard, J., & Gendron, Y. (2010). Strengthening the financial reporting system: Can audit committees deliver? *International Journal of Auditing*, *14*(2), 174-210.

Bekaert, G., & Harvey, C. R. (2002). Research in emerging markets finance: looking to the future. *Emerging Markets Review*, *3*(4), 429-448.

Belkhir, M. (2009). Board of directors' size and performance in the banking industry. *International Journal of Managerial Finance, 5*(2), 201-221.

Benzing, C., Leach, E., & McGee, C. (2011). Sarbanes-Oxley and the New Form 990: Are Arts and Culture Nonprofits Ready? *Nonprofit and Voluntary Sector Quarterly*, *40*(6), 1132-

Best Practices Committee at the Corporate Governance Forum. (2002). Best Practices in Public Companies in Poland. Warsaw, Corporate Governance Forum.

Bohdanowicz, L. (2015). Struktury własnościowe spółek a rotacje prezesów zarządów-wyniki badań empirycznych. *Zarządzanie i Finanse*, *13*(3, cz. 1), 165-181.

Böhm, F., Bollen, L. H., & Hassink, H. F. (2013). Spotlight on the design of European audit committees: a comparative descriptive study. *International Journal of Auditing*, *17*(2), 138-161.

Boone, A. L., Field, L. C., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics*, *85*(1), 66-101.

Bradbury, M. E. (1990). The incentives for voluntary audit committee formation. *Journal of Accounting and Public Policy, 9*(1), 19-36.

Bradbury, M., Mak, Y. T., & Tan, S. M. (2006). Board characteristics, audit committee characteristics and abnormal accruals. *Pacific Accounting Review*, *18*(2), 47-68.

Bushman, R. M., & Smith, A. J. (2003). Transparency, financial accounting information, and corporate governance. *Economic Policy Review*, *9*(1), 65-87.

Bushman, R., Chen, Q., Engel, E., & Smith, A. (2004). Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economics, 37*(2), 167-201.

Byrnes, J., Miller, D., & Schafer, W. (1999). Gender differences in risk taking: A meta-analysis. *Psychological Bulletin*, *125*(3), 367-383.

Carcello, J. V., & Neal, T. L. (2003). Audit committee characteristics and auditor dismissals following "new" going-concern reports. *The Accounting Review*, *78*(1), 95-117.

Carcello, J. V., Hermanson, D. R., & Ye, Z. (2011). Corporate governance research in accounting and auditing: Insights, practice implications, and future research directions. *Auditing: A Journal of Practice & Theory*, *30*(3), 1-31.

Carson, E. (2002). Factors associated with the development of board sub-committees. *Corporate Governance: An International Review*, *10*(1), 4-18.

Cernat, L. (2004). The emerging European corporate governance model: Anglo-Saxon, Continental, or still the century of diversity? *Journal of European Public Policy*, *11*(1), 147-166.

Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, *37*(2), 247-265.

Chau, G., & Leung, P. (2006). The impact of board composition and family ownership on audit committee formation: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation*, *15*(1), 1-15.

Chen, L., Kilgore, A., & Radich, R. (2009). Audit committees: voluntary formation by ASX non-top 500. *Managerial Auditing Journal*, *24*(5), 475-493.

Chizema, A., & Shinozawa, Y. (2012). The ‘company with committees’: Change or continuity in Japanese corporate governance? *Journal of Management Studies*, *49*(1), 77-101.

Collier, P. (1993). Factors affecting the formation of audit committees in major UK listed companies. *Accounting and Business Research*, *23*(sup1), 421-430.

Collier, P., & Gregory, A. (1999). Audit committee activity and agency costs. *Journal of Accounting and Public Policy*, *18*(4-5), 311-332.

Collier, P., & Zaman, M. (2005). Convergence in European corporate governance: The audit committee concept. *Corporate Governance: An International Review*, *13*(6), 753-768.

Cotter, J., & Silvester, M. (2003). Board and monitoring committee independence. *Abacus*, *39*(2), 211-232.

Coval, J. D., & Moskowitz, T. J. (2001). The geography of investment: Informed trading and asset prices. *Journal of Political Economy*, *109*(4), 811-841.

Czarniawska, B., & Sevón, G. (Eds.). (1996). *Translating organizational change* (56). Walter de Gruyter.

De Fuentes Barbera, C. and Pucheta Martınez, M. C. (2006). Incentivos de las empresas cotizadas espan˜olas para crear voluntariamente comite´s de auditoria, Working Paper, serie EC 2006-08, *Instituto Valenciano de Investigaciones Econo´micas* (IVIE).

Deli, D. N., & Gillan, S. L. (2000). On the demand for independent and active audit committees. *Journal of Corporate Finance*, *6*(4), 427-445.

DeZoort, F. T., & Salterio, S. E. (2001). The effects of corporate governance experience and financial reporting and audit knowledge on audit committee members' judgments. *Auditing: A Journal of Practice & Theory*, *20*(2), 31-47.

Dimitropoulos, P. E., & Asteriou, D. (2010). The effect of board composition on the informativeness and quality of annual earnings: Empirical evidence from Greece. *Research in International Business and Finance*, *24*(2), 190-205.

Dobija, D. (2011). Auditing jako element ładu korporacyjnego. *Zeszyty Teoretyczne Rachunkowości*, *64*(120), 25-37.

Dobija, D. (2013). Auditors and Corporate Governance: A Qualitative Study in Polish Public Companies. Retrieved from https://ssrn.com/abstract=2354892.

Dobija, D. (2015). Exploring audit committee practices: oversight of financial reporting and external auditors in Poland. *Journal of Management & Governance*, *19*(1), 113-143.

Eichenseher, J. W., & Shields, D. (1985). Corporate director liability and monitoring preferences. *Journal of Accounting and Public Policy*, *4*(1), 13-31.

Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *The Journal of Law and Economics*, *26*(2), 327-349.

Feldmann, D. A., & Schwarzkopf, D. L. (2003). The effect of institutional ownership on board and audit committee composition. *Review of Accounting and Finance*, *2*(4), 87-109.

Firth, M., & Rui, O. M. (2007). Voluntary audit committee formation and agency costs. *International Journal of Accounting, Auditing and Performance Evaluation*, *4*(2), 142-160.

Firth, M., Fung, P. M., & Rui, O. M. (2007). Ownership, two-tier board structure, and the informativeness of earnings – Evidence from China. *Journal of Accounting and Public Policy*, *26*(4), 463-496.

García-Sánchez, I. M., Frias-Aceituno, J. V., & Garcia-Rubio, R. (2012). Determining factors of audit committee attributes: Evidence from Spain. *International Journal of Auditing*, *16*(2), 184-213.

Glaum, M., & Street, D. L. (2003). Compliance with the disclosure requirements of Germany's new market: IAS versus US GAAP. *Journal of International Financial Management & Accounting*, *14*(1), 64-100.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics, 40*(1), 3-73.

Guest, P. M. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance*, *15*(4), 385-404.

Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, *38*(3), 317-349.

Hassan, Y., & Hijazi, R. (2015). Determinants of the voluntary formation of a company audit committee: evidence from Palestine. *Asian Academy of Management Journal of Accounting and Finance*, *11*(1), 27-46.

Hermalin, B. E. and Weisbach, M. S. (2003). Boards of directors as an endogenously determined institution: A survey of the economic literature. *Economic Policy Review, 9*(1), 7-26.

Hillman, A. J., and Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management review*, *28*(3), 383-396.

Ho, S. S., Lam, K. C., & Sami, H. (2004). The investment opportunity set, director ownership, and corporate policies: evidence from an emerging market. *Journal of Corporate Finance*, *10*(3), 383-408.

Holthausen, R. W., & Leftwich, R. W. (1983). The economic consequences of accounting choice implications of costly contracting and monitoring. *Journal of Accounting and Economics*, *5*, 77-117.

Huang, H., Lobo, G. J., & Zhou, J. (2009). Determinants and accounting consequences of forming a governance committee: Evidence from the United States. *Corporate Governance: An International Review*, *17*(6), 710-727.

Ivković, Z., & Weisbenner, S. (2005). Local does as local is: Information content of the geography of individual investors' common stock investments. *The Journal of Finance*, *60*(1), 267-306.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, *48*(3), 831-880.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

Johnson, J. L., Daily, C. M., & Ellstrand, A. E. (1996). Boards of directors: A review and research agenda. *Journal of Management, 22*(3), 409-438.

Journal of Laws. (2009). *The act of 7 May 2009 on Certified Auditors, Their Self-Government, Entities Authorized to Audit Financial Statements and Public Supervision.*

Journal of Laws. (2017). *The act of 11 May 2017 on Certified Auditors, Audit Firms and Public Supervision.*

Kaczmarek, S., Kimino, S., & Pye, A. (2012). Antecedents of board composition: The role of nomination committees. *Corporate Governance: An International Review*, *20*(5), 474-489.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, *33*(3), 375-400.

Köhler, A. G. (2005). Audit Committees in Germany – Theoretical Reasoning and Empirical Evidence. *Schmalchenbach Business Review*, *57*(3), 229-252.

Koładkiewicz, I. (2011). Przewodniczący rady dyrektorów/rady nadzorczej—Europejskie dobre praktyki nadzoru korporacyjnego a polska praktyka działania. *Management and Business Administration, Central Europe*, *5*(167), 65–82.

Koładkiewicz, I. (2013). *Rady nadzorcze-dobre praktyki ładu korporacyjnego. Doświadczenia polskie i zagraniczne*. Warszawa: Poltext.

Kolman, L., Noorderhaven, N. G., Hofstede, G., & Dienes, E. (2003). Cross-cultural differences in Central Europe. *Journal of Managerial Psychology*, *18*(1), 76-88.

Kroll, M., Walters, B. A., & Wright, P. (2008). Board vigilance, director experience, and corporate outcomes. *Strategic Management Journal*, *29*(4), 363-382.

Kuchenbeker, J. (2008). Dobre praktyki 2008: Zbiór zasad czy raczej lista pobożnych życzeń? *Przegląd Corporate Governance*, *4*(16), 16–22.

Li, J. (1995). Foreign entry and survival: Effects of strategic choices on performance in international markets. *Strategic Management Journal*, *16*(5), 333–351.

Li, J., & Harrison, J. R. (2008). National culture and the composition and leadership structure of boards of directors. *Corporate Governance: An International Review*, *16(5)*, 375-385.

Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer*, 59-77.

Loukil, N., & Yousfi, O. (2016). Does gender diversity on corporate boards increase risk-taking? *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *33*(1), 66-81.

Mangena, M., & Tauringana, V. (2007). Disclosure, corporate governance and foreign share ownership on the Zimbabwe stock exchange. *Journal of International Financial Management & Accounting, 18*(2), 53-85.

Mangena, M., & Tauringana, V. (2008). Audit committees and voluntary external auditor involvement in UK interim reporting. *International Journal of Auditing*, *12*(1), 45-63.

Mateescu, R. A. (2015). Corporate governance disclosure practices. *Accounting and Management Information Systems, 14*(1), 170.

Matyjas, Z. (2014). The Role of the Structure-Conduct-Performance Paradigm for the Development of Industrial Organization Economics and Strategic Management. *Journal of Positive Management*, *5*(2), 53-63.

Mautz, R. K. and Neumann, F. I. (1977). *Corporate audit committees*, University of Illinois, Urbana, IL.

Méndez, C. F., & García, R. A. (2007). The effects of ownership structure and board composition on the audit committee meeting frequency: Spanish evidence. *Corporate Governance: An International Review*, *15*(5), 909-922.

Mennicken, A. (2008). Connecting worlds: The translation of international auditing standards into post-Soviet audit practice. *Accounting, Organizations And Society, 33*(4), 384-414.

Menon, K., & Williams, J. D. (1994). The use of audit committees for monitoring. *Journal of Accounting and Public Policy, 13*(2), 121-139.

Min, B. S. (2018). Determinants of board size in an emerging market. *Journal of International Financial Management & Accounting (in press)*.

Nakamura, M. (2011). Adoption and policy implications of Japan's new corporate governance practices after the reform. *Asia Pacific Journal of Management, 28*(1), 187-213.

Nicholson, G. J., & Kiel, G. C. (2007). Can directors impact performance? A case-based test of three theories of corporate governance. *Corporate Governance: An International Review, 15*(4), 585-608.

Ntim, C. G. (2009). *Internal corporate governance structures and firm financial performance: evidence from South African listed firms* (Doctoral dissertation, University of Glasgow).

Official Journal of the European Union. (2005). *Commission Recommendation on the Role of Nonexecutive or Supervisory Directors of Listed Companies and on the Committees of the (Supervisory) Board.* February 2005/162/EC. Retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32005H0162

Official Journal of the European Union. (2006). *Directive 2006/43/EC of the European Parliament and of the Council on Statutory Audits of Annual Accounts and Consolidated Accounts Amending Council Directives 78/660/EEC and 83/349/EEC and Repealing Council Directive 84/253/EEC.* Retrieved from: http://data.europa.eu/eli/dir/2006/43/2014-06-16.

Pearce, J. A., & Zahra, S. A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies, 29*(4), 411-438.

Peasnell, K. V., Pope, P. F., & Young, S. (2001). The characteristics of firms subject to adverse rulings by the Financial Reporting Review Panel. *Accounting and Business Research, 31*(4), 291-311.

Pincus, K., Rusbarsky, M., & Wong, J. (1989). Voluntary formation of corporate audit committees among NASDAQ firms. *Journal of Accounting and Public Policy, 8*(4), 239-265.

Piot, C. (2004). The existence and independence of audit committees in France. *Accounting and Business Research, 34*(3), 223-246.

Post, C. and Byron, K. (2015). Women on boards and firm financial performance: a meta–analysis. *Academy of Management Journal*, *58*(5), 1546–1571.

Potter, P. B. (2003). Globalization and economic regulation in China: selective adaptation of globalized norms and practices. *Washington University Global Studies Law Review, 2,* 119.

Potter, P. B. (2004). Legal reform in China: institutions, culture, and selective adaptation. *Law & Social Inquiry, 29*(2), 465-495.

Premuroso, R. F., & Bhattacharya, S. (2007). Is there a relationship between firm performance, corporate governance, and a firm's decision to form a technology committee? *Corporate Governance: An International Review, 15*(6), 1260-1276.

Rainsbury, E. A., Bradbury, M. E., & Cahan, S. F. (2008). Firm characteristics and audit committees complying with best practice membership guidelines. *Accounting and Business Research, 38*(5), 393-408.

Román-Martínez, I., Argente-Linares, E., Gómez-Miranda, M. E., & Rodríguez-Ariza, L. (2012). Voluntary formation of audit committees in non-listed companies: The case of Morocco. *African Journal of Business Management, 6*(29), 8757.

Ruiz-Barbadillo, E., Biedma-López, E., & Gómez-Aguilar, N. (2007). Managerial dominance and audit committee independence in Spanish corporate governance. *Journal of Management & Governance, 11*(4), 311.

Salloum, C., Jabbour, G., Digout, J., & Gebrayel, E. (2015). Managerial dominance over the board and audit committee independence in financial institutions. *Investment Management and Financial Innovations, 12*(4), 33-42.

Sanders, W. G., & Tuschke, A. (2007). The adoption of institutionally contested organizational practices: The emergence of stock option pay in Germany. *Academy of Management Journal, 50*(1), 33-56.

Schiehll, E., Ahmadjian, C., & Filatotchev, I. (2014). National governance bundles perspective: Understanding the diversity of corporate governance practices at the firm and country levels. *Corporate Governance: An International Review*, *22*(3), 179-184.

Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of political economy*, *94*(3, Part 1), 461-488.

Słomka-Gołębiowska, A., & Urbanek, P. (2016). Corporate boards, large blockholders and executive compensation in banks: Evidence from Poland. *Emerging Markets Review, 28*, 203-220.

Spira, L. F., & Bender, R. (2004). Compare and contrast: Perspectives on board committees. *Corporate Governance: An International Review, 12*(4), 489-499.

Srinidhi, B., Gul, F. A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary Accounting Research, 28*(5), 1610-1644.

Szczepankowski, P. (2012). Audit committee practice in the Polish listed stock companies. Present situation and development perspectives. Business. *Management and Education, 10*(1), 50-65.

Turley, S., & Zaman, M. (2007). Audit committee effectiveness: informal processes and behavioural effects. *Accounting, Auditing & Accountability Journal*, *20*(5), 765-788.

Turpin, R. A., & DeZoort, F. T. (1998). Characteristics of firms that include an audit committee report in their annual report. International Journal of Auditing, *2*(1), 35-48.

Vance, S. C. (1983). *Corporate leadership: Boards, directors, and strategy*. McGraw-Hill Companies.

Warsaw Stock Exchange Main Statistics. (2017). https://www.gpw.pl/gpw-key-statistics/ Accessed 15 September 2017.

Warsaw Stock Exchange. Best Practice for GPW Listed Companies. (2016). http://static.gpw.pl/pub/files/PDF/RG/DPSN2016_EN.pdf/ Downloaded 5 July 2018.

Watts, R. L., & Zimmerman, J. L. (1986). *Positive Accounting Theory*. Englewood Cliffs, New Jersey: Prentice Hal.

Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: a ten year perspective. *Accounting Review, 65*(1), 131-156.

Willekens, M., Bauwhede, H. V., & Gaeremynck, A. (2004). Voluntary audit committee formation and practices among Belgian listed companies. *International Journal of Auditing, 8*(3), 207-222.

Xie, B., Davidson, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: the role of the board and the audit committee. *Journal of Corporate Finance, 9*(3), 295-316.

Yanouzas, J. N., & Boukis, S. D. (1993). Transporting management training into Poland: some surprises and disappointments. *Journal of Management Development, 12*(1), 64-71.

Yawson, A. (2006). Evaluating the characteristics of corporate boards associated with layoff decisions. *Corporate Governance: an International Review, 14*(2), 75-84.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics, 40*(2), 185-211.

Zalezka, K.J. (1996). *Cross-cultural interaction between Polish and expatriate managers in subsidiaries of multinational organizations in Poland*, paper presented at the Academy of International Business Conference, Birmingham.

Zaman Groff, M., & Valentinčič, A. (2011). Determinants of voluntary audit committee formation in a two-tier board system of a post-transitional economy – the case of Slovenia. *Accounting in Europe, 8*(2), 235-256.

Zeitlin, J., & Herrigel, G. (Eds.). (2000). *Americanization and its limits: Reworking US technology and management in post-war Europe and Japan* (Vol. 199933). Oxford University Press on Dem.

TABLE 1. Sample selection

Companies:	Time-periods		
	2008	2010	2015
· An AC has been formed	70	26	27
· No AC has been formed	161	121	115
TOTAL SAMPLE	**231**	**147**	**142**

TABLE 2. Experimental and control variables of the tested model

Variable	Label	Expected sign	Definition/Measurement		Used previously by	Source
Experimental variables						
Supervisory board members' experience	*EXP*	+	Experienced member is a person who: • has experience in the same sector as the company operates; • was the company's founder or director, or occupied appropriately high positions, such as CEO, CFO, COO, Production, Marketing, Sales, Investment, Administrative Director, Chief Accountant, for a period of longer than one year.	Percentage of supervisory board members with experience	Beasley & Salterio (2001); Collier & Gregory (1999)	NOTORIA SERVICE/Annual Management, Supervisory Boards Reports/ Web pages/LinkedIn
Supervisory board members' expertise	*EXT*	+	Expert is a person who: • has proven accounting or finance knowledge: MA, MBA degrees in Economics, Finance or Accounting, as well as the odds-training in previously mentioned fields, statutory auditor, certified accountant, broker or has the following certificates: ACCA, CFA.	Percentage of supervisory board members with expertise		
Independent members	*IND*	+	Independent member is a person who: • declares independence in a statement; • has no family relationships with Director and Management Board members; • has no more than 5% in company's share capital.	Proportion of independent directors on the board	Klein (2002); Peasnell et al. (2001)	
Women on board	*WOB*	+	Percentage of women members on supervisory board		Adams & Ferreira (2009); Loukil & Yousfi (2016)	
Presence of sub-committees	*SC*	+	Dummy variable, with a value of 1 when sub-committees are present, and 0 otherwise		Carson (2002)	
Ownership structure						
Managerial ownership	*MANOWN*	-	Percentage of ordinary shares held by managers		Abbott et al. (2003); Beasley & Salterio (2001)	
Family ownership	*FAMOWN*	-	Dummy variable, with a value of 1 when the company's family shareholding level is more than 25% and 0 otherwise.		Bradbury (1990); Chau & Leung (2006)	
Foreign ownership	*FRGOWN*	+	Percentage of ordinary shares held by foreign investors		Bushman et al. (2004); Mangena et al. (2007)	

Control Variables				
Board-related control variables				
Board size	*BSIZE*	+	Total number of board members	Beasley & Salterio (2001); Bradbury (1990); Bushman et al. (2004); Dimitropoulos & Asteriou (2010); Huang et al. (2009); Klein (2002); Piot (2004); Rainsbury et al. (2008); Williams (2002); Yawson (2006); Yermack (1996) and Zaman & Valentinčič (2011)
Board meetings	*MEET*	+	Number of board meetings in each year	Jensen (1993); Lipton & Lorsch (1992); Mangena & Tauringana (2008) and Ntim (2009).
Firm-related control variables				
External auditor's representativeness of BIG4	*BIG4*	+	Dummy variable, with a value of 1 if the company's financial statement was audited by a Big 4 group of external auditors (i.e., Deloitte, E&Y, PwC, KPMG) and 0 otherwise.	Bradbury (1990); Carson (2002); Collier (1993); Eichenseher & Shields (1985); Firth & Rui (2007); Glaum & Street (2003); Haniffa & Cooke (2002); Menon & Williams (1994); Pincus et al. (1989) and Zaman & Valentinčič (2011)
Leverage	*LEV*	+	Ratio of total liabilities to total assets	Adams, (1997); Bradbury (1990); Collier (1993); Cotter & Silvester (2003); Eichenseher & Shields (1985); Graham et al. (2005); Holthausen & Leftwich (1983); Jensen & Meckling (1976); Menon & Williams (1994); Pincus et al. (1989); Piot (2004); Watts & Zimmerman (1986); Watts & Zimmerman (1990) and Zaman & Valentinčič (2011)
Firm size	*FSIZE*	+	The natural log of total assets	Adams (1997); Benzing et al. (2011), Boone et al. (2007); Firth et al. (2007); Guest (2009); Mautz & Neumann (1977); Pincus et al. (1989); Piot (2004) and Zaman & Valentinčič (2011)
How long company was listed	*LIST*	+	Company's length of listing on the Warsaw Stock Exchange	Piot (2004); Kaczmarek et al. (2012)
Market Growth Potential	*GROWTH*	+	Market-to-book ratio	Al-Najjar, B. (2011); Deli & Gillan (2000) and Klein (2002)
Type of industry	*SECMER* *SECMAN*	- +	Sector: Merchandising Sector: Manufacturing	Bradbury et al. (2006)
Profit after tax	*LOSS*	+	Dummy variable, that takes on the value of 1 if a firm reported a loss in year t-1; otherwise it takes on the value of 0	Klein (2002)

NOTORIA SERVICE/Annual Management, Supervisory Boards Reports/Web pages/LinkedIn

TABLE 3. Descriptive statistics

Year		No Audit Committee					Audit Committee (AC) exists					Test	p value
	Variable	Mean	Median	Std. Deviation	Minimum	Maximum	Mean	Median	Std. Deviation	Minimum	Maximum		
2008 n(KA) = 70 ; n(noKA) = 161	EXP	0.54	0.60	0.26	0.00	1.00	0.56	0.57	0.31	0.00	1.00	-0.69[a]	0.494
	EXT	0.73	0.80	0.21	0.20	1.00	0.58	0.60	0.28	0.10	1.00	3.34[a]	0.001
	IND	0.65	0.67	0.24	0.00	1.00	0.51	0.56	0.31	0.00	1.00	4089.00[b]	0.001
	WOB	0.12	0.00	0.17	0.00	0.67	0.10	0.00	0.13	0.00	0.50	5430.00[b]	0.625
	MANOWN	0.17	0.02	0.24	0.00	1.00	0.08	0.00	0.16	0.00	0.80	4581.00[b]	0.015
	FRGOWN	0.05	0.00	0.13	0.00	0.75	0.15	0.01	0.22	0.00	0.75	3712.00[b]	<0.001
	BSIZE	5.35	5.00	0.76	5	11	6.77	6.00	1.94	5	13	2753.50[b]	<0.001
	MEET	4.52	4.00	1.93	3	20	5.60	4.00	3.37	1	21	4878.00[b]	0.033
	LEV	0.51	0.46	0.48	0.00	5.88	0.55	0.56	0.23	0.02	0.95	4474.00[b]	0.013
	FSIZE	612935.29	161362.00	2497786.63	310.00	31024684.00	11441964.36	779650.00	27274215.19	5024.81	134635986.00	2940.00[b]	<0.001
	FSIZE_ln	12.07	11.99	1.50	5.74	17.25	13.86	13.57	2.31	8.52	18.72	2940.00[b]	<0.001
	LIST	5.87	4.00	4.87	0	17	6.51	6.00	4.97	0	16	5181.00[b]	0.328
2010 n(KA) = 26 ; n(noKA) = 121	EXP	0.46	0.40	0.29	0.00	1.00	0.52	0.40	0.36	0.00	1.00	1429.00[b]	0.457
	EXT	0.86	1.00	0.23	0.00	1.00	0.59	0.60	0.35	0.00	1.00	847.50[b]	<0.001
	IND	0.83	1.00	0.25	0.00	1.00	0.48	0.40	0.38	0.00	1.00	753.00[b]	<0.001
	WOB	0.12	0.00	0.16	0.00	0.80	0.15	0.20	0.14	0.00	0.40	1372.50[b]	0.257
	MANOWN	0.16	0.02	0.22	0.00	0.83	0.16	0.04	0.24	0.00	0.80	1498.50[b]	0.699
	FRGOWN	0.05	0.00	0.14	0.00	0.65	0.12	0.01	0.20	0.00	0.66	1048.50[b]	<0.001
	MEET	5.15	4.00	2.70	2	22	5.96	5.50	2.69	3	13	1269.50[b]	0.094
	LEV	0.44	0.43	0.18	0.00	0.94	0.51	0.44	0.43	0.11	2.42	1549.50[b]	0.905
	FSIZE	789666.28	178792.00	4264740.44	13358.00	46854411.00	812772.16	220146.50	1708279.72	2402.03	8465900.00	1531.50[b]	0.833
	FSIZE_ln	12.19	12.09	1.34	9.50	17.66	12.24	12.28	1.81	7.78	15.95	1531.50[b]	0.833
	LIST	7.71	6.00	4.83	2	19	7.35	5.00	5.08	2	17	1445.50[b]	0.515
	GROWTH	1.81	1.42	1.68	0.20	9.62	3.63	1.64	33.78	-134.74	73.13	1267.00[b]	0.120
2015 n(KA) = 27 ; n(noKA) = 115	EXP	0.49	0.60	0.32	0.00	1.00	0.52	0.40	0.35	0.00	1.00	1478.50[b]	0.696
	EXT	0.90	1.00	0.16	0.40	1.00	0.61	0.60	0.36	0.00	1.00	858.50[b]	<0.001
	IND	0.81	0.80	0.24	0.20	1.00	0.62	0.80	0.40	0.00	1.00	1171.50[b]	0.035
	WOB	0.12	0.00	0.16	0.00	0.80	0.16	0.00	0.21	0.00	0.60	1442.00[b]	0.524
	MANOWN	0.13	0.01	0.20	0.00	0.84	0.21	0.03	0.29	0.00	0.84	1346.00[b]	0.272
	FRGOWN	0.04	0.00	0.13	0.00	0.65	0.06	0.00	0.10	0.00	0.43	1100.00[b]	0.001
	MEET	4.70	4.00	2.15	0	15	6.07	4.00	4.22	3	24	1253.50[b]	0.090
	LEV	0.47	0.47	0.19	0.01	0.92	0.45	0.47	0.26	0.01	0.82	1519.50[b]	0.864
	FSIZE	669383.22	200243.00	2239399.46	4186.00	23163748.00	814309.73	231240.00	1269864.13	62647.00	4975406.84	1282.50[b]	0.160
	FSIZE_ln	12.29	12.21	1.37	8.34	16.96	12.73	12.35	1.28	11.05	15.42	-1.530[1]	0.128
	LIST	12.82	11.00	4.95	7	24	13.59	14.00	4.75	7	22	1410.50[b]	0.458
	GROWTH	1.48	0.94	1.96	0.13	15.12	2.34	0.85	4.79	0.15	25.25	1496.00[b]	0.769

[a]independent samples Student's t test; [b]Mann-Whitney U test.

TABLE 4. Dummy variables' statistics

Year	Variable	No Audit Committee	Audit Committee (AC) exists	$\chi 2$	p value
2008	%FAMOWN	35.4	12.9	12.15	<0.001
	%BIG4	19.9	51.4	24.20	<0.001
	%SC	5.0	70.0	111.01	<0.001
	%LOSS(t-1)	11.2	12.9	0.13	0.715
	%SECMER	30.8	38.6	1.32	0.251
	%SECMAN	42.2	42.9	0.00	0.990
2010 (n = 147)	%FAMOWN	39,7	26,9	1,485	0,223
	%BIG4	17,4	30,8	2,432	0,119
	%SC	5,8	46,2	30,989	<0.001
	%LOSS(t-1)	24,0	15,4	0,905	0,341
	%SECMER	27,3	61,5	11,308	0,001
	%SECMAN	42,1	23,1	3,279	0,070
2015 (n = 142)	%FAMOWN	37,4	44,4	0,458	0,498
	%BIG4	27,0	48,1	4,592	0,032
	%SC	5,2	44,4	30,397	<0.001
	%LOSS(t-1)	16,5	29,6	2,440	0,118
	%SECMER	31,3	29,6	0,029	0,866
	%SECMAN	39,1	48,1	0,736	0,391

TABLE 5.1. Spearman's rho correlations

Year	Variable	1	2	3	4	5	6	7	8	9	10	11	12
2008 (n = 231)	EXP	1											
	EXT	0.202***	1										
	IND	0.030	0.469***	1									
	WOB	-0.084	0.013	-0.118*	1								
	MANOWN	-0.040	-0.118*	-0.040	0.100	1							
	FRGOWN	-0.011	-0.154**	-0.155**	-0.131*	-0.107	1						
	BSIZE	-0.003	-0.203***	-0.175***	0.015	-0.186***	0.230**	1					
	MEET	0.026	-0.018	-0.036	0.015	-0.027	-0.035	0.118*	1				
	LEV	0.017	0.011	-0.116*	0.109	-0.157**	0.163**	0.191***	-0.002	1			
	FSIZE_ln	0.078	-0.097	-0.205***	-0.052	-0.229***	0.351***	0.389**	0.107	0.407***	1		
	LIST	0.023	0.071	-0.021	-0.113*	-0.317***	0.113*	0.110*	0.069	0.242***	0.347***	1	
	GROWTH	0.053	-0.036	0.020	-0.003	0.117*	0.162**	-0.024	-0.148**	0.026	-0.076	-0.039	1

, **,* indicates statistical significance (2-tailed) at the 10%, 5% , 1% level, respectively.*

TABLE 5.2. ***Spearman's rho correlations (only companies with boards consisting of less than 6 members)***

Year	Variable	1	2	3	4	5	6	7	8	9	10	11
2010 (n = 147)	EXP	1										
	EXT	0.084	1									
	IND	-0.219***	0.315***	1								
	WOB	0.000	-0.187**	-0.154*	1							
	MANOWN	-0.143*	-0.193**	-0.060	0.050	1						
	FRGOWN	-0.032	0.006	-0.108	-0.043	-0.091	1					
	MEET	-0.004	-0.064	-0.062	0.074	0.004	-0.022	1				
	LEV	-0.060	-0.063	-0.076	0.166**	0.066	0.005	-0.056	1			
	FSIZE_ln	-0.076	-0.052	-0.179**	-0.131	-0.020	0.119	0.034	0.261***	1		
	LIST	-0.068	0.106	-0.092	-0.035	-0.244***	-0.004	-0.031	-0.016	0.177**	1	
	GROWTH	-0.025	-0.152*	-0.009	0.076	0.147*	0.080	-0.143	0.132	-0.183**	-0.207**	1
2015 (n = 142)	EXP	1										
	EXT	0.242***	1									
	IND	-0.095	0.201**	1								
	WOB	0.003	-0.089	-0.105	1							
	MANOWN	-0.069	-0.253***	-0.064	-0.083	1						
	FRGOWN	-0.092	-0.072	-0.045	-0.108	0.030	1					
	MEET	0.134	0.161*	0.060	-0.082	-0.102	0.115	1				
	LEV	-0.108	-0.107	0.034	0.059	-0.006	0.042	0.003	1			
	FSIZE_ln	-0.060	0.049	-0.002	-0.143*	0.001	0.063	0.109	0.269***	1		
	LIST	-0.098	0.096	0.043	-0.002	-0.252***	-0.033	0.036	-0.062	0.129	1	
	GROWTH	-0.075	-0.222***	0.034	-0.113	0.111	0.074	0.014	0.073	0.045	-0.052	1

, **,* indicates statistical significance (2-tailed) at the 10%, 5% , 1% level, respectively.*

TABLE 6. Logistic regression results (year 2008)

Variable	1	2	3	4	5	6	7	8	9
EXP		-0.098 (0.693)							
EXT			**-3.158***** **(0.826)**						
IND				**-1.932***** **(0.719)**					
WOB					-1.355 (1.194)				
MANOWN						-1.343 (0.927)			
FAMOWN							**-1.096**** **(0.452)**		
FRGOWN								**2.863***** **(1.060)**	
SC									**3.333***** **(0.520)**
BSIZE	**0.689***** **(0.196)**	**0.687***** **(0.196)**	**0.564***** **(0.196)**	**0.560***** **(0.202)**	**0.687***** **(0.197)**	**0.671***** **(0.198)**	**0.684***** **(0.205)**	**0.663***** **(0.199)**	**0.584***** **(0.209)**
MEET	0.098 (0.078)	0.098 (0.079)	0.070 (0.089)	0.082 (0.080)	0.102 (0.080)	0.095 (0.079)	0.090 (0.080)	0.114 (0.080)	-0.022 (0.088)
BIG4	0.156 (0.476)	0.150 (0.478)	0.017 (0.494)	0.085 (0.480)	0.131 (0.479)	0.148 (0.484)	0.181 (0.485)	-0.125 (0.502)	0.032 (0.598)
LEV	-0.132 (0.771)	-0.135 (0.780)	-0.346 (1.003)	-0.368 (0.763)	-0.065 (0.774)	-0.143 (0.751)	-0.119 (0.853)	-0.206 (0.819)	-1.133 (1.304)
FSIZE (LN)	**0.414***** **(0.153)**	**0.418***** **(0.155)**	**0.516***** **(0.168)**	**0.437***** **(0.152)**	**0.418***** **(0.153)**	**0.400***** **(0.154)**	**0.396**** **(0.157)**	**0.431***** **(0.153)**	0.233 (0.202)
LIST	-0.045 (0.039)	-0.045 (0.039)	-0.030 (0.041)	-0.034 (0.040)	-0.052 (0.039)	-0.058 (0.040)	-0.053 (0.040)	-0.049 (0.040)	-0.058 (0.049)
GROWTH	0.013 (0.028)	0.013 (0.028)	0.011 (0.032)	0.017 (0.029)	0.012 (0.028)	0.011 (0.027)	0.018 (0.030)	0.011 (0.032)	-0.001 (0.042)
SECMER	0.422 (0.490)	0.429 (0.493)	**0.901*** **(0.520)**	0.692 (0.505)	0.425 0.492	0.465 (0.493)	0.456 (0.500)	0.521 (0.500)	0.306 (0.605)
SECMAN	-0.040 (0.447)	-0.050 (0.453)	-0.024 (0.479)	-0.092 (0.461)	-0.039 (0.449)	-0.074 (0.449)	0.111 (0.460)	-0.143 (0.461)	-0.048 (0.558)
LOSS(t-1)	0.554 (0.540)	0.555 (0.541)	0.654 (0.552)	0.810 (0.552)	0.625 (0.547)	0.516 (0.546)	0.662 (0.548)	0.773 (0.556)	0.240 (0.679)
Constant	**-10.489***** **(1.948)**	**-10.470***** **(1.951)**	**-9.042***** **(1.960)**	**-9.105***** **(1.925)**	**-10.403***** **(1.950)**	**-9.934***** **1.981**	**-9.996***** **(1.980)**	**-10.746***** **(2.034)**	**-7.261***** **(2.305)**
-2 Log likelihood	209.840	209.819	193.855	202.451	208.481	207.517	203.168	202.362	156.299
Nagelkerke R Square	0.373	0.373	0.443	0.406	0.379	0.383	0.403	0.407	0.591
AIC	231.84	233.82	217.85	226.45	232.48	231.52	227.17	226.36	180.3

Dependent variable: audit committee existence. Parameter estimates are reported (standard errors in parentheses).
*. **. *** indicates statistical significance at the 10%, 5%, 1% level, respectively

TABLE 7. Logistic regression results (year 2010, only companies with boards consisting of less than 6 members)

Variable	1	2	3	4	5	6	7	8	9
EXP		0.581 (0.759)							
EXT			**-3.447****** **(0.911)**						
IND				**-3.789****** **(0.867)**					
WOB					0.642 (1.510)				
MANOWN						-0.463 (1.124)			
FAMOWN							-0.597 (0.545)		
FRGOWN								**2.368*** **(1.402)**	
SC									**3.705***** **(0.833)**
MEET	0.119 (0.080)	0.114 (0.080)	0.081 (0.081)	0.052 (0.086)	0.116 (0.080)	0.114 (0.081)	0.120 (0.079)	**0.139*** **(0.080)**	0.118 (0.091)
BIG4	0.684 (0.633)	0.662 (0.633)	0.457 (0.690)	1.019 (0.702)	0.722 (0.636)	0.665 (0.637)	0.610) (0.651)	0.722 (0.646)	1.021 (0.747)
LEV	**2.609**** **(1.208)**	**2.518**** **(1.208)**	2.094 (1.352)	**2.135*** **(1.273)**	**2.561**** **(1.209)**	**2.586**** **(1.206)**	**2.795**** **(1.236)**	**2.515**** **(1.203)**	1.752 (1.343)
FSIZE (LN)	-0.084 (0.189)	-0.067 (0.192)	-0.070 (0.206)	-0.243 (0.215)	-0.074 (0.190)	-0.082 (0.189)	-0.066 (0.192)	-0.105 (0.191)	-0.389 (0.239)
LIST	0.019 (0.053)	0.018 (0.053)	0.059 (0.058)	-0.007 (0.060)	0.016 (0.054)	0.014 (0.055)	0.018 (0.054)	0.020 (0.055)	0.029 (0.064)
GROWTH	**0.031*** **(0.017)**	**0.031*** **(0.017)**	**0.036*** **(0.020)**	0.020 (0.019)	**0.030*** **(0.017)**	**0.031*** **(0.017)**	**0.035**** **(0.017)**	0.026 (0.017)	0.015 (0.019)
SECMER	**1.631**** **(0.654)**	**1.658**** **(0.659)**	**2.113***** **(0.733)**	**1.935***** **(0.745)**	**1.623**** **(0.654)**	**1.668**** **(0.661)**	**1.659**** **(0.663)**	**1.529**** **(0.665)**	**2.171***** **(0.833)**
SECMAN	0.313 (0.721)	0.350 (0.721)	0.490 (0.792)	0.376 (0.803)	0.327 (0.722)	0.313 (0.720)	0.419 (0.733)	0.334 (0.730)	0.049 (0.905)
LOSS (t-1)	-0.954 (0.682)	-1.016 (0.693)	-0.898 (0.740)	-0.869 (0.733)	-0.943 (0.684)	-0.957 (0.683)	-1.000 (0.693)	-0.961 (0.694)	-0.282 (0.752)
Constant	-3.432 (2.404)	-3.839 (2.488)	-1.105 (2.593)	1.638 (2.825)	-3.591 (2.437)	-3.313 (2.420)	-3.569 (2.445)	-3.384 (2.433)	-0.619 (2.921)
-2 Log likelihood	116.746	116.159	100.070	93.213	116.570	116.572	115.488	113.940	89.871
Nagelkerke R Square	0.214	0.220	0.368	0.426	0.216	0.216	0.226	0.241	0.454
AIC	136.75	138.16	122.07	115.21	138.57	138.57	137.49	135.94	111.87

Dependent variable: audit committee existence. Parameter estimates are reported (standard errors in parentheses).
*. **. *** indicates statistical significance at the 10%, 5%, 1% level, respectively

TABLE 8. Logistic regression results (year 2015, only companies with boards consisting of less than 6 members)

Variable	1	2	3	4	5	6	7	8	9
EXP		0.133 (0.731)							
EXT			**-6.014***** **(1.360)**						
IND				**-2.544***** **(0.834)**					
WOB					1.860 (1.333)				
MANOWN						**2.508**** **(1.051)**			
FAMOWN							0.076 (0.500)		
FRGOWN								0.938 (1.632)	
SC									**2.787***** **(0.662)**
MEET	**0.161**** **(0.074)**	**0.158**** **(0.076)**	**0.214*** **(0.116)**	**0.154*** **(0.086)**	**0.171**** **(0.076)**	**0.166**** **(0.076)**	**0.161**** **(0.074)**	**0.161**** **(0.074)**	**0.163**** **(0.077)**
BIG4	**1.052**** **(0.526)**	**1.057**** **(0.526)**	0.775 (0.634)	**1.147**** **(0.556)**	**1.136**** **(0.535)**	**1.155**** **(0.544)**	**1.059**** **(0.527)**	**1.053**** **(0.525)**	0.864 (0.592)
LEV	-1.372 (1.237)	-1.341 (1.245)	-2.588 (1.574)	-1.055 (1.305)	-1.612 (1.271)	-1.455 (1.286)	-1.357 (1.240)	-1.388 (1.238)	-1.889 (1.444)
FSIZE (LN)	0.261 (0.199)	0.260 (0.199)	**0.489**** **(0.245)**	0.312 (0.211)	0.284 (0.200)	0.295 (0.208)	0.257 (0.201)	0.262 (0.200)	0.180 (0.227
LIST	-0.001 (0.051)	0.000 (0.051)	0.094 (0.067)	0.021 (0.054)	0.003 (0.052)	0.031 (0.054)	-0.001 (0.051)	0.002 (0.051)	-0.033 (0.060)
GROWTH	**0.122*** **(0.071)**	**0.121*** **(0.071)**	0.007 (0.079)	**0.136*** **(0.072)**	**0.124*** **(0.071)**	**0.144**** **(0.073)**	**0.123*** **(0.071)**	**0.123*** **(0.071)**	**0.155**** **(0.078)**
SECMER	0.072 (0.699)	0.072 (0.698)	0.917 (0.872)	0.727 (0.798)	0.078 (0.707)	-0.014 (0.720)	0.071 (0.698)	0.098 (0.702)	0.088 (0.772)
SECMAN	0.579 (0.614)	0.594 (0.619)	0.904 (0.776)	0.979 (0.686)	0.548 (0.616)	0.687 (0.639)	0.568 (0.617)	0.559 (0.618)	0.401 (0.684)
LOSS (t-1)	**1.622***** **(0.622)**	**1.628***** **(0.623)**	**1.338*** **(0.729)**	**1.482**** **(0.654)**	**1.462**** **(0.637)**	**1.834***** **(0.651)**	**1.596**** **(0.645)**	**1.584**** **(0.625)**	**1.619**** **(0.712)**
Constant	**-6.217**** **(2.636)**	**-6.287**** **(2.657)**	**-5.368*** **(3.053)**	**-5.811**** **(2.786)**	**-6.761**** **(2.667)**	**-7.672***** **(2.901)**	**-6.200**** **(2.635)**	**-6.301**** **(2.647)**	**-5.025*** **(2.997)**
-2 Log likelihood	118.427	118.394	88.495	108.38	116.535	112.808	118.404	118.112	98.619
Nagelkerke R Square	0.208	0.209	0.474	0.304	0.227	0.263	0.209	0.212	0.391
AIC	138.43	140.39	110.49	130.38	138.53	134.81	140.4	140.11	120.62

Dependent variable: audit committee existence. Parameter estimates are reported (standard errors in parentheses).
*. **. *** indicates statistical significance at the 10%, 5%, 1% level, respectively

FIGURE 1. The reaction of Polish companies to the regulation changes

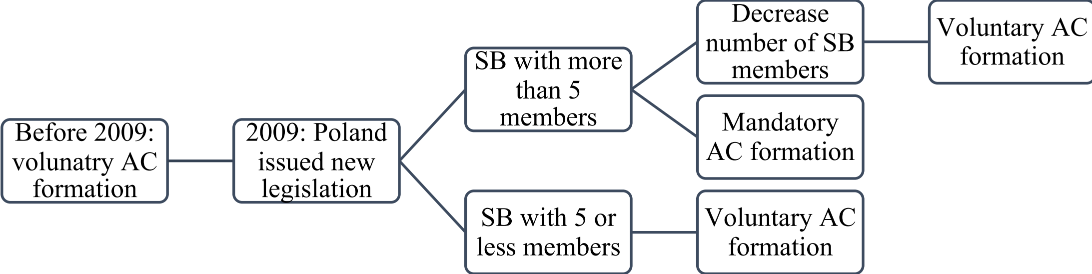
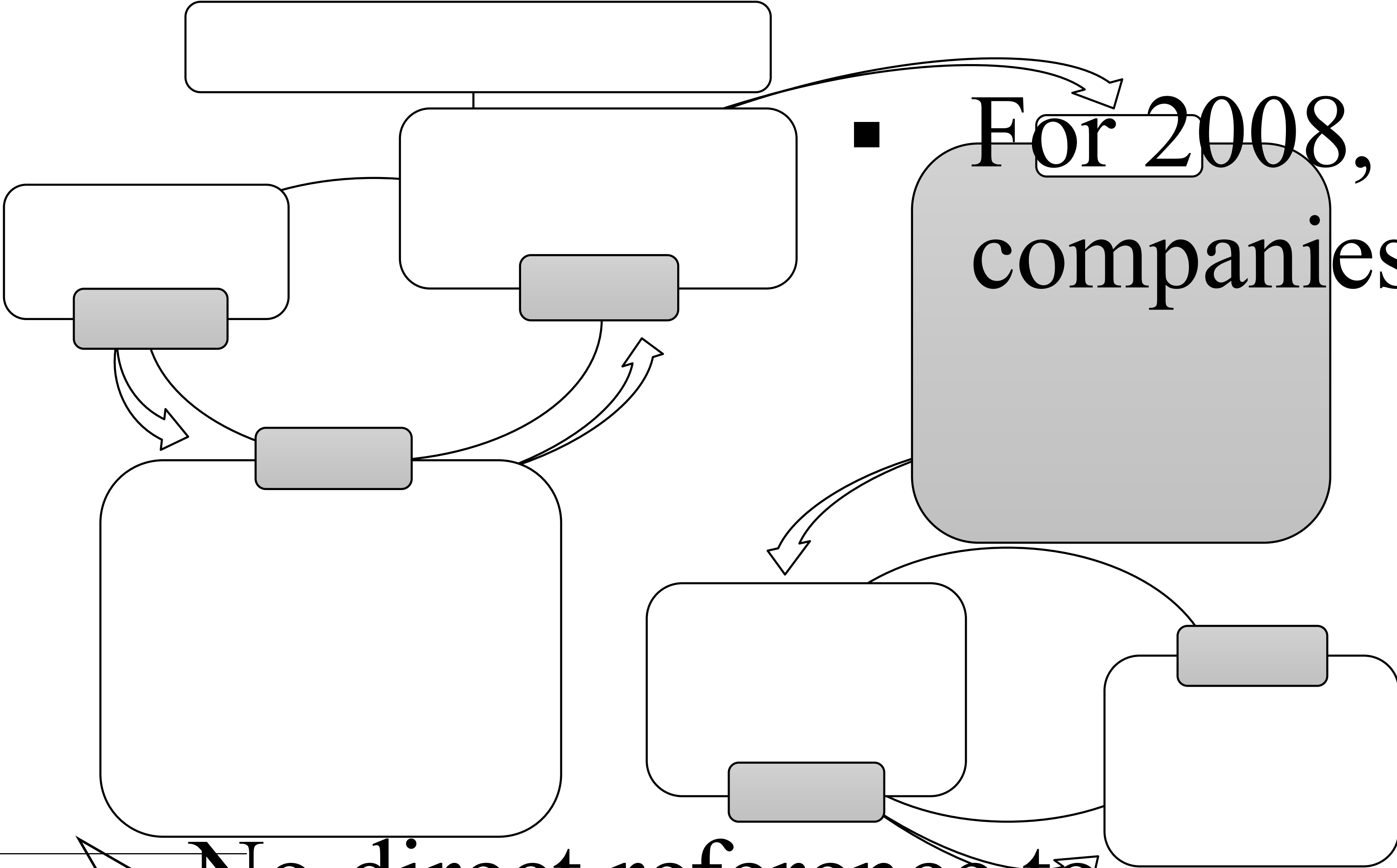


FIGURE 2. Audit Committee regulation changes in Poland and the sample construction[3]



[3] AC – Audit Committee
CGC – Corporate Governance Code