

# GOVERNMENT EFFECTIVENESS AND VALUE CREATION: THE CASE OF EMERGING EUROPE- AN LISTED BANKS<sup>1</sup>

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## Abstract

This study adds to the field of public administration by focusing on the nexus between government decision and bank performance scores highlighting the administrative regulatory dimensions of improvements. To this end, this research paper covers a unique database comprising all listed banks that operate on emerging European markets in the period 2005-2011. Country specific characteristics are presented in the light of public administration quality which includes the dimension of governance quality on the one side, and the quality and administrative burden on business environment on the other. Bank performance is defined under two different approaches (accounting vs. market based) taking into account different stakeholders interest (state and central bank authority vs. investors). We account for profit persistency by using a Prais-Winsten regression that allows for both autocorrelation and heteroskedasticity in data. The results call attention to the fact that in emerging European markets regulatory glitches have a positive impact upon bank performance. Market imperfections are a source of profitability as they generate a reliable supply of market share appropriation and thus monopoly power. Also, administrative commitment towards increasing the quality of public services and policies endorsed by diminishing the level of corruption will accelerate private development and thus banking profitability.

**Keywords:** public administration, government effectiveness, Eastern Europe, banking performance.

## 1. Introduction

The role of government in fostering economic growth and development at a national and even global level is considered self-evident and represents a truism deeply consolidated in the mind of researchers. In this study we link this 'taken for granted' relationship to the field of corporate performance assessment and explore country specific determinates of corporate value creation. Because economic growth and development is a corollary of good performing companies, we explore the interconnections between government's characteristics and shareholder value creation by focusing on a sample of listed banking companies that operate in the emerging European markets.

Banking institutions represent the main financier of the real economy and in the case of emerging markets, where other elements of the financial system are underdeveloped, it is evident that banks contribute on a larger scale to the optimal allocation of financial resources. Recent studies (Dragotă, 2006; Dragotă *et al.*, 2008, Dragotă *et al.*, 2011) provide facts supporting the idea that bank loans represent the main external source of financing exceeding by far the role of the capital market. Moreover, Tse, Liu and Lau (2010) show that listed financial institutions have a major impact on the evolution of the overall stock market. This idea is endorsed by the finding that a small number of stocks (e.g., commercial banks) are exerting much of the influence over the majority of stocks.

This study adds to the research literature in the field of corporate performance in following ways: firstly, by depicting the nexus between government decision and performance scores we contribute to the field of public administration suggesting regulatory dimensions of improvements; secondly, we focus on highlighting the informational power of accounting and economic-based measures of performance by identifying significant relationships with country-specific explanatory variables; thirdly, we investigate these relationships on an original sample and period (emerging European Banks, 2005-2011) rarely approached in empirical studies.

The paper is organized as follows: a literature review is provided in order to get a better grasp of the state of the art regarding the relation between corporate performance and country characteristics followed by a presentation of the research methodology implied. The final part of the paper presents the obtained results and discusses the main conclusions that are to be drawn.

## 2. Literature review

From a theoretical point of view, governments affect the economy of a state at least in four ways (Khanna *et al.*, 2005): by defining property rights, governments shape the nature and the scope of an economy (i.e. capitalism vs. centralized planning); by legitimating the mechanisms of currency, price support, governments define the conduct of economies; by enforcing taxes and other contributions, governments intervene in the process of resources reallocation in the economy; by regulating trade governments can impose entry and exit barriers.

Governments play a vital role in the process of new industry creation and hence economic development. Pearce (2001) points out to the fact that governments can act as facilitators/non-facilitators taking into consideration the extent to which the 'rule of law' is set up and enforced. Moreover, Spencer, Murtha and Lenway (2005) show that institutional arrangements that exist at the state level and are extremely heterogeneous between countries pose distinctive opportunities and challenges. The authors argue that government office-holders have to recognize the country specific potential and enable the process of new industry creation. The conclusion of this study is captured in Lindblom's words (1977, p. 173): 'Governments cannot command business to perform. They must induce rather than command' and emphasizes the importance of government decisions for economic growth.

This institutional-based perspective has its fundamentals in the idea that governmental institutions provide the rules that define the context structuring human interactions. North (1990) argues that the role of these institutions is to reduce transaction costs and informational asymmetry by diminishing uncertainty and creating a stable structure that enables interactions. From the private sector perspective this environment could lead to either opportunistic or competitive behavior as a microeconomic approach to corporate value maximization.

An emerging economy is often defined as contrasting with developed countries characteristics. Thus, emerging economies are characterized by a rapid pace of economic growth sustained by government policies that aim at economic liberalization and achieving a free market state. Some of the particularities that characterize emerging markets could act as incentives for opportunistic vs. competitive behavior (Hoskisson *et al.*, 2000): redundant and significant macroeconomic and political instabilities, looseness of judicial decisions, high levels of corruption and bribery, lack of managerial skill and knowledge of market-based performance, relationship-based management and close business-government ties.

Although there is a consistent body of theoretical argumentation on the institutional impact on performance, from an empirical standpoint a small number of studies deal with validating this approach.

Environmental differences acting on behalf or against the business sector in developed or emerging economies were scrutinized starting with the study of Makino, Isobe and Chan (2004). While this is one of the first comparative studies undertaken in this field it has a limited objective. The focus is to assess if there is a difference in firm performance between countries and if emerging countries display a different pattern of profitability. The main finding is that country does matter, as in the case of multinational companies' location, *ceteris paribus*, it explains between 3.7% and 7.7% of corporate performance. In the same spirit, Vassolo, Hermelo and Rodriguez (2007) find that by analyzing a sub-sample of abnormal performers, context-specific effects (i.e. industry and country effects) become more significant.

More recently Ketelhöhn and Quintanilla (2012) showed that true country effects were underestimated by Makino *et al.* (2004). Analyzing listed companies in seven

Central American countries for the period 2000-2004 the authors showed that neighboring countries exhibit significant differences in performance scores (between 5.1% and 8.4%) and advocate that larger performance variations should be expected for countries that are more heterogeneous.

These studies deal with assessing the size of country effects but do not investigate the impact of country-specific variables on performance variability. To our knowledge, Chao's and Kumar (2010) approach is the only one that links performance and country effects via international diversification. The study reveals a negative effect on the diversity-performance relationship generated by high differences between countries in regulative institutional frameworks – i.e. formal regulation like propriety rights. Also, normative institutional differences – i.e. informal norms and values – present a positive significant effect.

However, assessing the impact of country effects raised increased interest in the research literature and was scrutinized in correspondence with dependent variables as: FDI flows (Xu and Shenkar, 2002) subsidiary exit (Gaur and Lu, 2007), ownership structure (Arslan and Larimo, 2010), entry mode choice (Schwens, Eiche and Kabst, 2011), product diversification (Chao and Kumar, 2010), environmental performance (Aguilera-Caracuel *et al.*, 2013), propensity to internationalize (Arregle *et al.*, 2013).

Integrating the state of the art literature in this field, the present study aims at testing two hypotheses:

*H1: Bank performance significantly varies across emerging European countries.*

*H2: Country-specific institutional arrangements have a significant impact on bank performance across emerging European economies.*

### **3. Methodology**

#### **3.1. Performance metrics**

From a microeconomic point of view the problem of bank performance assessment is one of profit maximization, hence explaining the changes in the profitability of banks is the implicit or explicit subject of much of the banking literature. For example, the European Central Bank (ECB) defines bank performance in terms of the institution capacity to generate sustainable profitability since profit represents 'the first line of defense against unexpected losses, strengthens its capital position and improves future profitability through investments of retained earnings' (ECB, 2010, p. 8). From this perspective, the key drivers of bank performance are represented by earnings, efficiency, risk-taking and leverage. The core activity must generate earnings and it is essential to ascertain the volatility of those earnings; risk-taking refers to the adjustment of the earnings for undertaken risks; efficiency can be described as the situation in which a bank operates at lower costs and produces higher profits by transforming inputs into outputs in the cheapest possible way; leverage functions as a multiplier and it might improve results but it makes banks more susceptible to fail due to rare, unexpected losses.

Integrating the presented key drivers, bank performance measurements used by academics and practitioners can be grouped in three categories: traditional, economic and market-based measures. Recent studies (Kosmidou, Pasiouras and Tsaklanganos, 2007; Naceur and Omran, 2011; Olson and Zoubi, 2011) use traditional measures as most suitable for performance assessment. Most of the traditional banking performance measures directly relate the current net income of a business entity with equity, total assets or use net interest margin. Commonly used measures are: ROA – reflecting the capacity of the bank management to transform assets into net earnings, and ROE – measures the performance from the perspective of the equity holders. However, ROE offers a misleading image of bank performance as highly leveraged banks will obtain, *ceteris paribus*, higher values of ROA by increasing solvency risk. This study uses ROE as a traditional measure of performance:

$$ROA_t = \text{Net Profits}_t / \text{Total Asstes}_t \quad (1)$$

Economic measurements or shareholder value metrics gained increasing popularity in the field of performance assessment for financial institutions. One of the most notorious measures from this perspective is Economic Value Added (EVA). This metric was introduced by Stern Stewart in 1991 and unlike traditional (accounting) measures of performance EVA raises attention to the issue highlighted by Modigliani and Miller: not only debt holders expect a certain return but also shareholders of the bank expect a specific rate of return for assuming the risk of investing in the bank. Computing EVA means understanding that the generated revenues must cover for operating expenses and the interest charges on debt but it also must compensate shareholder for the risks undertaken by investing equity.

The key principle of EVA is to subtract from the Net Operating Profits after Tax (NOPAT) all debt and equity charge, thus providing shareholders with a threshold for a minimum level of operating profits. Also EVA assumes correcting from some accounting biases generated by conservative accounting policies. In practice about six to ten adjustments are needed in order to transform accruals to cash value. However, Munteanu and Brezeanu (2012a; 2012b) show that the simplified version of EVA Residual Income (RI) provides the same informational benefits (high levels of correlation between rank classification under EVA and RI) but with more computational advantages. RI is in fact EVA without adjusting for accounting bias. This argument is backed-up by the fact that accounting adjustments are difficult to implement from an outsider position as most adjustments require an in-depth knowledge of the financial situation.

RI is computed under two specifications:

$$RI1_t = NOPAT_t - (K_e_t * \text{Shareholder Equity}_t) \quad (2)$$

$$RI2_t = NOPAT_t - (K_e_{t-1} * \text{Shareholder Equity}_{t-1}) \quad (3)$$

where  $K_e$  reflects the cost of equity.

While the first specification recognizes the contemporaneous effect of shareholder endeavor to sustain bank activity, the second specification allows for a delay of one year acknowledging that present outcome depends on past efforts. In order to obtain comparable values with ROA, both RI1 and RI2 are divided by the total value of the bank's assets.

As standard literature suggests, the cost of equity is estimated using the Capital Asset Pricing Model (CAPM):

$$E(R_i) = R_F + \beta(E(R_M) - R_F) \quad (4)$$

where  $E(R_i)$  is the expected return on security  $i$  and is an estimation of the cost of equity,  $R_F$  is the risk-free rate proxied by the rate of return of long-term government bonds,  $\beta$  is a measure of systematic risk and expresses the sensitivity of each individual security to market fluctuations.  $E(R_M) - R_F$  represents the market risk premium associated to an individual security (the equity risk premium).

### 3.2. Empirical model of performance variability assessment

Banks are highly regulated institutions and regulatory rules affect growth potential. Regulatory restrictions on book equity capital (Tier1 and 2) can influence how quickly the bank can expand over time and the degree of profitability generated by the expansion. As a result we expect bank profitability to be persistent in time. In order to account for this persistency, we assume both heteroskedasticity and autocorrelation within panels and employ a Prais-Winsten regression. We estimate the following model specification:

$$y_{it} = x_{it}\beta + u_{it} \quad (5)$$

where

$$u_{it} = \rho u_{it-1} + e_{it} \quad (6)$$

where  $i = 1, \dots, 59$  is the number of units (or panels);  $t = 2005, \dots, 2011$ ;  $T_i$  is the number of periods in panel  $i$ ; and  $u_{it}$  is a disturbance that may be autocorrelated along  $t$  or contemporaneously correlated across  $i$ ;  $e_{it}$  are independently and identically distributed as  $N(0, \sigma^2)$ ;  $y_{it}$  represents the dependent variable ( $ROA$ ,  $RI1$ ,  $RI2$ ), which stands for each bank ( $i$ ) performance indicator at a moment in time ( $t$ );  $x_{it}$  contains for the vector of independent variables;  $\beta$  represents the parameters that are to be estimated for all cross-section units and captures the impact of the independent variables over the dependent variable.

The Prais-Winsten estimator is a generalized least squares (GLS) estimator derived from the AR (1) model for the error term described in equation 6. This method preserves that first observation and in small samples this represents a significant advantage.

### 3.3. Data

International Monetary Fund (World Economic Outlook 2005-2011) defines the group of emerging European economies as consisting on the following countries: Bosnia and Herzegovina (BH), Bulgaria (BA), Croatia (CZ), Hungary (HU), Latvia (LV), Lithuania (LT), Estonia (EE), Macedonia (MK), Montenegro (ME), Poland (PL), Romania (RO), Serbia (RS), and Ukraine (UA).

All banking institutions that are listed at the national stock exchange market are included in the study. The time coverage is 2005-2011. Accounting data are collected from the financial statements reported under IFRS, and for each year the values are transformed in EURO using the exchange rate from 31<sup>st</sup> of December. These data are available on each bank's official web-site. Market data (daily closing prices of shares and of market index used in the CAPM model) are gathered from the national stock exchange of each country. For the MVA computation we use as a proxy for the risk free rate the long term government bonds with a remaining maturity close to ten years available for each country official statistics. The sample consists of an unbalanced panel of 59 banking institutions for which we have a number of 361 observations for the period of 7 years<sup>1</sup>.

The independent variables were selected from two databases provided by the World Bank. Worldwide Governance Indicators (WGI) – is a database containing different indexes that reflect the perceptions about specific issues of a large number of enterprise, citizen and expert survey respondents originating in industrial and developing countries. This study uses as independent variables the following indexes (World Bank, Methodological notes 2013):

Government Effectiveness (GovEff) reflecting perceptions of:

- the quality of public services;
- the quality of the civil service and the degree of its independence from political pressures;
- the quality of policy formulation and implementation; and
- the credibility of the government's commitment to such policies.

Regulatory Quality Index (RegQuall) presents the respondents' perceptions on the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Rule of Law (RLaw) reflects the perceptions of the extent to which agents have confidence in and abide to the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

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1 Emerging European markets display a highly concentrated banking sector most of the listed banks represent the largest four banking institutions in the system. As respects to the representativeness of the sample the 59 banking institutions account for more than 60% of the net total value of banking assets.

Control of Corruption (Corr) reflects perceptions about petty and grand forms of corruption but also about the extent to which public power is exercised for private interests.

Voice and accountability (Voice) is a measure of public democracy as it captures perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Political stability and absence of violence (Pol\_stab) measures perceptions on the likelihood of government destabilization by appealing to unconstitutional or violent means, including politically-motivated violence and terrorism.

In order to capture more details on regulatory environment elements we also use the World Banks database on Doing Business by selecting the following variables: public information disclosure (Discl), investor protection (Inv\_prot), tax rate out of profits (TR\_prof%) and number of days needed to start a business (SB\_days).

## 4. Results

### 4.1. Some descriptive statistics

Table 1 presents the values obtained for the profitability variables ROA, RI1 and RI2. For each country in the sample an average value is computed covering the time span 2005-2011. The presented values display high heterogeneity between performance scores obtained by banks that operate in the emerging European markets. This observation could point out to the fact that different country environments may support to a greater extent the intermediation activity specific to banks.

In order to assess if the mean values are statistically significantly different between countries, an analysis of variance was used. The obtained value for the F test suggests, at a level of significance greater than 1%, the average values between countries are significantly different from each other. The highest profitability from the accounting point of view was obtained in countries like Serbia, Bulgaria, Macedonia and Hungary.

**Table1:** Average values of bank profitability

Country	ROA		RI1		RI2	
	Average	St. dev	Average	St. dev	Average	St. dev
BH	<b>0.0072</b>	0.0873	-0.0375	0.0607	-0.0444	0.0720
BA	0.0310	0.0267	0.0340	0.1243	0.0501	0.1637
CZ	<b>0.0142</b>	0.0231	<b>-0.1166</b>	0.4196	<b>-0.1000</b>	0.3228
LV	0.0024	0.0129	-0.0591	0.1227	-0.0356	0.1657
MK	0.0213	0.0092	0.0185	0.0949	0.0226	0.1134
ME	<b>0.0027</b>	0.0272	<b>-0.1586</b>	0.3559	<b>-0.1393</b>	0.3401
PL	0.0149	0.0096	-0.0055	0.0791	0.0160	0.0907
RO	0.0119	0.0137	0.0105	0.1573	0.0473	0.1812
RS	0.0568	0.1109	-0.1117	0.4499	-0.0131	0.3029
UA	<b>-0.0571</b>	0.1066	<b>-3.2040</b>	0.1818	<b>-0.0497</b>	0.1826
HU	0.0208	0.0170	0.0485	0.1259	0.0856	0.1313

**Source:** Authors' own calculations

Taking into consideration the contemporaneous effect of shareholder endeavor to sustain bank activity captured under the value of RI1, Hungary offers the best environment of shareholder value maximization followed by Bulgaria and Macedonia.

RI2 acknowledges that present outcome depends on past efforts. From this perspective, Hungary is again the leader followed by Bulgaria and Romania. The obtained values suggest that for the RI variable we have similar rankings between countries but these rankings also correlate with the accounting measure of performance ROE. The Spearman rank correlation of profitability scores show that for the whole sample we observe a rank concordance between ROA and RI1 of 42.57%, ROA and RI2 of 41.23% and RI1 and RI2 of 85.95%. This rank correlation suggests that in less than half of the situations markets appreciate the value of the banking firm on the same level as the accounting approach. This difference comes from the fact that RI deduces for both the cost of debt and the cost of equity from the NOPAT figure, providing a more realistic measure of what represents the created value for shareholders after one financial exercise.

Table 2 provides the values obtained under the CAPM approach for estimating each bank cost of equity. In order to obtain the  $\beta$  value of undiversifiable market risk we regressed the return of each equity over the value of market return. The cost of equity was then computed by using equation 4.

The highest cost of equity was obtained in Ukraine, followed by Hungary, Poland and Romania, while the lowest cost of equity on average was recorded in Montenegro and Bosnia and Herzegovina. Also in this case we tested for mean differences between countries. The analysis of variance shows that indeed the obtained average values are different between countries ( $F=13.68$ ).

**Table 2:** Average cost of equity under the CAPM model

Country	Average	Coeff. of variance	Skewness	Kurtosis
BH	<b>6.5796</b>	0.7253	1.4930	6.4505
BA	8.3679	0.2313	0.0176	1.9401
CZ	7.2916	0.2829	0.5227	3.3922
LV	8.6087	0.1846	0.7214	2.2681
MK	<b>7.0371</b>	0.2295	0.0213	1.9497
ME	<b>5.2303</b>	1.0437	-1.9173	7.3389
PL	<i>11.5063</i>	0.2371	-0.1809	2.3435
RO	11.1033	0.4929	1.7108	5.2771
RS	8.1144	0.5646	1.3235	4.3032
UA	<i>17.1530</i>	0.6799	1.1891	3.9289
HU	<i>13.8138</i>	0.5828	2.8409	10.1149
Total	9.1478	0.5587	2.3626	17.2589
F-test	13.68			
p-value	0.0000			

**Source:** Authors' own calculations

As pointed out by Ivan and Iov (2010), emerging European countries present a great deal of similarities resulting from a common historical course determined by econom-

ic, political and social experiences. The main common characteristics of these countries are reflected in weak institutional development and orientation towards conflict. Table 3 presents average values of the index capturing the quality of public administration computed by the World Bank under the Worldwide Governance Indicator Database.

**Table 3:** Mean values of Governance Indicators

Country	GovEff	RegQuall	RLaw	Corr	Pol_stab	Voice
HU	0.7606	1.1229	0.8237	0.4492	0.7728	0.9853
LV	0.6164	0.9825	0.7297	0.2149	0.5058	0.7894
CZ	0.5561	0.4975	0.0936	0.0191	0.5472	0.4541
PL	0.5388	0.8578	0.5373	0.3374	0.7557	0.9139
BA	0.0123	0.6216	-0.1187	-0.1973	0.3520	0.5505
ME	-0.0148	-0.0794	-0.1056	-0.2291	0.3945	0.2266
MK	-0.1189	0.1815	-0.3696	-0.1897	<b>-0.4683</b>	<b>0.1338</b>
RS	-0.1673	<b>-0.2329</b>	<b>-0.4857</b>	<b>-0.2785</b>	<b>-0.5186</b>	0.2385
RO	<b>-0.2323</b>	0.5601	-0.0309	-0.1982	0.2020	0.4594
BH	<b>-0.6942</b>	<b>-0.2121</b>	<b>-0.4239</b>	<b>-0.3218</b>	<b>-0.6156</b>	<b>-0.0106</b>
UA	<b>-0.8090</b>	<b>-0.5576</b>	<b>-0.8341</b>	<b>-0.9991</b>	-0.2050	<b>-0.0791</b>
Total	0.1287	0.3661	0.0077	-0.0677	0.2114	0.4586

**Source:** Authors' analysis of the Worldwide Governance Indicators Database. The order of the countries corresponds to the ranking generated by the dimension Government Effectiveness.

The values of each six governance dimensions are normalized in the computation methodology by ranging between -2.5 and +2.5. The higher the score the better the governance environment created by one country. The grand mean value of the sample bring arguments to the fact that these countries present a weak institutional environment as the highest average value of the sample is obtained in the voice and accountability dimension and is less than 0.5. The highest average value obtained by one country is on the dimension regulatory quality and was obtained by Hungary. At the first glance, it seems that a correspondence between performance rankings and governance rankings exists.

**Table 4:** Mean values of Doing Business Indicators

Country	Discl	Inv_prot	TR_profit%	TR_number	SB_days
UA	3.67	4.37	<b>56.63</b>	<b>143.00</b>	<b>27.00</b>
HU	<b>2.00</b>	<b>4.30</b>	<b>56.20</b>	13.57	22.43
RO	8.76	5.93	<b>49.27</b>	<b>110.40</b>	11.76
PL	7.00	5.93	44.34	38.30	31.30
LV	5.00	5.70	37.53	13.29	16.00
BH	<b>3.00</b>	<b>5.00</b>	37.39	55.00	<b>65.03</b>
BA	10.00	6.00	36.37	19.26	<b>30.09</b>
RS	7.00	5.30	34.96	66.00	22.09
CZ	<b>1.00</b>	<b>4.00</b>	32.54	23.24	22.31
ME	5.11	6.27	28.48	<b>81.95</b>	17.26
MK	6.45	5.88	18.74	41.09	17.32
Total	5.14	5.23	38.32	49.81	27.08

**Source:** Authors' analysis of the Doing Business Database. The order of the countries corresponds to the ranking generated by the dimension TR\_profit%

Table 4 presents the average country values of several indexes that describe the regulatory quality of business environment (Discl and Inv\_prot) or represent the administrative burden on the business environment (TR\_profit%, TR\_number, SB\_days).

The Discl describes the degree by which investors are protected through disclosure of ownership and financial information. Beyond the information concerning financial disclosure, Inv\_prot offers information regarding the extent of director liability index and the ease of shareholder suits index. Both indexes range from 0 to 10, with higher values indicating more disclosure. According to the methodology, TR\_profit% measures the amount of taxes and mandatory contributions payable by businesses after accounting for allowable deductions and exemptions as a share of commercial profits. TR\_number reflects number of taxes paid by businesses and SB\_days displays the median duration that incorporation lawyers indicate is necessary in practice to complete a procedure with minimum follow-up with government agencies and no extra payments.

#### 4.2. Regression results

Table 5 summarizes the first specification of the model. The aim of the analysis is to investigate if the research hypothesis formulated: H1: Bank performance significantly varies across emerging European countries, and H2: Country-specific institutional arrangements have a significant impact on bank performance across emerging European economies, can be validated by real data.

The highest Wald Chi<sup>2</sup> denotes the best model specification, while R-squared shows how much of the analyzed phenomenon is explained by the model. Both information criteria suggest that the relevance of the specifications can be ranked as follows: Model1, Model3, and Model 2.

**Table 5:** Results of the Prais–Winsten regression analysis

	Model 1: Y= ROA			Model 2: Y=RI1			Model3: Y=RI2		
	Coef.	Std. Err.	z-score	Coef.	Std. Err.	z-score	Coef.	Std. Err.	z-score
GovEff	0.0734***	0.0057	12.92	1.4173**	0.7020	2.02	2.4123**	1.1886	2.03
RegQuall	-0.0104*	0.0066	-1.57	0.6604*	0.4335	1.52	0.5815*	0.2599	1.42
RLaw	-0.0637***	0.0085	-7.51	-0.7660	0.5771	-1.33	-0.6177	0.5550	-1.11
Corr	0.1100***	0.0140	7.88	3.5244**	1.3972	2.52	3.5758**	1.7131	2.09
Pol_stab	-0.0195***	0.0062	-3.16	0.5234	0.5809	0.90	0.3343	0.7634	0.44
Voice	-0.0746***	0.0141	-5.28	-4.8265**	2.0070	-2.40	-6.2207**	3.2405	-1.92
Discl	0.0072***	0.0009	7.64	0.3093**	0.1298	2.38	0.3748*	0.2015	1.86
Inv_prot	-0.0041***	0.0011	-3.72	-0.1260	0.1576	-0.80	-0.2162	0.2303	-0.94
TR_profit%	0.0008***	0.0002	3.52	0.0088	0.0249	0.35	0.0261	0.0314	0.83
SB_days	0.0004***	0.0001	5.91	0.0151**	0.0060	2.51	0.0194**	0.0077	2.51
$\rho$ (rho)	0.3298			0.4608			0.3278		
Wald chi <sup>2</sup>	2975.37***			189.96*			1162.18***		
R-squared	0.2188			0.0707			0.0811		

**Note:** \*, \*\*, \*\*\* denote statistical significance at 10%, 5% respectively 1%. Both heteroskedasticity and autocorrelation in assumed

**Source:** Authors' analysis

Because every performance measure reflects different meanings and approaches to bank valuation, we expect to obtain different values when it comes to assessing the relationship between government and administrative effectiveness.

From a traditional perspective on performance we observe that all explanatory variables are statistically significant. Countries that obtain higher scores on the government effectiveness and control of corruption indexes will provide an environment that will foster performance growth. For one unit increase in the score of GovEff and Corrbanking institutions will obtain an increase in ROA score by 0.0734, respectively 0.1100. The negative values obtained in the regression for the independent variables – Regulatory quality index, Rule of law, Political stability and Voice and accountability index – suggest the fact that countries with underdeveloped institutional environments in the described areas managed to create a better environment for ROA maximization. These figures emphasize on the fact that in such countries banking institutions manage to take advantage of market imperfections and to transform regulatory glitches into competitive advantage and high performance figures. From all the variables accounted for, Voice and RLaw have the highest impact upon ROA scores. Ownership and financial information disclosure have a positive impact on ROA and for one unit increase in this index value the value of ROA will increase by 0.0072. Also, enforcing regulation on director liability and shareholder suits will have a negative effect on ROA supporting the idea that in poorly regulated countries, managers seek to report higher values of ROA as there is a compensation incentive on higher salaries and bonuses. Regarding the variables that encompass the administrative burden on the business environment, we observe a small positive effect upon ROA. Banking institutions that operate in countries with a higher corporate tax rate present higher values of ROA.

Regarding Model 2 and 3, we observe very similar relationships excepting two differences: first, the magnitude of the impact of some of the variables is much greater upon the RI1 figure than on ROA and second, the impact of regulatory quality index has a positive value on the performance score obtained under a market-based valuation. With reference to the first difference, the regression coefficients suggest that for one unit increase in the value of government effectiveness index and control of corruption index RI1 value will increase by 1.4173, respectively by 3.5244, whereas for the Voice and accountability improvements the RI1 value will decrease by 4.8265. With respect to the second difference, the fact that regulatory quality has a positive impact upon the market figure of performance is somehow straightforward: sound policies and regulations that promote private sector development insures investors of their choice to become shareholder of banking companies as the main activity of intermediation funds to the private sector becomes a more profitable business activity.

The value of  $\rho$  (rho) represents the autocorrelation coefficients of the AR1 process. The high values obtained for this coefficient suggest that indeed bank profitability is persistent in time. For example, under Model 1, the coefficient of 0.3298 suggests that errors from the previous year correlate with the error component by 32.98%.

All three specifications suggest that indeed, both research hypotheses are valid statements. Because the country specific variables that denote institutional development are all statistically significant, the validation of the assertions is straightforward: as there exists a great variability in average values of performance scores between countries, different country environments offer different performance results fostering or restraining value creation in the banking industry.

The robustness of these results is tested by using a reduced form model. Table 6 presents the results for the second specification.

**Table 6:** Robustness check

	Model 1: Y= ROA			Model 2: Y=RI1			Model3: Y=RI2		
	Coef.	Std. Err.	z	Coef.	Std. Err.	z	Coef.	Std. Err.	z
GovEff	0.0189***	0.0059	3.22	0.4791*	0.2512	2.00	0.4135**	0.2022	1.99
RegQuall	0.0037	0.0060	0.61	1.9494**	0.9716	2.01	1.8969**	0.9788	1.94
RLaw	-0.0915***	0.0103	-8.91	-2.3211**	1.0394	-2.23	-2.4022**	1.0405	-2.31
Corr	0.1244***	0.0075	16.54	4.3072*	2.3567	1.83	4.5033**	2.8325	1.59
Pol_stab	-0.0162***	0.0054	-3.02	0.7049	0.8937	0.79	0.7170	1.1158	0.60
Voice	-0.0015**	0.0106	-0.14	-2.8935**	1.4235	-2.03	-3.0856*	1.8131	-1.70
constant	0.0250***	0.0042	5.93	0.5232**	0.3203	1.63	0.6871	0.4624	1.49
$\rho$ (rho)	0.4620			0.5497			0.4908		
Wald chi <sup>2</sup>	3208.42			7.81			269.75		
R-squared	0.1168			0.0422			0.0456		

**Note:** \*, \*\*, \*\*\* denote statistical significance at 10%, 5% respectively 1%. Both heteroskedasticity and autocorrelation in assumed

**Source:** Authors' analysis

The values obtained under the reduced form model suggest that the results obtained under the first specification are robust. The obtained coefficients under this specification have the same sign and about the same impact upon all forms of bank profitability.

## 5. Discussion and conclusions

East European emerging economies faced a great challenge after 1989. What was considered the traditional way of doing business (centralized economy) became obsolete and was replaced by the market-based principles of political economy. The increasing pressure to reform financial, fiscal and government policies and practices accompanied by the lack of public administration experience of democratic models often created a sense of helplessness and confusion. In the aftermath of the reform enforcement, the administrative reform undertaken until 2007 is perceived by the public servants as a complicated, disorganized and divergent process that changed direction according to the government in charge and resulted from the compliance need to the European Union requests. Moreover, in developing economies it is more common

that the state will interfere into economic affairs as opposed to the developed economies where government policies are more focused on the social protection field.

Considering all these facts about emerging European economies this study aims at assessing the validity of two research hypotheses: H1: Bank performance significantly varies across emerging European countries, and H2: Country-specific institutional arrangements have a significant impact on bank performance across emerging European economies. To this end, the paper uses the Governance Indicators Indexes and the Doing Business Indexes computed by the World Bank as explanatory variables of bank performance. The dependent variable is computed under two different approaches on valuation: the traditional accounting based view that uses the return on assets measure and the market based view that employs a residual income metric. Because the country specific variables that denote institutional development are all statistically significant, the validation of the two hypotheses is straightforward: as there exists a great variability in average values of performance scores between countries, different country environments offer different performance results fostering or restraining value creation in the banking industry

This study adds to the research literature in the field of corporate performance in three ways: first, by depicting the nexus between government decision and performance scores we contribute to the field of public administration highlighting regulatory dimensions of improvements; second, we focus on highlighting the informational power of accounting and economic-based measures of performance by identifying significant relationships with country-specific explanatory variables; third, we investigate these relationship on an original sample and period (Emerging European Banks, 2005-2011) rarely approached in empirical studies.

The results point out the idea that in emerging European markets regulatory glitches have a positive impact upon bank performance. In this sense, market imperfections become a source of profitability as they could generate a reliable source of market share appropriation and thus monopoly power. Government Effectiveness and Control of corruption present a significant positive impact under all the specifications. The research results emphasize the impact of public administration reform upon bank profits as less developed institutional environment and less regulation seem to influence in a positive manner shareholder value creation. On the other side, the obtained coefficients suggest that administrative commitment towards increasing the quality of public services and policies endorsed by diminishing the level of corruption will accelerate private development and thus banking profitability.

Regarding the differences of values obtained under the three specifications of bank profitability, we emphasize on the fact that each metric has its own specific meaning. Though ROA may be a useful measure of performance for the state and central bank authority, residual income values are more suited for the shareholders and investors of one bank. The study shows that market-based measures of performance are more sensitive to country environment characteristics as the impact upon profitability is larger when compared to the traditional measure.

What was shown to constitute the main advantage of banks business strategy could become the main limiting source of this research paper: the lack of transparency and poor disclosure of financial information is one of the main problems encountered in the process of relevant banking data gathering. However, we argue that the unique coverage of countries and years scrutinized in this study represent strengths of this study and enhance its originality.

### References:

1. Aguilera-Caracuel, J., Hurtado-Torres, N.E., Aragón-Correa, J.A. and Rugman, A.M., 'Differentiated Effects of Formal and Informal Institutional Distance between Countries on the Environmental Performance of Multinational Enterprises', 2013, *Journal of Business Research*, vol. 66, no. 12, pp. 2657-2665.
2. Arregle, J.L., Miller, T.L., Hitt, M.A. and Beamish, P.W., 'Do Regions Matter? An Integrated Institutional and Semiglobalization Perspective on the Internationalization of MNEs', 2013, *Strategic Management Journal*, vol. 34, no. 8, pp. 910-934.
3. Arslan, A. and Larimo, J., 'Ownership Strategy of Multinational Enterprises and the Impacts of Regulative and Normative Institutional Distance: Evidence from Finnish Foreign Direct Investments in Central and Eastern Europe', 2010, *Journal of East-West Business*, vol. 16, no. 3, pp. 179-200.
4. Chao, M.C.-H. and Kumar, V., 'The Impact of Institutional Distance on the International Diversity-Performance Relationship', 2010, *Journal of World Business*, vol. 45, no. 1, pp. 93-103.
5. Dragotă, I.M., *Decizia de investire pe piața de capital*, Bucharest: Editura Academiei de Studii Economice, 2006.
6. Dragotă, I.M., Dragotă, V., Tâtu, L., Pele, D.P., Vintila, N. and Semenescu, A., 'Capital Budgeting: the Romanian Credit Analysts' Points of View', 2011, *The Review of Finance and Banking*, vol. 3, no. 1, pp. 039-045.
7. Dragotă, I.M., Semenescu, A., Pele, D.T. and Lipară, C., 'Capital Structure and Financial Performance – Related or Independent Variables? Empirical Study on Romanian Companies Listed on Capital Market', 2008, *Theoretical and Applied Economics*, vol. 11, no. 11, pp. 143-150.
8. European Central Bank, ECB, 'Beyond Roe – How to Measure Bank Performance. Appendix to the Report on EU Banking Structures', 2010, [Online] available at <http://www.ecb.europa.eu/pub/pdf/other/beyondroehowtomeasurebankperformance201009en>, accessed on May 31, 2013.
9. Gaur, A.S. and Lu, J.W., 'Ownership Strategies and Survival of Foreign Subsidiaries: Impacts of Institutional Distance and Experience', 2007, *Journal of Management*, vol. 33, no. 1, pp. 84-110.
10. Hoskisson, R.E., Eden, L., Lau, C.M. and Wright, M., 'Strategy in Emerging Economies', 2000, *Academy of Management Journal*, vol. 43, no. 3, pp. 249-67.
11. International Monetary Fund (IMF), 'World Economic Outlook Database 2005-2013', [Online] available at <http://www.imf.org/external/pubs/ft/weo/2013/01/weodata/index.aspx>, accessed on May 31, 2013.
12. Ivan, A.L. and Iov, C.A., 'Croatia: Administrative Reform and Regional Development in the Context of EU Accession', 2010, *Transylvanian Review of Administrative Sciences*, vol. 31E, pp. 91-113.

13. Ketelhöhn, N.W. and Quintanilla, C., 'Country Effects on Profitability: A Multilevel Approach Using A Sample of Central American Firms', 2012, *Journal of Business Research*, vol. 65, no. 12, pp. 1767-1772.
14. Khanna, T., Bigley, G., D'Aunno, T. and Ring, P.S., 'Perspectives on How Governments Matter', 2005, *Academy of Management Review*, vol. 30, no. 2, pp. 308-320.
15. Kosmidou, K., Pasiouras, F. and Tsaklanganos, A., 'Domestic and Multinational Determinants of Foreign Bank Profits: The Case of Greek Banks Operating Abroad', 2007, *Journal of Multinational Financial Management*, vol. 17, no. 1, pp. 1-15.
16. Lindblom, C.E., *Politics and Markets: The World's Political Economic Systems*, New York: Basic Books, 1977.
17. Makino, S., Isobe, T. and Chan, C.M., 'Does Country Matter?', 2004, *Strategic Management Journal*, vol. 25, no. 10, pp. 1027-1043.
18. Munteanu, A. and Brezeanu, P., 'Between Parsimony and Complexity: Comparing Performance Measures for Romanian Banking Institutions', 2012b, *Annals of the University of Petroșani. Economics*, vol. XII, no. 1, pp. 225-232.
19. Munteanu, A. and Brezeanu, P., 'Do Romanian Banking Institutions Create Shareholder Value?', 2012a, *Procedia Economics and Finance*, vol. 3, pp. 144-151.
20. Naceur, B.S. and Omran, M., 'The Effects of Bank Regulations, Competition, and Financial Reforms on Banks' Performance', 2011, *Emerging Markets Review*, vol. 12, no. 1, pp. 1-20.
21. North, D.C., *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press, 1990.
22. Olson, D. and Zoubi, T.A., 'Efficiency and Bank Profitability in MENA Countries', 2011, *Emerging Markets Review*, vol. 12, no. 2, pp. 94-110.
23. Pearce, J.L., *Organization and Management in the Embrace of Government*, Mahwah: Lawrence Erlbaum Associates, 2001.
24. Schwens, C., Eiche, J. and Kabst, R., 'The Moderating Impact of Informal Institutional Distance and Formal Institutional Risk on SME Entry Mode Choice', 2011, *Journal of Management Studies*, vol. 48, no. 2, pp. 330-351.
25. Spencer, J.W., Murtha, T.P. and Lenway, S.A., 'How Governments Matter to New Industry Creation', 2005, *The Academy of Management Review*, vol. 30, no. 2, pp. 321-337.
26. Tse, C.K., Liu, J. and Lau, F.C.M., 'A Network Perspective of the Stock Market', 2010, *Journal of Empirical Finance*, vol. 17, no. 4, pp. 659-667.
27. Vassolo, R., Hermelo, H.D. and Rodriguez, I., 'Industry, Country and Firm-Specific Effects of Firms Competing in Emerging Economies: Evidence from Latin America', 2007, [Online] available at <http://www.iae.edu.ar/pi/Documentos%20Investigacin/Research%20Seminars/Variance%20Decomposition.pdf>, accessed on May 26, 2013.
28. Xu, D. and Shenkar, O., 'Institutional Distance and the Multinational Enterprise', 2002, *Academy of Management*, vol. 27, no. 4, pp. 608-618.