‘Good’ Corporate Governance in Banks:

Institutional Investors Follow, Returns Don’t.

Authors

Anastasia Stepanova,

National Research University Higher School of Economics, Corporate Finance Center:

Shabolovka str., 26/4, Moscow, Russia, 119049

E-mail: anastasianstepanova@gmail.com

Olga Ivantsova,

National Research University Higher School of Economics, Corporate Finance Center:

Shabolovka str., 26/4, Moscow, Russia, 119049

E-mail: olgamivantsova@gmail.com

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Abstract

Based on the concept of bounded rationality of economic agents, we suggest that the institutional investors’ ownership may not just improve corporate governance in a company but also be a result of an already existing good corporate governance. In this paper, we use a banking sector as a laboratory for the investigation of institutional ownership – corporate governance relationship due to the better disclosure practices and special attention to the governance in this sector. As a result, we demonstrate that institutional investors prefer to invest in banks with already ‘good’ corporate governance. Although their primary target is supposed to be the return generation, we show that market returns do not always follow ‘good’ corporate governance. The sample consists of 719 public banks from 30 European countries, Canada and the USA during the period of 2004-2016.

Keywords: Corporate Governance; Institutional Ownership; Shareholder Returns; Commercial Banks; Independent Directors; Emerging Markets

JEL: G32, G34.

1. Introduction

In 2000s it became clear that the traditional assumption about absolute rationality of market players is far from reality as well as the assumptions of efficient capital markets with perfect arbitrage. Behavioral social sciences emerged in an attempt to explain and forecast the reality with the new assumptions. Now we realize that though market participants try to base their decisions mainly on companies' results, actions and governance, the outcome is affected by market inefficiencies and limitations as well as their personal biases.

Taking market inefficiency and people's biases out of the equation for the moment, different types of investors have different objectives and make their decisions accordingly, which leads to different investment targets and tactics. We look at three types of investors: state, institutions and individuals (consciously omitting other smaller types for a simpler discussion). Besides differences in financial positions, these types of investors have very different knowledge, education, experience and access to information, which leads us to concept of bounded rationality. This means that the ability to make investment decisions is limited: for example, an individual may not have an access to a comprehensive database or to the top-management of the company, while a fund manager may be overconfident in her abilities due to an extensive experience in the area (Gloede, Menkhoff, 2014).

Therefore, we distinguish between these types of investors by three attributes: access to information, investment knowledge and experience and gaining returns as an investment objective. State and institutional investors have access to resources that not many individual investors can have. Institutions and individuals theoretically have the same goal of gaining returns on their investments, while the government may focus on social or *extra* long-term strategic goals. A unique quality of institutional investors as a class is an advanced knowledge and experience in the area of investing, including analysis of companies' financial statements and corporate governance.

Institutional investors are also more exposed to a "picture-perfect" of corporate governance created by regulatory recommendations, codes and guidelines and implemented by stock exchanges' requirements. Thereby a perception of 'good' corporate governance is created. Although the discussion about whether this 'good' governance in fact benefits performance resulting in a mixed empirical evidence is less available to investors and prevails in academic community.

The unique qualities of institutional investors raise questions how their ownership in the company affect risk, performance and corporate governance (Bino and Tomar, 2012; Erkens et al., 2012; Barry et al., 2011). Institutional ownership is very often studied as an exogenous factor. Although the process of its formation differs from other types of ownership. Governments usually own stakes in strategically important industries: banks, telecommunications, natural resources, etc. Families and individuals create companies with a target of enrichment. Institutional investors seek returns on their investments and invest accordingly. Therefore, we suggest that the involvement of institutional investors in the company may be caused by a good track record of this company in the past: stable margins, shareholder returns, good corporate governance practices, good analyst recommendations, attractive valuations, etc. We argue that institutional ownership is not an exogenous factor.

In this paper, we examine whether institutional investors invest in companies with good corporate governance. Shareholder returns is a primary objective of institutional investors, and Shleifer and Vishny (1997) note that corporate governance is supposed to be an instrument for owners to ensure returns on their investments. Therefore, we test whether shareholder returns are positively related to good corporate governance and affected by institutional ownership, while controlling for endogeneity of board of directors.

Market prices and investors' behavior are highly influenced by the economic and political environment. To consider this influence we use the data for the one particular

industry as across industries business models and most important indicators for investors may be incomparable and we control for country differences as well.

We chose banking sector as an object for this study because perception of corporate governance has a special relevance in this industry and the disclosure here is better due to heavier regulation. There are several aspects that make corporate governance in banks a more complicated issue than in other industries: 1) higher sensitivity to trust – due to depositors as an additional group of stakeholders; 2) higher debt-equity ratio; 3) higher contingency - the (in)stability of the banking sector contributes to the (in)stability of the financial sector and whole economy (Tan, 2015). Our dataset consists of 719 public banking firms from 30 European countries, Canada and the USA during the period of 2004-2016.

Our findings show that institutional investors choose banks with corporate governance characteristics that are usually perceived as good: higher board independence, higher gender diversity, smaller boards and not extremely concentrated ownership (without controlling shareholders). At the same time, the obtained empirical evidence does not support our hypothesis that market rewarding good governance with higher returns. We report that shareholder returns are not significantly associated with corporate governance. Therefore, we see that institutional investors do follow good corporate governance, although it does not guarantee them better returns on their investments.

Our study contributes to the literature in several ways. We extend the empirical evidence on preferences of institutional investors in general and in regards to corporate governance in particular. We prove that corporate governance is an important factor for institutional investors. We develop and estimate a comprehensive model of interrelations between board of directors, ownership structure and market performance.

The paper is organized as follows. Section 2 presents the framework for the research including an overview of the relevant previous research and development of the hypotheses.

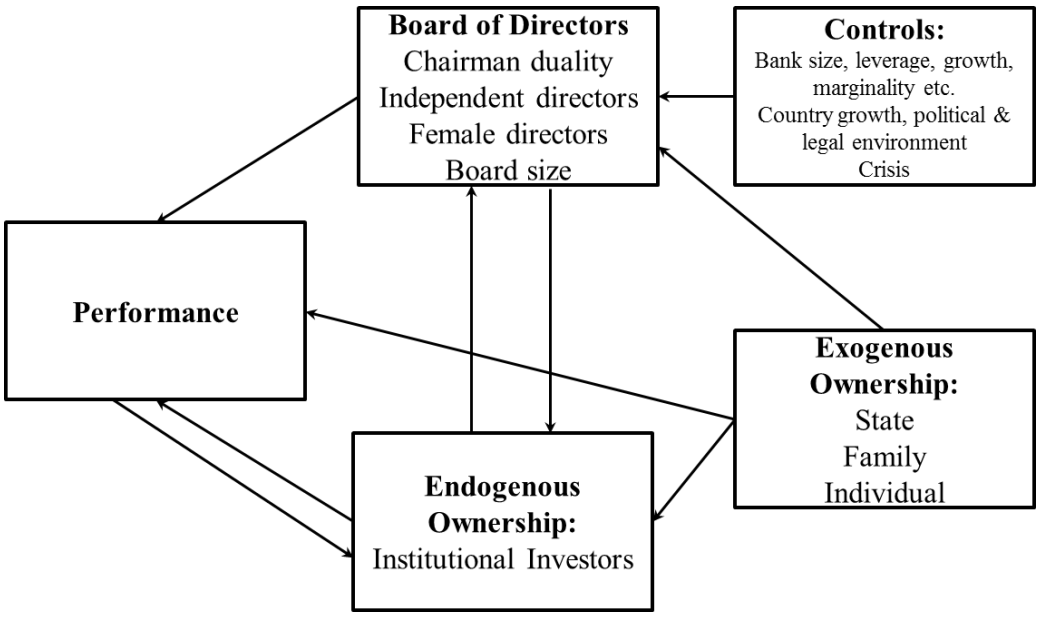
Section 3 describes the data sources and model specification. Section 4 presents the empirical results. Section 5 concludes.

2. Framework

The question that excites many researchers for several decades is how corporate governance and ownership structure are related to firm performance and value. A wide range of board characteristic and ownership indicators is studied opposite to various measures of accounting and market performance. Another pull of researchers try to define different types of institutional investors and explain how institutional investors behave and invest. The third group looks at the determinants of board of directors and tries to understand how they are formed. However, we realize that all these questions are extremely intertwined as well as the financial and managerial decisions inside the company. That motivates us to study the interrelations between mechanisms and structural characteristics.

Figure 1 shows a simplified outline for the relationships between corporate governance in the form of board of directors and ownership structure, performance and controlling factors.

Figure 1. Corporate Governance and Performance Interrelations



Therefore, the framework section consists of three parts where we analyze previous research, determine the precise indicators we use in our models and formulate hypotheses. First, we discuss the factors that might influence the institutional investors' participation in the banks' capital. Then, we look at the relationship between corporate governance and performance. Lastly, we shortly discuss possible determinants of board structure.

2.1 Institutional investors: preferences & influence on governance

Competitive shareholder returns is the primary objective of institutional investors, and corporate governance is supposed to be an instrument to ensure these returns (Shleifer and Vishny, 1997; Elson et al., 2017). Ferreira and Matos (2008) report that institutional investors prefer large firms and firms with good governance.

McCahery et al. (2016) show that long-term focused institutional investors nowadays strongly care about corporate governance, become more and more active and involved in the discussions with the management. Institutional investors prefer to search for the companies with good corporate governance (Chung & Zhang, 2011). Survey results made by consulting companies also indicate that corporate governance has become an important investment criterion of institutional investors (McKinsey, 2002). In Europe, major institutional investors insist that the companies comply with international corporate governance standards (Elson et al., 2017). Institutional investors are looking for positive signals about companies, e.g. they prefer to invest into companies with high corporate social responsibility (see, e.g. Wang & Chen, 2017).

There is also evidence that pressure-sensitive institutional investors (e.g. banks and insurance companies) prefer to invest into companies with moderate financial leverage, whereas pressure-resistant investors (i.e., mutual funds and pension funds) demonstrate no particular preference (Garcia-Meca et al., 2017).

At the same time, institutional investors play a complicated game. Under the agency theory, investment managers generally capture only a small fraction of the benefits that result from their stewardship activities while bearing the full cost of such activities (Bebchuk et al., 2017). This makes us thinking over the incentives of different types of institutional investors and their behavior on board. When we are talking about banks, the consequences of their behavior is of special interest. Alternatively, excessive cost of stewardship activities make us think that the institutional investors appreciating good corporate governance might pay special attention to the corporate governance *while picking the stocks for their portfolio* rather than involving into the improvement of governance level later on.

One more important consideration is raised by the popularity of blockchain. For shareholders, blockchains could offer lower costs of trading and more transparent ownership records, while cheaper and faster trade execution and settlement facilitate both easier entry and easier exit by major shareholders (Yermack, 2017). As a result, institutional investors, who can influence firm's management by voting or by exit, might be nowadays more prone to exit if something goes wrong rather than negotiating and voting. However, the effect of blockchain development is quite complex, and the influence on institutional investors is still ambiguous, so it is not yet possible to evaluate it.

In this research, following the studies mentioned above, we assume that institutional investors care about corporate governance (and other characteristics of the firm) rather than just about short-term stock returns. Therefore, we formulate following hypotheses:

Hypothesis 1.1: Institutional investors invest in good corporate governance.

Hypothesis 1.2: Institutional investors invest in strong financial results and high analyst ratings.

2.2 Relationship between corporate governance and performance

There is a vast though mixed empirical evidence on this relationship in banking sector (Andres and Vallelado, 2008; Adams and Mehran, 2012; Aebi et al., 2012; Grove et al., 2011). In this study we focus primarily on market measures of bank performance, i.e. how corporate governance reflects in stock prices and returns.

Board of directors and compensation structure are considered to be the key internal mechanisms of corporate governance. In this paper we focus on board of directors and ownership structure that is sometimes also defined as an internal governance mechanism as well (Connelly et al., 2010).

Despite the mixed results, there are some elements of corporate governance structure that are generally perceived to be 'good', i.e. smaller and more independent boards (Adams, 2012). Generally, we look at four characteristics of the board of directors: independence, size, female directorship and Chairman duality. The primary characteristic that we study is board independence, i.e. a proportion of directors in the board that are not connected to the management, because its certain levels are recommended by corporate governance codes, Basel Committee and required by stock exchanges.

Independent directors have fewer conflicts of interests while monitoring managers. By definition they should not depend on the CEO's opinion and they have a reputational incentive to perform their functions in such a way that results in better bank performance: Grove et al. (2011) and Pathan et al. (2007) document this effect for accounting and market value of banks' assets (Tobin's Q), Erkens et al. (2012) for buy&hold returns. Adams et al. (2010) conclude that more independent boards are generally considered to be more effective.

However, an excessive proportion of non-executive directors could damage the advisory role of the board. Some authors report that the majority of affiliated directors on the board is correlated with a better profitability (Kyereboah-Coleman and Biekpe, 2006; Bino and Tomar, 2012). Andres and Vallelado (2008) show a reverse non-linear relationship

between independent directors and the performance of US banks implying the existence of an optimal percentage of outsiders on the board.

Many authors find that board independence is not related to performance (Pi and Timme, 1993; Choi and Hasan, 2005; Aebi et al., 2012; Adams and Mehran, 2012).

From a theoretical point of view, larger boards of directors gather more human capital, knowledge and experience providing management with better monitoring and advice. On the other hand, an excess of members in the board can create additional coordination and communication problems in comparison to smaller boards. It also results in lower incentives for monitoring management and makes the board more dependent on the CEO's opinion, thereby harming efficiency (Yermack, 1996).

However, the empirical studies document various results. As there is a trade-off between advantages (human capital) and disadvantages (coordination problems), some authors show a non-linear relation between board size and bank market and book value based performance (Andres and Vallelado, 2008; Grove et al., 2011). Others show a positive relationship, arguing that the banking sector differs from other sectors and additional knowledge and experience provided by larger boards contributes to better profitability and market indicators (Adams and Mehran, 2012; Belkhir, 2009; Aebi et al., 2011).

However, the apparent majority of authors find the relationship between board size and performance and market valuation, to be negative, implying a stronger effect of larger boards disadvantages (Hermalin and Weisbach, 2003 (survey); Staikouras et al., 2007; Pathan et al., 2007) and hinting that smaller boards should be more effective (Adams, 2012).

The situation when one person occupies positions of the CEO and the Chairman of the board (Chairman-CEO duality) is generally considered to be a negative driver of bank performance (Pi and Timme, 1993; Grove et al., 2011). Many codes of corporate governance strongly advise to separate these two positions, and it is even forbidden by the Federal Law

in Russia. However, in the USA it is a rather common situation. Therefore, we include this factor in the analysis and consider Chairman duality as an element of bad corporate governance practices.

During the last decade the opinion that gender diversity in the board of directors and senior management can be beneficial for business has been spreading all over the world. However, women still take over the senior positions relatively slow. Among the largest public companies across Europe women account for just 11% of the board members (European Commission, 2010) and some authors do not find any significant effect of gender diversity (Hagendorff and Keasey, 2012).

There is an empirical evidence for the companies with the high share of women in executive committees outperforming the companies with no women within the management (McKinsey&Company, 2010; Farrel and Hersh, 2005). One of the possible explanations for the positive effect of the board gender diversity is that it increases creativity and innovation by adding complementary knowledge, skills, and experience. Diverse boards compared to homogenous ones evaluate more alternatives during the decision making process leading to better corporate performance. There is also some evidence that a gender-balanced board is more likely to pay attention to managing and controlling risk (European Commission, 2012). This may be explained by the findings of psychological research showing that, in such areas as finance, women are less overconfident than men (Barber and Odean, 2001).

Ownership concentration is one of the key characteristics of ownership structure that can be easily monitored by investors. A high ownership concentration has been proven to have a positive effect on a firm's value because large shareholders have more incentives to monitor the bank's management as they have more to lose (Grove et al., 2011). On the other hand, large shareholders may have too much influence on the board and the management and if they have any goals besides the company value maximization then it may not be effective

for the firm and as a result lower block ownership is associated with better profitability (Rowe et al., 2011).

The empirical findings for institutional ownership as a factor of bank performance are mixed. Some studies associate it with an improved bank performance (Bino and Tomar, 2012), while others find that banks with higher institutional ownership tend to take more risk (Erkens et al., 2012; Barry et al., 2011) potentially leading to a worse performance during the financial crisis. Aggrawal et al. (2011) find that firms with better governance have with higher institutional ownership, which is associated with higher firm value. We argue that the circular nature of institutional ownership demands more research and decomposition of factors: we believe that institutional investors chose objects for their investments based on their 'good' characteristics and then positively influence the company and its perception due to better monitoring and more responsible and knowledgeable approach. Institutional investors very significantly and have different investment styles. Therefore, we include in our research a few types of institutional investors as explanatory factors.

Although the empirical evidence is mixed, we would like to examine whether the preferences of institutional investors coincide with what market rewards and positively reflects in total shareholder returns. Our second hypothesis is formulated as follows:

Hypothesis 2.1: Total shareholder returns are positively associated with good corporate governance.

Hypothesis 2.2: Total shareholder returns are positively associated with strong financial results and high analyst ratings.

2.3 Determinants of board structure

The structure of board of directors can not be exogenous since the board is elected by shareholders. Therefore, we add the third equation and examine which factors are important for board structure, primarily board independence.

According to Pathan and Skully (2010) the costs and benefits of the boards' monitoring and advising functions could explain board structure in US banks. Specifically, the share of outside directors is related to directors' monitoring costs. It is predicted that firms with high growth potential and high information asymmetry could benefit from a greater representation of inside directors because of high monitoring costs. They also suggest that board structure, particularly board independence, is the result of negotiations between the directors and CEOs, meaning that higher CEO power is leading to the lower is the share of outside directors (Hermalin and Weisbach, 1998).

Lin and Chang (2016) examined how ownership can be the determinant of board structure on a sample of banks in emerging markets. They report that higher bank's foreign institutional shareholdings are associated with a higher independent directors' share. Capital to assets ratio is also confirmed to be the determinant of board structure. Debt is regarded as an outside market governance mechanism because creditors will monitor the management actively. Moreover, the study provides evidence that the degree of revenue diversification of a bank is positively correlated with board size and the independent directors ratio because high complexity of business requires more outsiders to reduce the agency problem plus many directors with rich experience in different businesses.

Additional determinants of board structure in banks that were found to be important are government ownership (Mak and Li, 2001) and investors' protection in country the bank is located (Andres, 2012). Increased government ownership is negatively associated with the number of outside directors since government linked firms have less incentives to control agency problems because of easier access to financing and less control from shareholders. In countries with weak investors' protection the fear of expropriation is high and, as a result, banks benefit more from stronger boards with greater ability to monitor, thus, larger boards and more independent ones.

Therefore, to control for strong shareholders that can influence decision-making in the company we introduce to the model not only the ownership concentration, but also the cumulative ownership of individuals and families.

3. Data and model

To investigate how the institutional ownership, corporate governance and shareholder returns are interrelated we construct a sample of 719 public banks from 30 European countries, Canada and United States over the period 2004-2016. The number of banks varies from year to year due to bankruptcies, mergers and acquisitions. The sample includes 550 banks from the USA and Canada, 108 banks from 15 developed European countries and 63 banks are from 15 emerging European countries. The sample is skewed towards large banks with developed disclosure and corporate governance practices as we use banks that are publicly traded.

The choice of time period is determined by the following: for the majority of European and American banks the board and ownership data become available (in the databases that we use) only starting 2004 and we take the maximum number of years after that because it allows in the future to study the time of financial crisis of 2008-2009 and the changes in corporate governance structures that it caused.

We created the initial list of public banks with Bloomberg database excluding from it the banks without sufficient corporate governance data. The financial information, market indicators, analyst ratings and majority of board characteristics data were obtained from Bloomberg database. Detailed information about ownership structure was collected from S&P Capital IQ database. In order to include in the sample more banks from emerging countries we had to hand-collect some board and ownership data from annual reports.

We obtained data on several types of institutional investors from S&P Capital IQ: Traditional Investment Managers (TIMs), Hedge Funds, Pension Sponsors (government and

corporate), Banks and Investment Banks and other. Then we split the TIMs' shareholdings to active and passive and focus primarily on active TIMs since they perform research and invest in stocks accordingly, while passive TIMs by definition do not actively choose the companies to invest in. In our basic specification, we follow the methodology of the previous studies (e.g. Yermack, 1996; Adams and Mehran, 2012) but instead of a single-equation model we develop a three-stage model to take into account interrelations between factors (close to Ferreira and Matos (2008)).

The research model aims to verify whether institutional investors invest in corporate governance (and specifically in good corporate governance) and whether market returns also follow similar path. The model is estimated by three-stage least squares method and presented below:

(1) $OS\_active = \alpha_1 + \sum \beta_a \ \overline{BoD_1} + \sum \beta_b \ \overline{OS_2} + \sum \beta_c \ \overline{BankCtrls_3} + \sum \beta_d \ \overline{CountryCtrls} + \ \beta_e TSR$

(2) $TSR = \alpha_2 + \sum \beta_f \ \overline{BoD_2} + \sum \beta_g \ \overline{OS_2} + \sum \beta_i \ \overline{BankCtrls_2} + \sum \beta_j \ \overline{CountryCtrls}$

(3) $Independence = \alpha_3 + \sum \beta_k \ \overline{BoD_3} + \sum \beta_l \ \overline{OS_3} + \sum \beta_m \ \overline{BankCtrls_3} + \sum \beta_n \ \overline{CountryCtrls}$

To test the obtained results for robustness we estimate fixed-effect panel regression with clustered standard errors, controlling beforehand for multicollinearity of the factors.

The board of directors' indicators include:

- The dummy variable for Chairman-CEO duality (dual). The average share of banks with this feature is 24%, while only 5% of European banks demonstrate this feature.
- The size of the board of directors (bsize) is measured as the number of directors on the board. The average board size in the sample is over 11 members. The largest boards are in banks from developed European countries: 14 members vs. 9 in emerging Europe vs 11 in North America.
- Board independence (ind) is measured as a percentage of independent directors in the board reported by the company. Developed capital markets demonstrate higher levels

of board independence with 58% in European and 81% in American banks, while share of outside directors comprises only 37% on average in emerging Europe. Following Andres and Vallelado (2008) we suggest that there is a U-shaped relationship between performance and board independence. Share of independent directors in the board is one of our three endogenous variables in the model.

- Board gender diversity (fem) is measured as a percentage of female directors in the board and is on average higher in developed Europe – 17% vs. 12-13% in the rest of the sample.

The perimeter of ownership structure factors contains:

- Shareholdings by Traditional Investment Managers (TIMs) that we divide into active (os_active) and passive (os_passive). Active TIMs' ownership is one of our three endogenous variables in the model. Active TIMs' shares very differently within our sample: they comprise on average 25% in North America, 15% in developed Europe and only 8% in emerging Europe.
- We also include other types of institutional ownership: corporate and government pension sponsors (os_penspon, 1% on average), hedge funds (os_hedge, 4% on average) and banks and investment banks (os_banks, 2% on average).
- To measure ownership concentration, we use the shares owned by the largest shareholder (maj1). The average stake of the largest owner in North America is around 12%, while in Europe it is much higher - 26% in developed and 51% in emerging Europe. It means that in emerging European countries on average there is a controlling shareholder in every bank.
- To control for other powerful shareholders we include ownership by individuals and families (os_people), that on average reaches 9% in the sample with the largest share in North America (11%).

We use Total Shareholder Return (TSR), i.e. capital appreciation plus dividend yield, as a measure of returns because it shows how much shareholders actually gained over the year from owning the shares. TSR is one of our three endogenous variables in the model Average total shareholder returns are higher for emerging Europe (8%) and North America (7%) than for developed ones (4%).

We include consensus of analyst ratings (rating) as an explanatory variable. It ranges from 0 to 5, where 5 is Buy or equivalent, 1is Sell or equivalent and 0 equals to no analyst ratings. Analyst rating represents a qualified perception of the bank and its results: analysts closely monitor performance of the company on a quarterly basis, talk to the management, construct complex models and market participants take into account their opinions. As an autonomous measure of perception analyst rating did not yield any significant results meaning that it has other determinants.

The bank controls include:

- share of net income directed to dividend payments (payout) as an additional measure of bank-level protection of shareholder interests,
- size measured by natural logarithm of bank's total assets (size),
- capital structure measured by debt-to-capital ratio (debt),
- net income margin (nim) and return on equity (roe) as different measures of profitability,
- growth of bank's revenue (gsales) and net interest income (gnii) as proxies for bank's growth,
- diversification of bank's business (divers),
- risk measured as 360-days volatility of the stock (vol360).

We also control for country specific factors: economic growth with GDP growth (gdp)[1], risk with country-risk premium (crp)[2] and the index of shareholder protection (protect). The shareholder protection index was self-constructed based of the indices from World Bank database: strength of legal rights, disclosure and strength of directors' liability[3]. We include country-specific controls because there is an evidence that effects of corporate governance on performance of banks may vary across different institutional settings (Busta, 2008), and even that corporate governance have less effect when a country's governance system is weak (Claessens and Yurtoglu, 2013).

To control for the crisis period (crisis) we use a dummy variable that equals 1 for years 2008 and 2009. The description for the main variables and statistics are presented in Table 1; correlation matrix of the main factors is presented in Table 2.

There are many other corporate governance indicators that we would like to include in this study but did not do that for various reasons. The executive and board remuneration is intentionally not included in this analysis since it is an issue of a very special relevance that deserves a separate research.

In some papers (e.g. Adams, Mehran, 2012) board's activity is analyzed and measured by number of board meetings. However, the recent developments in technology lead to more and more electronic board voting without personal meetings and discussions. The data for board meetings in our sample varies from 5 till 70 per year meaning that the highest numbers include mostly electronic voting. Therefore, we conclude that this indicator can not be used a measure of board activity and decide not to use it in the calculations.

The size and composition of board committees (audit, compensation, nomination, etc.) theoretically may have an impact on investors' view on the company, as it comprises

[1] The GDP growth and was obtained from World Bank database. http://databank.worldbank.org/data/databases.aspx (accessed 09.01.2018).

[2] Source: http://pages.stern.nyu.edu/~adamodar/ (accessed 29.04.2018).

[3] http://databank.worldbank.org/data/databases.aspx (accessed 09.01.2018).

additional mechanisms of internal governance. In our study testing the size of the committees did not give any significant results. The composition of the committees is a factor that can be considered in the future research.

As the sample consists primarily of public commercial banks with developed disclosure practices there is a selection bias towards larger banks (77% of institutional investors in our sample are defined as 'large-cap' investors[4]). There are ways to decrease this bias by simulating corporate governance characteristics determined by other factors and we leave this opportunity for the future research. In order to reduce 'survivor bias' we included in the sample banks that were acquired or went bankrupt but still have sufficient data during the studied period.

4. Results

For the sample of 719 banks from 30 European countries, Canada and the USA for the period of 2004-2016, we estimated the three-stage model for the active institutional ownership (os_active), shareholder returns (tsr) and board independence as endogenous variables (ind). The results are presented in the Table 3.

For the institutional ownership we see a significant positive relationship with a 'good' governance: higher share of independent directors, lower board size, higher presence of female directors and lower ownership concentration. The only factor that stands out is positive association with Chairman duality, although it is understandable because institutional ownership generally is higher for US banks, where Chairman duality is not a rare setting. Therefore, our findings support our first hypothesis about institutional investors investing in companies with 'good' corporate governance.

We document that active institutional ownership is significantly and positively associated with other types of institutional shareholdings: passive TIMs, banks, hedge funds

[4] Based on data obtained from S&P Capital IQ.

and pension sponsors. Active TIMs also invest in larger banks with good analyst ratings and less leverage in countries with better shareholder protection systems. Interestingly, the association with total shareholder returns appears to be insignificant.

Unfortunately, this approach did not allow us to prove that shareholder returns are related to corporate governance and our results contradict with our second hypothesis. The evidence suggests that the key determinants for TSR are return on equity (positive) and stock volatility (negative).

As for board independence, we report that is negatively related to Chairman duality and positively to the share of female directors in the board. It is also negatively associated with high ownership concentration and shareholdings by family and individuals and positively with share of active investment managers. It is consistent with the observation that institutional investors prefer more independent boards. Boards tend to be more independent in smaller banks and in countries with lower growth and risk, but better investor protection.

To test the results for robustness we run three separate fixed-effect regressions to see whether our results hold when we do not control for endogeneity (Table 4).

For active TIMs board structure loses its significance, however the negative effect of the ownership concentration and positive association with other types of institutional shareholders remain significant. TIMs' preferences for larger banks with good ratings and less debt also hold. In this setting TSR becomes significantly and positively associated with active TIMs' ownership suggesting that after all they do invest with the objectives to get returns.

Using assumption of exogenous variables, there arises more significant factors for TSR: it appears to be positively associated with board size, shareholdings by active and passive investment managers, growth in banks' revenues. Coefficients for return on equity and stock volatility keep their signs and significance. TSR also appear to be higher in countries

with lower GDP growth, risk (which is unconventional and requires further research) and better shareholder protection and lower during the financial crisis.

As for board independence, Chairman duality and ownership concentration lose their significance. However, the negative association with board size that was present in the three-stage model reaches significance. Interestingly a positive relationship between shares of independent directors and female directors in the board holds. Negative effect of individual and family ownership also remains significant.

Our findings from the three-stage model support our first hypothesis of institutional investors choosing banks with corporate governance structures that perceived as 'good': banks with higher board independence, higher gender diversity, smaller boards and not concentrated ownership (without controlling shareholders). The obtained results do not support our second hypothesis about market rewarding 'good' governance with higher returns as we find a little and inconsistent evidence of significant association between total shareholder returns and corporate governance.

Therefore, we see that institutional investors invest in good corporate governance, but can not prove that this choice also leads to better shareholder returns.

5. Conclusion

Using the concept of bounded rationality, institutional investors are distinguished from other types of investors by an advanced knowledge and experience in the investment area that impact their investment decisions. Therefore, we believe that institutional investors invest in accordance with the concept of 'good' corporate governance.

Assuming that returns are supposed to be the primary objective of institutional and other types of investors we investigate how the institutional investors' appetite for 'good' corporate governance is related to the relationship between corporate governance and actual

shareholder returns. We use the data of 719 public banks from 30 European countries, Canada and the USA during the period of 2004-2016.

Our findings show that active institutional investors prefer to invest in banks with corporate governance structures that perceived as 'good': banks with higher board independence, higher gender diversity, smaller boards and less concentrated ownership. Although, the obtained results do not prove that market rewards 'good' governance with higher returns.

The results of this study might be of interest to top-management and shareholders: they would know what corporate governance structure should attract institutional investors. They may be also helpful for regulators in forming better understanding of how corporate governance is perceived by market participants and reflected in market returns.

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Tables

Table 1.

Description the main variables used in the regression analysis and comparison of the key statistics.

The table provides description for the main variables and reports averages for the complete sample (32 countries) for the period 2004-2016, as well as for regional sub-samples. Some of the variables defined below are not included in the regression analysis but used for the statistical purposes.

Variable		Description	Complete sample	Developed Europe	Emerging Europe	North America
Board of directors	dual	Chairman- CEO duality, dummy	0.24	0.05	0.06	0.34
	bsize	Number of directors in the board	11.44	14.11	9.04	11.00
	fem	% of female directors in the board	0.13	0.17	0.13	0.12
	ind	% of independent directors in the board	0.71	0.58	0.37	0.81
Ownership structure	maj1	% of common equity owned by the largest shareholder of the bank	0.18	0.26	0.51	0.12
	os_tim	% of shareholdings by traditional investment managers (TIMs)	0.21	0.17	0.10	0.23
	os_active	% of shareholdings by active TIMs	0.23	0.15	0.08	0.25
	os_passive	% of shareholdings by passive TIMs	0.05	0.03	0.01	0.06
	os_banks	% of shareholdings by banks and investment banks	0.02	0.01	0.03	0.02
	os_hedge	% of shareholdings by hedge funds	0.04	0.003	0.005	0.046
	os_penspon	% of shareholdings by corporate and government pension sponsors	0.01	0.02	0.01	0.02
	os_people	% of shareholdings by individuals and family	0.09	0.01	0.05	0.11
Bank controls	rating	Consensus of analyst ratings for the stock from 0 to 5, where 5 is Buy or equivalent, 1is Sell or equivalent and 0 equals to no analyst ratings.	2.13	2.49	1.85	2.09
	payout	The share of net income directed to dividends, %	0.52	1.11	0.31	0.43
	size	Bank's size, i.e. natural logarithm of total assets of the bank.	8.31	11.22	8.83	7.63
	debt	Leverage, i.e. total debt to capital	0.55	0.81	0.60	0.49
	nim	Net Income margin, %	-5.73	-37.28	0.17	0.12
	roe	Return on equity, %	0.06	0.05	-0.002	0.07
	gnii	Annual growth of net interest income, %	0.18	0.15	0.13	0.19
	gsales	Annual sales growth, %	7.88	48.37	0.12	0.24
	divers	Diversification, the % of non-interest income	0.76	0.65	0.71	0.79
	vol360	360-days volatility of the stock	42.79	38.36	48.56	43.15
Country controls	crp	Country risk premium, %	0.00	0.01	0.03	0.00
	protect	The investor protection index	7.82	5.88	4.92	8.53

	gdp	Annual country's GDP growth, %	0.02	0.03	0.03	0.02
Returns	tsr	Total shareholder return (capital appreciation + dividend yield), %	0.06	0.04	0.08	0.07
	prch	Capital appreciation, %	0.04	0.00	0.06	0.04
	divy	Dividend yield, %	0.03	0.04	0.02	0.02
Number of Banks			719	108	61	550

Table 2.

Correlation matrix for the main variables used in the regression analysis.

	dual	bsize	fem	ind	maj1	os_tim	os_active	os_passive	os_banks	os_hedge	os_penspon	os_people	tsr	payout	rating	gnii	divers	gsales	roe	size	debt	vol360	gdp	crp
dual																								
bsize	-0.03																							
fem	-0.08	0.04																						
ind	0.13	-0.07	0.03																					
maj1	-0.14	-0.07	-0.02	-0.46																				
os_tim	0.26	0.11	0.15	0.30	-0.20																			
os_active	0.24	0.01	0.10	0.38	-0.22	0.90																		
os_passive	0.27	0.11	0.09	0.31	-0.19	0.82	0.69																	
os_banks	0.01	-0.05	0.00	0.05	0.05	0.15	0.00	0.00																
os_hedge	0.08	-0.23	-0.08	0.22	-0.10	0.13	0.00	0.00	0.17															
os_penspon	0.11	-0.05	0.17	0.18	-0.05	0.26	0.00	0.00	0.04	0.17														
os_people	0.07	-0.14	-0.13	0.04	-0.02	-0.21	-0.16	-0.18	-0.05	-0.01	-0.08													
tsr	0.01	-0.04	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
payout	0.01	0.05	0.01	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03											
rating	0.11	0.15	0.11	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
gnii	-0.01	-0.01	-0.01	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01									

divers	0.02	-0.06	-0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	-0.04	0.00								
gsales	-0.01	0.00	0.02	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.01	0.00	0.00							
roe	0.03	0.00	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00						
size	-0.04	0.52	0.24	-0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	0.00	0.41	0.00	0.00	0.00	-0.01					
debt	-0.16	0.31	0.15	-0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	0.00	0.10	0.00	0.00	0.00	-0.08	0.49				
vol360	-0.08	-0.04	-0.08	-0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.43	0.00	-0.20	0.00	0.02	0.00	-0.18	-0.12	0.07			
gdp	-0.02	-0.12	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	-0.03	0.02	0.01	0.01	0.00	0.15	-0.05	-0.09	-0.31		
crp	-0.16	-0.01	-0.01	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.08	0.00	-0.02	-0.01	-0.08	0.01	-0.15	0.14	0.17	0.13	-0.08	
protect	0.27	-0.14	-0.10	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	-0.02	0.00	0.01	0.13	-0.01	0.04	-0.43	-0.41	0.00	0.01	-0.51

Table 3

The model of institutional investors' ownership, total shareholder returns and board independence.

The table presents 3LS regression results of institutional investor holdings, total shareholder returns and board independence on a set of board indicators, ownership characteristics, and bank. country and time controls for the period of 2004-2016. *, **, *** indicate significance at the 10%, 5% and 1% levels respectively.

Variable	***Active TIMs***				***Total Shareholder Return***				***Independent Directors***			
	coef.		*z-stat.*	*p-val.*	***coef.***		*z-stat.*	*p-val.*	***coef.***		*z-stat.*	*p-val.*
dual	0.016	*	1.71	0.088	-0.008		-0.40	0.688	-0.027	***	-4.42	0.000
bsize	-0.004	***	-5.08	0.000	-0.001		-0.30	0.764	-0.001		-1.59	0.112
fem	0.103	***	4.14	0.000	0.010		0.26	0.791	0.055	**	2.17	0.030
ind	0.136	***	2.96	0.003	-1.095		-0.13	0.896				
indsq					0.769		0.12	0.905				
maj1	-0.091	***	-3.99	0.000	-0.019		-0.08	0.935	-0.235	***	-16.37	0.000
os_active					-0.026		-0.06	0.949	0.149	***	7.04	0.000
os_passive	1.180	***	19.04	0.000	-0.030		-0.05	0.956				
os_banks	0.478	***	8.32	0.000								
os_hedge	0.900	***	12.10	0.000	0.128		0.44	0.658				
os_penspon	0.380	*	1.90	0.058	-0.156		-0.37	0.709	0.122		1.13	0.259
os_people	-0.046		-0.90	0.368	0.083		0.31	0.755	-0.126	***	-4.65	0.000
tsr	0.440		0.59	0.554								
payout	0.000		0.67	0.504	-0.001		-0.64	0.524				
rating	0.025	***	8.44	0.000	0.003		0.18	0.858				
gnii					0.004		0.85	0.393				
divers	-0.003		-0.47	0.641	-0.004		-0.49	0.627	-0.001		-0.23	0.820
gsales	0.000		0.29	0.774	0.000		-1.11	0.268	0.000		-0.79	0.427
roe	-0.071		-0.51	0.612	0.186	***	5.48	0.000				
size	0.027	***	3.62	0.000	-0.007		-0.45	0.656	-0.007	***	-3.24	0.001
debt	-0.076	***	-5.44	0.000					-0.020		-1.39	0.165
vol360	0.001		0.44	0.657	-0.003	**	-2.16	0.031				
gdp	0.258	*	1.86	0.062	-0.041		-0.05	0.962	-0.467	***	-3.57	0.000
crp	1.262		0.70	0.483	-2.969		-0.71	0.479	-2.353	***	-10.35	0.000
protect	0.017	***	4.23	0.000	0.013		0.25	0.805	0.038	***	13.64	0.000
crisis	0.153		0.82	0.415	-0.275		-1.40	0.161	-0.057	***	-5.26	0.000
_cons	-0.407		-1.61	0.107	0.569		0.30	0.767	0.549	***	18.00	0.000
R^2	*0.55*				*0.30*				*0.43*			
Prob. F-stat	0				0				0			
Number of observations	3702				3702				3702			

Table 4

The model of institutional investors' ownership, total shareholder returns and board independence.

The table presents results for three separate fixed-effects regressions of institutional investor holdings, total shareholder returns and board independence on a set of board indicators, ownership characteristics, and bank. country and time controls for the period of 2004-2016. *, **, *** indicate significance at the 10%, 5% and 1% levels respectively. Clustered standard errors were used.

Variable	***Active TIMs***				***Total Shareholder Return***				***Independent Directors***			
	coef.		*t-stat.*	*p-val.*	***coef.***		*t-stat.*	*p-val.*	***coef.***		*t-stat.*	*p-val.*
dual	0.011		1.28	0.200	0.010		0.47	0.639	0.002		0.19	0.847
bsize	0.000		0.04	0.971	0.005	*	1.82	0.069	-0.006	**	-2.20	0.028
fem	0.048		1.41	0.160	-0.112		-1.31	0.190	0.089	**	1.99	0.047
ind	0.018		1.14	0.253	-0.448		-1.32	0.189				
indsq					0.354		1.47	0.141				
maj1	-0.089	***	-3.20	0.001	0.030		0.34	0.736	0.021		0.68	0.497
os_active					0.159	**	2.01	0.045	0.046	*	1.75	0.080
os_passive	0.353	***	2.74	0.006	0.519	**	2.30	0.022				
os_banks	0.751	***	9.08	0.000								
os_hedge	0.795	***	13.63	0.000	-0.024		-0.15	0.881				
os_penspon	1.206	***	5.71	0.000	-1.635	***	-3.49	0.001	0.071		0.51	0.613
os_people	-0.099		-1.61	0.108	-0.267		-1.58	0.116	-0.081	*	-1.80	0.073
tsr	0.013	**	2.07	0.039								
payout	0.000		1.17	0.242	-0.001	*	-1.66	0.097				
rating	0.011	***	6.29	0.000	-0.005		-0.86	0.390				
gnii					-0.001		-0.09	0.929				
divers	0.000		-0.11	0.910	-0.011		-1.65	0.100	0.004	***	3.61	0.000
gsales	0.000	***	-8.89	0.000	0.000	***	-29.27	0.000	0.000	***	11.16	0.000
roe	0.004		1.22	0.225	0.119	**	2.41	0.016				
size	0.033	***	3.10	0.002	-0.186	***	-7.42	0.000	0.025	**	2.59	0.010
debt	-0.031	**	-2.22	0.027					-0.024		-1.46	0.145
vol360	-0.001	***	-5.81	0.000	-0.004	***	-12.45	0.000				
gdp	0.127	***	2.80	0.005	-0.822	***	-3.05	0.002	-0.182	*	-1.68	0.093
crp	0.286		1.09	0.277	-3.010	***	-3.88	0.000	0.771		1.63	0.103
protect	-0.002		-0.38	0.703	0.085	***	5.44	0.000	-0.003		-0.40	0.689
crisis	0.015	**	2.25	0.025	-0.240	***	-11.58	0.000	-0.011		-1.21	0.228
_cons	-0.084		-0.93	0.351	1.346	***	5.08	0.000	0.567	***	7.60	0.000
R^2	*0.51*				*0.11*				*0.05*			
Prob. F-stat	0				0				0			
Number of observations	*3709*				*3702*				*4085*			
Number of banks	*598*				*597*				*632*			