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DOES CORPORATE GOVERNANCE REALLY PREDICT FIRMS' MARKET VALUES IN EMERGING MARKETS? THE CASE OF RUSSIAN BANKS

There is a need to add to the literature on the nexus between corporate governance and company valuation in emerging market countries. Conventional wisdom suggests a positive connection between the two and several authors claim to have proven it empirically. It matters how exactly the connection is identified. We rely on the case of Russian banks to argue that this connection can hardly be established in a convincing way due to data deficiency and methodological constraints. We therefore suspect positive bias in some of the papers. Russian stock market cannot provide enough statistical material for the construction of a response variable; hence a selection bias in favor of the tiny minority of publicly listed banks. Another shift in the sample is towards very few Russian banks with an independently assigned corporate governance score. With regard to explanatory variables there is ambiguity as to how to proxy “good corporate governance” and how to deal with endogeneity. High concentration of ownership in Russia renders artificial and redundant some of the mechanisms of corporate governance. The common approach to modeling governance-performance nexus is further challenged by the market structure, namely prevalence of state-controlled entities. These banks perform a variety of unconventional functions and pursue goals beyond maximization of profit or share price. It is unclear how statistical and methodological constraints can be overcome at the current stage of research. This discussion might be relevant for emerging markets apart from Russia.

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CREDIT RISK APPRAISAL: MEASUREMENT, VALIDATION AND RATINGS

The assessment of the creditworthiness of borrowers in the form of default probabilities is the main task for rating agencies. Various parametric and nonparametric methods are used to estimate ordinal measures of default risk. In banking it is common to estimate the default probability over specified time horizons by means of statistical methods like multivariate discriminant analysis (see Altman, 1968), and logistic regression (Wiginton, 1980). These are both special regression methods from the family of Generalised Linear Mixed Models (GLMM) and can be seen to

be based on scores which depend on the explanatory variables in a predefined form.

Methods that allow a more flexible modelling approach are non-parametric GLMM extensions (see Hastie and Tibshirani, 1990), classification and regression trees (Brieman, Friedman, Olshen, and Stone, 1984), the k-nearest neighbour classifier (Hand and Henley, 1996), or neural networks (West, 2000). A major drawback of the latter approaches is also their advantage: they are able to recognize and incorporate non-monotone relations between explanatory variables and the probability of default in various, non-parametric forms (e.g. the size of a company and its default probability can be non-monotone, *ceteris paribus*). Unfortunately, the resulting non-monotonicity often lack economic plausibility and therefore the acceptance from credit risk measure users. It is often difficult to tell statistical artifact from genuine, economic relevant, non-monotonicity.

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COMPARISON OF DEFAULT PROBABILITY MODELS: RUSSIAN EXPERIENCE

Under the Basel II accord, improving probability of default models is a key risk-management priority. There are four main aspects of this research: suggesting the bank default classification; using a wide time horizon (quarterly Russian banking statistics from 1998 to 2011); investigating the macroeconomic and institutional characteristics of the banking sector environment and finally, testing the accuracy of the models developed.

We have employed nonlinearity and automatic classification of the independent variables in our models, paying attention to the structure of the banking market as well as to the reliability of the models developed. We have compared several models for estimating default probabilities. From the results of this comparison, we have chosen the binary logit – regression with quasi panel data structure. Our key findings are:

- There is a quadratic relationship between bank's capital adequacy ratio and its probability of default.
- The “too big to fail” hypothesis does not hold for the Russian banking sector.
- There is a negative relationship between the Lerner index and bank's PD.
- Macroeconomic, institutional and time factors significantly improve the model quality.