Shareholder structure and compliance with the board best practice: econometric analysis

Maria Aluchna
Emilia Tomczyk
Warsaw School of Economics

December 2015

This paper is available at the Warsaw School of Economics (SGH), Institute of Econometrics website at: www.sgh.waw.pl/KAE/ZES/papers
Maria Aluchna¹
Emilia Tomczyk²

Shareholder structure and compliance with the board best practice: econometric analysis

Abstract

The article examines compliance with corporate governance best practice in the post-transition economy addressing the heterogeneity of interests of different shareholders. On the basis of agency theory we suggest that in the concentrated ownership environment the principal-principal conflict results in lower compliance with the corporate governance code. More specifically, since compliance with best practice requires introducing independent directors and in that sense shifts control from shareholders to the board, we hypothesize that companies characterized by concentrated ownership and the dominant position of the founder/individual investor are reluctant to comply with board best practice. To evaluate our hypothesis we explore compliance with board best practice with respect to the presence of independent directors, formation of audit committee and other specialized board committees (remuneration, risk, strategy). We test the link between the compliance with the code and the ownership structure. Our analysis supports the principal-principal conflict argument and shows that companies with concentrated ownership and founder control do not comply with the board best practice.

Keywords: corporate governance, best practice, post-transition economy, ownership structure, logit model

¹ Associate Professor, Department of Management Theory, Warsaw School of Economics, Al. Niepodleglosci 162, suite 325M, 02–554 Warsaw, Poland, phone/fax: 0048 22 564 86 20, e-mail: maria.aluchna@sgh.waw.pl
² Associate Professor, Institute of Econometrics, Warsaw School of Economics, Al. Niepodleglosci 162, suite 215M, 02–554 Warsaw, Poland, phone/fax: 0048 22 564 8617, e-mail: emilia.tomczyk@sgh.waw.pl
**Introduction**

Corporate governance remains one of the most extensively researched themes in management and finance academic literature experiencing a dynamic development in practice and regulation. It aims to protect investors, minimize risk and provide for long term sustainable value (Mallin, 2004; Baker and Anderson, 2010). These goals are at the company level understood as providing adequate structure of checks and balances (Monks and Minow, 2004) and are exemplified in the form of best practice (Tricker, 2012). The codes of best practice are the voluntary sets of principles, recommendations and standards relating to internal corporate governance and addressing the most problematic inefficiencies (Chizema, 2008; Mallin, 2008; Tricker, 2012). The codes address selected dimensions of corporate governance such as the board functioning, the shareholder rights, transparency, auditing, remuneration (OECD, 2004, 2015) and provide principles and norms to assure for creating shareholder value.

The research on corporate governance codes addresses questions of dynamics, motivation and effectiveness of compliance (Anders and Theissen, 2008; Arcot at al., 2010) and non-compliance (MacNeil and Li, 2006) with the code guidelines, the impact of the country’s legal regime on the adoption (Zattoni and Cuomo, 2008) and the efficiency of code (Cuervo, 2002), the impact of compliance on firm’s performance and stock valuation (Goncharov et al., 2006; Renders et al., 2010). The studies refer to either the impact of the single selected recommendation, the general compliance / non-compliance with the reported explanations, or the quality of the firm corporate governance measured by the inclusion into an index or rating. As the research focuses on the impact of the macro-environment on the formulation, the scope and the standards of compliance with the code (Chizema, 2008; Anders and Theissen, 2008), very few studies address the aspects of organizational characteristics or dynamics upon the code adoption.

The existing literature offers a series of studies on the political economy of formulation of the code guidelines, the dynamics of their adoption and the scale and scope of the compliance with the code enhancing the understanding of the interplay between soft law and self-regulation, listed companies, and their executives and managers. The integration of the code guidelines is also embedded in the national specificities of corporate governance. The studies however address a limited number of companies and refer mostly to the effectiveness of the code in the United Kingdom (Arcot et al., 2010; MacNeil and Li, 2006) and Germany (Cromme, 2005; Werder et al., 2005; Chizema, 2008; Andres and Thiessen, 2008; Goncharov et al., 2006). They do not to cover other countries, ignoring developing, transition or emerging markets with some
exceptions for Central and Eastern Europe (Hermes et al., 2007; Bistrova and Lace, 2012). They also fail to explain the impact of the firm’s characteristics and national specifics on the formulation of the codes and the compliance with its recommendations. Thus, we believe there is a gap in the existing literature on the corporate governance conformity in the context of firm characteristics, particularly ownership structure. The compliance with best practice represents the firm and its shareholder decision to follow a set of standards which determine the internal governance limiting or adding responsibilities to various stakeholders. Consequently, the decision on the compliance is heavily embedded in the shareholders’ and executives’ awareness of corporate governance issues, their capabilities to implement guidelines and the openness to constrain themselves while overseeing and managing the firm. This to large extent depends on the organizational characteristics, particularly the ownership structure which determines the division of power and control amongst shareholders and executives (Gedajlovic and Shapiro, 1998; Bennedsen and Nielsen, 2010; Clarke, 2014). The degree of ownership and control concentration, the relation of shareholders and the balance between their heterogeneous interests and expectations significantly impact the practice of the board and its directors, executive compensation scheme, disclosure policy or risk management procedure (Shleifer and Vishny, 1997; Soren and Turnbull, 2012; Yoshikawa and Rasheed, 2009) and in result it impacts the compliance with corporate governance code. Moreover, firms of different ownership structures and various constellations of shareholders may react differently to changes and implementations of new norms as provided by corporate governance codes (Chizema, 2008; Cuervo, 2002).

In this paper we intend to fill this gap in the existing literature. Our goal is to identify links between company compliance with corporate governance best practice and their characteristics with respect to the ownership structure and origin in the context of the post-transition, post-socialist economy. We analyze the hand collected data on the sample of Polish listed companies for the period 2008-2012 measured every two years. We focus on the selected best practice (formation of audit committee, formation of other board committees and the presence of independent directors on board). On the basis of the empirical analysis we are able to identify leaders and laggards of corporate governance compliance with regard to company characteristics, ownership structure, origin and sector of operation. Our analysis indicates that the type of the dominant shareholder matters with respect to the company compliance with the corporate governance best practice.
The article is organized as follows. First, the concept of best board practice and compliance is presented. Then, in the context of principal-principal conflicts we formulate hypotheses on links between shareholder structure and compliance with board practice. Later the research methodology and results are presented followed by the discussion of findings. Final remarks are provided in conclusion.
Compliance with the corporate governance code

The code of best practice consist of a set of recommendations and guidelines regarding corporate governance of the firm viewed as the reaction to company mismanagement and ineffective governance (Cuervo, 2002). In general, the codes aim at increasing accountability of directors, strengthening shareholder protection and enhancing transparency (OECD, 2004, 2015; Lipman, 2007; Mallin, 2004; Tricker, 2012). In particular, the guidelines address the functioning and the composition of the board, formation of specialized board committees and formulation of directors duties. The recommendations also refer to the compensation schemes, with the special concern given to the pay size and structure, bonuses and incentive programs, the time horizon of the variable component, functioning of the remuneration committee and disclosure. Best practice recommends equal rights of all shareholders and defines standards of transparency.

The best practice codes are of particular importance for corporate governance in emerging and transition countries. The specificity of corporate governance in transition and emerging markets formulates unique tasks and challenges for the best practice initiative. As long as the codes in developed markets provide fine tuning recommendations to mitigate monitoring and incentive inefficiencies, they play crucial role in emerging economies setting the agenda for their reforms and further development. Corporate governance guidelines constitute an element of new regulatory regime and represent a political decision for social and economic convergence with global stock market. Post socialist countries underwent significant transition process. Starting with the Romanian initiative in 2000 as the first code in the CEE region, the positive spillovers of the best practice code encouraged listed companies to implement a series of recommendation and to integrate them into the governance structures. The initiative was taken over by the Czech Republic (2001), Poland, Russia, Slovak Republic (2002), Macedonia and Ukraine (2003), Lithuania, Slovenia and Hungary (2004), Latvia (2005) and Estonia (2006) followed by the codes amendments and subsequent versions (Hermes et al., 2007). In result, the adoption of widely recognized best practice is aimed at the improvement of the oversight quality, strengthening of the investor and shareholder protection and enhancement of transparency standards. In addition, corporate governance system in transition and emerging markets is found to be insider dominated, closed and based on hierarchies combined with poorly developed external mechanisms and weak investor protection. The structure of corporate governance in transition economies is the outcome of the political choices made during the reform process and
still remains in the development phase revealing significant variations amongst countries and companies (Bistrova and Lace, 2012).

Transition and emerging economies are characterized by significant ownership concentration, separation of control and cash flow rights resulting from the adoption of pyramids and formation of business groups, domination of families and insiders (Berglöf and Claessens, 2006). Yet, these economies pursue corporate governance reforms and aspire to get integrated with the global stock market. Such conditions offer an unique environment for testing the adoption of and compliance with corporate governance codes and post-transition, post-socialist Polish economy. Polish stock market is the largest in the CEE region in terms of both the number of companies and the capitalization and appears to be a perfect laboratory for studying governance choices with respect to the shareholder structure. The comparative analysis on CEE countries places Poland in the bottom of the region in term of the code content. As observed by Hermes et al. (2007), Polish code covered 7 out of 18 recommendations according to OECD Principle. This places Polish codes in between the top scoring countries such as the Czech Republic (16 of 18) and the lowest ranked such as by Romania (3 of 18) as measured by number of OECD recommendations covered by the national code. Polish companies are also ranked low with respect to the transparency standards as noted by Berglöf and Pajuste (2005). However, the research by Onofrei (2009) places Poland first in terms of the enforcement of OECD corporate governance principles. Poland was followed by Lithuania, Latvia and Slovenia (tied in second place) and Croatia (third place).

Compliance and ownership structure

Codes of best practice address similar list of corporate governance matters such as board work, executive compensation, transparency and shareholder rights. Despite the adopted “one size fits all” approach, these recommendations may not necessarily appeal to shareholders and stakeholders in various institutional and company settings. Arcot et al. (2010) argue that with the fundamental rule of the flexibility, companies are given the discretion whether (and if the answer is yes, in what aspects) they decide to comply. The decision may be different depending on shareholder constellations with respect to the number of shareholders, their activism and investment strategies, their identities and the degree of ownership and control concentration. In general the formulation of the codes of best practice is motivated by the need and strategy to improve corporate governance and mitigate structural shortcomings (Aguilera and Cuervo-Cazurra, 2004). Yet, the content of the recommendations is driven by and addresses the
expectations of institutional shareholders. Therefore the recommendations may be differently viewed and may be of various usage in different ownership settings. As noted by Andres and Theissen (2008:289) “the decision whether or not to comply with a particular recommendation or suggestion is likely to be non-random” since managers may exert their discretion to avoid oversight and monitoring and shareholders may exert their power to improve their position within the governance structure.

The integration the code guidelines with the firm’s actors and stakeholders is likely to be differentiated by two main dimensions of ownership structure: the concentration of ownership and control as well as the presence of various shareholder types.

The ownership concentration represents the situation when one majority shareholder controls the company’s shares. The existing literature uses the threshold of 20% of shares to distinguish the majority shareholder (La Porta et al., 1999). The ownership concentration is viewed as an additional corporate governance mechanism but also as a trade-off between control by large shareholders and liquidity. The concentrated ownership significantly impacts the corporate governance practice; majority owners provide important control mechanism and reduce the principal-agent conflict between shareholders and executives (Faccio and Lang, 2002). The ownership concentration allows for the access to company information, assures appointment of board directors and provides monitoring over executives’ work (Shleifer and Vishny, 1997). Ownership concentration may substitute other corporate governance mechanisms provided by the stock market or the activism of institutional investors. Majority shareholders, however, may engage in entrenching activities abusing minority shareholder rights (Nenova, 2003; Morck, 2004). This is particularly important in transition and emerging economies characterized by weak institutional enforcement and insufficient investor protection (Berglöf and Claessens, 2006). The principal-principal conflict is visibly exemplified in the board practice as large shareholders are reluctant to lose control over the board to independent directors. Large shareholders are less interested in the share price increase and are less sensitive to stock market (Berglöf and Pajuste, 2005). In contrast, dispersed ownership translates into the presence of various small and fragmented investors who cannot deliver adequate governance mechanisms and to a larger extent rely on the stock market and widely recognized guidelines. Therefore, we formulate hypothesis 1.
H1: Concentrated ownership is negatively related to compliance with the board best practice

Recently, the literature on ownership structure started to examine the heterogeneity of shareholder interest, investigating differences in investment strategy and time horizon of various shareholder types (Young et al., 2008; Su et al., 2008). The shareholder identity determines his / her engagement in governance and expectations towards the company. Additionally, in line with the endogeneity argumentation, the shareholder structure is also a derivate of various company characteristics such as age and origin, size, history and industry of operation (Hermalin and Weisbach, 1998; Demsetz and Villalonga, 2001; Sraer and Thesman, 2007; Charfeddine and ElMarzougui, 2010). This may also influence the strategy towards compliance with best practice. In particular, the best practice code to a large extent represents the expectations of financial investors who rely on internationally recognized guidelines and standards (Mallin, 2004). They appreciate the code conformity as the signal for better governance, larger transparency and lower risk. Financial investors are also often the active group submitting corporate governance proposals referring to board work, shareholder rights, transparency and executive compensation (Larcker and Tayan, 2011). Thus, we propose hypothesis H2.

H2: The presence of financial investor in ownership structure is positively related to compliance with the board best practice

Founder is a separate shareholder identity distinguished in studies on ownership structure in emerging and transition economies as many companies are relatively recently established. The literature on founder-controlled companies remains limited but often refers to family-controlled firms. These companies are expected to be directed and controlled by the founders who reveal strong vision, long term horizon, charismatic leadership and engagement in firm operation (Bertrand and Schoar, 2006; Barontini and Caprio, 2006). This is often in opposition to short-term oriented financial or fragmented investors. Founder and family controlled companies rely on mechanism based on the individual stamina what is often viewed as the substitute to the more institutionalized procedures in case of other company types (Anderson and Reeb, 2003; Chu, 2009). Better informed founders may also engage in entrenchment activities and strive for sustaining control (Morck and Yeung, 2004; Villalonga and Amit, 2006). Therefore, we argue
that founders develop less formalized governance and to a lesser extent rely on code guideline, and propose hypothesis H3.

**H3: The presence of individual shareholder/ founder in ownership structure is negatively related to compliance with the board best practice**

**Empirical research**

**Data**

We test the link between the compliance with board best practice and the ownership structure on the sample of 100 largest companies listed on the Warsaw Stock Exchange for the period 2008 – 2012. Due to the low variance in the characteristics of shareholder structure and compliance, the data was collected every two years, that is in 2008, 2010 and 2012. The initial data base covered 100 companies of the largest market capitalization in 2012 and then was expanded to include the earlier periods. The total sample consists of 283 observations. The data on ownership structure and performance was obtained from EMIS data base, internet portal bankier.pl as well as from annual reports of the companies. The data on compliance with the board best practice was hand collected from the statements of conformity of corporate governance best practice which are attached to the annual report and publically available on investor relations websites.

We are particularly interested in the data on the board best practice with respect to the following issues:

- The best practice of the presence of at least 2 independent directors on supervisory board.
- The best practice of the formation of the audit committee within the supervisory board.
- The best practice of the formation of the remuneration and other committees within the supervisory board.

These board guidelines appear to be the most problematic best practices of WSE listed companies differentiating the degree of compliance (Aluchna, 2009; Campbell et al., 2009; Aluchna, 2015).
On the basis of the data set available, we define several dependent variables reflecting the degree of compliance with the best practice code.

1. Binary variable equal to 1 if number of independent directors is equal to or larger than 2 (that is, the company complies with the corporate governance best practice code) and 0 otherwise (variable \textit{ind\_directors\_01}).

2. Binary variable equal to 1 if remuneration committee is established within the company and 0 otherwise (variable \textit{remun\_cm}).

3. Three binary variables reflecting the degree of compliance with the corporate governance best practice code:
   - binary variable equal to 1 if the company conforms with all the best practices and 0 otherwise (variable \textit{cg\_max})
   - binary variable equal to 1 if the company conforms with more than one best practice and 0 otherwise (variable \textit{cg\_med})
   - binary variable equal to 1 if the company conforms with at least one best practice and 0 otherwise (variable \textit{cg\_min}).

The following company-specific explanatory variables are available to explain firms’ compliance with the best practice code:

- branch of industry in 12 categories: construction; chemical industry; electric machine and machine industry; energy sector; finance; food, trade and security sector; information technology (ITC); metal industry; clothing industry; postal services; mining industry; food industry (variable \textit{ind1})
- branch of industry in four basic categories: heavy industry, light industry, services, finance (variable \textit{ind2})
- company assets, million Polish zł (variable \textit{assets})
- percentage share of the largest shareholder (variable \textit{share\_cont})
- type of shareholder: State Treasury; domestic industry; foreign industry; individual investor; financial investor (variable \textit{share\_type})
- board size (variable \textit{board\_size})
- functioning of audit committee within the board (variable \textit{audit\_cm})
- net profit, Polish zł (variable \textit{net\_profit})
- return on assets (variable \textit{roa})
- dividend yield (variable \textit{dy})
- number of employees (variable \textit{employees})
• age of enterprise (variable `age`)
• privatization status: 1 – privatized, 0 – established after 1989 (variable `privatization`)
• ownership status: 1 – institutional or dispersed investor, 0 – controlled by an individual or a family directly or indirectly by an individual or a family via financial or industry investor (variable `truly_listed`)

Additionally, for the purpose of econometric analysis, on the basis of variables listed above, additional binary variables were constructed:

• binary variables for each of the 12 categories of variable `ind1` (`ind1_1`, …, `ind1_12`)
• binary variables for each of the 4 categories of variable `ind2` (`ind2_1`, …, `ind2_4`)
• binary variable for the financial sector: 1 if `ind1_5 = 1` and 0 otherwise (`ind1_5only`)
• on the basis of percentage share of the largest shareholder (`share_cont`):
  ▪ binary variable equal to 1 if `share_cont > 50` and 0 otherwise (`share_50`)
  ▪ binary variable equal to 1 if `share_cont > 30` and 0 otherwise (`share_30`)
• on the basis of shareholder type (`share_type`): five binary variables for each of the shareholder categories:
  ▪ binary variable equal to 1 for State Treasury and 0 otherwise (`type_1`)
  ▪ binary variable equal to 1 for domestic industry and 0 otherwise (`type_2`)
  ▪ binary variable equal to 1 for foreign industry and 0 otherwise (`type_3`)
  ▪ binary variable equal to 1 for individual investor and 0 otherwise (`type_4`)
  ▪ binary variable equal to 1 for financial investor and 0 otherwise (`type_5`)
• on the basis of size of the audit committee (`audit_cm`):
  ▪ binary variable equal to 1 if the company does not inform about the functioning of the audit committee within the board and 0 otherwise (`audit_0`)
  ▪ binary variable equal to 1 if the whole board functions as the audit committee and 0 otherwise (`audit_1`)
  ▪ binary variable equal to 1 if the formed audit committee functions within the board and 0 otherwise (`audit_2`)

To limit the degree of multicollinearity between explanatory variables, linear correlation coefficients were calculated for the quantitative variables (that is, assets, percentage shares of the largest shareholder, number of employees, net profit, return on assets, and dividend yield). The highest correlation coefficients, ranging from 0.68 to 0.78 across the period analyzed, were found for the following pairs of variables: assets and number of employees; net profit and number of employees; net profit and ROA. Consequently, in subsequent stages of empirical
analysis special attention will be paid to the issue of multicollinearity of variables reflecting assets, net profit, number of employees and ROA.

While a wide set of potential explanatory variables is available, only a few of companies’ characteristic exhibit any impact on degree of their compliance with the best practice code, as the next section demonstrates.

**Dynamics of compliance**

As an introduction to econometric analysis of factors influencing adoption of best practice code, dynamics of compliance with selected best practices is presented in Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>ind_directors_01</td>
<td>51%</td>
<td>56%</td>
<td>58%</td>
</tr>
<tr>
<td>remun_cm = 1</td>
<td>32%</td>
<td>37%</td>
<td>51%</td>
</tr>
<tr>
<td>cg_max = 1</td>
<td>26%</td>
<td>30%</td>
<td>38%</td>
</tr>
<tr>
<td>cg_med = 1</td>
<td>28%</td>
<td>49%</td>
<td>59%</td>
</tr>
<tr>
<td>cg_min = 1</td>
<td>60%</td>
<td>76%</td>
<td>82%</td>
</tr>
<tr>
<td>no. of observations</td>
<td>87</td>
<td>97</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

It follows from Table 1 that the percentages of companies complying with the board best practice have been increasing over the analyzed period. More specifically, the percentage of companies employing at least two independent directors increased from 51% in 2008 to 58% in 2012, and the percentage of companies with remuneration committee grew from 32% in 2008 to 51% in 2012. In relative terms, improvement of compliance with the remuneration committee rule is noticeably higher than with the independent directors rule (19 percentage points versus 7 percentage points). The degree of compliance with the board best practice, as measured by the binary index variables, has been increasing over time in all categories, with 82% companies conforming with at least one best practice in 2012. However, only 38% companies conformed with the strict guidelines in 2012.
Logit models of compliance with the corporate governance best practice code

To analyze influence of company’s individual characteristics on the probability that it follows a good practice rule, binary logit models were estimated. For all dependent variables – that is, for all measures of compliance with the best practice code – the following general results emerge. Probability of adopting a good practice rule is not influenced, with very few exceptions, in a statistically significant way by:

- financial variables such as ROA, dividend yield, or net profit, whether included in nominal terms or per employee,
- sector of operation, whether classified into 4 or 12 categories or separated into financial and non-financial sectors,
- general company characteristics such as its age, number of employees, privatization status, or ownership status.

On the other hand, the following variables exhibit statistically significant effects – although varying from year to year and across measures of compliance – on acceptance of board best practices:

- size of company as measured by its assets,
- concentration of ownership,
- existence of audit and remuneration committees,
- presence of individual investor versus other shareholder types.

In Table 2, marginal effects and basic statistics for the logit model of independent directors, estimated by Maximum Likelihood method with QML standard errors are presented.
Table 2. Estimation results of the logit model; dependent variable: *ind_directors_01*

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>assets</td>
<td>1.16043e-08 **</td>
<td>1.21062e-08 **</td>
<td>8.39772e-09 *</td>
</tr>
<tr>
<td>share_50</td>
<td>−0.218854 *</td>
<td>−0.196889 *</td>
<td>−0.0290142</td>
</tr>
<tr>
<td>audit_0</td>
<td>−0.518236 **</td>
<td>−0.277808</td>
<td>--</td>
</tr>
<tr>
<td>audit_2</td>
<td>−0.347106 **</td>
<td>−0.218908 *</td>
<td>--</td>
</tr>
<tr>
<td>remun_cm</td>
<td>--</td>
<td>--</td>
<td>0.270206 **</td>
</tr>
<tr>
<td>McFadden pseudo-R²</td>
<td>0.252914</td>
<td>0.141760</td>
<td>0.144306</td>
</tr>
<tr>
<td>count R²</td>
<td>73.9%</td>
<td>63.9%</td>
<td>70.7%</td>
</tr>
<tr>
<td>mean of dependent variable</td>
<td>0.500000</td>
<td>0.556701</td>
<td>0.585859</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

Marginal effects calculated at means of variables; * - variable significant at the 0.1 significance level,
** - variable significant at the 0.05 significance level

It follows from Table 2 that company’s assets positively and consistently (across three data points considered) influence the probability of employing at least two independent directors on the board. Also, in 2008 and 2010 concentration of ownership reflected in variable *share_50* (that is, whether the largest shareholder owns more than 50% of the company’s stock) proves to be statistically significant. Yet, its impact on dependent variable, as measured by marginal effect, decreases from 2008 to 2010 and ceases to be statistically significant in 2012. This may be explained by the increase of the conformity with the best practice or may reflect impact of the financial crisis; due to lack appropriately detailed data we cannot verify which of these explanations is more likely. The formation of an audit committee proves significant for employing at least two independent directors in 2008 and 2010, and loses its significance to existence of a remuneration committee in 2012. The change is mostly likely driven by the shift of this guidelines to hard law which resulted in the increase of its adoption.

All three models exhibit similar and acceptable classification power reflected in the count R² measures. The 2008 model is distinguished by relatively high McFadden’s pseudo-R² coefficient in comparison to 2010 and 2012 models. The fact that 2010 and 2012 appear more difficult to model than 2008 is most likely due to the impact of the crisis. In general, empirical evidence provides partial support for hypothesis H1 (in 2008 and 2010 for independent directors and audit committee and in 2012 for remuneration committee) and is consistent with our argumentation assuming the existence of principal-principal conflict.
In Table 3, marginal effects and basic statistics for the logit model of the existence of remuneration committee are presented.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln_assets</td>
<td>0.0701366</td>
<td>0.0762885</td>
<td>0.174995</td>
</tr>
<tr>
<td>roa</td>
<td>--</td>
<td>1.00390 **</td>
<td>--</td>
</tr>
<tr>
<td>type_4</td>
<td>--</td>
<td>-0.370725 ***</td>
<td>-0.470636 ***</td>
</tr>
<tr>
<td>share_50</td>
<td>--</td>
<td>--</td>
<td>-0.234843 *</td>
</tr>
<tr>
<td>McFadden pseudo-R²</td>
<td>0.075056</td>
<td>0.199566</td>
<td>0.144306</td>
</tr>
<tr>
<td>count R²</td>
<td>73.9%</td>
<td>73.2%</td>
<td>80.8%</td>
</tr>
<tr>
<td>mean of dependent variable</td>
<td>0.306818</td>
<td>0.371134</td>
<td>0.505051</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

Marginal effects calculated at means of variables; * - variable significant at the 0.1 significance level, ** - variable significant at the 0.05 significance level

As shown in Table 3, factors that significantly influence whether a company established a remuneration committee are different from factors significant in the case of independent directors. Moreover, models estimated for the remuneration committee dependent variable exhibit no stability whatsoever: sets of explanatory variables change every year, and only logs of company’s assets remain a statistically significant and positive influence across the years. Remuneration committee is more often to be found in larger companies which usually have larger boards. It is also viewed a more “advanced” best practice still scoring very low compliance among Polish listed companies. In 2010 and 2012, presence of individual investors decreases the probability of the company’s forming a remuneration committee which partially supports hypothesis H3 and is consistent with the argumentation on principal-principal conflict.

Count R² coefficients for all models presented in Table 3 are acceptable, but McFadden’s R²’s are considerably lower than in models estimated for the independent directors dependent variable. While not directly comparable, these results suggest that it is more difficult to identify factors responsible for decision of establishing a remuneration committee than for decision of employing at least two independent directors.

Models of probability of meeting the best practice criteria in terms of adequate number of independent directors (Table 2) or existence of remuneration committee (Table 3) reflect only
selected elements of the set of the best practice rules. To arrive at more general conclusions, logit models for aggregated variables $cg\_max$, $cg\_med$ and $cg\_min$ were estimated. In Table 4, summary of estimation results is presented, with signs of the marginal effects and significance of variables reported.

Table 4. Estimation results of the logit model; dependent variables: $cg\_max$, $cg\_med$ and $cg\_min$

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th></th>
<th>2010</th>
<th></th>
<th>2012</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$cg_min$</td>
<td>$cg_med$</td>
<td>$cg_max$</td>
<td>$cg_min$</td>
<td>$cg_med$</td>
<td>$cg_max$</td>
</tr>
<tr>
<td>$ln_assets$</td>
<td>$+$ / ***</td>
<td>$+$ / ***</td>
<td>$+$ / ***</td>
<td>$+$ / ***</td>
<td>$+$ / ***</td>
<td>$+$ / ***</td>
</tr>
<tr>
<td>$dy$</td>
<td>$-$</td>
<td>$+$</td>
<td>$+$</td>
<td>$+$ / ***</td>
<td>$+$</td>
<td>$+$</td>
</tr>
<tr>
<td>$truly_listed$</td>
<td>$-$</td>
<td>$-$</td>
<td>$-$</td>
<td>$-$</td>
<td>$+$</td>
<td>$+$</td>
</tr>
<tr>
<td>$privatization$</td>
<td>$+$</td>
<td>$-$</td>
<td>$-$ / *</td>
<td>$-$</td>
<td>$-$</td>
<td>$-$</td>
</tr>
<tr>
<td>$type_4$</td>
<td>$-$</td>
<td>$-$ / **</td>
<td>$-$ / **</td>
<td>$-$ / **</td>
<td>$-$ / **</td>
<td>$-$ / **</td>
</tr>
<tr>
<td>$share_50$</td>
<td>$-$</td>
<td>$+$</td>
<td>$-$</td>
<td>$-$ / **</td>
<td>$-$</td>
<td>$-$</td>
</tr>
<tr>
<td>McFadden pseudo-$R^2$</td>
<td>0.1047</td>
<td>0.1932</td>
<td>0.2046</td>
<td>0.3949</td>
<td>0.2272</td>
<td>0.1776</td>
</tr>
<tr>
<td>count $R^2$</td>
<td>67%</td>
<td>72%</td>
<td>75%</td>
<td>88%</td>
<td>73%</td>
<td>77%</td>
</tr>
<tr>
<td>mean of dependent variable</td>
<td>0.6023</td>
<td>0.375</td>
<td>0.2613</td>
<td>0.7629</td>
<td>0.4948</td>
<td>0.2989</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

Marginal effects calculated at means of variables, signs only reported; * - variable significant at the 0.1 significance level, ** - variable significant at the 0.05 significance level

The only explanatory variable that consistently and significantly (and positively) influences the probability of company’s compliance with best practice code is its size reflected in logs of assets. This can be explained by the argumentation that larger companies have larger board and it is easier for them to comply with the board practice. Due to the board size, having independent directors on board or formation the specialized board committees does not lower the power of the majority shareholder. With the sole exception of the 2008 model for dependent variable $cg\_min$, presence of individual investor consistently and significantly decreases the probability of the company’s compliance. This finding supports hypothesis H3 and illustrates the
heterogeneity of shareholders’ interests. Partial support can be also found for hypothesis H1 which argues for negative link between compliance and ownership concentration. Interestingly, we observe no impact of the financial investors in the ownership structure on the degree of compliance. Thus there is no support for hypothesis H2. Other factors that occasionally reveal statistically significant impact on dependent variables reflecting aggregate compliance with best practice code include concentration of ownership, privatization status and dividend yield – although the last variable behaves peculiarly, changing sign between 2010 and 2012 and influencing only the variable $cg_{\text{min}}$, that is, the most reluctant approach to acceptance of best practice code.

To summarize, designing a comprehensive model for all the measures of compliance considered and all three data points proved infeasible. However, a few common features emerge: size of company, measured by assets or logs of assets, and concentration of ownership remain the two single most influential variables across the models.

**Discussion**

The analysis provided verification for formulated hypotheses on the link between ownership structure (concentration, presence of financial investor and presence of individual shareholder/founder) and the compliance with the best practice guidelines. On the basis of logit models we find that it is difficult to design a statistically acceptable model for either of the measures of compliance with corporate good practice, and if such a model is found, it is not stable across the period analyzed or across various measures of compliance. Only a handful of company’s characteristics exhibit statistically significant impact on whether it decides to adopt certain elements of the best practice code. These characteristics include size of company (reflected in assets or logs of assets), concentration of ownership (whether the largest shareowner owns more than 50% of the company’s stock), establishment of audit and remuneration committees, ROA, and controlled by an individual investor. In models with aggregated good practices dependent variables, dividend yield and privatization status are also significant in some of the years under consideration.

Summarizing the results, we observe that the compliance with the best practice is linked both to the ownership concentration and the presence of individual shareholder / founder in the ownership structure. In particular, we note that:
ownership concentration (at the threshold of 50% of shares) is linked to lower compliance with the guidelines on the presence of independent directors on board (for 2008 and 2010),

ownership concentration (at the threshold of 50% of shares) is linked to lower compliance with the guidelines on the formation of audit committee (for 2008 and 2010),

ownership concentration (at the threshold of 50% of shares) is linked to lower compliance with the guidelines on the formation of compensation committee (for 2012 only),

ownership concentration (at the threshold of 50% of shares) is linked to lower compliance with the guidelines as measured by corporate governance index (for 2010 and 2012),

the presence of individual shareholder / founder in ownership structure is linked to lower compliance with the guidelines as measured by corporate governance index (for 2008, 2010 and 2012).

These findings partially support hypotheses H1 and H3. Simultaneously, we do not find any impact on the presence of financial investors in shareholder structure. These results are consistent with the argumentation on the principal-principal conflict (Young et al., 2008; Su et al., 2008) showing that the majority shareholder, particularly private investor, is less likely to adopt best practices of the board functioning. Our findings are consistent with similar research in the corporate governance best practice stream. Arcot et al. (2010) found that widely held versus family owned companies reveal better compliance, while Chizema (2008) identified the non-monotonic relation between ownership concentration and the probability of disclosure. Our interpretation suggests that the board guidelines (as analyzed in this paper) may be perceived by these shareholders as a possible loss of power and influence over the board. Also companies controlled by founder / individual investors resemble, with respect to corporate governance, family controlled companies which base their supervision and monitoring on other mechanisms (Chu, 2009). Referring to practical and policy implications, the results support the “impracticability of one size fits all” argued by Davies (2008) not only referring to differences between countries but also to differences between companies with respect to their characteristics, particularly ownership structure.

We believe this analysis contributes to the existing literature on corporate governance codes, focusing on the compliance with the board guidelines. Our contribution is twofold. First, we
identify the patterns of corporate governance best practice implementation in the post-socialist, post-transition, emerging economy. We depict the dynamics of the corporate governance best practice implementation. As the result indicate over the analyzed 7-year period we observe constant and steady improvement of compliance with board best practice. Second, we link the compliance with corporate governance code with the firm’s characteristics, particularly the origin and ownership structure with respect to the ownership concentration and dominant shareholder identity. We argue that the principal-principal conflict addresses the compliance policy of listed companies and result in various approaches to corporate governance conformity. Our findings reveal that companies characterized with ownership concentration and companies controlled by the founders or individual investors report the lowest compliance with board best practice. As for the hypothesis of interest difference of heterogeneous shareholders, we show that the type of the dominant shareholder matters with respect to the company compliance with the corporate governance best practice. These findings suggest that the adoption of board recommendation is rather perceived as the loss of power and decision making and is not viewed as the legitimization mechanisms for firms with majority individual shareholder.

**Conclusion**

This paper aims to identify links between company characteristics, particularly ownership structure and compliance with corporate governance guidelines, on the board functioning. Following the argumentation of agency theory, we assume that compliance with the board best practice may be subject to the principal-principal conflict. As we note that the compliance with best practice is related to the ownership concentration and the presence of individual shareholder / founder in the ownership structure, we argue that heterogeneity of shareholders’ interests impacts the corporate governance strategy adopted by a company.

A possible direction of further research would be the extension of data series with respect to time and increasing the sample size to examine the dynamics over time. Additionally, a more detailed data on firm characteristics, including ownership structure, would allow to address questions on impact of various shareholders puzzle on corporate governance practice. Finally, further analysis could address the question of possible substitution of the formal compliance with the board best practice and other governance mechanisms in companies controlled by founder or individual investor.
References


Andres, Ch. & Theissen, E. 2008. Setting a fix to keep the geese – Does the comply-or-explain principle work?, *Journal of Corporate Finance*, 14:289-301.


