Corporate governance, financial crises and bank performance: lessons from top Russian banks

Nurlan Orazalin, Monowar Mahmood and Keun Jung Lee

Nurlan Orazalin is an Assistant Professor of Accounting at Kazakh-British Technical University, Almaty, Kazakhstan.
Monowar Mahmood is a Professor of Management and Keun Jung Lee is an Associate Professor of Finance at Bang College of Business, KIMEP University, Almaty, Kazakhstan.

Abstract

Purpose – *The purpose of this paper is to investigate the impact of different dimensions of corporate governance practices such as board characteristics, ownership structure, corporate disclosure and CEO education on the operating performance of Russian banks before, during and after financial crises. Based on the findings, it proposes some policy measures for improved governance practices to protect banks from future financial crisis or economic downturns.*

Design/methodology/approach – *The study comprises data from the largest publicly traded Russian banks listed on the Russian Stock Exchange RST for the period. Operating performance data were collected from financial statements, while corporate governance mechanisms were collected from annual reports available on the banks' websites. Because panel data were used, the panel regression model was used to control unobserved time-constant heterogeneity.*

Findings – *The findings revealed a positive impact of corporate governance on bank performance before and after the financial crisis. The financial crisis enforced Russian banks to improve their corporate governance practices, resulting in better operating performance after the crisis. Surprisingly, the results for the during-crisis period show that better governance did not yield higher operating performance in Russian banks.*

Originality/value – *This is one of the first studies to provide empirical results regarding the relationship between corporate governance practices and bank performance in Russia across different financial crisis periods. The findings revealed the uniqueness of corporate governance scenarios of Russia which could provide important guidelines for other transition economies and emerging markets.*

Keywords *Russia, Corporate governance, Bank performance, Board characteristics, Corporate disclosure, Ownership structures*

Paper type *Research paper*

1. Introduction

Numerous studies have shown that good corporate governance (CG) practices improve organizational performance under stable economic conditions and provide a shield against the adverse effects of financial crises and turbulent economic situations (Beltratti and Stulz, 2012; Erkens *et al.*, 2012; Gupta *et al.*, 2013; Jackowicz and Kowalewski, 2013). However, identifying good and appropriate CG practices has historically been a challenge for policymakers. Having learned from various financial crises and economic meltdowns, most world economies have undertaken new initiatives and reforms to improve their CG practices. The models and practices deemed to be effective have also changed over time in response to evolving economic, social and political challenges. These practices help ensure the sustainable growth of businesses and the economy (Adams and Mehran, 2012). However, the dearth of credible research in many countries and regions still hinders the implementation of CG reforms that could prevent the negative effects of financial crises and uncertainties.

Received 29 October 2015
Revised 16 June 2016
Accepted 17 June 2016

Since the collapse of the USSR, Russia and other post-Soviet countries have been undergoing a period of transition, transforming their command economies into free market

capitalist economies. To manage this new governance situation, governments and policymakers developed different sets of governance practices in consideration of the institutional contexts of their respective countries (Li *et al.*, 2012; McCarthy and Puffer, 2003). Although many studies have investigated the effects of the financial crisis on businesses in well-established capitalist economies and proposed reforms to these countries' CG practices (Grove *et al.*, 2011), almost no research has been conducted on Russia and other post-Soviet transition economies (Iwasaki, 2014). Considering this research vacuum, this study examines the impact of CG practices on the operating performance of Russian banks before, during and after the financial crisis and proposes relevant policy recommendations. The main research objectives of this study are to investigate the effects of different dimensions of internal CG mechanisms on the performance of commercial banks in Russia before, during and after the crisis periods and to suggest recommendations to protect banks against the detrimental effects of future financial crises or economic downturns. It aims to contribute to the existing literature on CG practices in transition economies. To the best of our knowledge, this is one of the first studies to provide empirical results regarding the relationship between CG practices and bank performance in Russia across different financial crisis periods. Moreover, most prior studies on emerging economies have focused on accounting performance measures, such as return on assets (ROA) and return on equity (ROE) ratios. We extend the current literature by examining other important operating performance variables, namely, growth, liquidity, management quality and capital adequacy (CAPAD) attributes.

The paper is structured as follows. After this introduction, Section 2 provides a brief overview of the CG situation in Russia. Section 3 discusses the theoretical background, relevant literature and proposed hypotheses of the study. Section 4 describes the data collection and research methods, and Section 5 presents our empirical results. Finally, Section 6 concludes the paper, including identifying both managerial implications and directions for future research.

2. The research context: the corporate governance scenario in Russia

In Russia, CG practices are influenced by laws and regulations such as the Civil Code of the Russian Federation, the Federal Laws "On Joint-Stock Companies- 1995", "On the Securities Market- 1996", "On Protection of the Rights and Legal Interests of Investors in the Securities Market- 1999", etc., as well as by the CG Code recommended by the Federal Commission on Securities Market (FCSM). The FCSM developed the initial CG Code in 2002 (Chen, 2014; Lazareva *et al.*, 2009; Muravyev *et al.*, 2014). However, most of the aforementioned laws have been subject to a series of amendments over time, and the latest version of the CG code was published in 2014 (Iwasaki, 2014). Currently, the CG code includes chapters about the principles of CG, general meetings of shareholders, the board of directors (BoD), executive bodies, the corporate secretary of the company, major corporate actions, disclosure of information about the society, control over financial and operational activities, dividends and the settling of corporate conflicts (Chen, 2014; Muravyev *et al.*, 2014). Although the Code is not a legislative act, it serves as a basis for improving and enhancing CG practices in the Russian market (Melkumov, 2009). In addition to the CG code, the Joint Stocks Company (JSC) law requires all JSCs to follow specific reporting and disclosure practices. For example, JSCs are required to include major transactions on their annual financial statements and to publish their annual reports in the mass media. The law also requires that JSCs disclose information related to shares and stocks, major and interested-party transactions, property pledges exceeding 5 per cent of total assets and participation in other companies' shareholding. However, the CG situation in Russia is still accused of having poor legal frameworks, significant state intervention, high ownership concentration, distrust in regulatory systems and underdeveloped stock markets (Johannesson *et al.*, 2012; Lazareva *et al.*, 2009; Melkumov, 2009). Minority shareholders' interests are not well protected by legal provisions. In addition, Miller (2009) concludes that supporting institutions, including

independent audit assurance, as well as accounting, law and arbitration services, are yet to be fully developed in transition economies such as Russia.

Compared to other emerging and transition economies, very few studies have been conducted on CG and the performance of Russian banks and financial institutions (Chen, 2014; Iwasaki, 2014; Muravyev *et al.*, 2014). Black *et al.* (2006) identified a positive association between CG structure and firm valuation for 21 Russian listed firms. In a later study, Black *et al.* (2012) reinforced their earlier findings by documenting a strong positive link between better governance and valuation of Russian firms for the period 1999-2005. Li *et al.* (2012), using a sample of 308 firm year observations from 2002 to 2009, reported a positive causal relationship between CG and measures of liquidity, and concluded that governance positively affects a firm's valuation. Using quarterly data for the period 2007-2009, Fungacova *et al.* (2011) reported that bank ownership had an impact on credit supply during the crisis in Russia because foreign banks reduced their lending more than other banks. In another study, Anzoategui *et al.* (2012) suggested that state-owned banks in Russia seem to exert more market power than privately owned institutions. Therefore, it is assumed that CG practices have some impact on bank performance in Russia during different periods of financial crisis. We believe this study will contribute to the CG literature on transition economies and will help policymakers to reform CG mechanisms, thus making them more appropriate to different national contexts.

3. Theoretical background, literature review and hypotheses development

As discussed in the previous section, while trying to improve the CG situation in Russia, government leaders and policy makers mostly focused on changes in internal aspects of governance mechanisms. From a theoretical perspective, such a focus on such internal aspects is reasonable, as external factors are constantly changing in transition economies and are difficult to manage and hold accountable. Therefore, the inference of institutional theory appears to be appropriate for investigating CG practices in Russia. From an institutional theory perspective, CG practices are influenced by both internal and external institutional environmental factors (Filatotchev and Nakajima, 2010; Givens, 2013; McCarthy and Puffer, 2003). External institutional factors include economic, legal, political, social and cultural factors, as well as the influences of secondary and peripheral stakeholders (Filatotchev and Nakajima, 2010; McCarthy and Puffer, 2003). Internal institutional environments consist of board compositions, ownership structures and shareholder involvement, disclosure practices and leadership characteristics of the top executives. These factors are influenced by primary stakeholders, including managers, the BoD and shareholders (Filatotchev and Nakajima, 2010). Therefore, to investigate the impact of CG practices on bank performance in Russia, we decided to focus on internal CG practices, which are influenced by primary stakeholders and internal environmental factors.

There are multiple reasons for focusing on internal CG mechanisms. First, our study focuses on a transition economy: Russia. Because of their tempestuous economic conditions, transition economies frequently change their institutional provisions in the context of economic, legal, political and cultural reforms (Chen, 2014; McCarthy and Puffer, 2003). Therefore, investigating the CG practices of Russian banks during different periods by focusing on the external environment will not elucidate the precise impact of CG practices (Jackowicz and Kowalewski, 2013). Second, CG practices mainly address the principal-agent relationship and aim to mitigate the self-serving behaviour of internal decision makers. Previous researchers have emphasized the role of internal CG mechanisms in trying to improve the CG situation in transition economies (Black *et al.*, 2012; Lau *et al.*, 2007; McCarthy and Puffer, 2003). Third, CG practices in Russia are still evolving. During an uncertain economic transition, the roles, responsibilities and competencies of the primary stakeholders become more important in terms of better governance (Johannesson *et al.*, 2012; McCarthy and Puffer, 2003). Fourth, our study focuses on banks in one specific country. Therefore, to investigate the CG–performance

relationship, internal governance mechanisms seem to be appropriate in the Russian context.

3.1 Board compositions, corporate governance practices and firm performance

The BoD has the ultimate authority in an organization and makes most of the critical decisions. Therefore, board structures, compositions, sizes and characteristics have a direct influence on organizational performance (Abetacola *et al.*, 2014; Kumar and Singh, 2013). The resource-based theory anticipates that larger and more diversified boards will accumulate additional and more diversified knowledge (Adams and Mehran, 2012; Barney, 1991). This will lead to better governance and, consequently, will improve firm performance (Fuenzalida *et al.*, 2012; Gupta *et al.*, 2013), although some empirical results contradict this popular belief (Adams and Mehran, 2012). Using a sample of 25 Canadian firms, Bozec and Bozec (2011) find a negative link between the percentage of independent directors and firm performance. However, other studies argue that the percentage of independent directors is positively associated with firm performance. Weir *et al.* (2002) find a positive link between the percentage of independent directors and firm performance using a sample of the largest UK companies. Ho and Williams (2003) report a positive relationship between the percentage of independent directors and a firm's physical and intellectual capital performance in 84 South African listed firms in 1998. Based on the resource-based theory and the findings of most prior studies, we propose the following hypothesis:

H1. A positive association exists between the board characteristics and operating performance of Russian banks. Improved board characteristics including board committees, compositions and size lead to better operating performance of the Russian Bank before, during and after the financial crisis.

3.2 Ownership structures, corporate governance and firm performance

Shareholders, as the owners of organizations, select and employ the BoD, top executives and other decisions makers. Therefore, ownership structures have a direct influence on management and, consequently, on an organization's performance (Berger and Bouwman, 2013; Cull and Peria, 2013; Lim *et al.*, 2014; Shahwan, 2015; Su *et al.*, 2010). Prior studies that have examined the link between managerial share ownership and firm performance, however, yield contradictory results. For example, Ho and Williams (2003) report a negative association between directors' shareholdings and physical and intellectual capital performance in a sample of 84 South African listed firms. In the Malaysian market, Haniffa and Hudaib (2006) provide supporting evidence of a negative link between directors' share ownership and firm performance. However, Krivogorsky (2006) and Kapopoulos and Lazaretou (2007) report a positive association between managerial share ownership and firm performance for 87 European and 175 Greek public companies, respectively. Similarly, based on 72 Zimbabwean listed firms for the period 2002-2004, Mangena and Tauringana (2008) conclude that directors' share ownership is positively associated with financial performance. Based on the agency theory, managerial share ownership would be expected to improve bank performance.

It is also assumed that foreign ownership improves corporate performance through effective CG practices (Patibandla, 2006). Foreign investors seek a good return on their investment and, therefore, ensure the effective monitoring of management to avoid managerial expropriation (Tornyeva and Wereko, 2012). They tend to be aware of the tenets of CG best practices and replicate them in their investments. This requires more corporate disclosure and transparency in the financial reporting system of the company. Beltratti and Stulz (2012) conclude that foreign ownership tends to lower agency costs.

Government ownership is another common feature of the Russian business environment. The government's involvement in the financial sector is particularly evident in the commercial banks of Commonwealth of Independent States (CIS) countries. However, the empirical findings on the relationship between government ownership and performance are mixed. For example, Bai

et al. (2003) report that market valuations are lower for government-linked companies, which means that state ownership leads to negative performance. However, Ang and Ding (2006) conclude that, in Singapore, state-owned firms have higher market valuations and better earnings than non-state firms. Similarly, Hossain *et al.* (2013) report that state ownership of banks of the Asia-Pacific region prevented sharp losses and supported quick recovery during the financial crisis. Therefore, given the government's significant influence on and control of the banking sector in Russia, as well as the findings of the majority of prior studies on the relationship among ownership structures, CG attributes and firm performance, we propose the following hypothesis:

H2. There is a positive association between ownership structure and operating performance of Russian banks. Increased managerial ownership, government ownership and foreign ownership improve the operating performance of Russian banks before, during and after the financial crisis.

3.3 Corporate disclosure, corporate governance practices and firm performance

The agency theory postulates that managers, as agents of shareholders, should disclose all relevant information through corporate disclosures because the BoD and the shareholders cannot oversee routine operational decisions and activities (Fama and Jensen, 1983a; Jensen and Meckling, 1976). Therefore, corporate disclosures can be viewed as a means of controlling the behaviour of managers within pre-specified corporate missions, goals and objectives (Mahadeo *et al.*, 2011; Bourveau and Schoenfeld, 2016). In the absence of periodic and reliable disclosure practices, shareholders need to engage intermediaries, such as analysts and rating agencies, to compile all necessary information (Laidroo, 2009). By disclosing all regulatory and voluntary information, managers can reduce agency costs and increase their trustworthiness in the view of shareholders and board members (Gaa, 2010). In addition, corporate disclosure helps to develop a positive corporate image and bring about long-term benefits (Armitage and Marston, 2008; Mahadeo *et al.*, 2011).

Research has shown that corporate disclosure plays a crucial role in mitigating information asymmetry and reducing agency problems (Cormier *et al.*, 2010). In particular, it releases both mandatory and voluntary information to the capital market, which helps companies to lower the cost of capital, gain investor confidence and improve the marketability of their shares (Mahadeo *et al.*, 2011). Vurro and Perrini (2011) conclude that disclosing more information and thus reducing information asymmetry can reduce a firm's cost of capital. Arcay and Vazquez (2005) find that a firm that increases its disclosure lowers its bid-ask spread, which is a measure of the costs related to information asymmetry. Haniffa and Hudaib (2006) report a negative relation between disclosures in annual reports and the cost of equity for firms. Thus, based on this previous research evidence, we propose the following hypothesis:

H3. A positive association exists between corporate disclosure and operating performance in Russian banks. A higher level of disclosure leads to a higher level of operating performance in Russian banks before, during and after the financial crisis.

3.4 Executive education, corporate governance and firm performance

From a resource-based view, managerial abilities, skills and the competencies of CEOs could be important to conceiving and implementing precise and prudent decisions (Agyemang and Castellini, 2015; Lin *et al.*, 2014). CEOs with the right qualifications, knowledge and skills could be a source of competitive advantage and, ultimately, improve the performance of a company (Barney, 1991). A CEO needs to first collect and present all necessary information at board meetings and then implement the decisions made at the meetings (Jackling and Johl, 2009). CEOs are also expected to have sufficient industry background, relevant business knowledge and other important competencies to lead the business successfully (Yeh *et al.*, 2014). In addition to their role in board meetings, CEOs

need to participate actively in strategic thinking, policy formulation and foresight, supervising management and ensuring the accountability of managers at all levels. Previous research has revealed close relationships between CEOs' characteristics and qualifications and internal control, strategic planning, risk management and policy execution in different areas of micro-management, as well as CEOs subsequent impact on corporate financial performance (Jackling and Johl, 2009). In Russia, where external governance mechanisms are still inadequate and fluid, the role of CEOs could be more important than in developed economies. Therefore, we assume that the educational qualifications of CEOs have some influence on firm performance in Russian banks and propose the following hypothesis:

H4. A positive association exists between the educational qualifications of CEOs and operating performance in Russian banks. Higher levels of professional qualifications among CEOs lead to better operating performance in Russian banks before, during and after the financial crisis.

4. Methodology, data and description of the variables

This study uses an unbalanced data panel of large and publicly traded Russian banks listed on the Russian Stock Exchange RST. After eliminating banks with insufficient data on CG practices and operating performance, we obtain a final sample of 259 years' observations from 30 of the largest Russian banks for the period 2004-2012. Despite the relatively small number of banks in the final sample, the assets of these banks totalled approximately US$750 bn by the end of 2012, thus representing a significant portion of the total assets of the banking sector in Russia (i.e. 80 per cent of the total industry). The financial data used in the analysis are obtained from financial statements, while CG mechanisms are hand-collected from annual reports available on the banks' websites.

4.1 Operating performance variables

Although most prior studies that have investigated the link between CG and performance use Tobin's *Q* or other market performance measures, we focus on the operating performance of Russian banks. The main reason is that market measures such as stock prices and market capitalizations are not available for the sampled banks. Moreover, Russia's capital market is not efficient and volatile. Thus, market-based information may not accurately represent the performance of Russian banks. As noted by Bhagat and Bolton (2008), stock returns are not always significantly correlated with governance, even if there is a significant association between CG and firm performance. Moreover, the increased complexity of banking institutions necessitates considering the specific drivers of banking performance in terms of earnings and efficiencies. Hence, we use the main operating performance indicators of the CAMEL criteria applied by Wang *et al*. (2012) to measure the operating performance of the sampled banks. In particular, we evaluate seven output performance variables selected from the CAMEL criteria. For example, CAPAD is measured using the ratio of total equity to total assets. A higher ratio indicates that a bank has a greater ability to absorb unexpected capital losses (Wang *et al*., 2012). Asset quality (GROWTH) is proxy as the annual asset growth ratio, which captures the ability of a bank to expand its business activities. The management criterion of the CAMEL profile is assessed to determine banks' managerial efficiency in adhering to regulatory compliance and maintaining effective internal control systems and prudential practices (Wang *et al*., 2012). The net interest income ratio (NIM) is used to measure management quality. This ratio is measured as the total net annual interest income to the average bank earning assets. Here, a higher ratio reflects better management quality and, therefore, better operating performance. Two accounting profitability variables are used as proxies for earnings quality, namely, the ROA and the ROE. In this case, higher ratios indicate effective and efficient use of a firm's assets in maximizing shareholders' value, and, therefore, a positive association between earnings and CG is expected. Finally, to measure liquidity, we use the loan-to-assets ratio (LOAN1) and the loans-to-deposits ratio (LOAN2) based on the

CAMEL criteria of Wang *et al.* (2012). High liquidity ratios indicate that a bank is loaned up, which increases the likelihood of defaults.

4.2 Corporate governance variables

The independent variables in this study include four composite governance characteristics: information disclosure, the structure and size of the BoD, ownership and executive education. To measure the governance quality of Russian banks, we follow the studies of Brown *et al.* (2011) and Garay and Gonzalez (2008) to construct the core characteristics of the governance structure. For example, based on the provisions used by Brown *et al.* (2011) and Garay and Gonzalez (2008), we identify ten provisions that apply to the Russian CG regime. Each of these provisions is addressed based on the publicly available information and assigned a value of 1 or 0 (binary scale), depending on the presence or absence of a particular practice. Then, these answered provisions are grouped into four sub-indexes, and total scores on individual sub-indexes are calculated for each bank. For example, corporate disclosure, board characteristics and ownership sub-indexes range from 0 to 3, while the executive education sub-index is either 0 or 1. High sub-index scores indicate strong CG practices, whereas low scores indicate weak CG practices. Table II provides detailed information on approximately ten elements of key sub-indexes – corporate disclosure (three elements), board characteristics (three elements), ownership (three elements) and executive education (one element) (Tables I and II).

Table I Core corporate governance structures

No.	*Questions*	*Based on*
1	*Subindex–Disclosure* Does the bank use international accounting standards? Required by generally accepted auditing standards	Garay and Gonzalez (2008), Brown *et al.* (2011)
2	Does the bank use any recognized auditing firm? Required by the generally accepted auditing standards	Garay and Gonzalez (2008), Brown *et al.* (2011)
3	Does the bank disclose, in any form whatsoever, information on corporate social responsibility?	Garay and Gonzalez (2008), Brown *et al.* (2011)
4	*Subindex–Board of Directors* Is the board of directors comprising at least five members, as per recommendation of good international corporate governance practices?	Garay and Gonzalez (2008), Brown *et al.* (2011)
5	Is the board controlled by at least 30 per cent independent directors?	Unique to Russia
6	Does the bank have monitoring committees, such as appointment or compensation or auditing committees or all of these?	Garay and Gonzalez (2008), Brown *et al.* (2011)
7	*Subindex–Ownership* Do directors and officers with more than one year of service own stock?	Garay and Gonzalez (2008), Brown *et al.* (2011)
	Does the Government hold at least 20 per cent of ownership in the bank? According to IAS 28 ("Investments in Associated and Joint Ventures"), if an investor holds at least 20 per cent of ownership, then it is presumed that the investor has significant influence over activities of an investee. In other words, significant influence, control and substantial state support from the government side lead to better performance. Therefore, we classify state ownership and assign 1, if the government is holding at least 20 per cent of ownership in the bank	Unique to Russia
9	Do any foreign investors hold ownership in the bank?	Garay and Gonzalez (2008), Brown *et al.* (2011)
10	*Subindex–Executive Education* Does the CEO hold MBA diploma or equivalent degrees from accredited University or any other professional qualifications?	Garay and Gonzalez (2008), Brown *et al.* (2011)

Table II Research variables definition/ measurement

Variables	*Acronym*	*Operationalization*
Dependent variables (CAMEL)		
Capital reserve ratio (%)	CAPAD	Total capital divided by total assets
Annual asset growth ratio (%)	GROWTH	(Total assets in year 2–total assets in 1) / total asset in y1
Net interest income ratio (%)	NIM	Net interest income divided by average interest earning assets
Return on Assets (%)	ROA	Earnings after tax divided by total assets of the bank
Return on Equity (%)	ROE	Earnings after tax divided by total equity of the bank
Total loans ratio (%)	LOAN1	Total loans divided by total assets
Loan to deposit ratio (%)	LOAN2	Total loans divided by total deposits
Independent variables		
Corporate disclosure	DISC	Each of 3 provisions related to corporate disclosure takes a value 1 if a corporate practice is present, otherwise 0. Therefore, the score will range between 0 and 3
Board of directors	BOD	Each of 3 provisions related to board of directors takes a value 1 if a corporate practice is present, otherwise 0 Therefore, the score will range between 0 and 3
Ownership	OWN	Each of 3 provisions related to board of directors takes a value 1 if a corporate practice is present, otherwise 0 Therefore, the score will range between 0 and 3
Executive education	EXED	Dummy variable that takes a value of "1" if the CEO holds MBA diploma or equivalent degrees from an accredited University or any other professional qualifications, otherwise 0
Control variables		
Bank size	SIZE	Natural log of total assets of the bank
Bank age	AGE	Number of years since foundation of the bank

Based on prior literature (Haniffa and Hudaib, 2006), two control variables are included in the analysis to account for the potentially confounding effects of bank-specific characteristics. The control variables used in our analyses are bank size (SIZE), measured as the logarithm of total assets of the bank, and bank age (AGE), measured as the number of years since the founding of the bank. Table II summarizes the definitions and measurement of all the variables. Because we use panel data, the following panel regression model is used to control unobserved time-constant heterogeneity:

$$BANK\ PERFORMANCE_{it} = \beta_1(BOD_{it}) + \beta_2(OWN_{it}) + \beta_3(DISC_{it}) + \beta_4(EXED_{it}) + \beta_5(AGE_{it}) + \beta_6(SIZE_{it}) + (\alpha_i + \varepsilon_{it})$$

where, BANK $PERFORMANCE_{it}$: a CAMEL operating performance measure for bank i at time t; $DISC_{it}$: corporate disclosure structure; BOD_{it}: board of directors' characteristics; OWN_{it}: ownership structure; $EXED_{it}$: executive education; AGE_{it}: the bank's age; $SIZE_{it}$: the bank's size; α_i: unobserved heterogeneity term; and ε_{it}: specific error term.

We perform the Hausman test to examine the validity of the random effects parameters. The Hausman test shows that the difference between fixed effects and random effects coefficients is not significant (not reported). Thus, we rely on the random effects model for a longitudinal data set such as ours. Because most prior studies use cross-sectional ordinary least squares regressions, we also run ordinary least squares models separately for each period and obtain qualitatively similar results that support coefficient estimates from the random effects model (not reported but available upon request).

5. Analysis, findings and discussion

We first present the summary statistics of the CAMEL variables. Panels A through C show the descriptive statistics for the banks' operating performance during the pre-crisis period (2004-2006), during the crisis period (2007-2009) and during the post-crisis period (2010-2012), respectively. The mean of the growth ratio is 33.5 per cent, although the ratio ranges from −35 to 167 per cent during the crisis. The Wilcoxon rank sum test shows that this is significantly different from the mean value of 82.17 in the pre-crisis period. This

negative effect of the economic crisis on growth is also apparent in the post-crisis period. Here, the mean value of growth is 26.59 and ranges between −10.33 and 198.74. The mean ROA of 0.97 per cent and the mean ROE of 6.21 per cent in the period 2007-2009 are significantly lower than the mean values of the ROA and ROE in the pre-crisis period. This demonstrates the significant decline in bank profitability during the financial crisis. The ROA and ROE mean values are higher in the period 2010-2012 than during the crisis, indicating that bank profitability improved in the post-crisis period. In general, the results from Table III demonstrate that the financial crisis of 2007-2009 had a negative impact on the key operating performance variables of the Russian banks.

In Table IV, panels A through C, we provide the descriptive results of the CG components. As shown in the panels, the disclosure index (DISC) increased from 2.17 to 2.57 points for the complete sample. The descriptive variables also demonstrate that board characteristics improved during the period 2004-2012. In particular, the mean values for BOD are 1.73, 2.08 and 2.41 before, during and after the crisis periods, respectively. Ownership characteristics, including managerial ownership and foreign ownership, also increased slightly between 2004 and 2012. The reported statistics for the SIZE variable indicate that the sampled banks increased their economic resources substantially between 2004 and 2012. In particular, the mean bank size is US$31.71 bn and ranges between US$3.00 bn and US$497.11 bn in the post-crisis period. The descriptive statistics and the Wilcoxon test suggest that the mean value of SIZE increased significantly from the pre-crisis period to the period during the crisis, and then again in the post-crisis period.

We also conducted correlation analyses among the variables for all three periods. The results for the post-crisis subsample suggest that the operating performance variables are positively correlated with the corporate disclosure and executive education variables. However, they are negatively correlated with the board characteristics. The ownership

Table III Descriptive statistics on operating performance of Russian banks for the periods of 2004-2006, 2007-2008 and 2010-2012

	Capital adequacy	*Asset quality*	*Management*	*Earnings*		*Liquidity*	
	CAPAD (%)	*GROWTH (%)*	*NIM (%)*	*ROA (%)*	*ROE (%)*	*LOAN1 (%)*	*LOAN2 (%)*
Panel A: Operating performance of Russian banks during the period 2010 through 2012 (post-crisis)							
N = 86							
Mean	12.4119	26.594	5.552	1.484	10.264	65.197	102.929
SD	3.914	31.576	4.579	1.922	23.491	8.875	32.120
Median	11.650	19.260	4.450	1.415	12.605	64.950	99.240
Minimum	4.350	−10.33	−8.92	−8.21	−188.73	31.72	39.78
Maximum	32.660	198.74	23.85	9.31	37.12	85.95	316.48
Differences in means of post and during periods *p*-value	0.049**	0.053*	0.006***	0.024**	0.080*	0.941	0.000***
Panel B: Operating performance of Russian banks during the period 2007 through 2009 (during crisis)							
N = 86							
Mean	11.797	33.538	4.572	0.965	6.218	64.988	121.692
SD	4.404	36.082	4.981	1.825	28.142	10.535	38.006
Median	11.180	31.330	4.075	1.070	8.625	65.745	113.315
Minimum	3.680	−34.94	−18.00	−8.150	−221.76	15.880	28.610
Maximum	28.220	166.71	18.00	5.510	40.93	89.38	249.05
Differences in means of post and during periods *p*-value	0.220	0.000***	0.001***	0.000***	0.000***	0.099*	0.153
Panel C: Operating performance of Russian banks during the period 2004 through 2006 (pre-crisis)							
N = 87							
Mean	12.887	82.171	5.638	2.079	16.561	62.131	116.985
SD	4.935	88.483	3.229	2.096	12.948	13.572	49.018
Median	11.410	58.165	5.100	1.610	14.825	64.590	103.530
Minimum	6.350	0.600	−1.630	−1.310	−11.09	12.020	13.970
Maximum	28.710	555.75	21.000	13.110	59.980	92.590	294.430

Note: ***, **, and * indicate the significance level at the 0.01, 0.05, and 0.1 respectively based on two tailed tests

Table IV Descriptive statistics of the variables

OBSER	*DISC*	*BOD*	*OWN*	*EXED*	*AGE*	*SIZE (ln)*	*SIZE (ln US$ m)*
Panel A: Operating performance of Russian banks during the period 2010 through 2012 (post-crisis)							
N = 86							
Mean	2.5667	2.4111	1.0778	0.7333	22.96	16.429	31,711.61
SD	0.49831	0.61616	0.72248	0.44469	27.64	1.077	70,926.52
Median	3.0000	2.0000	1.0000	1.0000	19.00	16.150	10,322.85
Minimum	2.00	0.00	0.00	0.00	10.00	14.920	3,008.73
Maximum	3.00	3.00	3.00	1.00	171.00	20.020	497,115.58
Differences in means of post and during periods (*p*-value)	0.058*	0.000***	0.028**	0.011**	0.000***	0.000***	0.000***
Panel B: Operating performance of Russian banks during the period 2007 through 2009 (during crisis)							
N = 86							
Mean	2.4222	2.0778	0.9444	0.6000	19.95	15.968	21,175.50
SD	0.67003	0.62221	0.75493	0.49264	27.64	1.198	43,362.29
Median	3.0000	2.0000	1.0000	1.0000	16.00	15.825	7,428.77
Minimum	1.00	0.00	0.00	0.00	7.00	13.850	1,037.87
Maximum	3.00	3.00	3.00	1.00	168.00	19.280	235,345.91
Differences in means of post and during periods (*p*-value)	0.006***	0.000***	0.001***	0.371	0.000***	0.000***	0.001***
Panel C: Operating performance of Russian banks during the period 2004 through 2006 (pre-crisis)							
N = 87							
Mean	2.1705	1.7386	0.6818	0.6364	17.18	14.799	8,088.40
SD	0.69846	0.53593	0.67031	0.48380	27.91	1.447	18,983.41
Median	2.0000	2.0000	1.0000	1.0000	13.00	14.665	2,332.800
Minimum	1.00	0.00	0.00	0.00	4.00	9.500	13.56
Maximum	3.00	3.00	2.00	1.00	165.00	18.700	131,826.43

Note: ***, **, and * indicate the significance level at the 0.01, 0.05, and 0.1 respectively based on two tailed tests

variable is positively correlated with earnings (ROA, ROE) and liquidity (LOAN1) but negatively correlated with growth, CAPAD and the management variables of operating performance. To test for possible multicollinearity, the variance inflation factor (VIF) is obtained for each independent variable in all subsamples. According to Chatterjee *et al.* (2000), a VIF value of 10 and above indicates a multicollinearity problem. Our results reveal that the VIF values for all independent variables are below 10 (results not shown but available upon request).

Table V shows the regression results for the effects of operating performance on governance practices and control variables for each period. As shown in Panel A, the estimated DISC coefficients are positively associated with growth and earnings variables in the post-crisis period. In general, these findings support our hypotheses and are consistent with the findings of Li *et al.* (2012) that better corporate disclosure and increased transparency in the Russian market lead to better operating performance in terms of growth and profitability. Contrary to expectations, the BOD is negatively associated with all operating performance variables, except NIM and LOAN1 variables. These results do not support the agency and resource dependency theories in the Russian context and, therefore, are inconsistent with results concluding that better BOD characteristics lead to better operating performance. These findings support the empirical evidence provided by Jackling and Johl (2009) and Wang *et al.* (2012), indicating that there is a negative relationship between board characteristics and performance. Thus, banks with a greater number of board members, independent directors and monitoring committees seem to have lower operating performance during the post-crisis period in Russia. The ownership component (OWN) of CG is positively associated with earnings (ROA and ROE) and liquidity (LOAN1). Consistent with our hypotheses, these findings indicate that banks with a better ownership structure took more risk after the crisis, which resulted in higher operating earnings in the post-crisis period. Finally, the EXED variable is statistically significant and positively associated with the ROA, ROE and LOAN1 ratios. This suggests

Table V Panel regression analysis: corporate governance–performance relationships

	CAPAD	*GROWTH*	*NIM*	*ROA*	*ROE*	*LOAN1*	*LOAN2*
Panel A: Regression of Operating Performance on CG for the period of 2010-2012 (post-crisis)							
Constant	25.362	114	30.197	7.481	24.863	39.305	209.401
	(2.58)**	(1.64)*	(3.30)***	(2.27)**	−1.23	(1.69)*	(2.48)**
DISC	0.816	16.857	−0.104	0.376	3.208	0.635	−4.505
	−0.97	(2.29)**	(−0.20)	(1.69)*	(2.03)**	−0.38	(−0.67)
BOD	−2.038	−9.712	−0.363	−0.582	−1.959	1.455	−12.589
	(−2.85)***	(−1.68)*	(−0.77)	(−2.68)***	(−1.71)*	−0.99	(−2.16)***
OWN	0.141	−7.963	0.564	0.396	3.034	3.075	0.101
	−0.19	(−1.46)	−1.01	(1.68)*	(2.08)**	(1.89)*	−0.02
EXED	0.074	8.478	0.731	0.798	5.032	7.829	8.266
	−0.07	−0.95	−1.05	(2.46)**	(2.46)**	(3.56)***	−0.95
AGE	−0.003	0.187	0.038	0.174	0.11	0.029	0.106
	(−0.13)	−1.16	−1.36	(2.02)**	(2.11)**	−0.48	−0.49
SIZE_LN	−0.622	−6.619	−1.541	−0.414	−1.511	0.681	−4.458
	(−0.99)	(−1.59)*	(−2.54)**	(−1.94)**	(−1.15)	−0.45	(−0.82)
N	86	86	86	86	86	86	86
Adjusted R^2	24.25	21.54	16.56	46.58	45.02	27.2	20.01
Panel B: Regression of Operating Performance on CG for the period of 2007-2009 (during crisis)							
Constant	41.196	51.226	29.023	7.921	47.205	13.629	−61.618
	(3.25)***	−0.45	(3.09)***	(2.43)***	(1.69)*	−0.51	(−0.60)
DISC	2.295	−16.555	0.146	0.249	0.574	−5.72	−12.475
	(3.20)***	(−2.16)**	−0.32	−1.35	−0.3	(−2.98)***	(−1.93)**
BOD	−0.571	−13.028	−0.951	−0.302	−0.235	0.965	−6.474
	(−0.68)	(−1.38)	(−1.81)*	(−0.68)	(−0.10)	−0.4	(−0.83)
OWN	−0.414	10.456	−0.105	0.085	0.892	1.999	0.197
	(−0.44)	−1.13	(−0.17)	−0.26	−0.39	−0.89	−0.02
EXED	0.209	−6.022	2.615	0.292	2.777	−2.366	−1.644
	−0.19	(−0.51)	(3.61)***	−0.8	−0.94	(−0.81)	(−0.16)
AGE	0.031	−0.213	0.0271	0.006	0.047	0.008	−0.455
	−0.85	(−0.73)	−0.92	−1.26	−0.66	−0.11	(−1.64)*
SIZE_LN	−2.024	2.121	−1.531	−0.431	−2.514	3.663	14.147
	(−2.41)**	−0.28	(−2.49)**	(−2.12)**	(−1.34)	(2.03)**	(2.07)**
N	86	86	86	86	86	86	86
Adjusted R^2	28.1	15.55	13.23	9.94	7.04	9.88	9.76
Panel C: Regression of Operating Performance on CG for the period of 2004-2006 (pre-crisis)							
Constant	16.03	136.434	7.395	−2.719	−30.081	42.07	101.858
	(2.23)**	−1.16	(2.28)**	(−1.05)	(−1.73)*	(2.46)**	(1.66)*
DISC	−1.142	8.929	−0.204	−0.306	−1.962	1.032	21.672
	(−1.30)	−0.65	(−0.43)	(−0.90)	(−0.86)	−0.43	(2.49)**
BOD	−0.563	−4.116	1.098	0.951	7.506	−1.411	−5.799
	(−0.50)	(−0.23)	(1.95)**	(2.26)**	(2.65)***	(−0.49)	(−0.56)
OWN	−1.184	9.042	0.695	0.519	4.173	1.176	4.036
	(−1.19)	−0.56	−1.47	(1.61)*	(1.69)*	−0.48	−0.46
EXED	0.333	28.439	1.106	1.067	5.337	−4.033	−5.706
	−0.26	−1.43	(1.70)*	(2.22)**	(1.65)*	(−1.21)	(−0.47)
AGE	−0.011	−0.454	0.009	−0.001	0.019	−0.008	−0.387
	(−0.39)	(−1.05)	−0.4	(−0.10)	−0.23	(−0.08)	(−1.06)
SIZE_LN	−0.01	−5.487	−0.31	0.168	2.001	1.557	0.121
	−0.02	(−0.62)	(−1.25)	−0.85	−1.51	−1.19	−0.03
N	87	87	87	87	87	87	87
Adjusted R^2	11.12	7.53	15.29	26.28	26.97	10.95	19.2

Notes: ***, **, and *indicate the significance level at the 0.01, 0.05 and 0.1, respectively, based on two-tailed tests; Robust *z-statistics* are shown in parentheses

that executives with high levels of education in Russia are prone to taking greater risks – by increasing lending – to achieve better performance results in the post-crisis period.

With regard to the control variables, AGE is significantly and positively associated with ROA and ROE ratios at the 5 per cent significance level. This indicates that older banks performed better in terms of earnings in the 2010-2012 periods. In contrast, the SIZE variable is significantly and negatively associated with NIM and ROA ratios. This shows that

larger banks are less profitable and seem to have lower management quality in the post-crisis period. The SIZE variable is also negatively associated with GROWTH at the 10 per cent significance level. This indicates that smaller banks reported higher growth indicators than larger banks in the post-crisis period. Overall, our findings suggest that banks in Russia with stronger governance structures were able to mitigate the adverse effects of market turmoil on their operating performance from 2009 onwards. The same results were obtained by Peni and Vähämaa (2012) for US commercial banks.

Panel B of Table V presents the regression results of the influence of CG on the banks' performance during the crisis period. Interestingly, the findings are different from those of the post-crisis period. For example, corporate disclosure appears to have no association with ROA and ROE ratios. However, corporate disclosure is statistically significant and negatively associated with liquidity ratios. This suggests that transparent reporting implied lower liquidity risks during the crisis period. The regression estimates for the BOD variable show that there is a negative association between board characteristics and the net interest margin ratio. This finding suggests that better governance practices related to board characteristics lowered management quality attributes of the banks' performance during the crisis. With regard to ownership, the empirical results show that improved ownership structures had no impact on bank performance during the crisis. Panel B also shows that SIZE_LN is negatively associated with CAPAD, net interest margin and ROA ratios, and positively associated with LOAN1 and LOAN2. These findings suggest that larger banks were more severely affected by the crisis than smaller banks in terms of the management efficiency, earnings and liquidity components of bank performance. Overall, our empirical findings on the impact of CG on bank performance suggest that effective governance mechanisms did not create shareholder value in Russian banks during the financial crisis. This supports the results obtained by Erkens *et al.* (2012) for worldwide financial institutions and by Peni and Vähämaa (2012) for US banks.

The results in Panel C of Table V show no supporting evidence of a significant association between corporate disclosure practices and bank performance during the pre-crisis period. The regression estimates show that the BOD variable had a positive impact on the net interest margin and on the ROA and ROE ratios. In the case of ownership structure, the OWN variable is positively associated with the ROA and ROE variables at the 10 per cent significance level. This indicates that improved ownership characteristics improved bank performance in terms of profitability. The EXED variable is also positively associated with the net interest margin, ROA and ROE ratios. This indicates a positive effect of higher executive qualifications on bank profitability before the crisis. Overall, Panel C suggests that CG had a moderately positive impact on the performance of Russian banks before the crisis. This can be explained by the fact that the implementation of good CG models by Russian banks was relatively new in 2004-2006 and, hence, had a moderately positive effect on bank performance before the crisis.

5.1 Robustness check

Recently, a large body of empirical literature has raised questions about endogeneity that make interpreting the governance–performance relationship difficult. To address this endogeneity issue, most prior studies use instrumental variables (Brown *et al.*, 2011; Jackling and Johl, 2009). However, it is often difficult to find reliable instrumental estimates, and even when valid instruments are available, incrementing governance and performance variables may increase the significance of the coefficient estimates (Larcker and Rusticus, 2010). One alternative approach to mitigating this endogeneity is to use lagged versions of the independent variables in the regression model. For example, we conducted regression analysis of all dependent variables ($PERFORMANCE_{it}$) against lagged CG variables ($DISC_{it-1}$, BOD_{it-1}, OWN_{it-1} and $EXED_{it-1}$) to check for endogeneity issues. The signs apply to all coefficients, and the significance levels remain qualitatively similar to those reported in Panel A of Table V (results not shown but available upon request). We performed the

same analysis for the period during the crisis and the post-crisis period. The coefficients obtained under this approach are qualitatively similar to those reported in Panels B and C of Table V. Therefore, our conclusion regarding the relation between CG and bank performance is not sensitive to additional analyses using lagged values of the independent variables.

6. Conclusions

Based on the CG practices of 30 of the largest Russian banks, using a total of 259 observations for the period 2004-2012, this study investigated the relationship between CG and bank performance during different periods. Assuming that the newly adopted governance models in the Russian market would lead to better performance, we first examined the effects of the governance variables on bank performance for the period 2004-2006 (the pre-crisis period). Our findings indicate that CG had some impact on bank performance before the crisis. Second, we investigated whether better governance practices had yielded higher operation performance during the crisis period. Our empirical findings found that effective governance mechanisms did not generate higher shareholder value in Russian banks during the financial crisis period. Finally, to assess the impact of CG reforms over time, we analysed whether improved governance practices positively affected performance in the post-crisis period. Our findings suggest that banks with stronger governance mechanisms were able to better mitigate the adverse effects of the crisis after the market turmoil, as they showed better operating performance from 2009 onwards. Thus, we find supporting evidence that improved governance structures lead to better bank performance in the Russian context. As we assumed, amendments to relevant laws and CG code in Russia have improved internal CG practices of the commercial banks over time. For example, changes in board structures and compositions, requirements for more statutory committees, extensive disclosure practices, etc., ultimately improved the CG scenario in the banking industry. Because of its voluntary nature, not all banks responded in the same way by implementing those changes. Those who initiated CG reforms demonstrated better performance compared to non-responsive banks. The findings reinforce the essence of institutional theory that in transition economics, the influences of primary stakeholders are very important in developing internal CG practices, and internal CG practices, in turn, can influence firm performance significantly.

The implications of our findings are manifold. First, increased governance and better corporate disclosure improved banking performance; managers should therefore be encouraged to extend corporate disclosure practices in transition economies. Our results also suggest that banks with a greater number of board members, independent directors and monitoring committees exhibit lower performance. Therefore, regulators in a transition economy similar to Russia's may wish to revisit the policy of increasing the number of board directors and committees. Our findings also indicate that banks with better ownership structures had higher operating earnings, especially in the pre- and post-crisis periods. Hence, banks need to include more diversified ownership structures to ensure better governance practices. Finally, highly educated executives are likely to improve bank performance. Thus, investors, policymakers and practitioners should consider the education and qualifications of executives when aiming to improve CG practices in the banking industry in transitional countries such as Russia.

We acknowledge several limitations of this study. First, the study focuses only on Russia's banking industry. Hence, further investigations into the governance–performance relationship in other industries of the financial sector, such as pension funds, insurance companies, investment companies and other financial institutions, could provide more research opportunities in the future. Second, the study focuses only on internal governance practices. The effects of external governance mechanisms such as legal and regulatory frameworks, capital markets, the media and relationships with unions were not examined. Therefore, considering these important external governance attributes would be a useful extension of this

study. In addition, this study only examines the relationship between governance practices and operating performance variables. Hence, considering other bank performance indicators, including Tobin's *Q*, stock returns and CAMEL rating system based on data envelopment analysis (as used in Wang *et al.*, 2012), would highlight other aspects of the governance–performance relationship. Despite these limitations, we believe that our findings make an important contribution to governance literature in the context of Russia and other transitional economies.

References

Abetacola, G., Farina, V. and Gordini, N. (2014), "Board effectiveness in corporate crisis: lessons from the evolving empirical research", *Corporate Governance*, Vol. 14 No. 4, pp. 531-542.

Adams, R. and Mehran, H. (2012), "Bank board structure and performance: evidence for large bank holding companies", *Journal of Financial Intermediation*, Vol. 21 No. 2, pp. 243-267.

Agyemang, O.S. and Castellini, M. (2015), "Corporate governance in an emergent economy: a case of Ghana", *Corporate Governance*, Vol. 15 No. 1, pp. 52-84.

Ang, J. and Ding, D. (2006), "Government ownership and the performance of government-linked companies: the case of Singapore", *Journal of Multinational Financial Management*, Vol. 16 No. 1, pp. 64-88.

Anzoategui, D., Peria, M. and Melecky, M. (2012), "Bank competition in Russia: an examination at different levels of aggregation", *Emerging Markets Review*, Vol. 13 No. 1, pp. 42-57.

Arcay, M. and Vazquez, M. (2005), "Corporate characteristics, governance rules and the extent of voluntary disclosure in Spain", *Advances in International Accounting*, Vol. 21 No. 2, pp. 299-331.

Armitage, S. and Marston, C. (2008), "Corporate disclosure, cost of capital and reputation: evidence from finance directors", *The British Accounting Review*, Vol. 40 No. 4, pp. 314-336.

Bai, C., Liu, J., Song, F. and Zhang, J. (2003), "Corporate governance and market valuation in China", *Journal of Comparative Economics*, Vol. 32 No. 4, pp. 599-616.

Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.

Beltratti, A. and Stulz, R. (2012), "The credit crisis around the globe: why some banks perform better?", *Journal of Financial Economics*, Vol. 105, pp. 1-17.

Berger, A. and Bouwman, C. (2013), "How does capital affect bank performance during financial crisis", *Journal of Financial Economics*, Vol. 109 No. 1, pp. 146-176.

Bhagat, S. and Bolton, B. (2008), "Corporate governance and firm performance", *Journal of Corporate Finance*, Vol. 14 No. 2, pp. 257-273.

Black, B., Carvalho, A. and Gorga, E. (2012), "What matters and for which firms for corporate governance in emerging markets? Evidence from Brazil and other BRIC countries", *Journal of Corporate Finance*, Vol. 18, pp. 934-952.

Black, B., Love, I. and Rachinsky, A. (2006), "Corporate governance indices and firms' market values: time series evidence from Russia", *Emerging Markets Review*, Vol. 7 No. 1, pp. 361-379.

Bourveau, T. and Schoenfeld, J. (2016), "Shareholder activism and voluntary disclosure", *paper presented in 2016 UTS Australian Summer Accounting Conference*, *Sydney*.

Bozec, R. and Bozec, Y. (2011), "The use of governance indexes in the governance-performance relationship literature: international evidence", *Canadian Journal of Administrative Sciences*, Vol. 29 No. 1, pp. 79-98.

Brown, P., Beekes, W. and Verhoeven, P. (2011), "Corporate governance, accounting and finance: a review", *Accounting and Finance*, Vol. 51 No. 1, pp. 96-172.

Chatterjee, S., Hadi, A. and Price, B. (2000), *Regression Analysis by Example*, Wiley, New York, NY.

Chen, I. (2014), "Financial crisis and the dynamics of corporate governance: evidence from Taiwan's listed firms", *International Review of Economics and Finance*, Vol. 32 No. 1, pp. 3-28.

Cormier, D., Ledoux, M., Magnan, M. and Aerts, W. (2010), "Corporate governance and information asymmetry between managers and investors", *Corporate Governance*, Vol. 10 No. 5, pp. 574-589.

Cull, R. and Peria, M. (2013), "Bank ownership and lending patterns during the 2008-2009 financial crisis: evidence from Latin America and Eastern Europe", *Journal of Banking and Finance*, Vol. 37 No. 12, pp. 4861-4878.

Erkens, D., Hung, M. and Matos, P. (2012), "Corporate governance in the 2007-2008 financial crisis: evidence from financial institutions worldwide", *Journal of Corporate Finance*, Vol. 18 No. 2, pp. 389-411.

Fama, E. and Jensen, M. (1983a), "Separation of ownership and control", *Journal of Law and Economics*, Vol. 26 No. 2, pp. 301-325.

Filatotchev, I. and Nakajima, C. (2010), "Internal and external corporate governance: an interface between an organization and its environment", *British Journal of Management*, Vol. 21 No. 1, pp. 591-606.

Fuenzalida, D., Mongrut, S., Arteaga, J. and Erausquin, A. (2012), "Good corporate governance: does it pay in Peru?", *Journal of Business Research*, Vol. 66 No. 10, pp. 1159-1170.

Fungacova, Z., Herrala, R. and Weill, L. (2011), "The influence of bank ownership on credit supply: evidence from recent financial crisis", *Emerging Markets Review*, Vol. 15 No. 1, pp. 135-147.

Gaa, J. (2010), "Corporate governance and the responsibility of the board of directors for strategic financial reporting", *Journal of Business Ethics*, Vol. 90, pp. 179-197.

Garay, U. and González, M. (2008), "Corporate governance and firm value: the case of Venezuela", *Corporate Governance: An International Review*, Vol. 16 No. 3, pp. 194-209.

Givens, D. (2013), "Defining governance matters: a factor analytic assessment of governance institutions", *Journal of Comparative Economics*, Vol. 41 No. 4, pp. 1026-1053.

Grove, H., Patelli, L., Victoravich, L. and Xu, P. (2011), "Corporate governance and performance in the wake of financial crisis: evidence from US commercial banks", *Corporate Governance: An International Review*, Vol. 19 No. 5, pp. 418-436.

Gupta, K., Krishnamurti, C. and Tourani-Rad, A. (2013), "Is corporate governance relevant during the financial crisis?", *Journal of International Financial Markets, Institutions & Money*, Vol. 23 No. 1, pp. 85-110.

Haniffa, R. and Hudaib, M. (2006), "Corporate governance structure and performance of Malaysian listed companies", *Journal of Business, Finance and Accounting*, Vol. 33 No. 7, pp. 1034-1062.

Ho, C. and Williams, S. (2003), "International comparative analysis of the association between board structure and the efficiency of value added by a firm from its physical capital and intellectual capital resources", *The International Journal of Accounting*, Vol. 38 No. 4, pp. 465-491.

Hossain, M., Jain, P. and Mitra, S. (2013), "State ownership and bank equity in the Asia-Pacific region", *Pacific-Basin Finance Journal*, Vol. 21 No. 1, pp. 914-931.

Iwasaki, I. (2014), "Global financial crisis, corporate governance and firm survival: the Russian experience", *Journal of Comparative Economics*, Vol. 42 No. 1, pp. 178-211.

Jackling, B. and Johl, S. (2009), "Board structure and firm performance: evidence from India's top companies", *Corporate Governance: An International Review*, Vol. 17 No. 4, pp. 492-509.

Jackowicz, K. and Kowalewski, O. (2013), "Crisis, internal governance mechanisms and pension fund performance: evidence from Poland", *Emerging Markets Review*, Vol. 13 No. 4, pp. 493-515.

Jensen, M. and Meckling, W. (1976), "Theory of the firm: managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 1, pp. 305-360.

Johannesson, J., Palona, I., Guillen, J. and Fock, M. (2012), "UK, Russia, Kazakhstan and Cyprus governance compared", *Corporate Governance*, Vol. 12 No. 2, pp. 226-242.

Kapopoulos, P. and Lazaretou, S. (2007), "Corporate ownership structure and firm performance: evidence from Greek firms", *Corporate Governance: An International Perspective*, Vol. 15 No. 2, pp. 44-158.

Krivogorsky, V. (2006), "Ownership, board structure, and performance in continental Europe", *The International Journal of Accounting*, Vol. 41 No. 2, pp. 176-197.

Kumar, N. and Singh, J.P. (2013), "Effect of board size and promoter ownership on firm value: some empirical findings from India", *Corporate Governance*, Vol. 13 No. 1, pp. 88-98.

Laidroo, L. (2009), "Association between ownership structure and public announcements disclosures", *Corporate Governance: An International Review*, Vol. 17 No. 1, pp. 13-34.

Larcker, D. and Rusticus, T. (2010), "On the use of instrumental variables in accounting research", *Journal of Accounting and Economics*, Vol. 49 No. 3, pp. 186-205.

Lau, C., Fan, D., Young, M. and Wu, S. (2007), "Corporate governance effectiveness during institutional transition", *International Business Review*, Vol. 16 No. 3, pp. 425-448.

Lazareva, O., Rachinsky, A. and Stepanov, S. (2009), "A survey of corporate governance in Russia", in McGee, R. (Ed.), *Corporate Governance in Transition Economies*, Springer, New York, NY, pp. 315-349.

Li, W., Chen, C. and French, J. (2012), "The relationship between liquidity, corporate governance, and firm valuation: evidence from Russia", *Emerging Markets Review*, Vol. 13 No. 4, pp. 465-477.

Lim, M., How, J. and Verhoeven, P. (2014), "Corporate ownership, corporate governance reform and timeliness of earnings: Malaysian evidence", *Journal of Contemporary Accounting and Economics*, Vol. 10 No. 1, pp. 32-45.

Lin, Y., Wang, Y., Chiou, J. and Huang, H. (2014), "CEO characteristics and internal control quality", *Corporate Governance: An International Review*, Vol. 22 No. 1, pp. 24-42.

McCarthy, D. and Puffer, S. (2003), "Corporate governance in Russia: a framework for analysis", *Journal of World Business*, Vol. 38 No. 4, pp. 397-415.

Mahadeo, J., Hanuman, V. and Soobaroyen, T. (2011), "A longitudinal study of corporate social disclosure in a developing economy", *Journal of Business Ethics*, Vol. 10 No. 4, pp. 545-558.

Mangena, M. and Tauringana, V. (2008), "Corporate boards, ownership structure and firm performance in an environment of severe political and economic uncertainty", *Paper Presented at the British Accounting Association Conference*, *Blackpool*, April.

Melkumov, D. (2009), "Institutional background as a determinant of board of directors' internal and external roles: the case of Russia", *Journal of World Business*, Vol. 44 No. 1, pp. 94-503.

Miller, R.F. (2009), "Corporate governance and finance in Poland and Russia", *Slavonic and East European Review*, Vol. 87 No. 1, pp. 187-188.

Muravyev, A., Berezinets, I. and Ilina, Y. (2014), "The structure of corporate boards and private benefits of control: evidence from the Russian stock exchange", *International Review of Financial Analysis*, Vol. 34 No. 3, pp. 247-261.

Patibandla, M. (2006), "Equity pattern, corporate governance and performance: a study of India's corporate sector", *Economic Behavior & Organization*, Vol. 59 No. 1, pp. 29-44.

Peni, E. and Vähämaa, S. (2012), "Did good corporate governance improve bank performance during the financial crisis?", *Journal of Financial Services Research*, Vol. 41 No. 1, pp. 19-35.

Shahwan, T.M. (2015), "The effects of corporate governance on financial performance and financial distress: evidence from Egypt", *Corporate Governance*, Vol. 15 No. 5, pp. 641-662.

Su, Z., Li, Y. and Li, L. (2010), "Ownership concentration and executive compensation in emerging economies: evidence from China", *Corporate Governance*, Vol. 10 No. 3, pp. 223-233.

Tornyeva, K. and Wereko, T. (2012), "Corporate governance and firm performance: evidence from insurance sector of Ghana", *European Journal of Business and Management Vol.* 4 No. 13, pp. 95-112.

Vurro, C. and Perrini, F. (2011), "Making the most of corporate social responsibility reporting: disclosure structure and its impact on performance", *Corporate Governance*, Vol. 11 No. 4, pp. 459-474.

Wang, W., Lu, W. and Lin, Y. (2012), "Does corporate governance play an important role in BHC performance? Evidence from the US", *Economic Modeling*, Vol. 29 No. 3, pp. 741-760.

Weir, C., Laing, D. and McKnight, P. (2002), "Internal and external governance mechanisms: their impact on the performance of large UK public companies", *Journal of Business Finance and Accounting*, Vol. 29 No. 5, pp. 579-611.

Yeh, Y., Shu, P. and Chiang, T. (2014), "Affiliation and professionalism: alternative perspectives on decomposing the board structures of financial institutions", *International Review of Economics and Finance*, Vol. 32 No. 1, pp. 159-174.

About the authors

Nurlan Orazalin is an Assistant Professor of Accounting at Kazakh-British Technical University, Almaty, Kazakhstan. He is a Certified Management Accountant (CMA) and a Member of the Institute of Management Accountants of USA. Dr Orazalin earned a DBA in accounting from KIMEP University, Kazakhstan, and an MS in accounting from Texas A&M University, USA. His research and professional interests are primarily focused on financial reporting, disclosure, CG and fair value accounting.

Monowar Mahmood is a Professor of Management, Bang College of Business, KIMEP University, Almaty, Kazakhstan. He obtained his MBA from Saint Mary's University, Canada; MA from University of Leeds, UK, and PhD from University of Manchester, UK. Dr Mahmood published on corporate governance, corporate social responsibility, human resource management and gender and equal employment policies. Monowar Mahmood is the corresponding author and can be contacted at: monowar@kimep.kz

Keun Jung Lee is an Associate Professor of Finance, Bang College of Business, KIMEP University, Almaty, Kazakhstan. He obtained his MSc and PhD from London School of Economics. Dr Lee published on corporate governance, banking regulations and international trade-related issues.