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**POSSIBLE IMPACT OF CORPORATE GOVERNANCE PROFILE
ON A RUSSIAN BANK VALUATION**

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Possible impact of corporate governance profile on a Russian bank valuation¹

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Summary

This paper aims at explaining the differences in valuation of banking firms in Russia through the impact of selected elements of corporate governance. We rely upon value-based management theory to test the hypothesis that expenses on corporate governance system create shareholder value. The price at which share stakes are acquired by strategic foreign investors is for us a criterion of market-proven value, so we use the standard valuation tool, i.e. price-to-book-value of equity (P/BV) multiple, as the dependent variable. The set of corporate governance parameters whose materiality for a would-be external investor we would like to test includes: the degree of concentration of ownership and control; maturity of corporate governing bodies; degree of Board independence; qualification of external auditors; stability of governing bodies (Management Board and Board of Directors); and availability of external credit ratings from the world's leading rating agencies. We test our approach on a sample of acquisition deals and public offerings over the period 2004-2008 that we develop for the first time. Firstly, we find out which factors are statistically significant and relevant to a bank's selling price. Secondly, a least squares multiple linear regression model is devised to check how each individual variable impacts the dependent variable. We discover that external investors attach value to high concentration of ownership, external credit rating coverage, stability of the Board of Directors, and involvement of well-established external auditors. Investors of a strategic nature tend to pay a higher acquisition premium. Independence of the Board of Directors might be perceived by external strategic investors as a disadvantage and might destroy shareholder value.

JEL classification: G21, G34

Keywords: bank, corporate governance, valuation, Russia, value-based management

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Introduction

We rely upon the theory of value-based management to identify the impact produced by the state of corporate governance system and its main elements on the valuation of banking firms in Russia. It is ‘common knowledge’ that financial markets and individual investors reward better-governed companies and banks by higher share price, so expense on corporate governance presumably creates shareholder value. Conversely, shortcomings in the area of governance, if so perceived by outside investors, lead to a destruction of shareholder value. While this assumption does not cause logical difficulties, its accurate testing with empirical data is a challenge in emerging markets like Russia. There is no single widely-accepted methodology to measure the quality of governance. Data on company valuation are not readily available for econometric analysis because very few banking institutions have equity securities in free float in the stock market. Our paper will do its best to start closing these gaps.

The paper is organized as follows. In *Section 2* we give a concise review of publications devoted to the connection between the state of governance on a firm level and the firm’s valuation. *Section 3* lists the main theoretical hypotheses that we would like to test on Russian bank data. *Section 4* indicates the sources of data that we use. *Section 5* offers a detailed discussion of our explanatory variables. *Section 6* contains the description of the model and the results of estimation. In *Section 7* we offer an interpretation of the received results. *Section 8* concludes with the main findings and directions for future research.

1. Review of literature

One can find two main clusters of research related to our subject: one on assessment and quantification of governance quality in Russian banks, and the other on the interplay between governance and firm valuation.

Standard & Poor’s, the rating agency, has developed a methodology for appraisal and scoring of corporate governance resulting in a corporate governance rating in two different scales – national and international [Standard & Poor’s, 2006]. A higher score is meant to reflect a higher quality of corporate governance. The methodology includes basic principles and criteria and differentiates between country background and individual company analysis. The main 4 components of company analysis are: ownership structure and external influence; shareholders’ rights and the relations with affiliated persons; transparency, information disclosure and audit; and Board of Directors structure and effectiveness. The coverage of companies by corporate governance ratings has remained extremely limited, and to date only one Russian bank has been awarded such a rating.

In 2008 Standard & Poor’s published its substantially modified methodology of corporate governance ratings under the name of GAMMA — Governance, Accountability, Management Metrics and Analysis [Standard & Poor’s, 2008]. GAMMA’s main components are: influence by shareholders; shareholders’ rights; transparency, audit and risk management system; and Board of Directors effectiveness, the process of strategizing, and compensation system. The GAMMA method reasonably shifts its focus away from an abstract appraisal of the target bank’s governance

system against the benchmark of some liberally devised ‘international best practice’ towards analysis of specific risks taken by outside investors.

Since 2004 the Russian Institute of Directors (RID) jointly with Expert-RA rating agency [RID & Expert-RA] have been awarding ‘national corporate governance ratings’ based on proprietary methodology.

Standard & Poor’s publish regular surveys of transparency and disclosure of Russian banks. The latest survey [Standard & Poor's, 2007] covers top 30 banks and aims to appraise the degree of disclosure of information relevant for investment community, against ‘international best practice’. The focus is on comprehensiveness and integrity of publicly available information on main operational parameters, financial soundness, ownership structure and corporate governance mechanisms. Although Standard & Poor’s explicitly warn that their transparency and disclosure score should not be used to gauge corporate governance quality, the two concepts have much in common and display high degree of synchronization.

In 2007 the International Finance Corporation published a survey of corporate governance in Russia’s banking sector [IFC, 2007], covering 82 private institutions. IFC examines commitment to good corporate governance; practices of the Supervisory and Management Board; transparency and disclosure; internal control and risk management; and shareholder rights. The survey stops short of awarding individual ratings to banks and comparing them against a common scale. This survey insightfully examines the practices of both the Supervisory and Management Boards together and their interplay, while most other publications tend to limit their scope to the structure and practices of the Supervisory Board only.

The link between the quality of governance and the valuation of companies is sufficiently researched with regard to mature markets but much less so for emerging markets. Morck *et al.* [2005] review the large literature that explores the connection between country-level rules affecting corporate governance and firm behavior and the strengths of securities markets. Klapper and Love [2004] analyze connection between a measure of firm-level governance and share price on a cross-country basis. On the level of one emerging market country (Korea) Choi and Hasan [2005] examine the effect of ownership and governance on firm performance and discover evidence that: the extent of the foreign ownership level has a significant positive association with the bank return and a significant negative association with the bank risk; the number of outside board of directors does not have any significant affect on performance; the presence of a foreign director on that board is significantly associated with bank return and risk.

Bernard S. Black has made a seminal contribution to the study of the impact of governance on firm valuation in Russia and other emerging markets [Black, 2001; Black *et al.*, 2006]. In order to obtain a composite index of governance in Russian firms, 6 indices produced by 6 different agencies for irregular periods are standardized and put together. Black *et al.* [2006] find an economically important and statistically strong correlation between governance quality and market value. However, it matters a great deal *how* one measures governance quality.

Saryuk used value-based management concept to research how corporate governance has driven stock market valuation of Russian ‘blue chip’ companies [Saryuk, 2008]; banks were not covered.

Earlier in 2008, Bokov and Vernikov made an attempt to explain the differences in the valuation of Russian banks from a quality of governance point of view [Bokov, Vernikov, 2008a, 2008b]. They discovered that strategic investors appreciate high concentration of ownership and stability of the management team, while broadly neglecting the features of the Board of Directors as well as bank transparency.

2. Theoretical hypotheses

Out of the myriad of definitions of *corporate governance*, for the purpose of this article we suggest the following convention: *corporate governance* is the system for defending shareholders' interests and property. Its main actors are owners and managers.⁴

Empirical literature available to date suggests that there is a positive connection between broad measures of firm-level corporate governance quality and higher share prices [Black *et al.*, 2006]. Specific elements of corporate governance system are thought to impact the value of a firm, some of these elements being more essential than others. The elements commonly mentioned are: disclosure of information and transparency; coverage by major internationally recognized external auditors and credit rating agencies; existence of a strong, competent and independent Board of Directors; presence of a coherent and competent banking team; fair representation of all shareholders, including minority ones, and reliable systems to protect their interests; and built-in constraints to opportunistic action by bank insiders and affiliated persons. Financial markets are presumed to reward by a higher valuation of equity what they perceive as *good governance*, despite the absence of a universal consensus definition of what constitutes *good governance*, especially in emerging markets like Russia. Conversely, the perceived insufficient quality of governance is expected to result in loss of shareholder value. This is precisely the theoretical hypothesis that we try to test in the paper.

3. Data

We collected a sample of acquisition (takeover) transactions and public offerings of common stock by Russian banks over 2004-2008 (see **Appendix**). For bank valuation we chose to use the prices resulting from acquisition deals and stock offerings primarily because it provides a measure of value that is straightforward to interpret and is market-proven, as opposite to one notionally constructed.

The sample includes major transactions, i.e. involving entities with over USD 100 million or equivalent in assets. This filter was introduced to avoid looking at the acquisition of licenses rather than of working businesses. The so-called 'people's IPOs' (initial public offerings) of *Sberbank* and *VTB* were dropped because, in our opinion, those deals were largely off-market, given the degree of state support received and the emphasis on non-qualified investors. We have also avoided deals between foreign banks (i.e. transfers of Russian assets from one foreign owner to another), primarily in view of their off-market pricing, which is usually the case, e.g., with Asian banks.

⁴ Here we deliberately disregard all management-related aspects of corporate governance, to avoid dwelling deep into management theory because our main subject of interest is governance rather than management.

Initially the sample consisted of 28 transactions including several transactions by the same entity (e.g. the consecutive public offerings by *Vozrozhdenie Bank* and a series of transactions with the shares of *Rosbank*). We only managed to collect part of the data necessary for the analysis and had to exclude more than half of the initial sample for various reasons. Some of the banks did not make adequate disclosure of information. Other banks have reorganized so deeply that any data about the initial entity has been completely pulled from information systems (e.g. *Investsberbank* has removed all pre-acquisition data from public databases). The final sample includes 14 deals starting with 2006 sale of *Impexbank* to *Raiffeisen* and concluding with the 2008 sale of *Uniastrum Bank* to the *Bank of Cyprus* in mid-2008. Our data can broadly be classified into two broad categories of transactions: (a) direct sale of business or a controlling stake in its equity, notable examples being the sale of *Absolut Bank* to *KBC* of Belgium in September 2007, or the sale of control over *Rosbank* to *Société Générale* of France in 3 tranches from June 2006 through February 2008; and (b) public offerings, both IPO and SPO (secondary, or seasoned, public offerings), such as the IPO of *Bank St. Petersburg* in November 2007 or the SPO of *Vozrozhdenie* in May 2007.

Financial indicators were taken from [Bankscope] database and from [Bankers' Almanac]. Data on deals come from major industry databases such as [Hoover's] and [Bankers' Almanac] and media sources. Finally, the data on shareholding, personal details of top managers and Directors and the quality of auditors come from regulatory disclosure submitted on a quarterly basis by all issuers of securities to the Russian regulatory authority, Federal Financial Markets Service.

4. Variables

As for *explanatory (independent) variables*, we use a set of parameters that, in our opinion, shed light on the maturity and reliability of a bank's corporate governance system. Having just one explanatory variable would have rendered simplicity to the econometric analysis, so at the outset we were tempted to employ one of the existing ratings of corporate governance (e.g. ratings assigned by Standard & Poor's) as integral measurement of governance 'quality'. Regrettably, the use of already-available indices is deterred by their meager coverage of banks – e.g., just one Russian bank holds a corporate governance rating from Standard & Poor's, and another one bank a rating from RID & Expert-RA.

We suggest the following *candidate independent variables*:

1. Asset size (ASSETS) is used as a control variable to account for the possible premium for large acquisitions (market share premium). We expect the premium to increase with the growth of asset size.
2. Quality of auditors (AUDITORS) is used as a proxy of bank transparency that is an essential aspect of governance for outside investors. AUDITORS is a dummy variable taking a value of 1 if the bank's external auditor is a 'Big-4' accounting firm (Ernst & Young, Deloitte, KPMG, or PricewaterhouseCoopers), and a value of 0 otherwise. We think that, *ceteris paribus*, it is better-governed banks that undertake efforts to increase transparency, to disclose more information and subject themselves to the scrutiny of external auditors of proven integrity and rigor. Global capital markets generally require the issuer to provide investors with highly reliable financial information. Quality of audit and the integrity of the auditors significantly affect the quality of

information available to financial markets, while lack of proper audit impairs a bank's ability to raise funding from those markets. We expect that the more transparent the bank is, the smaller the acquirer's discount for possible risk of accounting fraud. Overall AUDITORS is assumed to have a positive correlation with bank valuation.

3. Rating agency coverage (RATINGS) – a variable counting the number of credit rating agencies that cover the bank. The range of this variable is from 0 when the bank is not rated by either of the major globally recognized ratings agencies - Moody's, Standard & Poor's, or Fitch Ratings, to 3 when rated by all 3 of these agencies. Rating agencies are expected to perform a thorough and impartial risk assessment on behalf of investors. Similarly to AUDITORS, the extent of ratings agencies' coverage as reflected in a higher value of RATINGS is taken as a proxy for greater transparency and better governance, which improves the ability of the bank to raise funds from public financial markets.
4. Size of the Board of Directors (BOD_SIZE) – the number of people sitting on the Board. We assume that going over some notional threshold of the Board size⁵ would jeopardize the Board's inefficiency for two reasons: (a) an excessive numerical composition is usually an indicator of irrelevance of at least some of Board members; (b) big size of the Board might inhibit productive discussion, lead to a bureaucratization of the Board functioning and thus adversely impact the ability of the firm to make swift and timely policy decisions. At the same time, too small a Board may not allow different views and interests to be represented.
5. Degree of Board independence (BOD_IND) – share of independent Directors in the total number. The Board has to be reasonably independent from the bank management in order to perform its fiduciary duties, and independent directors are expected to be free from the conflict of interest, unlike the managers whose actions the Board must monitor. Russian legislation expressly limits the maximum number of members of the Management Board to sit on the Board of Directors to 25% of all Directors, but the rest of them can be other insiders unless they declare their 'independent' status.
6. Shareholder concentration (SCR) – the sum of shares of top 3 shareholders in the charter capital of the bank. We expect this indicator to have positive impact on price in case of acquisitions, while its impact in the case of public offerings is uncertain. An acquirer who wishes to quickly gain control and not to have to deal with minority shareholders must be inclined to pay a premium to book value of the bank. At first glance, SCR appears to express a premium paid for control over the bank. Actually SCR is less about the price at which control over the bank is sold but more about dispersion of remaining stock after acquisition. At the same time, minority stake holders and potential investors in bank shares at an IPO or SPO can reasonably doubt their potential clout over decision-making in a bank where one or a few intimately affiliated individuals have been firmly entrenched (on entrenchment of blockholders against new shareholders see [LaPorta *et al.*, 1999]).
7. Stability of the Management Board (MB_STABILITY) – average tenure of Management Board ('pravlenie') members. Low turnover among top managers can mean that there are no major

⁵ From practical experience and empirical evidence of corporate governance in Russia we take the number of 7 directors as a tentative threshold of optimal size of a Board.

conflicts within the Management Board, the management team is coherent and balanced and one of high quality. The assumption stands that an acquirer depends on the cooperation and goodwill of the previous top management, be it only for statutory reasons and for the sake of business continuity. An acquirer should also want to keep in place a successful and competent management team that has performed so well in the past. In turn, a stable management team can be assumed more likely to stay with the bank after ownership change. If so, then high value of MB_STABILITY should lead to an extra premium that an acquirer is prepared to pay.

8. Stability of the Board of Directors (BOD_STABILITY) is average tenure of Directors. This variable can impact valuation with either positive or negative sign. On the one hand, low rates of turnover in the Board can be viewed as an indicator of maturity, stability, continuity and firm control by key shareholders, thus attributing a positive sign to this indicator. On the other hand, a protracted period of Directors' duties might be an unequivocal sign of entrenchment of key shareholder (-s) against all other parties, including minorities. Russian law does not support the institution of 'staggered boards' and the entire Board is re-elected every year at the regular annual meeting of shareholders. Voting usually follows the 'cumulative' model, meaning that a single drop-out between regular annual meetings triggers full Board re-election at an extraordinary meeting. The absence of such corporate events might reflect various phenomena. Another consideration is that a bank with an overly 'stable' Board is prone to enjoy comfort, become lazy and averse to risk-taking, innovation and adjustment. There is also a risk that over time material interests of Board Directors might become increasingly aligned with those of the bank management rather than its shareholders. Aforementioned phenomena would denote poor governance and explain a possible negative impact of BOD_STABILITY on bank valuation.
9. Time period (TIME) – a variable, representing the quarter in which our observation is made (a transaction is completed). The variable takes on integer values between 1 and 22, with 1 corresponding to Q1 2003, and 22 corresponding to Q2 2008. This variable was included to account for any possible overall increase or decrease in bank acquisition activity over time thus confounding with the specific company characteristics affecting valuation. We decided to include TIME in our sample, along with variables featuring the quality of governance and management in a bank, in order to control for the effect of natural market evolution. Rising confidence in the Russian banking sector, cheaper targets bought first. Variables 1 – 10 (and especially variables 1, 2, 3, 5, 7 and 8) might display co-linearity with TIME because the natural evolution of governance quality is expected to be one of gradual improvement over time.
10. Strategic nature of the transaction (STRATEGIC) – a dummy variable taking on the value of 1 if the acquisition can be considered strategic and 0 otherwise. We consider as strategic investments where there is an intention to influence the direction of the bank's development on behalf of the acquirer and if the acquisition is deemed to be a long term investment, not an intended resale or speculation.

Table 1 lists in alphabetic order a tentative set of independent variables to be included in the model and anticipates the sign of these variables' impact on the dependent variable (P/BV).

Table 1: Preliminary set of explanatory variables

Variable	stands for	Expected impact
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ASSETS	Natural logarithm of asset size	Positive
AUDITORS	Quality of auditors (1 if auditors are a Big-4 firm. 0 – otherwise)	Positive
BOD_IND	Percentage of independent directors on the Board of Directors	Positive
BOD_SIZE	Size of the Board of Directors	Negative (if over 7)
BOD_STABILITY	Average tenure of directors (in months)	Positive
MB_STABILITY	Average tenure of the members of the Management Board (in months)	Positive
RATINGS	Number of major rating agencies covering the bank	Positive
SCR	Sum of top 3 shareholders' shares of equity	Positive for acquisitions, uncertain for public offerings
STRATEGIC	Strategic nature of acquisition (1 if strategic, 0 - otherwise)	Positive
TIME	Quarter in which the transaction has been completed	Positive

We have also considered several other candidate variables, but decided not to include them in the model either on theoretical grounds or for practical reasons. Western concepts of corporate governance may attach weight to factors that in the Russian institutional setting play a different role or no role at all. For instance, inclusion of a dummy variable reflecting whether the CEO and the Chairman of the Board of Directors is the same person (situation quite common in American banks) would hardly add any value because Russian legislation prohibits such practice and all companies in the sample share this feature. Likewise, S & P focuses on ownership structure and external influences as one of four main areas driving the cumulative rating of corporate governance. If we go beyond formal reports to identify ultimate beneficiaries, then Russian banks display a high degree of ownership concentration with a blockholder present in each bank, so this indicator becomes a dummy variable with value next to constant. Some of the indicators of corporate governance quality suitable for mature markets (e.g. frequency of Board meetings, the number of Board committees, and proportion of outside Directors) become biased by the basic Russian cultural institution of tolerating a huge gap between form and substance: most of the recorded Board meetings may have never taken place; most Board committees can (and do) exist on paper only; and many Directors positioned as non-affiliated to the executive management of the company are actually insiders or beneficial owners. Foreign nationals' presence in a Board of Directors as a proxy for good corporate governance [Choi, Hasan, 2005] does not convince us either. In the Russian circumstances the title of 'Director' might mean something different, so the main function and duty foreign prominent figures is advisory, not directorial. The presence of such individuals on the Board is likely to be a pure window-dressing, which in our opinion is an attempt to mislead outsider investors and constitutes bad governance practice, not a good one.

We chose price-to-book-value (*P/BV*) ratio of banks as the *dependent variable* in our model. This indicator has the advantage of being the most commonly used measurement of bank valuation, particularly in the absence of sophisticated stock markets that involve a broad range of equities issued by banks. The choice of *P/BV* allows to sterilize the effects of bank's sheer size on valuation. At the same time, some of the *P/BV* multiples result from single large transactions, rather than from an infinite number of small market-based interactions. Single large transactions, especially those involving shift of control over the bank, are by definition always unique and may be concluded on terms well beyond market-proven price corridors at each point in time. We still believe that our choice of dependent variable *P/BV* as measurement of bank owner *value* is no inferior to any option chosen by other authors.

5. The model and estimation results

In order to quantify the impact of selected indicators on the valuation of banks we tried to build a multiple linear regression model, explaining the dependent variable – *P/BV* ratio.

Our first step was to run the following multiple least-squares model:

$$(1) \quad P/BV = \beta_0 + \beta_1*ASSETS + \beta_2*AUDITORS + \beta_3*BOD_IND + \beta_4*BOD_SIZE + \beta_5*BOD_STABILITY + \beta_6*MB_STABILITY + \beta_7*RATINGS + \beta_8*SCR + \beta_9*STRATEGIC + \beta_{10}*TIME$$

Having run a least-squares estimation procedure we obtained the following output:

Table 2: Preliminary model: regression statistics

R-squared	0.9935
Adjusted R-squared	0.9870
Standard Error	0.1623
Observations	13

Table 3: Preliminary model: analysis of variance

	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	F-significance
Regression	10	4.0042	0.4004	15.2050	0.0633
Residual	2	0.0527	0.0263		
Total	12	4.0568			

Table 4: Preliminary model: regression coefficients

	Coefficient	Standard Error	T-Statistic	P-Value
INTERCEPT	1.5900	0.8593	1.8504	0.2055
ASSETS	0.9220	0.3733	2.4696	0.1322
AUDITORS	-1.0459	0.3926	-2.6642	0.1167
BOD_IND	0.0072	0.0762	0.0948	0.9331
BOD_SIZE	0.0148	0.0086	1.7310	0.2256
BOD_STABILITY	-0.0863	0.0212	-4.0764	0.0552
MB_STABILITY	0.0069	0.0062	1.1066	0.3838

RATINGS	0.6069	0.2401	2.5279	0.1273
SCR	1.7346	0.4310	4.0244	0.0566
STRATEGIC	0.6503	0.4255	1.5282	0.2660
TIME	-0.0459	0.0254	-1.8094	0.2121

Considering the output we received from the model, we can further improve our model by eliminating the least significant variables, namely BOD_IND and MB_STABILITY. Thus, the new model can be formulated as:

$$(2) \quad P/BV = \beta_0 + \beta_1*ASSETS + \beta_2*AUDITORS + \beta_3*BOD_SIZE + \beta_4*BOD_STABILITY + \beta_5*RATINGS + \beta_6*SCR + \beta_7*STRATEGIC + \beta_8*TIME$$

Running the estimation procedure again we get the following results (Tables 5, 6 and 7).

Table 5: Final model: regression statistics

R-squared	0.9754
Adjusted R-squared	0.9262
Standard Error	0.1580
Observations	13

Table 6: Final model: analysis of variance

	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	F-significance
Regression	8	3.9570	0.4946	19.8186	0.0058
Residual	4	0.0998	0.0250		
Total	12	4.0568			

Table 7: Final model: regression coefficients

	Coefficient	Standard error	T-Statistic	P-Value
INTERCEPT	1.6219	0.6267	2.5880	0.0608
ASSETS	-0.0865	0.0206	-4.2048	0.0136
AUDITORS	1.0551	0.1371	7.6954	0.0015
BOD_IND	-1.0639	0.2836	-3.7511	0.0199
BOD_STABILITY	0.0212	0.0030	7.0710	0.0021
RATINGS	0.6679	0.1305	5.1176	0.0069
SCR	1.9438	0.3571	5.4433	0.0055
STRATEGIC	0.4568	0.1380	3.3111	0.0296
TIME	-0.0528	0.0173	-3.0412	0.0384

6. Interpretation of results

Our results might be interpreted in the following way.

The model appears to have an excellent fit, i.e. it explains nearly all variation in the dependent variable (P/BV). The model thus successfully passes the F-test⁶, and all its regressors (including the intercept) are statistically significant at 10% confidence level.

Holding all else equal, a 1% increase in the value of total assets leads to a decrease of 0.09 of the P/BV multiple at acquisition. The presence of reputed auditors tends to increase the valuation multiple by 1.05. Complete independence of the Board of Directors would (quite unexpectedly) reduce the valuation multiple by 1.06. The increase in stability of the Board of Directors (measured in extra months of average tenure of members) by one month boosts valuation by 0.02, which admittedly is a rather negligible (but still statistically significant) contribution. Having one extra rating agency covering the bank increases the P/BV by 0.67. The strategic nature of acquisition (STRATEGIC) increases the premium paid by acquirer to book value of equity by further 0.46. It appears that as time advances, valuation premia tend to decrease by 0.05 per quarter. Finally, by far the greatest contribution comes from shareholder concentration ratio (SCR). A closely held company with 3 shareholders owning 100% of shares would instantly yield a 1.94 P/BV multiple.

Acquirers are likely to attach positive value to the fact that the target bank is closely held, i.e. to the degree of control exercised by top 3 shareholders (SCR). The higher the ownership concentration, the lower the bargaining power of minority shareholders and less cost for the controlling owner to re-align his new subsidiary.

The variable ASSETS has changed its sign from positive, in the preliminary version of our model, to negative in the final version. Discount for larger amount of assets could mean that investors shy away from too large institutions perhaps due to the managerial complexity and the accompanying moral hazard issues.

The premium paid by investors for high quality audit (AUDITORS) could indicate that acquirers mistrust local accounting firms and wish to pay up for the comfort provided by an established auditor.

Stability of the Board of Directors of the target bank (BOD_STABILITY) increases its valuation. This outcome of our modeling does not come as a surprise - the general practice in Russia is the complete replacement of the board with representatives of the new owner (a remarkable exception to this would be the case of Rosbank where the composition of the Board of Directors was only slightly changed). By paying a premium for BOD_STABILITY, are investors wasting their money on an asset they will not be able to take full advantage of?

Management board stability (MB_STABILITY) did not show statistical significance, which might indicate that this team's chances of remaining in place after an ownership change are slim.

It appears that in transactions of a strategic nature (STRATEGIC), the acquirer is keener to acquire the target than in speculative transactions. This could stem from the desire to gain quick access to the Russian banking market and boost market share regardless of economics of acquisition. Our earlier research [Bokov, Vernikov, 2008a] showed a paradoxical insignificance of bank profitability ratios for the price of acquisition.

⁶ F-test is a statistical test of null hypothesis that all regression coefficients are simultaneously equal to zero. Failure to accept the null hypothesis means that at least one of our regressors is linearly related to the dependent variable.

RATINGS (the number of rating agencies covering the bank) as a proxy for bank transparency has shown a sizable impact in line with our expectations. Ratings are, *per se*, a proxy for credit risk and generally substitute rigorous credit analysis. It appears that investors trust the rigor of the rating process and place value on the efforts of the bank's management to attain better transparency. However, given that any acquisition requires a very thorough due diligence that may reveal more information than a credit opinion from a ratings agency, it is rather strange that ratings coverage tends to boost valuation so significantly. Another explanation is that international credit ratings remain a rarity among Russian banks beyond the first tier, thus ratings coverage could be seen a sign of bank's leading position in the industry.

We found a statistically significant correlation between Board of Directors' independence (BOD_IND), on the one hand, and bank valuation, on the other. What we did not expect was the negative sign. It appears that having a Board of Directors comprised of non-executive directors actually tends to destroy shareholder value. The rationale for setting up strong corporate boards with high degree of independence now looks shakier if there are other options besides an IPO; such expense may not be recovered from a strategic investor. The bias might originate from the unbalanced sample heavily influenced by M & A transactions, while a greater number of IPOs and SPOs would have reflected portfolio investors' concern for governance and Board independence. This matter requires further analysis.

Finally, the significance of TIME, the variable measuring the dynamics of valuations could be seen as an indicator of gradual maturity of the Russian market for bank M&A as the new entrants into the market are less keen on entering the market at all costs. An alternative explanation could be that as investors set their sights on larger Russian banks, the discount effect identified for asset size variable (ASSETS) could come into play.

7. Conclusions

We attempted to quantify the impact of individual elements of corporate governance on valuation of banking firms in Russia. In order to feature the state of governance in a bank we devise an original set of variables reflecting transparency, maturity, ownership structure, and Board independence. Assets size and time are used as control variables. A least squares multiple linear regression model includes statistically significant factors and is applied to explain differences in valuation of banks in 13 different transactions in our sample. Methodological imperfections notwithstanding, our attempt yielded some interesting findings.

First, investors clearly prefer closely held banks, probably with the view of avoiding additional hassle of dealing with minority stakeholders and the absence of reliable institutions of corporate law and corporate governance in Russia. Hence, the notion that a widely-held-corporation model is superior to a block-holder model of corporate control does not stand true for Russian banks.

Second, size matters. The larger the assets size, the lower the P/BV multiple, *ceteris paribus*.

Third, efforts and expenses incurred in the process of upgrading corporate governance towards so-called 'best international standards' do not necessarily pay off. Strategic investors seem to be adverse to the idea of independence of the Board of Directors. They prefer highly stable

boards, but otherwise disregard the features of the governing bodies, maybe because the intention is to reappoint those bodies in any case. Such an outcome might serve as a reality check for the promoters of Western-style corporate governance systems in Russia.

Fourth, would-be external investors do appreciate bank transparency. Rightly or wrongly, they attach value to a bank's readiness to submit itself to the scrutiny of reputed external auditors and international rating agencies.

As a *direction for future research*, we plan to broaden the coverage and increase the sample size. M&A activity in the Russian banking sector has picked up in 2007-2008 in the context of consolidation triggered by the global financial crisis, so we anticipate more deals in the nearest year or two. We must learn to control for price differences between transactions implying shift of control (acquisitions) and those not affecting control (IPOs, SPOs and stock trading). Data on stock market valuation of publicly-traded Russian banks will be added at a later stage when stock market recovers. We may also try going beyond price-to-book-value multiples to employ alternative methods of valuation of the banking business, e.g. by considering yields on senior bonds or hybrid capital products issued by the Russian banks [Bokov, 2007]. We will study the impact of a stable set of explanatory variables on bank 'price' resulting from different valuation techniques.

References

Bankscope Database www.bankscope.bvdep.com

Bankers' Almanac www.bankersalmanac.com

Black, Bernard (2001), The corporate governance behavior and market value of Russian firms, *Emerging Markets Review*, **2**: 89-108.

Black, Bernard, Inessa Love and Andrei Rachinsky (2006), Corporate governance and firms' market values: Time series evidence from Russia, *Emerging Markets Review* **7**(4): 361-379.

Bokov, Vassily (2007), The use of hybrid financial products for commercial bank valuation. - M.A. thesis, Higher School of Economics (Department of Banking), Moscow. - in Russian.

Bokov, Vassily and Andrei Vernikov (2008a), Measuring the impact of governance quality on bank valuation in Russia. - Conference paper, EACES (European Association for Comparative Economic Studies) 10th Conference, Moscow, 29 August 2008.

Bokov, Vassily and Andrei Vernikov (2008b), Governance quality and bank valuation in Russia: An empirical study, *EJournal of Corporate Finance* (Moscow), No.3 (October).

Choi, Sungho and Iftekhar Hasan (2005), Ownership, governance, and bank performance: Korean experience, *Financial Markets, Institutions and Instruments* (New York University), **14** (4): 215-242.

Hoover's Database www.hoovers.com

IFC (2007), Russia banking sector corporate governance survey: A snapshot on improvements made, International Finance Corporation, Moscow.

Klapper, Leora F. and Inessa Love (2004), Corporate governance, investor protection, and performance in emerging markets, *J. of Corporate Finance* **10**: 287-322.

La Porta, Rafael, Florencio López-de-Silanes and Andrei Shleifer (1999), Corporate ownership around the world, *J. of Finance* **54** (2): 471-517.

Morck, Randall, Daniel Wolfenzon and Bernard Yeung (2005), Corporate governance, economic entrenchment, and growth, *J. of Economic Literature* **43**: 655-720.

RID & Expert-RA. National Rating of Corporate Governance./ Russian Institute of Directors & Expert Rating Agency. raexpert.ru/ratings/corporate/

Standard & Poor's (2006), Corporate governance ratings: Criteria and methodology. www.standardandpoors.ru

Standard & Poor's (2007), Transparency & Disclosure Survey of Russian Banks 2007. www.standardandpoors.ru

Standard & Poor's (2008), Criteria: Corporate governance rating GAMMA — Governance, Accountability, Management Metrics and Analysis. www.standardandpoors.ru/page.php?path=gammawww.standardandpoors.ru/page.php?path=gamma

Staryuk, Pavel (2008), Impact of corporate governance on the valuation of Russian companies (an empirical analysis). – PhD thesis, Higher School of Economics, Moscow. – in Russian

Vernikov, Andrei (2007), Corporate governance and control in Russian banks, Working Paper WP1/2007/02, State University – Higher School of Economics, Moscow.

Appendix

Appendix 1: Sample of transactions*

Target	Acquirer	Date	P/BV	Type
<i>Absolut Bank</i>	<i>KBC</i>	<i>September 2007</i>	<i>3.80</i>	<i>sale</i>
<i>Bank SPB</i>	--	<i>November 2007</i>	<i>2.90</i>	<i>IPO</i>
DeltaCredit	Société Générale	August 2005	3.20	sale
<i>Expobank</i>	<i>Barclays</i>	<i>March 2008</i>	<i>4.00</i>	<i>sale</i>
Extrobank	Banco Santander	June 2007	4.40	sale
Gorodskoy Ipotechny Bank	Morgan Stanley	December 2006	5.00	sale
<i>Impexbank</i>	<i>Raiffeisen</i>	<i>January 2006</i>	<i>2.90</i>	<i>sale</i>
International Moscow Bank	Unicredit	October 2006	2.90	sale
Investsberbank	OTP	November 2006	3.90	sale
Investtorgbank	hedge funds	June 2008	4.20	sale
KMB-Bank	Intesa	April 2005	3.90	sale
Monchebank	DnB NOR	October 2005	2.20	sale
National Standard	OEMK-Invest	September 2006	1.15	sale
<i>Orgresbank</i>	<i>Nordea</i>	<i>November 2006</i>	<i>4.30</i>	<i>sale</i>
<i>Probusinessbank</i>	<i>Merril Lynch</i>	<i>November 2006</i>	<i>3.00</i>	<i>sale</i>
<i>Probusinessbank</i>	<i>Renaissance Capital</i>	<i>November 2006</i>	<i>3.00</i>	<i>sale</i>
<i>Promsvyazbank</i>	<i>Commerzbank</i>	<i>December 2006</i>	<i>3.40</i>	<i>sale</i>
PSB	VTB	September 2006	2.20	sale

PSB	VTB	September 2004	1.20	sale
Renaissance Capital	Onexim	September 2008	1.00	sale
<i>Rosbank</i>	<i>Société Générale</i>	<i>June 2006</i>	<i>4.50</i>	<i>sale</i>
<i>Rosbank</i>	<i>Société Générale</i>	<i>September 2006</i>	<i>4.50</i>	<i>sale</i>
<i>Rosbank</i>	<i>Société Générale</i>	<i>February 2008</i>	<i>3.67</i>	<i>sale</i>
Sberbank	--	March 2007	3.70	SPO
<i>Uniastrum Bank</i>	<i>Bank of Cyprus</i>	<i>June 2008</i>	<i>3.10</i>	<i>sale</i>
<i>Vozrozhdenie</i>	--	<i>August 2006</i>	<i>4.00</i>	<i>IPO</i>
<i>Vozrozhdenie</i>	--	<i>May 2007</i>	<i>3.80</i>	<i>SPO</i>
VTB	--	May 2007	2.40	IPO

** transactions included in the modeling and calculations are shown in italics*

Sources: public disclosure; media; our database

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