



IMPACTS OF FOREIGN DIRECT INVESTMENTS ON BANKING SECTORS IN SOUTH EAST EUROPEAN COUNTRIES

The research is provided within
the Austrian National Bank Jubilaeumsfonds' Project
N 11753/2005 of the Economic Policy Institute

Sofia, 2007

2007, Economic Policy Institute

Editors: Prof. Dr. Wilfried Altzinger & Dr. Ivanka Petkova

Copy Editors: Sonya Dilova & Kalin Marinov

Prepress, Design and Cover: Lachezar Marinopolski, Ni Plus Publishing House

Print: Simolini 94 Co.

The research was provided with the generous support of Austrian National Bank within Jubilaeumsfonds' Project N 11753/2005 of the Economic Policy Institute.

The findings, interpretations and conclusions expressed here are those of the authors and do not necessarily reflect the views of the Economic Policy Institute.

All comments regarding this publication are welcomed to:

Economic Policy Institute

12, San Stefano Str.

1504, Sofia

BULGARIA

Tel.: + 359 2 944 38 11; 843 53 06

Fax: + 359 2 944 38 61

E-mail: epi@epi-bg.org

www.epi-bg.org

ISBN: 978-954-9359-30-5

Contents

Introduction 5

CHAPTER I

BANKING SECTORS AND GROWTH

Financial Sector Development and Economic Growth

– Evidence for Southeastern Europe 7

Bettina Hagmayr, Peter R. Haiss

How Can Financial Sector FDI Spur Growth in Emerging Europe? 30

Markus Eller / Peter Haiss / Katharina Steiner

Banking Transition Progress, Foreign Bank Entry
and Economic Development: The Case of Serbia 64

Gerhard Fink, Peter Haiss and Mina von Varendorff

CHAPTER II

FOREIGN BANK PENETRATION

Banking Sector Reform Efforts in South East European Countries 95

Todor Vanev

Foreign Banks Penetration in Albania, FYR Macedonia and Serbia 114

Irena Mladenova

Foreign Banks Penetration in Bulgaria, Romania and Croatia 126

Ivanka Petkova

CHAPTER III

LEGAL ASPECTS

Banking Law Perspective: Regulatory Challenges and Implications
of the Basel Core Principles and Basel II 143

Dimitar Totev

CHAPTER IV

EFFICIENCY AND PROFITABILITY

Efficiency and Profitability of the Host Banking Sector 170

Galina Dimitrova

Banking Efficiency in Bulgaria and Romania Following Privatisation 211

Sonya Dilova

Profitability of Foreign and Domestic Banks 222

Marko Košak

Credit Efficiency and Consumer Loans Price 253

Mileti Mladenov and Irina Kazandjieva

CHAPTER V

MANAGEMENT

Management Practices Generated by Foreign Banks Entry 291

Irina Kazandjieva

Credit Portfolio Management:
The Case of Albania, FYR Macedonia and Serbia 338

Kalin Marinov

Credit Risk Management. Practices in Bulgaria and Romania 361

Georgi Georgiev

Growth of Banks and Diversification of Bank Services 393

Stanislav Valkov

Introduction

Foreign banks have assumed an increasingly important role in transition countries. This is especially true for the region of South East Europe. Although of different kind and structure in every country the forces of change shaping the banking and financial system in South East Europe like market liberalization and market based reforms are fundamental for the process. A crucial role among them has to be devoted to opening of the banking systems to foreign bank entry. The host countries need foreign capital to align the local banking system to the international best practices. On the other hand, this openness is matching with the interest of foreign banks, which have chosen to develop abroad as their business expansion strategy. The intense competitive pressure on banking institutions from EU countries with well established financial systems has generated an interest to expand to SEE looking for higher profitability. The impact of these strategic changes was beneficial for the emerging banking systems in SEE, while initiating the process of integration with the global economy.

Reforms are having lasting effects on the entire structure of domestic banking systems in SEE. These changes are reflecting not only the dynamics in growth, but also its implications on the management, profitability and efficiency of banks. The phenomenal growth profile of banking industries in the host countries is to be significantly associated with the transfer of know-how, best practices in managing these institutions efficiently and broadening the diversity of the banks' operations. There is evidence of the benefits of foreign bank penetration for SEE, especially by fostering competition and improving of the domestic banking culture. However, foreign owned banks show to a large extent also high profitability.

The international research team is aimed at conducting cross-country analysis to investigate the effects of foreign bank entry on domestic banking systems in the following South East European countries: Albania, Bulgaria, Croatia, FYR Macedonia, Romania and Serbia. The research work is concentrated on the extensive knowledge base already developed for FDI in banking. The further research carried out by the team is integrating those insights with findings stemming from the specificity patterns of banking sectors in SEE in the context of the concerns and benefits for the host country. The studies are based on available macroeconomic and bank balance sheet data for each country. To test the research progress and

review preliminary results three workshops have been organized and hosted by the Economic Policy Institute in Sofia . The research activities within the project were generously supported by the Austrian National Bank.

The importance of foreign bank subsidiaries in the banking sectors of the targeted countries has increased considerably in the recent ten years. This is evidence is reflected by the research period chosen and covered by the individual cross-country studies.

Particular emphasis in the studies has been put on: banking sector development and economic growth; characteristics of foreign banks penetration; legal aspects of foreign bank entry; performance of banking institutions (efficiency of financial services, profitability; and management quality). The research results show evidence on increasing competition and stability in the banking sectors, enhancing efficiency, introducing new management and information technologies in the provision of banking services, and improving prudential and regulatory standards. There are points, where the individual studies reveal differences in the assessments of the FDI impact, as well as the actions addressing the particular challenges to management practices in the banking sectors of targeted countries. These outcomes reflect the heterogeneity of banking sectors developments and in most cases they are associated with the stage of institutional relations of the individual country with the EU.

Evidence on the basic research topics provides a better base for debate and perhaps policy attention.

Prof. Dr. Wilfried Altzinger

Dr. Ivanka Petkova

CHAPTER I

BANKING SECTORS AND GROWTH

Financial Sector Development and Economic Growth – Evidence for Southeastern Europe

*Bettina Hagmayr, Peter R. Haiss*¹

Introduction

The role of financial sector development for economic growth has become a major topic in empirical research. Most of the earlier studies come to the conclusion that there is a rather positive relationship between financial development and growth. Recent research differentiates stronger between different time periods, levels of development (industrialized, emerging and developing) and across financial sectors.² Inquiries into the finance-growth nexus of the emerging economies in Southeast Europe (SEE) are scarce and hardly take sectoral effects into consideration. We try to fill this gap.

We use a production function approach to investigate the impact of financial markets on economic growth during 1995 and 2005 of four emerging markets in Southeast Europe.³ We rely on a panel data approach and follow the standard approach by Mankiw, Romer and Weil (1992), who use physical capital stock, labor and human capital. We run our regressions in adding two aggregate measures of financial variables covering credit, bond and stock markets, as well as testing with single financial variables (domestic credit, private credit, bonds out-

¹ Peter Haiss (peter.haiss@wu-wien.a.c.at) lectures at the EuropaInstitute, Vienna University of Economics and Business Administration and is with Bank Austria Creditanstalt, Vienna, member of UniCredit group; Bettina Hagmayr (Bettina.Hagmayr@gmx.net; corresponding author) is a graduate student at the Vienna University of Economics and Business Administration, Vienna, Austria. The opinions expressed are the authors' personal views and not necessarily those of the institutions the authors are affiliated with. The authors are indebted to helpful comments by Gerhard Fink and the Finance-Growth/Integration Nexus-Team at WU-Wien (<http://fgr.wu-wien.a.c.at/institut/ef/nexus.html>)

² Rousseau and Wachtel 2005; Fink, Haiss and Vuksic 2004

³ The sample includes Bulgaria, Croatia, Romania and Turkey

standing and stock market capitalization). We find that bond markets had the most significant and positive impact on growth in our sample among the financial variables. As for the other variables real capital stock growth proved to be important for economic development during transition.

The empirical analysis focuses on the Southeast European countries Bulgaria, Croatia, Romania and on EU Candidate Country Turkey. We use Greece as a reference point in some tables, because it is a neighbor, because Greek banks are heavily involved in SEE and due to the fact that it also shares some development similarities, as it is a cohesion country. The article is organized as follows: First we provide a review of empirical studies showing the link between financial sector development and economic growth. Second, we discuss and state our econometric model. Then we analyze summary statistics of data and give an overview of the econometric results. A summary concludes the article.

1. Financial Sector Development and Economic Growth – Earlier Results

An impressive number of empirical studies relying on large country samples show that financial sector development can have an economically important impact on growth.⁴ Recent studies suggest that the relationship varies with the level of economic development for example between emerging and industrialized market economies.⁵ Many of the empirical studies are based on the seminal work of King and Levine (1993a, 1993b).⁶ Using cross-section methodology, Levine and Zervos (1998) found that bank sector development and stock market development is positively correlated with contemporaneous and future rates of economic growth, productivity growth and capital accumulation in less developed countries. Evans, Green and Murinde (2002) argued that human capital and the bank sector are complements and suggested that the productivity enhancing potential of human capital can be exploited best in the presence of a developed banking system. Beck, Levine and Loayza (2000) and Beck and

⁴ For recent reviews, see Blum et al 2002 or Wachtel 2003. Lead effects of financial markets on economic growth were identified in several countries with Granger causality tests by Fink, Haiss and Hristoforova 2005. For a critique, see Rousseau and Wachtel 2005.

⁵ Rousseau and Wachtel 1998; Fink, Haiss and Vuksic 2004

⁶ See in the following: Fink, G., Haiss, P. and von Varendorff, M. 2005, Foreign Bank Market Entry and Economic Development: The Case of Serbia, in: Chadraha, P. and Springer, R. (eds), Proceedings of the 13th Annual Conference on Marketing and Business Strategies for Central and Eastern Europe, Vienna.

Levine (2001) complemented findings by estimating the effect of banking sector and stock market development, using panel data techniques. Both bank sector and stock market showed an independent, significant and positive effect on economic growth. Khan and Senhadji (2000) constructed a comprehensive financial sector development indicator comprising the bank sector, stock markets and also bond markets. Again a positive finance-growth link was found. Hondroyannis, Lolos and Papapetrou (2005) tested the relationship of stock market capitalization and bank credit to the private sector and economic performance for the Greek case using data for the period 1986-1999. Their findings suggest a bi-directional causality in the long run. The contribution of stock markets to economic growth, however, is smaller than that of banks.

Apart from sectoral issues, followers of the law-and-finance-view (e.g. La Porta et al 1998 and Levine, Loayza and Beck 2000) emphasize the important role of legal and accounting status and reform for economic growth. A related strand of literature, e.g. Baele et al (2004) and Giannetti et al (2002), provide evidence that financial deepening and integration can boost economic output. Given the growing level of integration via foreign banks from the EU in the transition economies, this aspect should also be of relevance here.

A growing part of the recent literature has applied the finance-growth framework to emerging economies, and a few empirical studies were already conducted in the context of European transition economies. In transition countries in Central Eastern Europe (CEE) in general and especially in SEE, financial markets are substantially smaller than in established market economies, as measured by the financial intermediation ratio (credit to private enterprises to GDP).⁷ Although small financial sectors prevail in transition economies, effects on growth could be expected if regulations were appropriately set.⁸ In particular, short-run effects could be expected.⁹ Based on 1996 data, Fink and Haiss (1999) found some early evidence of a positive impact of bank sector development in the 10 EU Candidate Countries from CEE. Using a broader sample of 23 transition economies, Jaffee and Levonian (2001) could show that bank efficiency is significantly and positively related to economic output. Koivu (2002) further refined the picture by exploiting the time series component of a panel of 25 transition economies.

⁷ Bonin and Wachtel 2003; Breuss, Fink and Haiss 2004

⁸ La Porta et al 1998; Bolton 2002

⁹ Fink, Haiss and Mantler 2005

Bank efficiency (measured by the net interest margin) showed a significantly positive and causal impact on growth, while this was not the case for credit volume. The latter finding can be attributed to the inclusion of laggard reformers from the Commonwealth of Independent States (CIS). Drakos (2003) provided an alternative explanation by arguing that high bank market concentration is negatively associated with economic growth in transition economies. For SEE, the empirical findings of Mehl and Winkler (2003) fail to support the hypothesis of positive and causal link between financial development and economic growth. They explain this as a failure of the reforms in the first half of the 1990s in SEE to prevent inflationary finance and financial crises.¹⁰ In some of these SEE countries the financial development, by introducing new reform steps, has just started so that the banking sector could not yet contribute to economic growth.¹¹

For EU Candidate Country Turkey two recent studies also show a link between financial development and economic growth. Kar and Pentecost (2000) investigated the direction of causality between financial development and economic growth for the period 1963-1995. Their findings suggest that in the Turkish case the relationship between finance and growth depends upon the measures of financial development. Employing proxies for bank deposits, private sector credit and domestic credit the demand-leading hypothesis that economic growth causes financial development is supported. Results of a related study by Ünalmis (2002) for the period 1970-2001 support the supply-leading hypothesis in the short run, while in the long run mutual causality between financial development and economic growth is indicated.

With increasing level of development, bond markets and at later stages also qualified labor should become additional important factors of growth.¹² Overall, when considering growth effects in general, also stock market segments could be expected to contribute to growth in the long run.¹³ In rather early stages of transition, stock markets were not significantly related to growth in CEE in studies conducted by Fink and Haiss (1999) and Kominek (2002).

The application of the finance-growth nexus to the transition economies suggests some caution. Due to rather short time series available and difficulties to

¹⁰ For a deeper discussion of transition-specific effects in analyzing the finance-growth nexus, see Mehl and Winkler (2003: 4)

¹¹ Mehl and Winkler 2003

¹² Fink, Haiss and Vuksic 2004

¹³ Platek 2002

¹⁴ Mehl and Winkler 2003

model the evolution of output in transition economies, these findings should be treated as rather preliminary.¹⁴ The possible impact of inflation, of bad loans and the possible association of fast credit growth with financial distress are worth mentioning in this context. The inclusion of inflation as conditioning variable may be of special relevance during the early stages of economic transition, which are usually characterized by high inflation.¹⁵ Mamatzakis, Staikouras and Koutsomanoli-Fillipaki (2005) and Cottarelli, Dell'Arricia and Vladkova-Hollar (2005) thus control for the inflation rate in their investigation of banking concentration and financial deepening in transition economies.

Bank asset and credit data may similarly be distorted by high and volatile bad loans and their removal from the bank's books to state consolidation agencies. Cottarelli, Dell'Arricia and Vladkova-Hollar (2005) and Fink, Haiss and Mantler (2005) reflect this in their application of the finance-growth model to transition economies. Given the fast credit growth in some transition economies, whether this credit growth reflects a structural deepening conducive to the real economy or a credit bubble possibly detrimental to medium-term economic growth is of special importance in this context. For Croatia, Kraft and Jankov (2005) find that rapid loan growth did indeed increase the probability of credit quality deterioration. Still, from the empirical evidence on the frontrunners to economic reform in NMS it can be derived that a sound banking sector seemingly is the first sector, which could contribute to growth.

¹⁵ Khan and Senhadji (2000) and Rousseau and Wachtel (2002) provide related evidence on threshold effects in the relationship between inflation and growth

Table 1: Empirical evidence on financial sector development and growth – emerging markets and transition countries

Author (year)	Sample	Theoretical framework	Research method	Financial segments included	Growth effect OE TC	Key findings
Fink and Haiss (1999)	10 transition countries (CEE)	production function style regression	cross-section analysis	bank sector stock market bond market	+ 0 0	Positive link between bank sector development and economic growth.
Jaffe and Levonian (2001)	23 transition economies	"Barro"-regression	cross-section analysis	bank sector	+	Significant and positive relationship between bank sector development, bank sector reforms and economic growth.
Koivu (2002)	25 transition economies (CEE + CIS)	"Barro"-regression	panel analysis	bank sector	+	Results indicate that the interest rate margin is significantly and negatively related to economic growth. On the other hand a rise in the amount of credit does not seem to accelerate economic growth.
Drakos (2002)	21 transition economies	"Barro"-regression	cross-section analysis and panel analysis	bank sector	+	A positive effect of banking sector competition on economic growth is documented. The lower the imperfections in market structure the higher real GDP growth.
Platek (2002)	26 transition economies (CEE + CIS)	"Barro"-regression	cross-section analysis	bank sector stock market	+ +	Bank sector development and stock market development is significantly and positively correlated with economic growth.
Fink, Haiss and Vuksic (2004)	9 transition economies (CEE)	growth accounting regression	cross-section analysis and panel analysis	aggregate indicator (bank sector, stock market, bond market) bank sector stock market bond market	+ 0 +	+/0 Bank sector development and bond markets stimulate growth in transition countries. Up to now, stock markets seem not to have played an important role.
Mehl, and Winkler (2003)	8 transition economies (SEE)	growth accounting regression	panel analysis	bank sector	+	Financial depth did not have a significant impact on Southeast European (SEE) countries growth performance over 1993-2003. The financial development is not growth-supportive when the institutional and legal framework given to market participants is not appropriate.

Fink, Haiss and Mantler (2005)	22 market economies and 11 transition economies (CEE)	growth accounting regression	panel analysis	bank sector, stock and bond market	+	The financial sector induces positive growth effects but not with the same strength across countries. It is weaker in market economies comparing to transition countries. Financial sector development supports economic growth in the short run rather than in the long run. Financial structure plays also an important role in the measurement of this impact.
Kar and Pentecost (2000)	Turkey	Granger causality test	VECM	bank sector	+	When financial development is measured by the money to income ratio the direction of causality runs from financial development to economic growth but when the bank deposits, private credit and domestic credit ratios are alternatively used to proxy financial development, growth is found to lead financial development.
Ünalmiş (2002)	Turkey	Granger causality test	VAR, VECM	bank sector	+	Financial development significantly causes economic growth in the short run. In the long run, there is a bi-directional relationship between financial development and economic growth.

Adapted from Fink, Haiss and Mantler (2005). Notes: production function style = based on a neoclassical production function substituting physical capital for financial capital, "Barro"-regression = specification following Barro (1991), growth accounting regression = specification following Benhabib and Spiegel (1994), OE = overall growth effect, TC = growth effect running through the technological channel

2. Methodology and the model

Two of the most popular methods among researchers investigating economic growth are cross-country regressions and panel data techniques. We included Bulgaria, Croatia, Romania and Turkey for our empirical estimation. Our sample is still small and therefore we rely on a panel data approach.¹⁶ Advantages of panel data methods are, according to Temple (1999), that "they allow one to control for omitted variables that are persistent over time" and including lags of regressors may alleviate measurement error and endogeneity bias.

¹⁶ For a discussion of different approaches to measure economic growth see for example Temple 1999.

We follow the study by Fink, Haiss and Vuksic 2005, who apply the production function approach to nine transition countries in Europe. They augment the model of Mankiw, Romer and Weil (1992), who use capital stock, labor, and human capital as explanatory variables by different financial variables.

For the regressions, we use the following model specifications:

$$\Delta y_{i,t} / y_{i,t-1} = \alpha + \beta_1 \Delta k_{i,t} / k_{i,t-1} + \beta_2 \Delta part_{i,t} + \beta_3 \Delta e_{i,t} / e_{i,t-1} + \beta_4 FI_{i,t} \quad (1)$$

$$\Delta y_{i,t} / y_{i,t-1} = \alpha + \beta_1 \Delta k_{i,t} / k_{i,t-1} + \beta_2 \Delta part_{i,t} + \beta_3 \Delta e_{i,t} / e_{i,t-1} + \beta_4 FI_{i,t-1} \quad (2)$$

$$\Delta y_{i,t} / y_{i,t-1} = \alpha + \beta_1 \Delta k_{i,t} / k_{i,t-1} + \beta_2 \Delta part_{i,t} + \beta_3 \Delta e_{i,t} / e_{i,t-1} + \beta_4 FI_{i,t-2} \quad (3)$$

Δy_i denotes real output per capita in country i at time t and Δy_i stands for $y_{i,t} - y_{i,t-1}$. The dependent variable $\Delta y_{i,t} / y_{i,t-1}$ is real output growth per capita in percent. As for the explanatory variables, $k_{i,t}$ is real capital stock per capita in country i at time t and $k_{i,t}$ stands for $k_{i,t} - k_{i,t-1}$. Thus, $\Delta k_{i,t} / k_{i,t-1}$ stands for real growth rate of per capita capital stock. Change in labor participation rate ($\Delta part_{i,t}$) is defined as a percentage change of the ratio of the number of employed persons to total population. $e_{i,t}$ stands for a constructed indicator for educational attainment and $e_{i,t}$ is $e_{i,t} - e_{i,t-1}$. Thus, $\Delta e_{i,t} / e_{i,t-1}$ denotes change in educational attainment and is used to describe the quality of human capital. FI stands for the different financial intermediation variables, which are expressed in relationship to GDP. The following data section, as well as the Appendix provides more detailed definitions of variables and data sources. Subscript i stands for cross-section units, i.e. countries ($i = 1 \dots 4$), while t denotes time i.e. years ($t = 1995 \dots 2005$).

We present the results of the pooled data regression with common intercepts. In the second and third specifications, the financial intermediation variables enter the regression with a one-year and two-year lag. This is done in order to alleviate the potential simultaneity choice of method for dealing with potential simultaneity problem is not crucial. Using instrumental variables or lagged values for financial variables yields remarkably similar results.

3. Data

We collected data for the SEE Accession Countries and Greece (for means of comparison).¹⁷ The time period considered is between 1995 and 2005. We use data on real per capita output growth, real growth of capital stock per capita, change of labor participation rate, change in educational attainment as a proxy for the quality of human capital and six different indicators for financial development, these are: two measures of total financial intermediation, domestic credit, private credit, stock market capitalization and domestic bonds outstanding. The first measure of total financial intermediation (TFI 1) is a sum of domestic credit, stock market capitalization and domestic bonds outstanding, the second measure (TFI 2) uses private credit instead of domestic credit. For exact definitions of variables please see the Appendix.

Table 2 presents summary statistics on all variables. For the Accession Countries (AC) from SEE we see relatively high volatility of output growth. For example, maximal value of output growth for Bulgaria is 6.46% and the lowest value amounts to -8.61%.

The standard deviation of capital stock, labor participation and educational attainment was low. Except from capital stock in Bulgaria, where the standard deviation is 3.25%. In contrast the variability of all financial variables, except from stock market capitalization is high in the AC.

¹⁷ Data for Albania, FYR Macedonia and Serbia is not available for all our variables, therefore we could not include them in our empirical analysis.

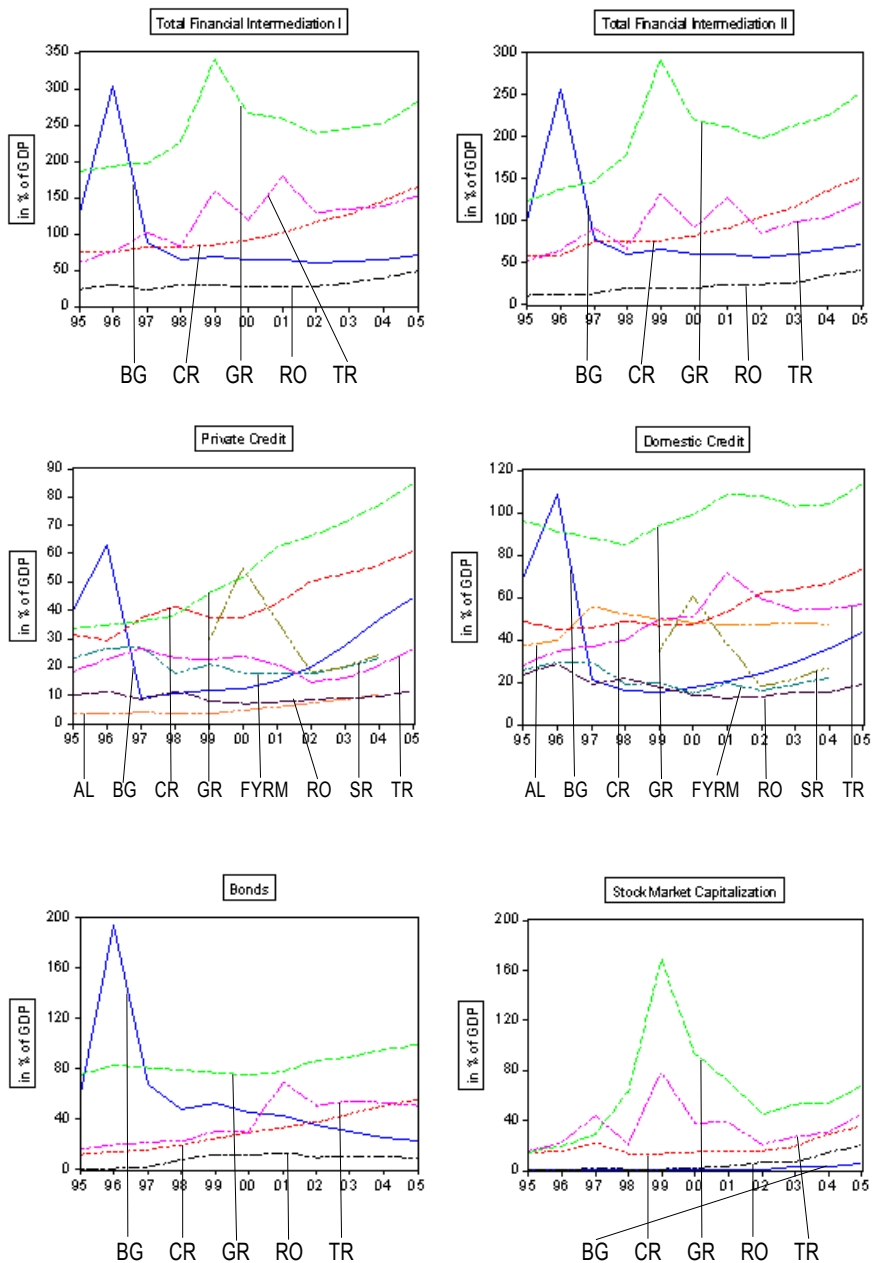
Table 2: Summary statistics – annual data 1995-2005 (in %)

	Output	Capital stock	Labor	Educa-tion	TFI 1	TFI 2	Domes-tic credit	Private credit	Stock markets	Bonds
Bulgaria										
Mean	2.9577	3.3302	0.3663	0.3772	94.5146	84.5789	36.3846	26.4489	1.5226	56.6074
Median	4.7804	3.5153	0.3876	0.3772	64.5004	65.1083	23.6781	19.7840	0.9210	45.6643
Max.	6.4636	8.5965	2.6469	0.3844	302.7094	256.9909	108.6919	62.9735	5.1164	193.8618
Min.	-8.6126	-1.6399	-1.2655	0.3702	60.1122	56.2180	15.3018	9.3304	0.1096	22.2110
Std. dev.	4.9723	3.2497	1.1132	0.0047	71.8799	58.5458	28.7470	17.5232	1.6144	47.6615
Obs.	11	11	11	11	11	11	11	11	11	11
Croatia										
Mean	3.9179	4.6778	0.4323	0.2476	103.8655	92.5660	54.5545	43.2550	1.5226	30.5010
Median	4.0188	4.7798	0.4549	0.2476	91.3483	81.5224	48.7655	41.1702	0.9210	29.5658
Max.	7.5831	5.9354	0.6698	0.2507	164.1482	151.4045	73.5394	60.7957	5.1164	55.3619
Min.	0.0362	3.4828	0.1691	0.2446	73.9982	57.3490	44.8828	29.2661	0.1096	11.7118
Std. dev.	1.9812	0.8813	0.2070	0.0020	30.3863	30.7007	10.0318	10.2948	1.6144	15.0128
Obs.	11	11	11	11	11	11	11	11	11	11
Romania										
Mean	3.1736	2.8964	-0.4867	0.5101	30.8511	22.1146	18.1173	9.3808	5.0508	7.6830
Median	4.5299	2.9496	-0.2714	0.5110	29.6803	20.4285	17.8273	9.1091	2.0046	9.5513
Max.	8.8258	5.2904	1.1193	0.5217	48.2306	40.4444	28.8484	11.5518	19.8247	12.9282
Min.	-5.5520	0.5972	-2.0245	0.4983	22.8050	10.5831	12.2213	7.1692	0.2119	0.0517
Std. dev.	4.7407	1.2622	0.9338	0.0075	7.1975	9.1426	5.0503	1.6111	6.3798	4.5815
Obs.	11	11	11	11	11	11	11	11	11	11
Turkey										
Mean	2.9080	2.3493	-0.2677	0.7813	121,0051	93,7130	48,6817	21,3896	34,4566	37,8667
Median	5,3126	2,5919	-0,0361	0,7935	129,8181	91,0390	50,8798	22,4625	30,5849	30,0718
Max.	7,4722	6,3158	0,6159	0,8263	178,5495	131,3615	71,2531	26,3005	78,8272	68,8440
Min.	-8,7175	-1,7387	-1,4141	0,6236	60,2282	50,8158	27,8985	14,7936	15,9619	16,3678
Std. dev.	5,3942	2,7815	0,6860	0,0554	37,1828	26,5258	12,6251	3,7163	17,7535	17,9691
Obs.	11	11	11	11	11	11	11	11	11	11
Greece										
Mean	3.1440	3.6081	0.1344	0.1905	243.8294	199.5793	98.9683	54.7183	61.4426	83.4185
Median	3.4060	4.0513	-0.0740	0.1903	245.3865	211.0236	98.8180	51.4647	53.1517	80.8252
Max.	4.4985	5.5908	1.2397	0.1922	339.2992	291.8215	113.6514	84.8438	168.6354	99.4835
Min.	1.1787	1.3472	-0.4304	0.1889	185.3551	123.3505	84.6585	33.6220	14.3797	74.9129
Std. dev.	1.0337	1.5692	0.5601	0.0010	44.4015	50.6708	9.2746	18.5018	42.4822	8.1840
Obs.	11	11	11	11	11	11	11	11	11	11

We observe higher levels of financial variables in Greece compared to Accession Countries. *Figure 1* presents a graphical demonstration of this observation.¹⁸ Compared to Greece, especially stock market capitalization shows very low levels in AC. The deflection in 1996 for Bulgarian domestic credit, private credit, bonds outstanding, and therefore total financial intermediation 1 and 2 is most probably due to the economic and financial crisis that hit Bulgaria in 1996.

¹⁸ Data for domestic and private credit in Albania, FYR Macedonia and Serbia was available. Therefore, they are included in the graphs.

Figure 1: Financial sectors in Accession Countries and Greece



4. Results

This section presents the results of our panel data regressions. Looking at table 3 and 4, we see that capital stock growth had the strongest positive and significant effect on economic development. This is true for all model specifications of financial intermediation. In addition, we find that total financial intermediation had a negative effect in the model specification with no lag and turns positive entering the regression with a one-year (for total financial intermediation 1) and two-year (for both measures) lag.

Table 3: Results - Total financial intermediation 1

Dependent variable is output growth			
	Financial variable with 2 year lag	Financial variable with 1 year lag	Financial variable with no lag
Constant	-0.009777 (0.022920)	-0.009439 (0.025530)	0.026569 (0.021658)
Capital stock growth	0.928727** (0.348064)	1.040737** (0.395931)	0.618296** (0.264689)
Change in labor participation	0.259073 (0.822955)	0.085142 (0.949656)	0.538849 (0.841358)
Change in educational attainment	-0.039902 (3.836891)	0.665631 (3.550301)	1.777135 (3.239166)
Total financial intermediation 1	0.011872 (0.011092)	0.001286 (0.011746)	-0.026537** (0.012158)
adj. R2	0.148827	0.194983	0.201554
Observations	36	40	44

Notes: Heteroskedasticity-consistent standard errors in parentheses, *** significant at 1% level, ** significant at 5% level and * significant at 10% level.

Table 4: Results - Total financial intermediation 2

Dependent variable is output growth			
	Financial variable with 2 year lag	Financial variable with 1 year lag	Financial variable with no lag
Constant	-0.006430 (0.024040)	-0.007365 (0.025694)	0.027461 (0.022006)
Capital stock growth	0.877767** (0.333151)	1.025214** (0.394622)	0.665977** (0.274521)
Change in labor participation	0.317979 (0.804594)	0.088918 (0.958556)	0.534376 (0.844209)
Change in educational attainment	0.168226 (3.953369)	0.655292 (3.627247)	1.073427 (3.299289)
Total financial intermediation 2	0.010728 (0.013979)	-0.000545 (0.013238)	-0.030495** (0.014203)
adj. R2	0.141031	0.194783	0.198311
Observations	36	40	44

Notes: Heteroskedasticity-consistent standard errors in parentheses, *** significant at 1% level, ** significant at 5% level and * significant at 10% level.

Table 5 and 6 show the estimation results using domestic and private credit as financial variable. Again capital stock growth had the strongest positive effect on economic growth. Private credit shows a negative effect entering the regression with no lag and with a one-year lag.

Table 5: Results - Domestic credit

Dependent variable is output growth						
	Financial variable with 2 year lag		Financial variable with 1 year lag		Financial variable with no lag	
Constant	-0.001606	(0.024000)	0.008012	(0.024096)	0.026270	(0.021993)
Capital stock growth	0.817641**	(0.354184)	0.936692**	(0.365498)	0.721902**	(0.297090)
Change in labor participation	0.447449	(0.881619)	0.134697	(0.947402)	0.453807	(0.896010)
Change in educational attainment	0.187395	(3.916750)	0.335582	(3.717689)	0.953832	(3.462117)
Domestic credit	0.012234	(0.027024)	-0.028934	(0.026022)	-0.056843*	(0.030326)
adj. R2	0.132608		0.213970		0.173021	
Observations	36		40		44	

Notes: Heteroskedasticity-consistent standard errors in parentheses, *** significant at 1% level, ** significant at 5% level and * significant at 10% level.

Table 6: Results - Private credit

Dependent variable is output growth						
	Financial variable with 2 year lag		Financial variable with 1 year lag		Financial variable with no lag	
Constant	0.016905	(0.026487)	0.027180	(0.023015)	0.029426	(0.022186)
Capital stock growth	0.719703**	(0.350704)	1.034461***	(0.362886)	0.888869**	(0.369348)
Change in labor participation	0.585019	(0.904203)	0.121377	(0.966353)	0.422526	(0.912307)
Change in educational attainment	-0.766118	(4.510910)	-2.214132	(3.980309)	-1.255035	(3.865657)
Private credit	-0.024876	(0.045170)	-0.088989**	(0.037099)	-0.081689*	(0.046117)
adj. R2	0.135523		0.274948		0.155997	
Observations	36		40		44	

Notes: Heteroskedasticity-consistent standard errors in parentheses, *** significant at 1% level, ** significant at 5% level and * significant at 10% level.

As for the results of regressions using stock market capitalization and bonds outstanding as financial variables (table 7 and 8), again capital stock growth affected economic growth significantly. Stock market capitalization was never significant. The results for bonds outstanding show a significant and relatively

strong positive influence on economic development in the results with a two-year lag. Change in participation and change in educational attainment turned out to be insignificant in all specifications and for all financial variables.

Table 7: Results - Stock market capitalization

Dependent variable is output growth			
	Financial variable with 2 year lag	Financial variable with 1 year lag	Financial variable with no lag
Constant	0.005568 (0.019104)	-0.006141 (0.019852)	-0.004747 (0.020307)
Capital stock growth	0.611484* (0.316863)	1.006602** (0.019852)	0.869094** (0.396512)
Change in labor participation	0.881401 (0.909666)	0.105308 (0.962111)	0.132536 (0.955516)
Change in educational attainment	3.468760 (3.317986)	-0.056442 (3.256318)	3.577254 (2.885296)
Stock markets capitalization	-0.083320 (0.052776)	0.017834 (0.040156)	-0.058881 (0.050115)
adj. R2	0.208629	0.198093	0.129823
Observations	36	40	44

Notes: Heteroskedasticity-consistent standard errors in parentheses, *** significant at 1% level, ** significant at 5% level and * significant at 10% level.

Table 8: Results - Bonds outstanding

Dependent variable is output growth			
	Financial variable with 2 year lag	Financial variable with 1 year lag	Financial variable with no lag
Constant	-0.023638 (0.021068)	-0.018931 (0.025684)	0.030095 (0.020813)
Capital stock growth	1.080244** (0.398652)	1.141976** (0.423073)	0.483630* (0.270552)
Change in labor participation	0.032931 (0.862633)	0.061359 (0.932414)	0.506834 (0.850143)
Change in educational attainment	0.964490 (3.500627)	1.097480 (3.483872)	0.229877 (3.557239)
Bonds outstanding	0.041549** (0.015930)	0.015119 (0.025097)	-0.044878** (0.019293)
adj. R2	0.225869	0.204676	0.184144
Observations	36	40	44

Notes: Heteroskedasticity-consistent standard errors in parentheses, *** significant at 1% level, ** significant at 5% level and * significant at 10% level.

5. Discussion

From the empirical evidence for other emerging countries we conclude that the financial sector has the potential to contribute to economic growth in Southeast Europe (SEE). With our focused empirical analysis of four Southeast European Acceding and Candidate Countries (Bulgaria, Croatia, Romania and Turkey) over

the 1995 to 2005 period we conclude that this potential is not yet fully used. As total financial intermediation (i.e. the sum of credit, stock and bond finance) showed rather negative effects in the short term and with lags was only mildly (but never significantly) positive, we suggest that the financial segments seem to play a different role at the stage of development these SEE countries are in. These countries financial sectors share many similarities and thus provide a good comparison to the many finance-growth studies that rely on broad and dispersed country samples.

While all segments showed negative effects in the short term (with no lags), bonds outstanding showed a significant and positive effect on GDP growth (esp. with a two-year lag). Domestic credit, which similar to the bond segment includes both private and public finance, similarly showed positive effects with lags, albeit insignificant. Both private credit and stock market finance showed only minor and rather negative effects. We conclude that domestic bonds outstanding may have played an important role in economic development for Southeastern European transition countries over the last ten years, whereas private credit and the stock market seem to be below potential.

Our findings correspond with the results of Fink, Haiss and Vuksic (2005) who tested for nine transition countries in Central and Eastern Europe. They also find strong evidence that bond markets contributed to growth. Similar to our results private credit and stock market capitalization were insignificant in their regressions. They state that the insignificance of private credit might be due to many bad loans to the private sector. Compared to private credit, domestic credit also includes bank credits to central and local government and therefore has low default risk.

A salient structural feature of bond markets in transition countries is the fact that government issues dominate bond markets. So, again we see a different impact of financing the private and the public sector. "In early stages of development where capital is extremely scarce, the government could play an important role in economic development by providing a big push to financial development in the first place."¹⁹ Results of the relationship between bond markets and economic growth for EU countries do not find such strong evidence for the importance of bond markets (see for example Haiss and Hristoforova 2004 or Fink, Haiss and Kirchner 2005). Therefore the importance of bond markets may vary upon different levels of development.

¹⁹ Alper and Onis 2002, 6

Stock markets were insignificant for output growth in our sample. The reason for this lays most probably in their underdevelopment. Testing for the relationship between the level of financial development (measured by banking credit and stock market turnover) and growth Minier (2003) finds a positive effect in high capitalization countries. Her results suggest “that the relationship between stock market development and economic growth may [...] be different in countries with smaller stock markets. In particular, opening a national exchange may not be enough to generate positive growth effects immediately: market capitalization may need to reach a certain level before these growth effects are realized.”²⁰

Turning to the non-financial intermediation variables, only capital stock growth proved to be significant and positively related to economic growth. This could be explained by the large capital scarcity in transition countries. These capital flows stem from portfolio and foreign direct investment.

Foreign direct investment to the financial sector mainly through foreign bank entry has been crucial in the process of transformation from a monobank to a two-tier banking system. Empirical research by Cottarelli, Dell’Arriccia and Vladkova-Hollar (2005) and others has provided evidence that factors originating in the banking system, rather than the corporate sector, were responsible for growth differences in accession and transition economies.

Summary and Conclusions

We examine whether the development of financial markets has played a significant role for real GDP per capita growth in Southeast European (SEE) countries. While many studies use very broad samples (regionally dispersed, countries at very different stages of economic and legal development, different country sizes and legal origins) we use a small and homogenous sample.²¹ By applying a panel data approach to four Acceding and Candidate Countries (AC) for the 1995 –2005 period, we find that segments of financial markets that include public finance (especially bond markets) contributed to economic development, whereas private credit and stock market capitalization had no significant influ-

²⁰ Minier 2003, 1601

²¹ Rousseau and Wachtel 2006

ence on growth. For Southeast Europe we confirm, the findings by Fink, Haiss and Vuksic (2005) on Central and Eastern Europe that “the widely accepted aggregate effect of finance on growth varies with the level of economic development and, therefore, country characteristics need to be considered”.²² The various financial sectors (bank credit, bond and stock markets) play different roles covering different stages of economic development. This is also in line with Rousseau and Wachtel (2005). As for non-financial variables capital stock growth proved to be an important growth trigger. This lays in the capital scarcity during transition years. Concerning private capital, foreign direct investment is essential for emerging markets.

References

- Alper, E. / Onis, Z. (2002): Soft Budget Constraints, Government Ownership of Banks and Regulatory Failure: The Political Economy of the Turkish Banking System in the Post-Capital Account Liberalization Era, Bogazici University, Economics Working Paper ISS/EC 02-02, available at SSRN: <http://ssrn.com/abstract=303220>
- AMECO Database: annual macro-economic database, Directorate General for Economic and Financial Affairs, http://europa.eu.int/comm/economy_finance/indicators/annual_macro_economic_database/ameco_en.htm
- Baele, L. / Ferrando, A. / Hördahl, P. / Krylova, E. / Monnet, C. (2004): Measuring European Financial Integration, *Oxford Review of Economic Policy* 20 (4), 509-530, <http://oxrep.oxfordjournals.org/cgi/content/abstract/20/4/509>
- Barro, R.J. (1991): ‘Economic growth in a cross-section of countries’, *Quarterly Journal of Economics*, 106(2), 407-43
- Barro, R.J. / Lee, J. (2000): International Data on Educational Attainment: Updates and Implications (CID Working Paper no. 42); Human Capital Updated Files (April 2000), <http://www.cid.harvard.edu/ciddata/ciddata.htm>
- Beck, T. / Levine, R. (2001): Stock markets, banks, and growth: correlation or causality?, World Bank Working Paper 2670
- Beck, T. / Levine, R. / Loayza, N. (2000): Finance and the sources of growth, *Journal of Financial Economics*, 58 (1–2), 261–300

²² Fink, Haiss and Vuksic 2005, 22

- Benhabib, J. / Spiegel, M. (1994): The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data, *Journal of Monetary Economics*, 34(2): 143–73
- BIS (2006): Securities Statistics, September 2006, Bank for International Settlements, <http://www.bis.org/statistics/secstats.htm>
- Blum, D. / Federmair, K. / Fink, G. / Haiss, P. (2002): The financial–real sector nexus – theory and empirical evidence, *EuropeInstitute Working Paper No. 43*, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>
- Bolton, P. (2002): Banking in Emerging Markets, *Journal of Financial Intermediation*, 11, 362-365
- Bonin, J. / Wachtel, P. (2003): Financial Sector Development in Transition Economies: Lessons from the First Decade, *Financial Markets, Institutions & Instruments* 12 (1), 1-66
- BNB: Bulgarian National Bank, <http://www.bnb.bg>
- Breuss, F. / Fink, G. / Haiss, P. (2004): How well prepared are the New Member States for the European Union, *Journal of Policy Modeling* 26, 769-791
- BSE (2006): Bucharest Stock Exchange, <http://www.bvb.ro>
- CNB: Croatian National Bank, <http://www.hnb.hr>
- Cottarelli, C. / Dell’Ariccia, G. / Vladkova-Hollar, I. (2005): Early Birds, late risers, and sleeping beauties: Bank credit growth to the private sector in Central and Eastern Europe and in the Balkans, *Journal of Banking & Finance* 29(1), 83-104
- Drakos, K. (2003): Assessing the success of reform in transition banking 10 years later: an interest margins analysis, *Journal of Policy Modeling* 23, 309-317
- Easterly, W. / Levine, R., (2001): What have we learned from a decade of empirical research on growth? It’s Not Factor Accumulation: Stylized Facts and Growth Models, *The World Bank Economic Review*, 15 (2), 177-219
- ECB (2006): Bond markets and long-term interest rates in non-Euro area Member States of the European Union and in acceding countries, http://www.ecb.int/pub/pdf/other/bondmarketnoneumember_accctr2006en.pdf
- Evans, A. D. / Green, C. J. / Murinde, V. (2002): Human capital and financial development in economic growth: new evidence using the translog production function, *International Journal of Finance and Economics*, 7 (2), 123–40

- Fink, G. / Haiss, P. (1999): Central European financial markets from an EU perspective: theoretical aspects and statistical analyses, EuropeInstitute Working Paper No. 34, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>
- Fink, G. / Haiss, P. / Hristoforova, S. (2005): Credit, Bonds and Stocks in Seven Large Economies, Paper presented at the Asian Finance Association Conference, Kuala Lumpur, Malaysia, July 2005
- Fink, G. / Haiss, P. / Hristoforova, S. (2004): Growth Triggers in the European Union, in: Dreger, C. and Hansen, G. (Eds.), *Advances in macroeconomic modeling*, Baden-Baden, pp. 205-237
- Fink, G. / Haiss, P. / Kirchner, H. (2005): Die Finanzierung über Anleihenemissionen und Zusammenhänge zum Wirtschaftswachstum. *Kredit und Kapital* 38(3), 351-376
- Fink, G. / Haiss, P. / Mantler, H. C. (2005): The Finance-Growth-Nexus: Market Economies vs. Transition Countries, EuropeInstitute Working Paper No. 64, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>
- Fink, G. / Haiss, P. / von Varendorff, M. (2005): Foreign Bank Market Entry and Economic Development: The Case of Serbia, in: Chadraba, P. and Springer, R. (eds), *Proceedings of the 13th Annual Conference on Marketing and Business Strategies for Central and Eastern Europe*, Vienna
- Fink, G. / Haiss, P. / Vuksic, G. (2005): Importance of Financial Sectors for Growth in Accession Countries, paper presented at the Conference on European Economic Integration 2005 (CEEI), organized by ECB, OeNB and CFS, Vienna, Nov. 2005
- Fink, G. / Haiss, P. / Vuksic, G. (2004): Changing Importance of Financial Sectors for Growth from Transition to Cohesion and European Integration. EuropeInstitute Working Paper No. 58, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>
- Giannetti, M. / Guiso, L. / Jappelli, T. / Padula, M. / Pagano, M. (2002): Financial Market Integration, Corporate Financing and Economic Growth, *Economic Papers* No. 179, http://europa.eu.int/comm/economy_finance/publications/economic_papers/2002/ecp179en.pdf
- Hondroyannis, G. / Lolos, S / Papapetrou, E. (2005): Financial markets and economic growth in Greece, 1986–1999, *Journal of International Financial Markets, Institutions and Money* 15(2): 173-188
- IFS (2006): *International Financial Statistics*, International Monetary Fund, <http://ifs.apdi.net/imf/logon.aspx>

- Jaffee, D. / Levonian, M. (2001): The structure of banking systems in developed and transition economies, *European Financial Management*, 7 (2), 161–81
- Kar, M. / Pentecost, E. J. (2000): Financial Development and Economic Growth in Turkey: Further Evidence on the Causality Issue, *Economic Research Paper No. 00/27*, Loughborough University
- Khan, M. / Senhadji, A. (2000): Financial development and economic growth: an overview, *IMF Working Paper*, 00/209
- King, R. / Levine, R. (1993a): Finance and Growth: Schumpeter might be right, *Quarterly Journal of Economics*, 108 (3), 717–737
- King, R. / Levine, R. (1993b): Finance, Entrepreneurship and Growth – Theory and Evidence, *Journal of Monetary Economics* 32, 513–42
- Koivu, T. (2002): Do efficient banking sectors accelerate economic growth in transition countries?, *BOFIT Discussion Paper*, 14/2002
- Kominek, Z. (2002): Stock markets and industry growth: an Eastern European perspective, *EBRD Working Paper No. 81*
- Kraft, E. / Jankov, L. (2005): Does speed kill? Lending booms and their consequences in Croatia, *Journal of Banking & Finance* 29 (1), 105-121
- La Porta, R. / Lopez-de-Silanes, F. / Shleifer, A. / Vishny, R. (1998): Law and finance, *Journal of Political Economy* 106 (6), 1113-1155
- Levine, R. / Loayza, N. / Beck, T. (2000): Financial Intermediation and Growth: Causality and Causes, *Journal of Monetary Economics* 46 (1), 31-77
- Levine, R. / Zervos S. (1998): Stock markets, banks and economic growth, *American Economic Review*, 88 (3), 537–58
- Mamatzakis, E. / Staikouras, C / Koutsomanoli-Fillipaki, N. (2005): Competition and concentration in the banking sector of the South Eastern European region, *Emerging Markets Review* 6 (2), 192-209
- Mankiw, G. / Romer, D. / Weil, D. (1992): A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics* 107, 407-34
- Mehl, A. / Winkler, A. (2003): The finance-growth nexus and financial sector environment: New evidence from Southeast Europe, paper presented at The Ninth Dubrovnik Economic

- Conference on Banking and the Financial Sector in Transition and Emerging Market Economies, organized by the Croatian National Bank, June, <http://www.hnb.hr/dub-konf/9-konferencija-radovi/mehl-winkler.pdf>
- Minier, J.A. (2003): Are small stock markets different? *Journal of Monetary Economics* 50, 1593-1602
- Platek, M. (2002): *Financial Sector Development and Economic Growth in Transition Countries*, Difo-Druck, Bamberg 2002
- RNB (2004): National Bank of Romania, http://www.bnro.ro/def_en.htm
- Rousseau, P. / Wachtel, P. (2005): Economic Growth and Financial Depth: Is the relationship extinct already? Paper presented at the UNU / WIDER Conference on Financial Sector Development for Growth and Poverty Reduction, Helsinki, July 2005, <http://www.stern.nyu.edu/eco/wkpapers/wider8.pdf>
- Rousseau, P. / Wachtel, P. (1998): Financial intermediation and economic performance: historical evidence from five industrialised countries, *Journal of Money, Credit and Banking* 30, 657-678
- SSE: Bulgarian Stock Exchange Sofia, <http://www.bse-sofia.bg>
- Temple, J. (1999): The new growth evidence. *Journal of Economic Literature* 37 (1), 112-156
- Ünalmsis, D. (2002): The causality between financial sector development and economic growth: the case of Turkey, Research Department Working Papers of the Central Bank of Turkey, 2002 (3), <http://www.tcmb.gov.tr/research/work/wp6.pdf>
- Wachtel, P. (2001): Growth and Finance: What Do We Know and How Do We Know It?, *International Finance* 4 (3), 335-362
- Wachtel, P. (2003): How much do we really know about growth and finance? *Federal Reserve Bank of Atlanta Economic Review* 88, 33-47
- World Federation of Exchanges (2005): *Annual Report and Statistics 2005*, <http://www.world-exchanges.org/publications/WFE%202005%20Annual%20Report.pdf>
- ZSE (2006): *Trading Summary 2006*, Zagreb Stock Exchange, <http://www.zse.hr>

Data Appendix

Output growth – growth rate of real gross domestic product per capita (source: International Financial Statistics (IFS) of the IMF)

Capital stock growth – growth rate of real physical capital stock per capita; time series on physical capital stock (K) were calculated by using perpetual inventory methods:

$$K_t = K_{t-1} \cdot (1 - d) + I_t$$

whereby I denotes gross fixed capital formation and d represent the constant rate of depreciation that is assumed to be 0.07; the initial capital stock values (K_0) were calculated following Easterly/Levine (2001) by

$$\frac{K_0}{Y_0} = \frac{(I/Y)^\theta}{(g_y^\theta + d)}$$

where $(I/Y)^\theta$ represents annual average investment rates over a ten-year period and g_y^θ denotes output growth averaged over a ten-year period. (Source: real gross fixed capital formation data from AMECO database).

Change in participation rate – changes of the ratio of the number of employed persons to total population (Source: population - International Financial Statistics (IFS) of the IMF, employment – AMECO database)

Change in educational attainment – changes of a constructed index using reported education levels of employees. Weighted population fraction 15 to 64 years having completed 3 levels of education, attainment rates: primary education (weight: 1), secondary education (weight: 1.4), post-secondary education (weight 2) (Source: Barro, Robert J. and Lee, Jong-Wha, International Data on Educational Attainment: Updates and Implications (CID Working Paper no. 42); Human Capital Updated Files (April 2000), available at: <http://www.cid.harvard.edu/ciddata/ciddata.html>)

Domestic credit - volume of loans of deposit money banks and monetary authorities to all residents divided by GDP (Source: International Financial Statistics)

of the IMF). In general we use line 32 (“Domestic Credit”) of the IFS monetary survey, which only contains deposit money banks and monetary authorities. For Turkey with a different institutional setup (i.e. mutual funds are important intermediaries), we use IFS data from the banking survey (line 52), which additionally contains “other banking institutions” and “non-bank financial institutions.” For details, see Blum, Federmair, Fink and Haiss (2002: 51f).

Private credit - volume of loans of deposit money banks and monetary authorities to the private sector divided by GDP (Source: International Financial Statistics of the IMF). In general we use line 32d (“claims on the Private Sector”) of the IFS monetary survey, which only contains deposit money banks and monetary authorities. For Turkey with a different institutional setup (i.e. mutual funds are important intermediaries), we use IFS data from the banking survey (line 52d), which additionally contains “other banking institutions” and “non-bank financial institutions.”

Stock market capitalization – value of listed domestic stocks on domestic exchanges divided by GDP (Source: for Greece and Turkey Federation of International Stock exchanges; for Bulgaria, Croatia, and Romania data of national stock exchanges).

Bonds outstanding – value of outstanding amounts divided by GDP (Source: Bank for International Settlement BIS /Securities Statistics; for Croatia, Bulgaria and Romania data are just available for the size of public bond markets in the 1990s; as it seems that total bond market size is almost identical with public bond market size in these countries, we use data on public bond markets to proxy total market size; data for 2003-2004 from ECB).

Total financial intermediation I – sum of domestic credit, stock market capitalization and bonds outstanding (Source: see sources for domestic credit, stock market capitalization and bonds outstanding).

Total financial intermediation II – sum of private credit, stock market capitalization and bonds outstanding (Source: see sources for private credit, stock market capitalization and bonds outstanding)

How Can Financial Sector FDI Spur Growth in Emerging Europe?

Markus Eller / Peter Haiss / Katharina Steiner ²³

Introduction

Banks were inefficient and burdened with large amounts of non-performing loans in former socialist Central and Eastern European countries (CEECs) before 1990 (Breuss, Fink & Haiss, 2004). Capital was scarce and overall productivity low. The inflow of foreign capital – in particular foreign direct investment (FDI) – was seen as a key component for a solution of these problems (Sergi 2004). Accordingly, economic research has developed two different streams of literature. On the one hand, various studies have attempted to provide theoretical and empirical answers to the question of the overall impact of general FDI on the host economy (e.g. Borensztein, De Gregorio and Lee 1998; De Mello 1999; Nair-Reichert and Weinhold 2001; Campos and Kinoshita 2002; Mencinger 2003; Dimelis and Louri 2004; Neuhaus 2005; Sohinger 2005). Results for CEECs are mixed but they mainly conclude that FDI can be a major growth trigger. On the other hand, the finance-growth nexus literature has elaborated meaningful links between the financial sector and economic growth over the last decade, though the direction of the causality link may change with the level of economic development (Rousseau and Wachtel 2005). Patrick (1966) points out that the financial sector plays a supply-leading role in underdeveloped markets and is supported among others by Beck, Levine and Loayza (2000). The positive view of the finance-led growth hypothesis normally focuses on more open and liberalized financial systems. Abiad, Leigh & Mody (2007) conclude that financial integra-

²³ The authors belong to the finance-growth nexus research group at the EuropaInstitut, Vienna University of Economics and Business Administration, Austria. Markus Eller is an economist at the Centre for Economic and Financial Research (CEFIR), Moscow, Russia; Peter R. Haiss is a lecturer at the EuropaInstitut, Vienna and is also with Bank Austria Creditanstalt, Austria, member of UniCredit Group; Katharina Steiner is a re-search assistant and doctoral student at the EuropaInstitut.

We gratefully acknowledge the support by the Jubiläumsfonds of the Oesterreichische Nationalbank (project no. 8868) and are indebted to comments by Harald Badinger, Xiaoqiang Cheng, Gerhard Fink, Emilia Jurzyk, Robert Kunst, Dušan Mramor, Márton Nagy, Paul Wachtel, and Martin Wagner. We received constructive comments at the 20th Workshop of the Austrian Working Group on Banking and Finance, Nov. 2005, Graz; the XIV 'Tor Vergata' Conference, Dec. 2005, Rome; the Int'l Conference on Transition Economies at the Academy of the National Economy of the Russian Federation, March 2006, Moscow; the 14th Conference of the Austrian Economic Society, May 2006, Vienna; the 2006 Marmara Finance Symposium, May 2006, Is-tanbul; the EIASM Workshop, May 2006, Prague; the EFMA's Annual Meeting, June 2006, Madrid and the 5th GCBE Congress, July 2006, Cambridge. Special thanks to Ettore Dorrucci, ECB, for data support. The opinions expressed are the authors' personal views. For further research of the finance-growth nexus group see <http://www.wu-wien.ac.at/europainstitut/forschung/nexus>.

tion and capital inflows were negatively correlated with economic growth in poor emerging market economies, but positively with European transition economies. Banking markets in CEE are an extreme case of openness as they are majority-held foreign. While there is a plethora of literature on the consequences of financial sector foreign direct investment (FSFDI) for the host countries' financial system and also some descriptive analysis (e.g. Naaborg, Scholtens, Bol, De Haan and De Haas 2003, Vessel 2003, Baudino, Caviglia, Dorrucci and Pineau 2004, Goldberg 2004, BIS 2004), empirical evidence on the economic impact of sectoral FDI is scarce. This paper is one of the first attempts to fill this gap.

We try to add to the understanding of economic mechanisms by combining the two aforementioned streams of research: the FDI-growth-literature and the finance-growth-literature. We argue that the impact of FDI differs depending on the target industry. Reviewing the aforementioned streams of research, we are able to identify four important transmission channels linking FSFDI to economic growth (Section 2). We recognize that FSFDI induces a variety of micro-structure changes in the host countries and ask: What are the opportunities for host economies? What challenges for CEECs host nations exist in order to promote rather positive effects? The issue equally applies to other emerging markets: does FSFDI contribute to economic growth?

This paper progresses as follows: Section 2 characterizes the transmission channels between FSFDI and economic growth. Section 3 provides descriptive statistics for FSFDI indicators and the foreign ownership structure in emerging Europe. Section 4 employs a panel data analysis to evaluate the relationship between FSFDI and economic growth and discusses the economic impact of the empirical results. Finally, Section 5 concludes and depicts directions for future research.

1. Transmission Between FSFDI and Economic GROWTH

Finance-growth theory assumes that the financial system provides services which are crucial for economic growth, e.g. by facilitating transactions, easing risk management, mobilizing savings, allocating funds, and monitoring firm managers (Blum et al. 2002). According to Levine (1996), the providers of these financial services may affect economic development through two main channels: either via the "volume channel", i.e. by increasing the rate of physical capi-

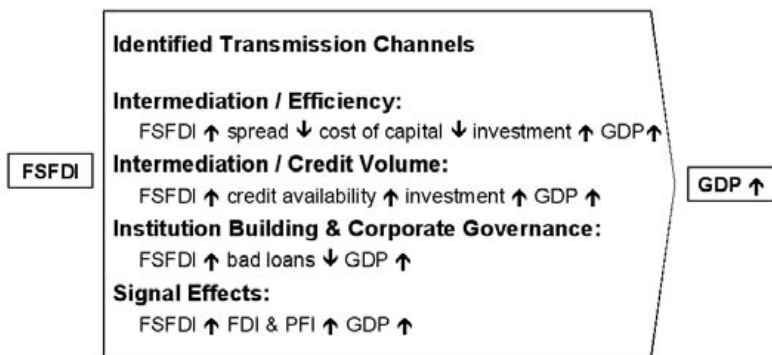
tal accumulation; or via the “efficiency” channel, by improving the productivity with which economies combine labor and capital in production. Levine (1996) argues that depending on their level of involvement, foreign banks that improve the provision of growth-enhancing financial services will stimulate economic development. Haiss et al. (2005a; see Figure 1) further emphasize the impact of foreign bank entry on institution building (termed the “corporate governance channel”) and of collateral benefits via triggering real sector FDI and portfolio direct investment (termed the “signal channel”).

The recent rise in FSFDI especially in emerging markets led to a renewed research emphasis on this field. Questions analyzed include why, which and where banks go abroad (e.g. Clarke et al. 2001; Focarelli and Pozzolo 2005), privatization and ownership issues (e.g. Bonin, Hasan, and Wachtel 2005, Megginson 2005) and what is the impact on host and home countries’ financial system (e.g. Goldberg 2004; Herrero and Simon 2003; Haselmann 2006). For example, it is argued that well-capitalized foreign owners might be able to provide a higher volume of credit to the host countries’ companies and thus contribute to investment and growth, i.e. that there is a “volume channel” (Bol, De Haas and De Haan 2003; De Haas and Van Lelyveld 2002; Detragiache, Tressel and Gupta 2006; Engerer and Schrooten 2004; Wachtel 2003).²⁴ Foreign owned banks can act as a catalyst for regulatory changes and contribute to institutional quality via the “corporate governance channel” (Faria and Mauro 2004). If investors that are regarded as rather cautious and risk averse (a usual perception of banks) enter and invest into a certain market, this initial move may pull in followers. Additional non-financial portfolio investment as well as non-financial FDI might be drawn in, which in turn can influence economic development (Durham 2003).²⁵ Direct investigations of the efficiency channel, however are scarce. We will try to fill this gap and thus discuss how foreign banks may improve an economy and financial sectors’ productivity in the following.

²⁴ Cottarelli, Dell’Ariccia and Vladkova-Hollar (2005) and Mehl and Winkler (2003) warn in this context that fast credit growth driven by new foreign owners can also be a warning signal indicating a potential financial crisis.

²⁵ For comparative data on inflows into CEE in the form of FDI, bank assets, portfolio equity and debt see Lane and Milesi-Ferretti (2006).

Figure 1: Identified Transmission Channels between FSFDI and Economic Growth



1.1 Transmission via the Efficiency Channel

Acquiring advanced technology and accumulating capital stock more effectively are the major challenges for sustained growth in the CEECs (Lee and Tcha 2004). Most transition countries possess relatively high-quality human capital stock (i.e. have a well-trained workforce), while the physical capital stock had been rather obsolete and in need of modernization through investment across the various economic sectors. With the lack of domestic investment (DI), FDI is usually argued to play a critical role in the transfer of market-oriented technologies and business practices (Dimelis and Louri 2004). Eller, Haiss and Steiner (2005) empirically investigate this technology channel in financial sector FDI in further detail. Foreign entrants can only successfully compete in host markets if they have competitive advantages over domestic and other foreign market participants. Bonin et al. (2005) and Claessens et al. (2001) analyze samples of mature and emerging markets and point out that foreign banks operating in emerging markets have been more efficient with regard to costs and profits than domestic banks, whereas the opposite is true in the case of mature markets. Let us stress subsequently the related arguments with regard to strategic issues, management issues and operational issues of foreign bank involvement in a host country.

Strategic issues: Strategic reorientation on the market and technology changes in case of an acquisition may enhance efficiency. As foreign institutions enter new

markets, their strategic interests will vary according to their home market or global activities. Most investors in emerging banking markets have long-term profit interests as these markets offer the potential for strong business volume growth across the various client groups, including retail banking (BIS 2004). Such “going local” strategies may help local financial market development, e.g., by the implementation of products new to the host market (Gallego, Herrero and Luna 2003).

Management issues: Acquired banks usually receive a capital injection from the new owner (Papi and Revoltella 2003, 160), so the ability of the target to bear risk and grant fresh credit rises. Particularly foreign banks have great interest in implementing sound policies and risk management as they have the capacity to implement group-wide risk assessment techniques (BIS 2004, 15). Furthermore, foreign banks play an important role in reducing the share of non-performing loans that was and still is high particularly in former state owned banks (Sergi and Matoušek 2005). Papi and Revoltella (2003, 160) support this view and argue that the clearing of risky credit portfolios requires majority interest by the foreign bank and takes time due to restructuring needs. Putting these arguments together, efficiency in risk management is achieved through transfer of know-how and technologies as well as economies of scope due to risk-diversification.

Operational efficiency: Foreign banks will have a great interest in implementing internal group-standards. Drawing on US-experience, Goldberg (2004, 6) argues that foreign banks are likely to have more efficient credit allocation as well as sound monitoring and thus less risk. Their operating costs are lower. Claessens et al. (2001) explain the high foreign bank presence in the CEECs with low banking costs and low non-interest income of domestic banks. Sabi (1996) and Weill (2003) find that foreign banks are more profitable and more efficient than domestic-owned banks in the CEECs.

These previous issues suggest that foreign owned banks can exploit higher efficiency. However, respective empirical investigations come up with mixed results. Havrylchuk (2006) concludes for Poland that greenfield banks have achieved higher levels of efficiency than domestic banks, foreign banks that acquired domestic institutions have not succeeded in enhancing their efficiency. Green et al. (2004), who tested eight CEE financial markets from 1993 to 2000, found that cost efficiency is not always dependent on ownership. Foreign owned banks are

not more efficient than an average domestic bank in terms of economies of scale and scope. An explanation for these results might be that foreign owners have upfront costs in modernizing the acquired banks. Cost efficiency might only occur after some time. Nevertheless, foreign owned banks are more profit efficient according to Bonin et al. (2005, 2158). They analyzed data of 67 banks in six CEE countries from 1994 to 2002. Papi and Revoltella (2003) provide an explanation for the contradictory findings about the relationship between ownership and bank efficiency on which we will draw in interpreting our empirical analysis. They argue that a certain threshold in foreign ownership is necessary to achieve changes in efficiency levels of the acquired bank. But, what about the impact on domestic banks and thus the whole financial sector? How is financial sector efficiency linked to economic development?

Foreign ownership may drive down banks' interest rate margins, thus lower companies cost of borrowing which should facilitate investment. Foreign owners may have a direct impact on efficiency gains in loan portfolio management of the affiliate and thus external finance for investment by corporations and households. Better risk management or lower operating costs allow for more efficient capital allocation. Foreign banks are able to set narrower interest margins and offer their services and products at lower prices. Local as well as regional competition among banks will increase (Drakos 2003). These changes in the competitive structure of the banking industry may induce efficiency gains in the whole sector as argued by most of the discussion on efficiency (Goldberg 2004, 5). Koivu (2004) found evidence that increasing financial sector efficiency measured by interest margins has growth-enhancing effects on economies in transition. She applied cross-country and time-series regressions on nine CEE countries over 1995–2002. Claeyns and Van der Vennet (2004, 2) empirically tested the determinants of interest margins in CEE and found that “institutional reform shifts risk behavior before competition effects push margins down”. Higher competition induced by foreign bank entry causes lower interest margins and thus higher financial sector efficiency.

According to Eschenbach, Francois and Schuknecht (2000), financial sector competition triggered by foreign banks is closely linked to economic growth in emerging market economies. Their cross-country regression analysis covered 130 countries, including most of the transition countries over 1990–1999. Higher

financial sector efficiency induced by higher financial sector competition should result in an overall reduction of transaction costs (Levine 1997). Greenfield investors represent new competitors per se, whereas acquisitions foster competition due to new market policies implemented by new owners, restructuring, and the rollout of group risk systems and corporate governance practices. If domestic banks are able to cope with foreign contenders, competition with foreign banks will improve the efficiency of the domestic banking system (see Claessens et al. 2001).

1.2 Transmission via the Credit Volume Channel

In CEE and other emerging markets, bank lending is the most common method of external financing and thus important for investment activities. Credit to the private sector remains relatively low, although it is most important for investment activities. Wachtel (2003, 44) points out that “deeper financial intermediation may be a significant causal factor in economic growth”. To put it differently, well-capitalized foreign owners providing a higher volume of credit to the host countries’ companies might contribute to investment and thus growth. They have the ability to provide fresh money to the financial host market because foreign owned banks are backed by their parent companies. Arena, Reinhart and Vázquez (2007) suggest accordingly that foreign bank entry in emerging market countries contributed to stability in credit markets. Concerning the private sector, Bol, De Haas and De Haan (2003, 15) argue that foreign financial institutions are more involved in lending to the private sector than domestic banks in CEE. Detragiache, Tressel and Gupta (2006) empirically analyzed the impact of foreign bank penetration on financial development in poor countries. Their results pinpoint that foreign bank penetration is associated with less credit to the private sector in very poor countries in the short term. Papi and Revoltella (2003) argue that foreign bank lending is mostly directed to subsidiaries of multinational corporations because the assessment of information coming from the local private sector is often too difficult due to missing transparency or even lack of information (see also Mehl and Winkler 2003). While this was the case during early years of transition, foreign banks concentrate on growing the retail sector in the meantime and invest heavily into retail branch networks. Among retail loans, the largest fraction goes into housing and real estate finance, reflecting the high catch up potential of these economies in this respect.

Among firms, the effects of foreign owned bank lending are unevenly distributed showing differences in e.g. size. Foreign bank entry therefore affects lending to SMEs and overall industrial structures particularly in industries that are dependent on bank finance. Small local businesses mostly rely on relationship lending (IADB 2005, 136)). In many developing and transition economies, banks are highly involved in relationship lending. In other words, companies owned by related individuals may receive funding even if they are operating inefficient whereas potentially highly profitable projects may face problems in search for funding. Foreign owned institutions often “do not serve” relationship lending. They stick to international standards and may thus enhance allocative efficiency, contribute to institution building over the long run and enhance overall stability as well as sustainable economic development. Interestingly, Giannetti and Ongena (2005) found that young enterprises that were established after the early transition period profited more from foreign bank entry. They focused on lending practices of foreign owned banks in a sample of 14 CEE countries from 1993 to 2002. The results showed that firms established in early transition received less lending from foreign owned banks. According to them, this may suggest that foreign owned banks might be able to mitigate problems of related lending as these firms mostly had worse corporate governance, had less dispersed ownership and benefited from favors of politicians.

To sum up, foreign banks are more involved in lending to the private sector than domestic banks. Foreign lending stimulates firm growth in sales, assets, and leverage via investment activities (Giannetti and Ongena 2005). Countries experienced higher growth rates when they had higher investment to GDP ratios. Among other reasons, efficient or inefficient allocation of resources contributes to differences in growth (Wachtel 2001, 339). But, growing credit supply is not enough to guarantee a positive impact on investment activities and thus economic development (Mehl and Winkler 2003). If foreign owned banks were inclined to contribute to the overall soundness of the local financial market, financial crisis risks would decline and greater stability may foster economic development.

1.3 Transmission via the Corporate Governance Channel

From the perspective of most CEE host countries, financial markets were opened to foreign investors with the aim of a fast improvement in the quality of banking

and the whole financial system (De Haas and Van Lelyveld 2002). For example, with the establishment of a two-tier banking system in 1987, foreign banks were encouraged to enter the Hungarian market, anticipating that they could improve corporate governance in the financial sector and contribute to institution building. Foreign owned banks are less involved in connected lending as they need to comply with internal group-wide risk management rules which contribute to a reduction in bad loans (Fink et al. 1998). Foreign ownership creates an incentive to encourage sound banking practices and a disincentive to damaging speculative short-term financial flows (Wachtel 2003). Better loan portfolio and risk management can contribute to financial stability which is important for economic development (King and Levine 1993). In addition, the benefits of foreign bank entry can only be exploited if the institutional infrastructure is well developed (Domanski 2005). Foreign banks have an incentive to contribute to sound and more stable financial systems e.g. through the implementation of sound financial practices.

Further collateral-benefit type spillovers on the infrastructure including regulation, legislation, or supervision are also possible (Bonin and Wachtel 2002; Abiad et al. 2007). As foreign banks enter emerging markets, the introduction of new types of products or services is faster and innovation can even be accelerated via FSFDI (Wachtel 2001). This creates the need for supervisors to adapt the legal environment to these developments. Foreign owned banks seeking to mitigate their own risk act as a catalyst for regulatory changes and implementation of international standards (BIS 2004, 14). In this way, foreign owned banks can contribute to institutional quality which is determined by the absence of corruption, red tape, or political violence (Faria and Mauro 2004, 3).

1.4 Transmission via Signal Effects

If investors that are regarded as rather cautious and risk averse (a usual perception of banks) enter and invest into a certain market, this initial move may pull in followers from other industries (Haiss et al. 2005b). FSFDI may provide positive “signals” (Spence 1973) towards economic integration and development and encourage e.g. merchandise trade. Additional non-financial portfolio investment as well as non-financial FDI might be drawn in, which in turn influences economic growth (Durham 2003, Reisen and Soto 2001). Brealey and Kaplanis (1996)

find that countries with the highest foreign bank presence registered the greatest level of non-bank FDI links. Focarelli and Pozzolo (2000), by conducting a survey of 260 large banks from OECD countries, show a positive relationship between bank choice of location and both real sector FDI and bilateral trade flows. Goldstein and Razin (2005) argue that there is a trade-off between direct and portfolio investment via stock exchanges which is worth further investigating with regard to financial sector FDI.

In the discussion above, we mainly concentrated on the productivity channel from financial sector FDI, though we conclude that it is important to tie in other possible channels as well in an overall assessment. Independent from the above discussion of possible transmission channels from FSFDI into economic development, an issue that sticks out is the fact that FSFDI-inflows into Central and South-Eastern Europe during the last decade were massive and thus regional financial market integration outpaces other emerging markets (Abiad et al. 2007), as described in more detail in the following.

2. DESCRIPTIVE STATISTICS

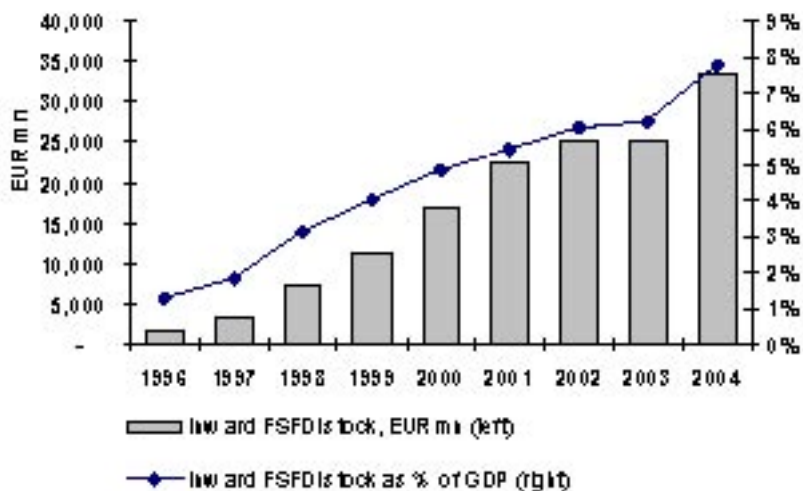
2.1 Inward FSFDI Stock

For our empirical investigation in Section 4 we will employ two different indicators for FSFDI. Inward FDI stocks that are devoted to financial intermediation form our *first indicator* (see the data appendix for more details). Figure 2 depicts this indicator over time for ten CEECs (CEE-10)²⁶. Foreign penetration in the financial sector has steadily increased in this region and reached a level of more than EUR mn 33,400 or 7.8% of GDP in 2004. Except for the outlier Estonia, the average inward FSFDI stock to GDP ranges between 2.7% (Slovenia) and 5.7% (Czech Rep.) in CEE-10, as shown in Figure 3.

Figure 4 demonstrates that FSFDI has quite a high importance for CEE-11, given an average share of financial sector FDI in total FDI of 18.5% in 2004. The share of FSFDI in total FDI ranged between 9% in Hungary and 32% in Estonia in 2004.

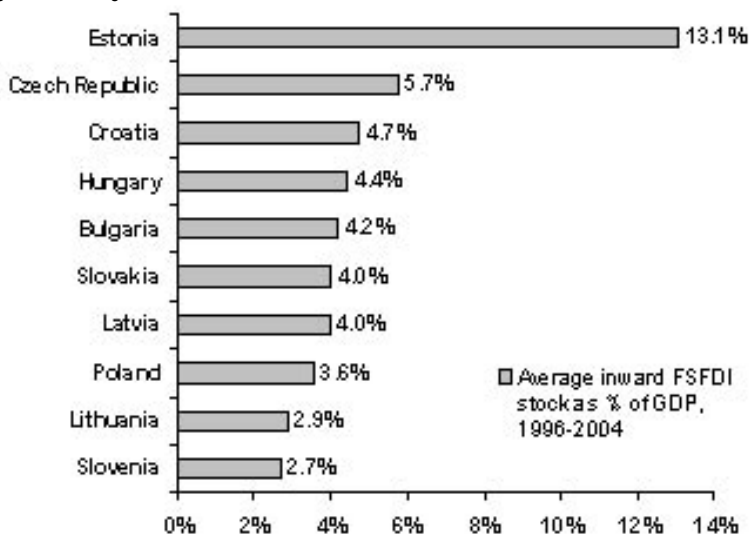
²⁶ CEE-11: Bulgaria (BG), Croatia (HR), Czech Republic (CZ), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Poland (PL), Romania (RO), Slovenia (SI), Slovakia (SK). CEE-10: for inward FSFDI CEE-11 except for Romania; financial M&A: CEE-11 except for Croatia.

Figure 2: Steady Inflow of FSFDI to CEE-10



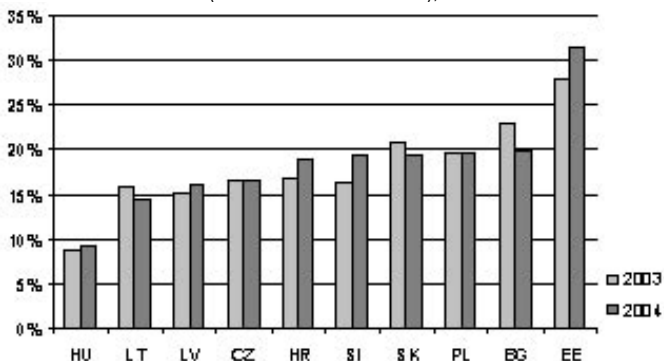
Source: own calculations based on Hunya and Stankovsky (2006) and the AMECO database

Figure 3: Average FSFDI Stock in CEE-10, 1996–2004



Source: own calculations based on Hunya and Stankovsky (2006) and the AMECO database

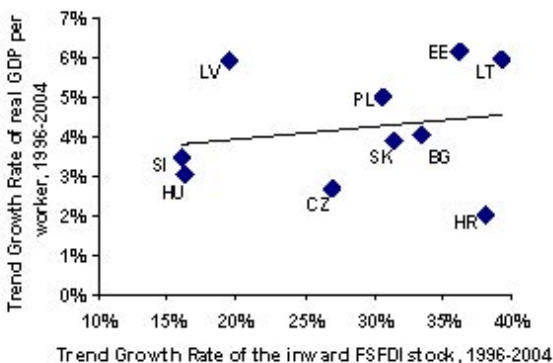
Figure 4: Share of FSFDI in Total FDI (Inward Stocks in mn EUR), 2003 and 2004



Source: own calculations based on Hunya and Stankovsky (2006) and the AMECO database

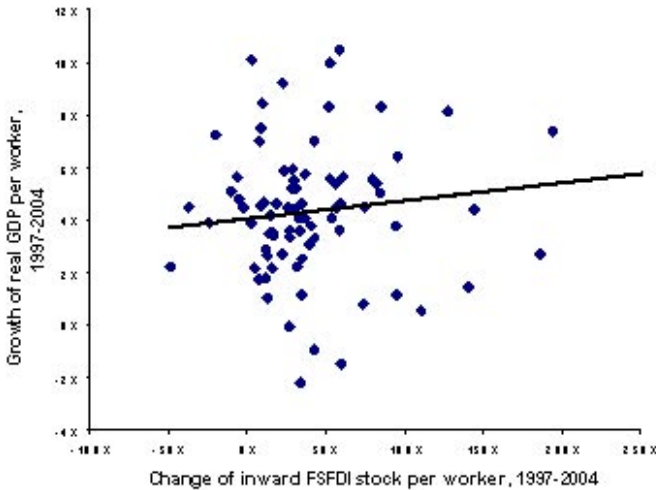
Figures 5 and 6 show simple scatter plots (across countries and over time) and indicate a slight, positive link between economic growth and the change of the inward FSFDI stock. Differences in development among the CEECs are reflected by the broad dispersion of the data points. Particular outliers are Croatia and Latvia, showing a rather high (low) growth in FSFDI, but at the same time a low (high) growth rate of real GDP per worker. We take this as an indication to account for country-specific effects in empirical investigations of the FSFDI-growth linkage (see Eller, Haiss, and Steiner 2006). Such effects include the timing of banking crises (e.g. Croatia 1998/1999) and following waves of privatization. In Poland, frequent political changes (new governments about every year) led to a stop-and-go pattern in bank privatization.

Figure 5: Economic Growth vs. Growth of FSFDI in CEE-10, averages 1996–2004



Source: own calculations based on Hunya and Stankovsky (2006) and the AMECO database

Figure 6: Economic Growth vs. Growth of FSFDI in CEE-10, annual obs. 1997–2004



Source: own calculations based on Hunya and Stankovsky (2006) and the AMECO database

2.2 Financial Cross-border M&A

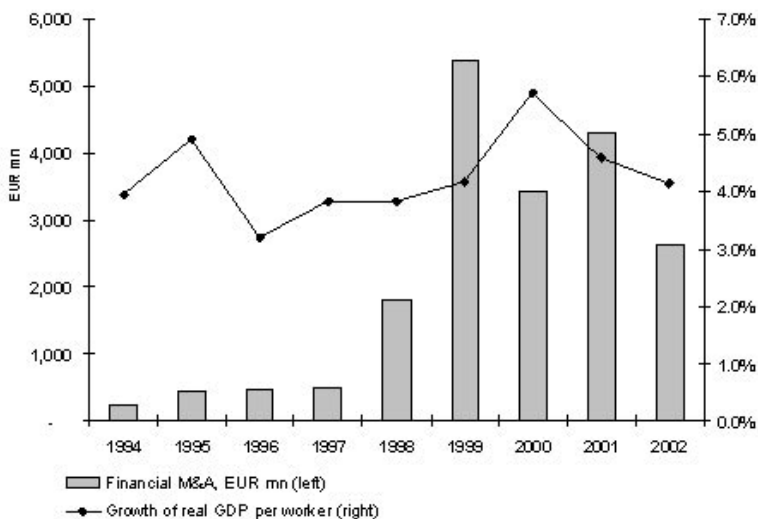
Table 1 as well as Figure 7 presents a *second indicator* for FSFDI: *completed cross-border mergers and acquisitions (M&A) in the financial sector*. In absolute terms, Poland has accumulated most of cross-border financial M&A from 1994 to 2002, namely EUR mn 8,298. The Czech Republic (5,332 mn), Slovakia (1,219 mn), and Hungary (1,152 mn) follow (data from ECB, see Baudino et al., 2004). This ranking changes notably when we express cross-border financial M&A as percentage of GDP, averaged over 1994–2002. The Czech Republic has been able to attract on average the highest share of financial M&A in terms of national economic power (0.96%). Estonia, Bulgaria, Slovakia, and Poland follow with a share higher than 0.50%. As a latecomer to bank privatization (notably BCR in 2006), Romania turns out to be the country with the lowest respective share from 1994 to 2002: the average accumulation of financial cross-border M&A amounts here to only 0.19% of GDP. Financial M&A has increased remarkably since 1998 in CEE-10 (see Figure 7). With the end of most privatization in the CEE-NMS, primary large-scale financial sector M&A moved further South-East (e.g. into Albania 2004; Serbia and Romania, 2005/2006) and East (e.g. Ukraine, 2004/2006).

Table 1: Completed Financial Cross-border M&A in CEE-10, 1994–2002

	Financial cross-border M&A (% GDP) 2001	Financial cross-border M&A (% GDP) 2002	Avg. financial cross-border M&A (% GDP) 1994–2002	Accumulated financial cross-border M&A (mn EUR) 1994–2002
Czech Rep.	1.85	1.94	0.96	5,332
Estonia	0.00	0.00	0.79	350
Hungary	0.18	0.04	0.78	1,152
Bulgaria	0.00	0.52	0.69	830
Slovakia	4.78	0.06	0.60	1,219
Poland	0.75	0.15	0.58	8,298
Slovenia	0.65	2.79	0.39	807
Lithuania	0.66	0.16	0.35	379
Latvia	0.38	0.00	0.34	196
Romania	0.06	0.01	0.19	628

Source: own calculations based on Baudino et al. (2004) and the AMECO database

Figure 7: Economic Growth and Financial M&A in CEE-10, 1994–2002



Source: own calculations based on Baudino et al. (2004) and the AMECO database

2.3 Market Share of Foreign Owned Banks in Southeastern Europe

Given that our data reveal that banks account for the largest share in financial M&A (about 85%), let us also highlight how the market share of foreign-owned banks has evolved. This can be measured by the *share of bank assets controlled by foreign owners*. It accounted for about 70% in CEE in 2004 (Breyer, 2004). Notably, besides some “primary” FSFDI, there were also some “secondary” FSFDI with ownership changes among foreign owners²⁷.

As mentioned above, primary FSFDI moved from the 2004 New EU Member States from Central and Eastern Europe (NMS²⁸) more to the EU Accession Countries and beyond that further South and East (see Hagmayr and Haiss 2006). In addition, some “secondary” moves occurred, e.g. with the integration of the CEE-network of BA-CA/HVB into UniCredit in 2005. Foreign banks now dominate the local markets also in most SEE countries with high market shares ranging from 51% in FYR Macedonia to even 92% in Albania in 2005 (Hagmayr 2007; see Table 2). In 2005 the share of bank assets controlled by foreign owners amounts on average to 72% in SEE-6 and thus reaches a similar size as in CEE. The shares for Greece and Turkey are much lower at the time. By March 2007, including the shares of 13 banks traded on the Istanbul Stock Exchange, the share of assets controlled by foreign owners rose to 36% in Turkey, with several more banking acquisitions by foreigners awaiting approval from Turkish banking authorities (Dermirsar 2007). SEE thus followed the path of CEE in banking sector transition, though with a time lag in most cases. Based on the descriptive evidence on growing foreign banking involvement, we will empirically test its impact on economic development in the following.

²⁷ E.g., the sale of Splitska Banka (Croatia) to Société Générale because of competition requirements by the Croatian National Bank in course of the takeover of BA-CA by UniCredit and the sell off of Raiffeisenbank Ukraine to OTP of Hungary after the acquisition of Ukraine-based Alfa-Bank by Raiffeisen International, whereby Raiffeisen wanted to avoid local merger cost.

²⁸ Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Hungary, and Slovenia.

Table 2: Market Share of Foreign Owned Banks (% Total Bank Assets), 1996–2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	n.a.	n.a.	n.a.	n.a.	35.2	40.8	45.9	47.1	93.3	92.3
Bulgaria	9.5	18.0	32.3	44.7	67.0	70.0	72.0	82.3	82.5	74.5
Croatia	1.0	4.0	6.7	39.9	84.1	89.3	90.2	91.0	91.3	91.2
FYR Macedonia	n.a.	n.a.	n.a.	11.5	53.4	51.1	44.0	46.9	47.3	51.3
Greece	n.a.	n.a.	12.8	n.a.	12.3	n.a.	8.7	9.3	10.0	n.a.
Romania	11.2	17.2	20.0	47.8	50.9	55.2	56.4	58.2	62.0	59.2
Serbia	n.a.	n.a.	n.a.	n.a.	0.5	13.2	27.0	38.4	37.7	66.0
Turkey	2.4	4.3	4.3	5.3	5.2	3.1	3.1	2.8	3.4	11.7

Source: Hagmayr 2007, based on BOG 2004, EBRD 2006, Gardo 2005a-b, Günay Özkan and Günay 2006, BAT, IMF 2006

3. PANEL DATA ANALYSIS

3.1 Specification

The qualitative arguments as shown in Section 2 and the descriptive statistics as shown in Section 3 call for an empirical evaluation of the impact of FSDI on economic growth in Emerging Europe. We are addressing this issue by running fixed-effects panel data regressions that base on the following equation (for its derivation and the econometric particularities see Eller et al., 2006).

$$\Delta \ln(y_{it}) = \mu_i + \lambda_t + \square \Delta \ln(FSFDI_{it}) + \square \Delta \ln(k_{it}) + \square \Delta \ln(h_{it}) + \square \Delta \ln(GC_{it}) + \square_2 \square_{it} + \square_{it} \quad (1a)$$

$$\Delta \ln(y_{it}) = \mu_i + \lambda_t + \square^p FSFDI_{it} + \square \Delta \ln(k_{it}) + \square \Delta \ln(h_{it}) + \square \Delta \ln(GC_{it}) + \square_2 \square_{it} + \square_{it} \quad (1b)$$

This static variable-intercept panel data model consists of following components:

- i. The *dependent variable* $\Delta \ln(y_{it})$ represents the growth rate of real GDP per worker.²⁹
- ii. Country- (μ_i) and time-*fixed effects* (λ_t) that take the form of dummy variables are included to get more information about country- or time-specific characteristics and to inhibit correlation between the regressors purely because of contemporaneous time or country shocks (as short-run business cycle fluctuations, see Hsiao, 2003).

²⁹ Scaling real GDP to the number of employees instead of scaling it to total population stems from the view to capture the "economic output per worker" as a proxy for productivity in the sense of the production function approach (see Temple, 1999) and is a byproduct of deriving the regression equation from a neoclassical production function with constant returns to scale (see Eller et al., 2006).

- iii. Our *explanatory variable of main interest*, *FSFDI*, appears in two different ways: we are not only interested in the marginal growth effect of an increase of *FSFDI* (\square^p in equation 1b, reflecting the “permanent *FSFDI*-induced efficiency-led growth hypothesis”), but also in the marginal growth effect of an acceleration of *FSFDI* changes (\square in equation 1a, reflecting the “temporary *FSFDI*-induced efficiency-led growth hypothesis”).
- iv. Deriving this baseline regression equation, we started with a neoclassical production function with constant returns to scale that uses physical capital K , human capital H , and labor L as inputs (see Eller et al., 2006). As a consequence, the growth rate of physical capital stock per worker $\Delta \ln(k_{it})$ and the growth rate of human capital stock per worker $\Delta \ln(h_{it})$ enter equations (1a) and (1b) as *base regressors*.
- v. To allow for robustness checks of our subsequent estimation results we are additionally including the growth rate of government consumption to GDP ($\Delta \ln(GC_{it})$, representing the size of the public sector) and the inflation rate \square_{it} as *control variables*. They have been found to have a substantial impact on economic growth in earlier studies (for a brief review see Eller et al., 2006, p. 306 f.).
- vi. ε_{it} is the *error term* representing the effects of those unobserved variables that vary over i and t . It is assumed to be an independently identically distributed random variable with zero mean and variance σ_ε^2 .

We are running this setting for the two different indicators of *FSFDI* as described in Sections 3.1 and 3.2: inward *FSFDI* stock and financial M&A. Both of them are scaled to GDP as well as measured per employee. Our dataset for these variables is limited to the CEE-10 region, to 1996-2003 for inward *FSFDI*, and to 1996-2002 for financial M&A.

3.2 Presentation and Discussion of Estimation Results

3.2.1 General Estimation Results

The estimation output is summarized in the Tables 3-5. Using the inward *FSFDI* stock (Tables 3-4) or using cross border financial M&A as indicator for *FSFDI* (Table 5) yields similar results.

For the estimation we are following several steps and are conducting various sensitivity checks (they are documented in detail in Eller et al., 2006). Most notably, we are controlling for heteroskedasticity and are employing tests to assess potential endogeneity of *FSFDI*. Firstly, considerable differences in the standard deviations of the country-specific residuals indicate group-specific *heteroskedasticity* (as also suggested by the scatter plots in Figures 6-7). Since heteroskedasticity leads to biased standard errors, we use White heteroskedasticity-robust standard errors to allow for reliable significance interpretations. Secondly, one could argue that *FSFDI* does not only induce higher growth rates, but that also countries with higher growth rates are more attractive for foreign investors, and thus, growth affects also *FSFDI*. Therefore it is very important to control for potential *simultaneity* in our system to be sure that the estimates are not biased because of reverse causation. Accordingly, we are employing the *Durbin-Wu-Hausman (DWH) endogeneity test* in line with Davidson and MacKinnon (1993)³⁰. The DWH test does practically never (only in column (3), Table 3, at the 10% significance level) reject the null hypothesis that the *FSFDI* variable is exogenous. Hence we are not switching to an instrumental variable estimation.

The standard growth regressors behave as expected: the change of the *physical capital stock* per employee is related positively and highly significant to economic growth. The change of *human capital* per employee shows in most specifications the expected positive sign, albeit not significant. *Government consumption* to GDP shows always the expected negative sign; in particular it is highly significant for the estimations employing financial M&A as *FSFDI* indicator (see Table 5). This confirms the negative impact of the size of the public sector on economic growth. The *inflation rate*, on the other hand, changes its sign quite often and is only significant in one regression (column (4), Table 5). The insignificance in other specifications can be explained by the *ex ante* unclear sign pattern. Note that the exclusion of the inflation rate does not change the results for other coefficients in a decisive manner. This is an indication of robustness of our specification.

³⁰ Under the null of the DWH test, *FSFDI* is exogenous and both ordinary least squares (OLS) and instrumental variable (IV) estimation are consistent. Under the alternative, *FSFDI* is endogenous and only IV yields consistent estimates.

3.2.2 Lagged Effects of FSFDI

Next let us draw our attention to the *results for FSFDI*. Although (contemporaneous) *FSFDI* shows the expected positive impact on economic growth in most specifications, the coefficient is not statistically significant. We have also imposed higher order lags (from one up to three) given that FSFDI might require some time to affect the real economy. Table 3 (columns 2 and 4) shows that an increase in the growth rate of FSFDI per employee of one percent leads to a significant increase of the economic growth rate of about 0.02% after two years. In contrast, Table 4 shows that the level of FSFDI---both per employee or scaled to GDP---has a negative impact on economic growth with a lag of three years. These results rather support the view that there might be limits for economic gains from FSFDI (see Section 4.2.3).

Note that a lag of three not only reduces the number of observations, but also shifts the sample to the period 1999-2003. In these years in most New EU Member States privatization and thus the accumulation of FSFDI has already slowed down, which could lead to the interpretation that evidence differs among subperiods. FSFDI was especially high in the Czech and Slovak Republics in 2001/2002; i.e. in countries where bank privatization took place late, high levels of non-performing loans had suppressed lending for an extended period, and clients may have got used to non-bank sources of finance. Alternative explanations might rest in changes in the market behavior of foreign banks over time (e.g., entry with strict credit rules which become softer with rising experience in the host market over time; the latter causing higher loan defaults, client bankruptcies and loan loss provisions. Foreign banks also may have become accustomed to high profits in the host markets and may avoid price-based competition to maintain margins; Kraft, 2005, 361); market microstructure (foreign banks initially satisfying pent-up credit demand or initially providing a safe heaven for local depositors), or with GDP growth capped by regulatory intervention to dampen high credit growth perceived as the buildup of credit bubbles (such measures were taken, e.g., in Croatia, Bulgaria and Poland). Evidence on these issues is still sketchy and rewards further research efforts. Further research might also take the (short) maturity of capital available in these markets and possible crowding-out effects of short-term vs. long-term investments into account. Note that for the financial M&A indicator higher-order lags are not significant. Therefore, we report only the contemporaneous specification results (see Table 5).

3.2.3 Hump-Shaped Relationship between Growth and FSFDI

The theoretical pros and cons of FSFDI for the host economy (see Goldberg, 2004) suggest that there are limits for economic gains from FSFDI. Thus, the optimal degree of FSFDI may lie somewhere in between an extremely high and an extremely low one. One can think about a hump-shaped relationship between economic growth and FSFDI. Abiad et al. (2007) argue that as host countries become richer, the growth dividend from foreign capital flows may decline, indicating that external finance may have a rather transitory influence. In adapting the Stiglitz and Weiss (1981) argument that foreign banks buy entry by accepting worse lending risks, one could argue that foreign banks do so once competitive rivalry driven by rising FSFDI surpasses a certain threshold. With lags this may be detrimental to GDP growth. Alternatively, the cumulating inflow of FSFDI over time may lead to a rising market concentration that allows the banks to engage in oligopolistic pricing behavior in ways that curb possible economic growth as suggested by Kraft (2005). On the other hand, Hermes and Lensik (2003) find an inverted U-shaped relationship between the change in foreign bank presence and the performance of domestic banks. At low levels of foreign penetration, they indicate that spill-over effects (enhancing domestic banks' profits and costs) dominate the effect of increased competition. Only once rising foreign involvement reached a certain threshold, higher competition forces foreign and domestic banks into higher efficiency. Zajc (2004) conceives scenarios of a U-shaped relationship between foreign bank entry and domestic bank profitability. He argues that after reaching a substantial market share, foreign banks may find it too costly to lure over clients so that the level of competition could decline and bank profits rise, but with negative connotations to economic growth. So investigating non-linear relationships seems promising.

As a consequence, we constructed a transformed index representing a hump-shaped impact of FSFDI on economic growth (for details see the data appendix). This index is related positively to economic growth with a lag of two or three periods (see column 6 in Table 3, column 5 in Table 4, or columns 5 and 6 in Table 5). While it is highly significant for the estimations employing the financial M&A indicator, it is not significant for the estimations with the inward FSFDI stock indicator (although it shows a higher *t*-statistic than the contemporaneous estimates for this indicator).

3.2.4 Interaction of FSFDI with the Countries' Absorptive Capabilities

Borensztein et al. (1998) detected a positive and significant interaction between the stock of human capital and FDI. They interpret this finding with the observation that “the flow of advanced technology brought along by FDI can increase the growth rate of the host economy only by interacting with that country's absorptive capability”. Evans, Green and Murinde (2002) find human capital and bank-sector size to be complements and suggest that the presence of a developed banking system is necessary to exploit the productivity-enhancing potential of human capital.

Following this line of research, we implement as a further improvement interaction terms between the stock of FSFDI and the stocks of human and physical capital. We enclose the products of FSFDI and human and physical capital simultaneously in five different regressions. While the *interaction of the FSFDI stock with the index of employees' education has a positive impact on economic growth*, the *interaction of the FSFDI stock with the stock of physical capital is associated negatively to growth*. Both effects together could explain the insignificant impact of contemporaneous FSFDI values in other equations. The specifications in columns (2) and (3) in Table 5 (financial M&A per employee or to GDP, respectively) replace the financial M&A variable by the mentioned interaction terms and yield coefficients that are highly statistically significant. The high significance of the interaction terms may be the effect of the omission of other relevant factors, in particular, the FSFDI variable by itself. Therefore we include FSFDI, human capital, and physical capital individually alongside their product in the respective regressions of Table 3 (columns 3-4: change of inward FSFDI stock per employee) and Table 4 (column 4: level of inward FSFDI stock per GDP). In this way, we can test jointly whether these variables affect growth by themselves or through the interaction term (see Borensztein et al. 1998). In Table 3 the two interaction terms do not change their sign and are still significant, albeit only at the 10% level. FSFDI by itself enters the equation positively but is still statistically significant only with a lag of two years.

Let us try to interpret these findings more accurately. Firstly – considering the positive human capital-related interaction term – we can detect complementary effects between FSFDI and human capital on economic growth. *FSFDI seems to spur economic growth depending on a higher human capital stock*, which is

in line with the finding of Borensztein et al. (1998) that the contribution of FDI to growth holds only when the host country has a minimum stock of human capital. Knowledge-spillovers to domestic banks associated with the inflow of FSFDI (e.g. in the form of new technology introduced by foreign banks as argued by Zajc 2002, 200) can be an explanation for this phenomenon. These spillovers can take place if domestic banks are able to cope with the increasing competition induced by foreign owners. Furthermore, foreign banks seeking to mitigate their own risk might act as a catalyst for regulatory changes and implementation of international corporate standards. Consequently, improvements in accounting standards and auditing practices have to follow (BIS 2004, 13). Such implemented higher standards create the need for adoptions and further human capital formation of employees in all industries and companies, not only those seeking for external bank finance. In this context, the particular role of the financial industry within an economy needs to be considered.

Secondly – considering the negative physical capital-related interaction term – *substitutive effects between FSFDI and domestic physical capital on economic growth* are indicated. De Mello (1999) similarly finds that FDI among OECD economies is growth enhancing only for countries in which domestic and foreign capital are complements. On the one hand, FSFDI may have a weaker impact on economic growth in the case of a higher physical capital stock. On the other hand, the physical capital stock may have a weaker impact on economic growth in the case of a higher FSFDI stock. The latter effect can be interpreted by the crowding-out of local physical capital caused by the entry of a foreign bank. Schumpeterian effects of creative destruction seem to be at work. The first effect, however, which is probably the stronger one, cannot be interpreted in a straightforward manner. Analogously to Carkovic & Levine (2002) and Campos & Kinoshita (2002), we could argue that FSFDI is only growth-enhancing in countries with low physical capital stocks. In any case, respective analysis deserves more attention. In general, market microstructure features like the mode of entry (greenfield vs. M&A), the main line of business of foreign owners and their target groups (retail vs. wholesale/corporate) have to be considered with regard to the impact on local physical capital formation.

Conclusions

Reviewing and combining the finance-growth and the FDI-growth literature, we identified special characteristics of foreign owned banks, such as better risk-management techniques, and discuss research results on how foreign owned banks have an impact on financial sector development. We contribute to the literature by identifying the following possible transmission channels between FSFDI, financial sector development, and economic growth: intermediation/efficiency, intermediation/credit volume, corporate governance and institution building, as well as signal effects for total FDI and portfolio investments.

We provided novel data on FSFDI for the CEE region and the foreign ownership structure of banks in the SEE region. We saw that FSFDI accounts for about 18% of total FDI and that foreign penetration in the financial sector of these countries has steadily increased, whereby in recent years---because of a slow-down of bank privatization in CEE---a shift of primary FSFDI to the SEE region and further East (e.g. to Ukraine and Russia) can be observed. In both the CEE and SEE region the importance of foreign involvement is strongly underlined by the fact that 70% of total bank assets are controlled by foreign owners.

Our empirical results indicate that there can be a positive relationship between FSFDI and growth in CEE-10 for the period 1996-2003. It depends on a careful examination of lagged, hump-shaped or interacted effects of FSFDI. While this extension of Eller et al. (2006) to South-Eastern Europe concentrated on one aspect of the FSFDI-growth-relationship – the efficiency channel, further channels need to be investigated in the future. Does FSFDI trigger growth in private domestic credit (whereas credit volume frequently is mentioned as a likely cause for GDP growth in the literature)? Does FSFDI trigger shrinking interest rate margins (whereas credit price again should have an impact on investment and growth according to common assumptions)? Does FSFDI also attract FDI in the real sector or portfolio investment into the host country stock exchange (i.e. are there spillover effects)? The above research clearly calls also for a regional broadening. While we concentrated on “emerging Europe” here, the issue equally applies to Latin America and South-East Asia which show many similarities in transition efforts.

Table 3 and Table 4: Fixed effects panel data results - impact of inward FSDI on economic growth in CEE-10, (cross-country growth accounting, annual data 1996-2003)

		Dependent Variable: $\ln(\text{RGDPL}_i)$										
		Table 3: Temporary Effects					Table 4: Permanent Effects					
REGRESSIONS		(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)
EXPLANATORY VARIABLES		$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$	$\text{FSDI}_{i,t} = \ln(\text{FSDIEMP}_{i,t})$
Constant		0.036*** (9.320)	0.020** (2.363)	0.068 (1.536)	0.065 (1.026)	0.034*** (12.193)	0.030*** (4.063)	0.027 (0.713)	0.101** (2.226)	0.035 (1.424)	-0.065* (-1.998)	0.030*** (3.434)
FSDI _{it} resp. FSDI _{it,tm}		0.0004 (0.060)	0.019*** (2.750)	0.002 (0.241)	0.020*** (3.103)	-0.0012 (-0.131)	0.002 (1.216)	0.001 (0.216)	-0.013* (-1.792)	0.0005 (0.064)	-0.022*** (-2.782)	0.007 (1.329)
$\ln(K_{it})$		0.087*** (3.077)	0.090*** (3.227)	0.102*** (5.176)	0.113*** (3.692)	0.103*** (4.675)	0.114*** (3.448)	0.087*** (3.102)	0.087*** (3.249)	0.103*** (4.722)	0.100*** (3.936)	0.079*** (2.718)
$\ln(h_{it})$		0.037 (0.139)	0.179 (0.139)	0.078 (0.272)	0.251 (0.865)	-0.008 (-0.119)	0.043 (0.192)	0.031 (0.119)	-0.074 (-0.323)	0.005 (0.252)	0.064 (-0.097)	0.272 (1.043)
$\ln(\text{GC}_{it})$		-0.110* (-1.658)	-0.016 (-0.180)	-0.113* (-1.733)		-0.119* (-1.765)		-0.112* (-1.717)	-0.102 (-1.225)	-0.123* (-1.849)	-0.097 (-1.213)	-0.028 (-0.406)
τ_{it}		-0.009 (-1.185)	0.221 (1.307)		0.211 (1.188)		0.170 (1.026)	-0.009 (-1.108)	0.135 (0.694)		0.023 (0.116)	-0.072 (-0.953)
$\ln(\text{FSDI}_{it}) \square \ln(h_{it})$				0.005* (1.802)	0.006* (1.675)						0.008*** (2.147)	
$\ln(\text{FSDI}_{it}) \square \ln(K_{it})$				-0.003* (-1.859)	-0.003* (-1.825)						-0.003*** (-2.369)	
No. of Total Observations		63	50	63	50	63	45	64	50	64	50	54
Estimation Method		LSDV	LSDV	LSDV	LSDV	LSDV	LSDV	LSDV	LSDV	LSDV	LSDV	LSDV
DWH: K*		1; 0.796	1; 0.732	3; 2.88*	3; 1.48	1; -0.823	1; -0.931	1; 0.965	1; -0.459	1; 0.792	3; 2.30	1; 1.050
t-of F-aux		0.404	0.272	0.418	0.279	0.409	0.344	0.395	0.245	0.400	0.278	0.323
Adj. R ²		3.218***	1.960**	3.220***	1.953**	3.391***	2.442***	3.063***	1.837*	3.215***	1.902*	2.406***

Source: Eller et al. (2006). Notes: Static variable-intercept panel data model with country-fixed and time-fixed effects (whose coefficients are not reported here, but available upon request). t-statistics are in parentheses, based on heteroskedasticity-robust standard errors (White diagonal s.e. & covariance; no df correction). Asterisks indicate significance at the 10% (*), 5% (**), and 1% (***) level, respectively. DWH (Durbin-Wu-Hausman test): K* represents the number of regressors with endogeneity suspicion, the t- (for K=1) or F-statistic (for K>1) represent the significance of the first stage residuals in the auxiliary regression. Romania is not included into this setting because of limited FSDI data. For the variable definitions and sources see the data appendix.

Table 5: Fixed effects panel data results - impact of financial M&A on economic growth in CEE-10 (cross-country growth accounting, annual data 1996-2002)

	Dependent Variable: $\ln(\overline{RGDPL}_{it})$					
REGRESSIONS EXPLANATORY VARIABLES	Permanent Effects					
	(1) FINMA _{it} = ln(FIN- MAEMP _{it})	(2) FINMA _{it} = ln(FIN- MAEMP _{it})	(3) FINMA _{it} = ln(FIN- MAGDP _{it})	(4) FINMA _{it} = ln(FIN- MAGDP _{it})	(5) FINMA _{i,t-m} = ln(FIN- MA HUMP _{i,t-2})	(6) FINMA _{i,t-m} = ln(FIN- MA HUMP _{i,t-3})
Constant	0.036*** (5.008)	0.024*** (3.304)	0.026** (2.183)	0.048*** (3.684)	0.024*** (5.321)	0.025*** (4.994)
FINMA _{it} , resp. FINMA _{i,t-m}	-0.0009 (-0.489)		-0.001 (-0.577)		0.015*** (2.752)	0.011** (2.251)
$\ln(k_{it})$	0.111*** (3.717)	0.113*** (4.899)	0.112*** (3.718)	0.077** (2.607)	0.100*** (4.654)	0.101*** (4.256)
$\ln(h_{it})$	0.958 (1.537)	0.292 (0.459)	0.965 (1.550)	0.405 (0.659)	-0.458 (-1.159)	0.177 (0.589)
$\ln(GC_{it})$	-0.199*** (-3.512)	-0.170*** (-3.076)	-0.198*** (-3.481)	-0.160*** (-3.077)	-0.201*** (-3.471)	-0.175*** (-3.089)
π_{it}	-0.008 (-0.968)		-0.008 (-0.943)	-0.016** (-2.292)	-0.005 (-0.673)	-0.009 (-0.932)
$\ln(\text{FINMA}_{it}) \square \ln(h_{it})$		0.007*** (3.443)		0.007*** (3.433)		
$\ln(\text{FINMA}_{it}) \square \ln(k_{it})$		-0.003*** (-3.597)		-0.002*** (-3.560)		
No. of Total Observations	45	45	45	45	70	60
Estimation Method	LSDV	LSDV	LSDV	LSDV	LSDV	LSDV
DWH: K*; t- or F-aux	1; -0.644	2; 2.27	1; -0.812	2; 1.45	1; 0.118	1; 1.264
Adj. R ²	0.416	0.418	0.417	0.491	0.483	0.454
F-Value (sig. of R ²)	2.655**	3.352***	2.660**	3.128***	4.235***	3.873***

Source: Eller et al. (2006). Notes: Static variable-intercept panel data model with country-fixed and time-fixed effects (whose coefficients are not reported here, but available upon request). t-statistics are in parentheses, basing on heteroskedasticity-robust standard errors (White diagonal s.e. & covariance; no df correction). Asterisks indicate significance at the 10%(*), 5%(**), and 1% (***) level, respectively. DWH (Durbin-Wu-Hausman test): K* represents the number of regressors with endogeneity suspicion, the t- (for K*=1) or F-statistic (for K*>1) represent the significance of the first stage residuals in the auxiliary regression. Croatia is not included into this setting because of limited financial M&A data. For the variable definitions and sources see the data appendix.

References

- Abiad, A., Leigh, D., & Mody, A. (2007), 'International Finance and Income Convergence: Europe is Different', IMF Working Paper WP/07/64.
- Barro, Robert J. and Lee, Jong-Wha (2001). International data on educational attainment: updates and implications. *Oxford Economic Papers*, July, 53(3), 541-63.
- Arena, M., Reinhart, Carmen & Vázquez, F. (2007), 'The Lending Channel in Emerging Economies: Are Foreign Banks Different?', IMF Working Paper No. 07/48.
- BAT: Banks Association of Turkey, 'Quarterly Statistics by Banks', various years <http://www.tbb.org.tr>.
- Baudino, P., Caviglia, G., Dorrucchi, E. & Pineau, G. (2004), 'Financial FDI to the EU Accession Countries'. European Central Bank paper submitted to the BIS Committee on the Global Financial System, <http://www.bis.org/publ/cgfs22ecb.pdf>.
- Beck, T., Levine, R. & Loayza, N. (2000), 'Financial Intermediation and Growth: Causality and Causes', *Journal of Monetary Economics* 46, 31–77.
- BIS (2004), 'Foreign Direct Investment in the Financial Sector of Emerging Market Economies'. Report submitted by the Committee on the Global Financial System, Bank for International Settlement, <http://www.bis.org/publ/cgfs22.pdf>.
- Blum, D., Federmair, K., Fink, G. & Haiss, P. (2002), 'The Financial-Real Sector Nexus: Theory and Empirical Evidence'. EIWoring Paper no. 43, Europainstitut, Vienna University of Economics and Business Administration, <http://fgr.wu-wien.ac.at/institut/ef/wp/WP43.pdf>.
- aBOG (2004), Bank of Greece Annual Report, <http://www.bankofgreece.gr/en/publications/pdf/Annrep2004.pdf>.
- Bol, H., De Haas, R. & De Haan, J. (2003), 'How Important are Foreign Banks in the Financial Development of European Transition Countries?'. CESifo Working Paper Series, <http://ssrn.com/abstract=484944>.
- Bol, H., Lensink, R. & De Haan, J. (2002), 'Do Reforms in Transition Economies affect Foreign Bank Entry?', CCSO Working Paper 200206, University of Groningen, CCSO Centre for Economic Research. <http://www.ub.rug.nl/eödpc/ccso/200205/200205.pdf>.
- Bonin, J., Hasan, I. & Wachtel, P. (2005), 'Privatisation Matters: Bank Efficiency in Transition Countries', *Journal of Banking and Finance* 29, 2155–2178.
- Bonin, J. & Wachtel, P. (2002), 'Financial Sector Development in Transition Economies: Lessons from the First Decade'. Bank of Finland, Institute for Economies in Transition, BOFIT Discussion Papers no. 9.
- Borensztein, E., De Gregorio, J. & Lee, J.-W. (1998), 'How does Foreign Direct Investment affect Economic Growth?', *Journal of International Economics* 45, 115–135.

- Brealey, R. A. & Kaplanis, E.c. (1996), 'The determination of foreign banking location', *Journal of International Money and Finance* 15(4), 577-597.
- Breuss, F., Fink, G. & Haiss, P. (2004), 'How well prepared are the New Member States for the European Monetary Union', *Journal of Policy Modeling* 26(7), 769–791.
- Breyer, P. (2004), 'Central and Eastern Europe – The Growth Market for Austrian Banks'. Oesterreichische Nationalbank, *Monetary Policy & The Economy* 3/2004: 63–88, http://www.oenb.at/en/img/mop_20043_analyses5_tcm16-21311.pdf.
- Campos, N. F. & Kinoshita, Y. (2002), 'Foreign Direct Investment as Technology Transferred: Some Panel Evidence from the Transition Economies', *The Manchester School* 70(3), 398–419.
- Carkovic, M. & Levine, R. (2002), 'Does Foreign Direct Investment Accelerate Economic Growth'. Unpublished Working Paper, University of Minnesota.
- Claessens, S., Demirgüç-Kunt, A. & Huizinga, H. (2001), 'How Does Foreign Entry Affect Domestic Banking Markets?', *Journal of Banking and Finance* 25(5), 891–991.
- Claeys, S. & Van der Venet, R. (2004), 'Determinants of Bank Interest Margins in Central and Eastern Europe: a Comparison with the West', Ghent University, Working Paper, http://www.faf.ugent.be/FinEco/Claeys_VanderVenet_WP.pdf.
- Clarke, G., Cull, R., Peria, M. & Sánchez, S. (2001), 'Foreign Bank Entry: Experience, Implications for Developing Countries, and Agenda for Further Research', Background paper for the World Development Report 2002, http://www.econ.worldbank.org/files/2520_wps2698.pdf.
- Cottarelli, C., Dell' Ariccia, G. & Vladkova-Hollar, I. (2005), 'Early Birds, late risers, and sleeping beauties: Bank credit growth to the private sector in Central and Eastern Europe and in the Balkans', *Journal of Banking and Finance* 29(1), 83–104.
- Davidson, R., MacKinnon, J.G., (1993), 'Estimation and Inference in Econometrics'. Oxford University Press, New York, Oxford.
- De Haas, R. T. A. & Van Lelyveld, I. (2002), 'Foreign Bank Penetration and Private Sector Credit in Central and Eastern Europe', De Nederlandsche Bank, Staff Reports. <http://papers.ssrn.com/sol3/results.cfm>.
- De Haas, R. T. A. & Van Lelyveld, I. (2006), 'Foreign banks and credit stability in Central and Eastern Europe. a panel data analysis', *Journal of Banking and Finance* 30. forthcoming.
- De Mello, L. R. (1999), 'Foreign Direct Investment-led Growth: Evidence from Time Series and Panel Data', *Oxford Economic Papers* 51, 131–151.
- Dermisar, M. (2007): 'Growth is not a certainty', *The Banker March 2007*: 58-59, <http://www.thebanker.com>.
- Detragiache, E., Tressel, T. & Gupta, P.(2006), *Foreign Banks in Poor Countries: Theory and*

- Evidence'', IMF Working Paper 18.
- Dimelis, S. & Louri, H. (2004), 'Foreign Direct Investment and Technology Spillovers: Which Firms Really Benefit?', *Review of World Economics* 140(2), 230–253.
- Domanski, Dietrich (2005): *Foreign Banks in Emerging Market Economies: Changing Payers, Changing Issues*, BIS Quarterly Review, December 2005, [ww.bis.org/publ/quarterly.htm](http://www.bis.org/publ/quarterly.htm)
- Drakos, K. (2003), 'Assessing the Success of Reform in Transition Banking 10 Years later: an Interest Margins Analysis', *Journal of Policy Modelling* 25, 309–317.
- Durham, B. (2003), 'Foreign Portfolio Investment, Foreign Bank Lending and Economic Growth', The Federal Reserve Bank, International Finance Discussion Papers 757.
- Easterly, W. & Levine, R. (2001), 'What Have we Learned from a Decade of Empirical Research on Growth? It's not Factor Accumulation: Stylized Facts and Growth Models', *The World Bank Economic Review* 15(2), 177–219.
- EBRD (2004), 'Transition Report: Economic Transition in Central and Eastern Europe, the Baltic States and the CIS: Infrastructure', European Bank for Reconstruction and Development, International Finance Discussion Papers 757.
- EBRD (2006): *Transition Report Update May 2006*, EBRD, London.
- Eller, M. (2004), *The Determinants of Fiscal Decentralisation and its Impact on Economic Growth: Empirical Evidence from a Panel of OECD Countries*, Master's thesis, Vienna University of Economics and Business Administration.
- Eller, M., Haiss, P., & Steiner, K. (2005), 'Foreign Direct Investment in the Financial Sector: The Engine of Growth for Central and Eastern Europe?', E1 Working Paper no. 69, Eurpainstitut, Vienna University of Economics and Business Administration, <http://fgr.wu-wien.ac.at/institut/ef/wp/WP69.pdf>.
- Eller, M., Haiss, P. & Steiner, K. (2006), 'Foreign direct investment in the financial sector and economic growth in Central and Eastern Europe: The crucial role of the efficiency channel', *Emerging Markets Review* 7(4), 300-319.
- Engerer, H. & Schrooten, M. (2004), 'Do Foreign Banks improve Financial Performance? Evidence from EU Accession Countries', DIW Berlin, Research Notes 1. <http://www.diw.de/deutsch/produkte/publikationen>.
- Eschenbach, F., Francois, J. & Schuknecht, L. (2000), *Financial Sector Openness and Economic Growth*, in S. Claessens & M. Jansen, eds, 'The Internationalization of Financial Services', Kluwer Law International, pp. 103–115.
- Faria, A. & Mauro, P. (2004), 'Institutions and External Capital Structure of Countries', IMF Working Paper no. 236.

- Fink, G., Haiss, P. & Ugljesic, M. (2005), 'Serbia's Reform of the Banking Sector – Implications for Economic Growth and Financial Development'. Paper presented at the IPSI Conference, Belgrade, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>.
- Fink, G., Haiss, P. & Вуклыс, G. (2004), 'Changing Importance of Financial Sectors for Growth from Transition to Cohesion and European Integration'. EI Working Paper no. 58, Europainstitut, Vienna University of Economics and Business Administration, <http://fgr.wu-wien.ac.at/institut/ef/wp/WP58.pdf>.
- Focarelli, D. & Pozzolo, A.F. (2005), 'Where do banks expand abroad? An empirical analysis', *Journal of Business* 78(5), 2435-2463.
- Gallego, S., Herrero, A. G. & Luna, C. (2003), 'Investing in the Financial Sector Abroad: Potential Risks and How to Manage Them'. Banco de España paper submitted to the BIS Committee on the Global Financial System, <http://www.bis.org/publ/cgfs22bde1.pdf>.
- Gardo, S. (2005a), 'Bulgaria – A race to the top', in: *Banking in South-Eastern Europe – On the Move*, Xplicit September 2005, 27-33, <http://economicreasearch-e.ba-ca.com>.
- Gardo, S. (2005b), 'Croatia - Taming the untamable?', in: *Banking in South-Eastern Europe – On the Move*, Xplicit September 2005, 34-40, <http://economicreasearch-e.ba-ca.com>
- Giannetti, M. & Ongena, S. (2005), 'Financial Integration and Entrepreneurial Activity: Evidence from Foreign Bank Entry in Emerging Markets', SSRN Working Paper Series. http://papers.ssrn.com/sol3/paper.cfm?abstract_id=669421.
- Goldberg, L. (2004), 'Financial-Sector Foreign Direct Investment and Host Countries: New and Old Lessons'. Federal Reserve Bank of New York Staff Report no. 183, http://www.newyorkfed.org/research/staff_reports/sr183.pdf
- Goldstein, I., & Razin, A. (2005), 'Foreign Direct Investment vs. Foreign Portfolio Investment', NBER Working Paper No. 11047.
- Green, C., Murinde, V. & Nikolov, I. (2004), 'The Efficiency of Foreign and Domestic Banks in Central and Eastern Europe: Evidence on Economies of Scale and Scope', *Journal of Emerging Market Finance* 3(2), 175–205.
- Günay Özkan, E. N. / Günay, G. (2006): 'Lending in the Turkish Banking Sector', in: Pernsteiner, H. / Sumer, H. (eds.): *Mergers & Acquisitions in Emerging Markets*, Trauner Verlag, Johannes Kepler Universität Linz, 115-136.
- Hagmayr, B. & Haiss, P. (2006), 'Foreign Banks in Turkey and other EU Accession Countries – does Minority and Majority Ownership make the Difference?', in Berk, Niyazi (ed.): *Proceedings of the International Finance Symposium 2006 on "Financial Sector Integration: Review and Steps ahead"*, Istanbul, May 2006: 649-669.
- Hagmayr, B. (2007), 'Financial Sector Development in Turkey and other Southeast European

- Countries', Master's thesis, Vienna University of Economics and Business Administration.
- Haiss, P., Steiner, K. & Eller, M. (2005a), How do Foreign Banks Contribute to Economic Development in Transition Countries – How Much do we Know about Challenges and Opportunities?, in K. Erdener & H. Talha, eds, 'International Management Development Yearbook', Vol. XIV, pp. 414–421.
- Haiss, P., Steiner, K. & Eller, M. (2005b), 'How do foreign owned banks contribute to economic development in transition economies?' *Osteuropa Wirtschaft* 50(3), 232-247.
- Haselmann, R. (2006), 'Strategies of foreign banks in transition economies', *Emerging Markets Review* 7 (2006), 283-299.
- Havrylychuk, O. (2006), 'Efficiency of the Polish banking industry: Foreign versus domestic banks', *Journal of Banking and Finance* 30.
- Hermes, N. & Lensik, R. (2003), 'Foreign Direct Investment, Financial Development and Growth', *The Journal of Development Studies* 40(1), 182-163
- Herrero, G. A. & Sirnon, D. N. (2003), 'Determinants and Impact of Financial Sector FDI to Emerging Economies: A Home Country's Perspective'. Banco de España Documento Ocasional no. 0308.
- Hsiao, C. (2003), *Analysis of Panel Data*, 2. edn, Cambridge: Cambridge University Press.
- Hunya, G. & Stankovsky, J. (2006), 'Foreign Direct Investment in Central and Eastern Europe with Special Attention to Austrian FDI Activities in this Region'. WIIW–WIFO Database, May 2006.
- IADB (2005), 'Unlocking Credit: The Quest for Deep and Stable Bank Lending'. Inter American Development Bank Report, <http://www.iadb.org/res/ipes/2005/index.efm>.
- IMF (2006), IMF Country Report No. 06/6 Greece, <http://www.imf.org/external/pubs/ft/scr/2006/cr0606.pdf>.
- King, R. & Levine, R. (1993), 'Finance and Growth: Schumpeter might be right', *Quarterly Journal of Economics* 108(8), 717–737.
- Koivu, T. (2004), Banking Sector Development and Economic Growth in Transition Countries, in M. Balling, F. Lierman & A. Mullineux, eds, 'Financial Markets in Central and Eastern Europe', London: Routledge, pp. 47–60.
- Kraft, E. (2005), 'Banking reform in South-East Europe: accomplishments and challenges, in Liebscher, K., Christl, J., Mooslechner, P., & Ritzberger-Grünwald, D. (eds.), *European Economic Integration and South-East Europe*, Edward Elgar, Cheltenham, 350-367.
- Lee, M. & Tcha, M. (2004), 'The Color of Money: the Effects of Foreign Direct Investment on Economic Growth in Transition Economies', *Review of World Economics* 140(2), 211–229.

- Levine, R. (1996), Foreign Banks, Financial Development and Economic Growth, in Barfield, C.E., ed., 'International Financial Markets: Harmonisation Versus Competition', AEI Press, Washington, pp. 224–254.
- Levine, R. (1997), 'Financial Development and Economic Growth: Views and Agenda', *Journal of Economic Literature* 35(2), 688–726.
- Mankiw, N. G., Romer, D. & Weil, D. N. (1992), 'A Contribution to the Empirics of Economic Growth', *Quarterly Journal of Economics* 107(2), 407–437.
- Megginson, W. (2005), 'The economics of bank privatization', *Journal of Banking and Finance* 29(8-9): 192-209.
- Mehl, A., Vespro, C. & Winkler, A. (2005), 'The Finance-Growth Nexus and Financial Sector Environment: New Evidence from South-Eastern Europe'. Paper presented at the Conference on European Economic Integration, Austrian National Bank, Vienna.
- Mehl, A. & Winkler, A. (2003), 'The Finance-Growth Nexus and Financial Sector Environment: New Evidence from Southeast Europe'. Paper presented at The Ninth Dubrovnik Economic Conference on "Banking and the Financial Sector in Transition and Emerging Market Economies", organized by the Croatian National Bank, <http://www.hnb.hr/dub-konf/9-konferencija-radovi/mehl-winkler.pdf>.
- Mencinger, J. (2003), 'Does Foreign Direct Investment Always Enhance Economic Growth?', *Kyklos* 56(4), 493–510.
- Naaborg, I., Scholtens, B., Bol, H., De Haan, J. & De Haas, R. (2003), 'How Important are Foreign Banks in the Financial Development of European Transition countries?'. CESifo Working Paper Series no. 1100.
- Nair-Reichert, U. & Weinhold, D. (2001), 'Causality Tests for Cross-Country Panels: New Look at FDI and Economic Growth in Developing Countries', *Oxford Bulletin of Economics and Statistics* 63(2), 153–171.
- Neuhaus, M. (2005), 'Foreign Direct Investment: The Growth Engine in Central and Eastern Europe'. Deutsche Bank Research, EU Monitor 26, July 2005, pp. 14–20.
- Papi, L. & Revoltella, D. (2000), Foreign Direct Investment in the Banking Sector: a Transnational Economy Perspective, in S. Claessens & M. Jansen, eds, 'The Internationalization of Financial Services: Issues and Lessons for Developing Countries', The World Bank/WTO, pp. 437–457.
- Papi, L. & Revoltella, D. (2003), Foreign Direct Investment in the Banking Sector: Experiences and Lessons from CEECs, in E. Colombe & J. Driffill, eds, 'The Role of Financial Markets in the Transition Process', *Physica*, pp. 155–178.
- Patrick, H. T. (1966), 'Financial Development and Economic Growth in Underdeveloped Countries', *Economic Development and Cultural Change* 15, 174–189.

- Reisen, H. & Soto, M. (2001), 'Which Types of Capital Inflows foster Developing-Country Growth?', *International Finance* 4, 1–14.
- Rousseau, P. & Wachtel, P. (2005), 'Economic Growth and Financial Depth: Is the Relationship Extinct Already?', Paper presented at the UNU/WIDER Conference on Financial Sector Development for Growth and Poverty Reduction, July, Helsinki.
- Sabi, M. (1996), 'Comparative Analysis of Foreign and Domestic Bank operations in Hungary', *Journal of Comparative Economics* 22(0017), 179–188.
- Sergi, B. (2004), 'Understanding the "EU-Factor": the Balkans Regions as Recipients of FDI and Industries', *South-East Europe Review* 7(4), 7–20.
- Sergi, B. & Матюльек, R. (2005), 'Management of Non-Performing Loans in Eastern Europe', *Journal of East-West Business* 11(1/2), 141–166.
- Sohinger, J. (2005), 'Growth and Convergence in European Transition Economies – The Impact of FDI', *Eastern European Economics* 43(2), 73–94.
- Spence, Michael (2002), 'Signaling in Retrospect and the Informational Structure of Markets' *American Economic Review* 92 (3): 434-459.
- Stiglitz, J. & Weiss, A. (1981), 'Credit Rationing with Imperfect Information', *American Economic Review* 71, 393–410.
- Temple, J. R. W. (1999), 'The New Growth Evidence', *Journal of Economic Literature* XXXVII, 112–156.
- Vessel, V. (2003), 'FDI into Banking Sectors of some EU Candidate Countries: Comparative Empirical Evidence'. Proceedings of the University of Vaasa.
- Wachtel, P. (2001), 'Growth and Finance, What do We know and How do We know It?', *International Finance* 4(3), 335–362.
- Wachtel, P. (2003), 'How much do We really know about Growth and Finance?', *Federal Reserve Bank of Atlanta-Economic Review* 1, 33–46.
- Weill, L. (2003), 'Banking Efficiency in Transition Economies: The Role of Foreign Ownership', *Economics of Transition* 11(3), 569–592.
- Williams, B. (1997), 'Positive Theories of Multinational Banking: Eclectic Theory Versus Internationalisation Theory', *Journal of Economic Surveys* 11(1), 71–100.
- Zajc, P. (2004), The Effect of Foreign Bank Entry on Domestic Banks in Central and Eastern Europe, in M. Balling, F. Lierman & A. Mullineux, eds, 'Financial Markets in Central and Eastern Europe', London: Routledge, pp. 189–205.

Data Appendix

Real GDP per worker (RGDPL): real GDP at 1995 domestic market prices divided by the number of employed persons of the total economy. The values for Croatia between 1994 and 1999 are interpolated with the trend growth rate between 2000 and 2005. *Source*: AMECO (annual macro-economic) database of the European Commission's Directorate General for Economic and Financial Affairs (DG ECFIN), April 2005. Trend growth rates have been calculated analogously to Temple (1999, 119).

Employment (L): number of employed persons of the total economy. *Source*: AMECO database (national accounts).

Inward FSFDI stock (FSFDI): inward FDI stocks that are devoted to financial intermediation according to NACE code J, including equity capital, reinvested earnings and loans, mn EUR, for CEE-10, from 1996 to 2004. *Source*: Hunya & Stankovsky (2006). Primary source: National Banks according to international investment position (IIP).

Hump-shaped index for FSFDI: is constructed analogously to Eller (2004): in a country ranking the lowest and highest values of FSFDI per GDP get a value of one. The next lowest and highest values get higher values and this procedure is continued up to the medium range values of FSFDI per GDP, which get the highest values. This procedure is repeated for each year within the estimation period.

FDI: total inward FDI stock (mn EUR) including equity capital, reinvested earnings and loans from 1996 to 2004. *Source*: Hunya & Stankovsky (2006). Primary source: National Banks according to international investment position (IIP).

Financial cross-border M&A (FINMA): flow data relating to completed cross-border M&A (mn EUR) in the financial sector for all eleven CEECs (except Croatia) from 1994 to 2002. The data exclude corporate transactions involving less than 5% of ownership of banks and nonblank financial institutions or less than 3% if the transaction value is greater than 1 million US-\$. Although, in practice, all transactions referred to are acquisitions, the acronym M&A is used. *Source*: European Central Bank (Baudino et al., 2004).

Physical capital stock per worker (k): real physical capital stock per employee at 1995 domestic market prices. Time series on the physical capital stock (K) were calculated by using perpetual inventory methods. The initial capital stock values (K_0) were calculated following Easterly & Levine (2001) by $K_0/Y_0 = (I/Y)^\phi (g_y^\phi + \delta)$, where $(I/Y)^\phi$ represents annual average investment rates (gross fixed capital formation ($GFCF$) of the business sector) over a ten year period, g_y^ϕ denotes output growth averaged over a ten year period, and δ is a constant rate of depreciation assumed to be 0.07. Assuming that the growth rate of the capital stock can be approximated by the growth rate of $GFCF$, further values of the capital stock are calculated by taking the initial value, using annual real changes of $GFCF$ and dividing the values by the number of employed persons of the total economy. *Source:* WIIW Research Reports 314, March 2005; International Financial Statistics (IFS) of the IMF; AMECO database.

Human capital stock (h): constructed index using reported education levels of employees 1996–2003 (low educated: ISCED-classification 0-2, weight 1; medium educated: ISCED 3-4, weight 1.4; high educated: ISCED 5-6, weight 2). *Source:* EUROSTAT, labor force surveys, primarily 2nd quarter 1998–2003 (no data for Croatia). Data for 1996–1997 are interpolated using the trend growth rate between 1998 and 2003. Data for Lithuania are adjusted because of a structural break 2000–2001 which has given rise to overestimated high educated and underestimated low educated employees. The EUROSTAT data have been favored respecting educational attainment rates of the Barro and Lee (2001) database, since the latter one does not provide sufficient data for the Baltic countries.

Government consumption (GC): Real final consumption expenditure of the general government to real GDP at 1995 domestic market prices, representing the size of the public sector. *Source:* AMECO database.

Inflation (π): Growth rate of the GDP price deflator at market prices (national currency). *Source:* AMECO database.

Interest spreads: ratio of each CEE country's interest spread to the aggregate Eurozone interest spread (lending rate minus deposit rate, in percent per annum, end-year). Once this spread ratio is bigger than 1, there will be an incentive for a Eurozone bank to invest in the specific CEE country. We used this variable as an instrument for the DWH first stage. *Source:* IMF, IFS statistics.

Banking Transition Progress, Foreign Bank Entry and Economic Development: The Case of Serbia

*Gerhard Fink, Peter Haiss and Mina von Varendorff*³¹

Introduction

Theoretical studies and empirical evidence have shown that countries with better developed financial systems enjoy faster and more stable long-run growth. Well developed banking systems and financial markets have a significant positive impact on total factor productivity, which translates into higher long-run growth. Financial sector development levels differ between the New EU Member States from Central and Eastern Europe (CEE³²) on the one hand and Accession Countries (AC³³) and other South Eastern Europe (SEE³⁴) on the other. The goal of the paper is threefold: (1) to present selected empirical evidence on the possible impact of the banking sector on economic growth in (former) transition countries; (2) discuss features specific to the banking sector in South-Eastern Europe, with an emphasis on the role of foreign banks; and (3) compare and apply the evidence to the current situation in Serbia.

While SEE generally lags behind the NMS from (CEE) in many aspects of transition, Serbia is a special case in financial sector transformation for a number of reasons. War, prolonged territorial disputes and legal uncertainties for example on bank licenses, social bank ownership, lower banking concentration, higher workers remittances substituting financial intermediation, strong euroization, late banking reforms, a low stock of foreign direct investment (FDI) and a “small” EU impact carry over into distinguishing financial sector reform in Serbia from other transition economies. While there are several reviews about banking transformation in the

³¹ Gerhard Fink (Gerhard.Fink@WU-Wien.ac.at) is Jean-Monet Professor at the EuropaInstitut, Vienna University of Economics and Business Administration. Peter Haiss (Peter.Haiss@wu-wien.ac.at; corresponding author) lectures at the EuropaInstitut and is with Bank Austria Creditanstalt, member of UniCredit Group. Mina von Varendorff is a junior researcher at the EuropaInstitut. The authors are grateful for support by Bettina Hagmayr, Stefan Marin and Jennifer Weichselbraun, all of the Finance-Growth-Integration-Nexus Team at the EuropaInstitut (see <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>). The opinions expressed are the authors' personal views and not necessarily those of the institutions the authors are affiliated with.

³² NMS/CEE here refers to CZ, SK, HU, PL, SI, EE, LV, LT

³³ AC here refers to Bulgaria, Romania, Hungary and Turkey (BG, RO, HU, TK). As the data available covers the period prior to BG and RO joining the EU in 2007, these two NMS are referred to as Accession Countries in the following.

³⁴ SEE here refers to Albania, Bosnia and Herzegovina, FRY Macedonia, Serbia and Montenegro (AL, BIH, MC, SCG, CG)

EU Accession Countries (BG, RO, HR, TK) from South Eastern Europe (e.g. Bastian 2003; Bonin 2004; Kraft 2005), the specific situation of Serbia and other SEE countries has received less attention in the literature. Does the financial sector in Serbia and SEE already contribute to economic development, do reforms pay off? We fill this gap by analyzing banking reform in Serbia and SEE against the experience of other transition economies.

In comparison with CEE transition economies, financial sector reform started late in the South Eastern European Countries (Penev and Rojec, 2004). The establishment of a properly working financial sector in SEE has been delayed or jeopardized by a number of adverse developments such as war, political instability, hyperinflation and pyramid schemes in the late 1990's. The financial sector in all countries of the region is dominated by commercial banks. Privatization of the banking sector has advanced during the last years and foreign ownership has gradually increased, although at an unequal pace among SEE countries. Given Serbia's quite distinct political and economic transition, financial sector reform in Serbia may be crucial.

While former Czechoslovakia split peacefully and the Baltics could reestablish national independence rather quickly, Serbia saw itself as the heart of the former Yugoslavia and got entangled in internal and external war with strong repercussions onto the financial sector. The May 2005 referendum in Montenegro voted for a peaceful divorce from Serbia. Once among the richest parts of the communist world, war and sanctions led to massive disintermediation in the context of a halving of real gross domestic product (GDP; IMF, 2006). Banks and businesses closed by the thousand. Hyperinflation led to the issuance of 500-billion dinar notes and a high level of euroization (Miller 2006). Freezing of foreign currency savings and large bank pyramid schemes of the magnitude only seen in Macedonia and Albania led to the loss of households' savings, bringing down financial depth to about half the level of the 1980s (IMF 2006). While Serbia benefited stronger than many other transition countries from remittances of guest workers abroad (e.g. 14% of GDP in 2004; Guiliano and Ruiz-Aranz 2005, 5), this short-term substitute for a lack of financial development cannot make up for political and economic instability in the long run.

Serbia is a country at the early stages of its transition (Ristić, 2004). After ten years of isolation, the economy of the country collapsed, infrastructure was nearly destroyed and poverty increased. The payment and settlement system in

Serbia was inefficient, while the banking sector was weak and not competitive. The new government of Serbia and Montenegro assumed power in October 2000 and adopted a comprehensive reform agenda. In 2001 and 2002 major steps were taken in cleaning up the republic's banking sector and strengthening banking supervision by introducing new laws on banks, non-banks and the central bank. The new management of the National Bank of Serbia (NBS) carried out a comprehensive assessment of the banking sector and drew up a bank restructuring and privatization strategy (NBS, 2003). Banks were classified according to their credit rating and insolvent banks were liquidated. Measures were taken to encourage new foreign exchange savings. The entry of foreign banks into the market increased confidence in the banking sector and brought rapid improvements in many areas of the banking business.

The main contribution of this paper is to show the significance of banking sector reform in SEE transition countries on their way to market economies. We emphasise the role of foreign banks and focus on South Eastern European countries, and discuss the distinct development in Serbia. Our comparative theoretical framework enables us to compare previous reform measures in transition economies with measures in South East Europe and Serbia, in particular. We highlight the role of foreign banks in stimulating economic development. We investigate critical features of loan market development and find that while there is a huge growth potential, certain aspects (retail growth, foreign currency growth, short-termism) need to be watched closely.

The paper is organised as follows: Section one reviews a number of empirical studies showing the interlink between financial sector development and economic growth in transition economies. Section two depicts certain loan market features of particular relevance to South Eastern Europe. Section three analyses the Serbian banking reform in the period between 2000 and 2005. A summary concludes.

1. Possible Impact of Banking Sector Reform on Economic Growth

An impressive number of empirical studies relying on large country samples show that financial sector development can have an economically important impact on

growth.³⁵ Recent studies suggest that the relationship varies with the level of economic development (Rousseau and Wachtel, 1998; Fink, Haiss and Vuksic, 2004), for example between emerging and industrialised market economies. Many of the empirical studies are based on the seminal work of King and Levine (1993a, 1993b). Using cross-section methodology, Levine and Zervos (1998) found that bank sector development and stock market development is positively correlated with contemporaneous and future rates of economic growth, productivity growth and capital accumulation in less developed countries. Evans et al. (2002) argued that human capital and the bank sector are complements and suggested that the productivity enhancing potential of human capital can best be exploited in the presence of a developed banking system. Beck and Levine (2001, 2002a) complemented findings by estimating the effect of banking sector and stock market development, using panel data techniques. Both the bank sector and stock market showed an independent, significant and positive effect on economic growth. Khan and Senhadji (2000a) construct a comprehensive financial sector development indicator comprising the bank sector, stock markets and also bond markets. Again a positive finance-growth link was found. Apart from sectoral issues, followers of the law-and-finance-view (e.g. LaPorta et al, 1998, and Levine, Loayza and Beck, 2000) emphasize the important role of legal and accounting status and reform for economic growth. A related strand of literature, e.g. Beale et al (2004) and Giannetti et al. (2002), provide evidence that financial deepening and integration can boost economic output. Given the rising level of integration via foreign banks from the EU in the transition economies, this aspect should also be of relevance here.

A growing part of recent literature has applied the finance-growth-framework to emerging economies and a few empirical studies were already conducted in the context of European transition economies; see Table 2.1 for an overview. In the transition countries of Central and Eastern Europe in general and especially in South East Europe, financial markets are substantially smaller than in established market economies, as measured by the financial intermediation ratio (credit to private enterprises to GDP; Bonin and Wachtel, 2003; Breuss, Fink and Haiss, 2004). Although small financial sectors prevail in transition economies, effects on growth could be expected if regulations were appropriately set

³⁵ For recent reviews, see Blum et al (2002) or Wachtel (2003). Lead effects of financial markets on economic growth were identified in several countries with Granger causality tests by Fink, Haiss and Hristoforova (2005). For a critique, see Rousseau and Wachtel (2005).

(La Porta et al, 1998; Bolton, 2002). In particular, short run effects could be expected (Fink, Haiss and Mantler, 2005). Based on 1996 data, Fink and Haiss (1999) found some early evidence of a positive impact of bank sector development in those 10 EU Candidate countries from CEE. Using a broader sample of 23 transition economies, Jaffee and Levonian (1999) could show that bank efficiency is significantly and positively related to economic output. Koivu (2002) further refined the picture by exploiting the time series component of a panel of 25 transition economies. Bank efficiency (measured by the net interest margin) showed a significantly positive and causal impact on growth, while this was not the case for credit volume. The latter finding can be attributed to the inclusion of laggard reformers from the Commonwealth of Independent States (CIS). Drakos (2003) provided an alternative explanation by arguing that high bank market concentration is negatively associated with economic growth in transition economies. For South East Europe (SEE), the empirical findings of Mehl and Winkler (2003) fail to support the hypothesis of positive and causal link between financial development and economic growth. They explain this as a failure of the reforms in the first half of the 1990s in SEE to prevent inflationary finance and financial crises.³⁶ In some of these SEE countries, financial development has just started by introducing new reform steps, so that the banking sector could not yet contribute to economic growth (Mehl and Winkler, 2003).

With increasing levels of development, bond markets and at later stages also qualified labour should become additional important factors of growth (Fink, Haiss and Vuksic, 2004). Overall, when considering growth effects in general, stock market segments could also be expected to contribute to growth in the long run (Platek, 2002). In rather early stages of transition, stock markets were not significantly related to growth in CEE in studies conducted by Fink and Haiss (1999) and Kominek (2002).

The application of the finance-growth-nexus to the transition economies warrants some caution. Due to rather short, available time series and difficulties to model the evolution of output in transition economies, these findings should be treated as preliminary (Mehl and Winkler, 2003). The possible impact of inflation, bad loans and the possible association of fast credit growth with financial distress are worth mentioning in this context. The inclusion of inflation as

³⁶ For a deeper discussion of transition-specific effects in analysing the finance-growth nexus, see Mehl and Winkler (2003:4).

a conditioning variable may be of special relevance during the early stages of economic transition, which are usually characterised by high inflation.³⁷ Mamat-zakis, Staikouras and Koutsomanoli-Fillipaki (2005) and Cottarelli, Dell'Arricia and Vladkova-Hollar (2005) thus control for the inflation rate in their investigation of banking concentration and financial deepening in transition economies.

Bank asset and credit data may similarly be distorted by high and volatile bad loans and their removal from the banks books to state consolidation agencies. Cottarelli, Dell'Arricia and Vladkova-Hollar (2005) and Fink, Haiss and Mantler (2005) reflect this in their application of the finance-growth model to transition economies. Given the fast credit growth in some transition economies, it is of special importance in this context whether this credit growth reflects a structural deepening conducive to the real economy or a credit bubble possibly detrimental to medium-term economic growth. For Croatia, Kraft and Jankov (2005) find that rapid loan growth did indeed increase the probability of credit quality deterioration. Nonetheless, from the empirical evidence on the frontrunners of economic reform in CEE it can be derived that a sound banking sector can contribute to economic growth and speed up transition. As structural differences have to be taken into consideration, these are discussed in the following for South Eastern Europe.

³⁷ Khan and Senhadji (2000) and Rousseau and Wachtel (2002) provide related evidence on threshold effects in the relationship between inflation and growth.

TABLE 2.1: EMPIRICAL EVIDENCE ON FINANCIAL SECTOR DEVELOPMENT AND GROWTH – TRANSITION COUNTRIES

Author (year)	Sample	Theoretical framework	Research method	Financial segments included	Growth effect OE TC FAC	Key findings
Fink and Haas (1999)	10 transition countries (CEE)	production function style regression	cross-section analysis	bank sector	+	Positive link between bank sector development and economic growth.
Jaffe and Lavoyan (2001)	23 transition economies	"Baro"-regression	cross-section analysis	stock market bond market	0 0	Significant positive relationship between bank sector development, bank sector reforms and economic growth.
Kotru (2002)	23 transition economies (CEE + CIS)	"Baro"-regression	panel analysis	bank sector	+	Results indicate that the interest rate margin is significantly and negatively related to economic growth. On the other hand a rise in the amount of credit does not seem to accelerate economic growth.
Drakos (2002)	21 transition economies	"Baro"-regression	cross-section analysis and panel analysis	bank sector	+	A positive effect of banking sector competition on economic growth is documented. The lower the imperfections in market structure the higher is real GDP growth.
Platak (2002)	26 transition economies (CEE + CIS)	"Baro"-regression	cross-section analysis	bank sector stock market	+	Bank sector development and stock market development is significantly and positively correlated with economic growth.
Fink, Haas and Vukasic (2004)	9 transition economies (CEE)	growth accounting regression	cross-section analysis and panel analysis	bank sector, stock market and bond market (aggregate indicator)	+	Bank sector development and bond markets stimulate growth in transition countries. Up to now stock markets seem not to have played an important role.
Mehl and Wunder (2003)	8 transition economies (SEE)	growth accounting regression	panel analysis	bank sector stock market bond market	+0 0 +	Financial depth did not have a significant impact on Southeast European (SEE) countries' growth performance over 1995-2001. The financial development is not growth-supportive when the institutional and legal framework given to market participants are not appropriate.
Fink, Haas and Mantler (2005)	22 market economies and 11 transition economies (CEE)	growth accounting regression	panel analysis	bank sector, stock market and bond market	+	The financial sector induces positive growth effects but not with the same strength across countries. It is weaker in market economies comparing to transition countries. Financial sector development supports economic growth in short run either than in long run. Financial structure plays also important role in the measurement of this impact.

NOTES: "Baro"-regression = specification following Baro (1991), MRW regression = specification following Manuwa et al. (1992), growth accounting regression = specification following Barabab and Jipuel (1994), production function style regression of Fink and Haas (1999) is based on a neoclassical Production function substitution physical capital for financial capital, OE = overall growth effect, TC = growth effect running via the technology channel, FAC = growth effect running via the factor accumulation channel, + denotes a significant and positive relationship, 0 denotes an ambiguous or insignificant relationship, - denotes a significant and negative relationship.

Source: adapted from Fink, Haas and Mantler (2005)

2. Outcome, Process and Lessons from Banking Sector Reform in SEE

The development of a financial system, including banking reform, is one of the most important challenges facing Central and South East European countries during the transition from centrally planned to market economies. The creation of a full-fledged financial system is an integral and important part of the transformation strategy. In a market economy, the financial sector has a special role, as it mobilizes resources and allocates them to those investments that are capable of generating the highest returns on capital. The better the financial sector can perform this role, the better the economy will perform in the long term. A sound financial sector improves the screening of fund-seekers and the monitoring of the recipients of funds, which improves allocation of resources. It encourages the mobilization of savings by providing attractive instruments and savings vehicles. This may also increase the savings rate. In the medium term, economies of scale in financial institutions lower costs of project evaluation and origination, and facilitate the monitoring of projects through corporate governance. Financial intermediaries provide opportunities for risk management and liquidity. They promote development of markets and instruments with attractive characteristics that enable risk sharing (Levine 1998, Wachtel 2001; Bonin and Wachtel, 2003). After more than 15 years of economic transition, it is possible to draw some useful lessons for next-wave countries. The most important first step for the creation of a full-fledged financial system is a reform of the banking sector and the respective regulatory and supervisory framework.

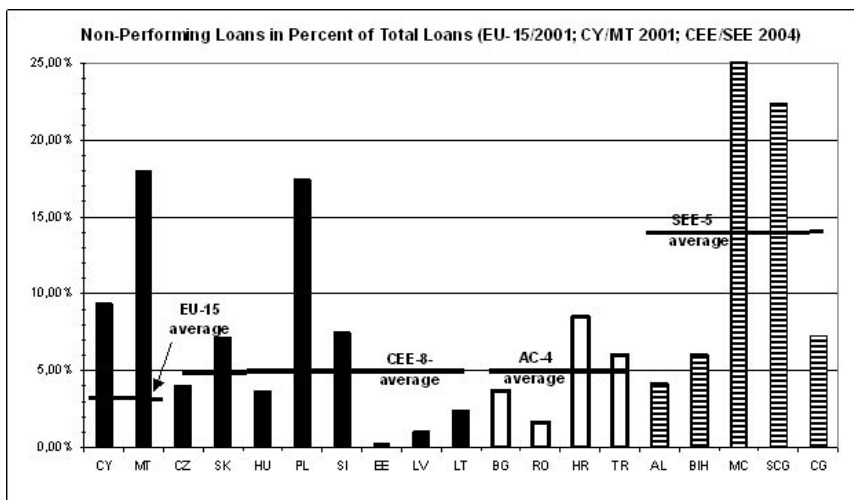
Foreign Ownership as a Solution to Bad Debt

After 1990 the new state-owned commercial banks started with an inherited overhang of troubled assets (the “stock problem”; Fink et al, 1998; Breuss, Fink and Haiss, 2004). This “old” bad debt resulted in a first round of bank recapitalisations. Due to the lack of efficient banking reform, a wave of new bad debt had to be swallowed, first by the banks, and later on by the respective taxpayers via several waves of additional recapitalizations (the “flow problem”). The process of cleansing the accounts of the politically sensitive state-owned enterprises and of the banking system brought hidden liabilities of the public sector to the surface.³⁸ The average annualized net fiscal cost of bank restruc-

³⁸ In the Czech case, taking the Consolidation Agency activity into account drove general government deficit up from 3.9 per cent of GDP to 6.7 per cent of GDP in 2002, with total holdings of bad assets amounting to about 15 per cent of GDP (European Commission 2003a:15f).

turing (direct fiscal costs minus sales proceeds of state banks) was above 1.5 per cent of average 1995-2002 GDP in the Czech Republic and Turkey, in the 1-1.5 per cent-range in Croatia and Romania, in the 0.5-1 per cent range in Bulgaria, Hungary, Lithuania and Slovakia and below 0.5 per cent in Latvia and Slovenia (Sherif, 2003).

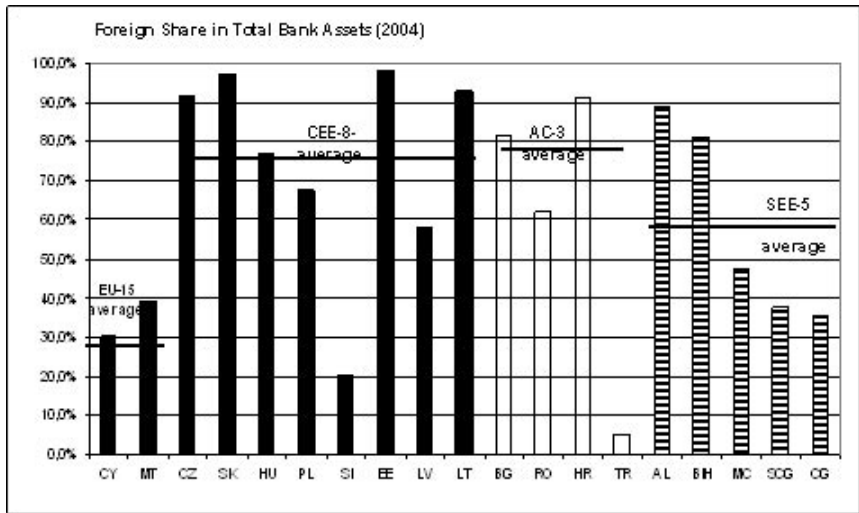
Figure 3.1 Bad Loan Levels (2004)



Data source: EBRD (2005); BA-CA (2006b); Breuss, Fink, Haiss (2005)

Non-performing loans accounted for 13.6 per cent of total loans in the CEE-8 (New Member States) in 2001 but could be reduced to an average of about 5 per cent in both the CEE-8 and the AC-4 Accession and Candidate Countries. Besides Poland, this shows a remarkable success with the CEE-8 average not far above the EU-15 average any more. Only some South Eastern European countries show still higher bad loans, on average about 14 per cent (equivalent to the 2001 level of the CEE-8).

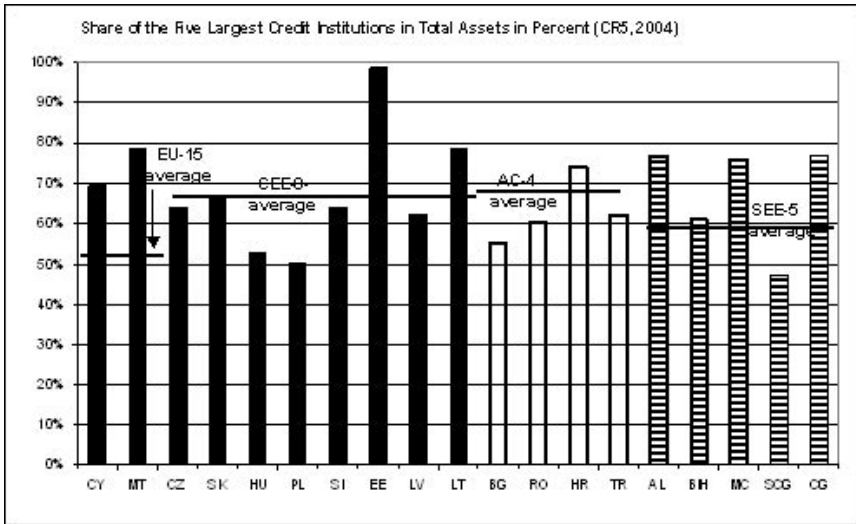
Figure 3.2 Foreign Bank Involvement (2004)



Data source: Allen, Bartirolu, Kowalewski (2005); BA-CA (2006a), BA-CA (2006b); ERRD (2005)

More stringent lending policies by foreign-owned banks helped to reduce bad debt levels. On average roughly 75 per cent of the banking market in the New Member States is under the control of foreign banks according to end of 2004 data – far above the 28 per cent foreign bank assets in the EU-15. In the Czech Republic, Slovakia, Estonia, Lithuania, Croatia, Albania (and in the meantime also Romania and in most other South Eastern European countries), local banks are essentially owned by foreign banks (Backé and Thimann, 2004; Buch, Kleinfert and Zajc, 2003), with Slovenia and Turkey as a notable exceptions.

Figure 3.3 Banking Concentration (2004)



Data source: Allen, Bartirolu, Kowalewski (2005); BA-CA (2005a,b); EBRD (2005)

While two thirds of the Baltic bank assets are in Swedish hands, Greek and Italian banks are most active in South-Eastern Europe (Bastian, 2003). Austrian and Italian banks are strongly involved across the region (Breyer, 2004). The high involvement of major banking groups from neighbouring countries coincides with a high level of market concentration. The top five banks, often foreign, account for more than 60% of aggregate bank assets in new EU Member States compared to about 40% in the Euro12-zone (Breuss, Fink and Haiss, 2004; Bruckbauer, 2004).

These foreign banks have been a substitute for domestic financial supervision in CEE during the transition process (Wagner and Jakova, 2001; European Commission, 2003a). Bonin, Hasan and Wachtel (2005) and Fries and Taci (2005) find that foreign-owned banks are more cost-efficient than domestic banks in transition economies. Rising foreign involvement improved corporate governance, drove the bank reform process and improved banking sector efficiency. Plotting the interest rate margin (i.e. the difference between lending and deposit interest rates) against the EBRD (2005) Banking Reform Indicator shows that thereby banking reform lead to narrower spreads (Kraft, 2005; figure 3.3).

Figure 3.4 Banking Reform and Interest Differentials (2004)

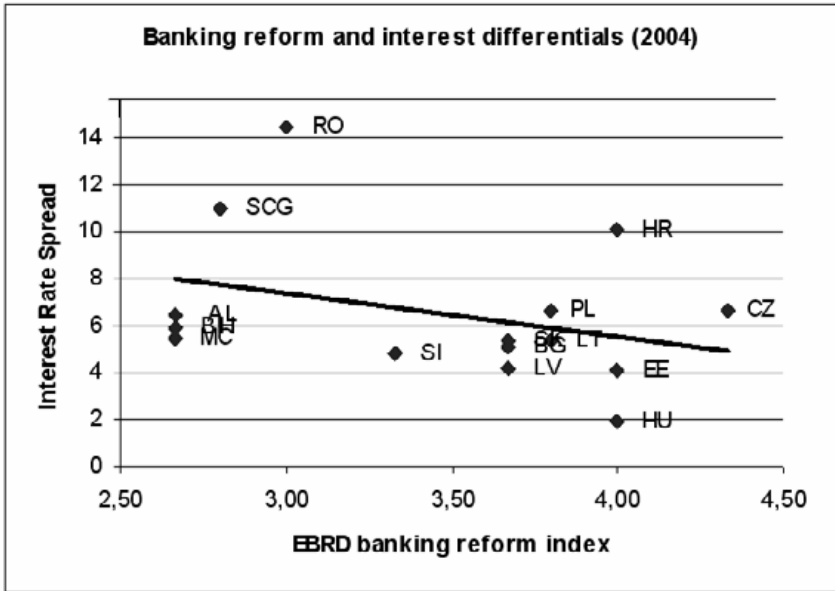
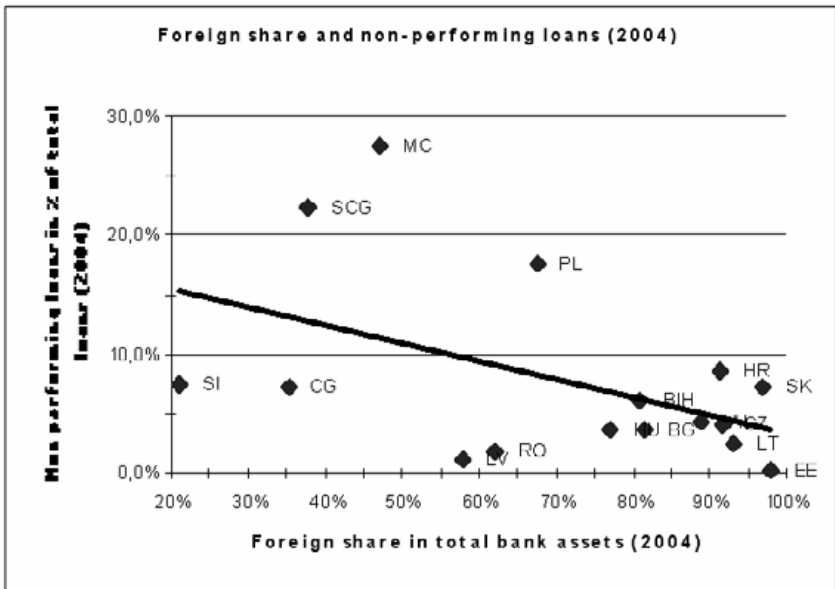


Figure 3.5 Foreign Bank Ownership Versus Loan Portfolio Quality (2004)



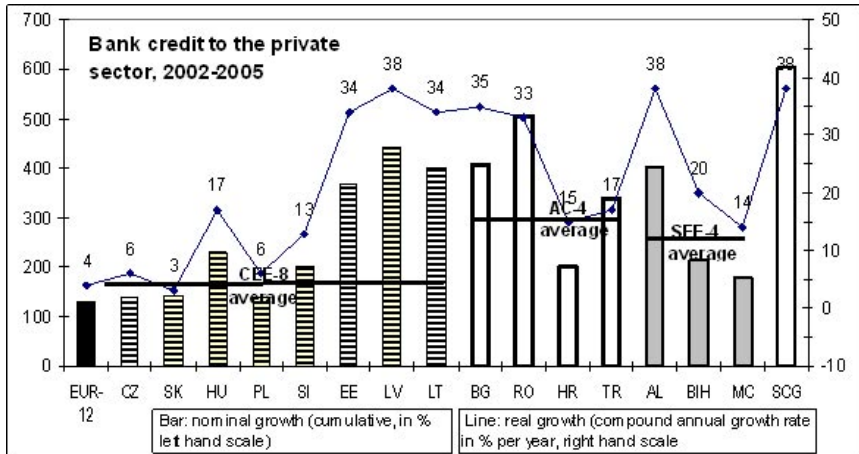
Besides providing stability and bringing “fresh money”, credit risk management techniques and improved corporate governance to these markets (Buch, Kleinert and Zajc, 2002), the strong involvement of foreign banks in CEE markets, mainly from the European Union, also implies a growing integration of these financial markets into the “old” EU-15 financial markets. Theory and empirical findings (e.g. Beale et al, 2004; Gianneti et al, 2002) suggest that integration of financial markets contributes to economic growth, which should equally apply to the transition economies. Increasing foreign ownership has led to a decrease in the share of bad loans in banks’ loan portfolios as can be seen from (figure 3.5; ECB 2006, 60).

2. Specific Credit Features in South Eastern Europe

Over the 2002 to 2005 period, cumulative growth of private sector loans amounted to about 260 percent in nominal terms in the CEE-8 New Member States. Loan growth in the Accession and Candidate countries (AC-4) was even faster with about 360 per cent, with the SEE-4 inbetween and again high (Mihaljek, 2006). This high growth in credit stock also reflects the low starting base (e.g. for Serbia). In real terms, the compound annual growth rate (CAGR) exceeded 30% per year for quite a number of countries, especially compared to the eurozone level of about 4% (Mihaljek, 2006). Compound annual growth for the CEECs’ banking sector until 2013 is forecasted at about 14 per cent, and at 18 per cent in the retail banking sector (Di Maggio, Romanowski and Walter 2003; Perrin and Bruckbauer, 2004).³⁹ Whether this rapid loan growth is consistent with the process of convergence and structural financial deepening or if the high loan growth increased the probability of credit quality deterioration and might thus raise prudential concerns is heavily debated (e.g. Backé, Égert and Zumer, 2006; Duenwald, Gueorgiuev and Schaecher, 2005; Cottarelli, Dell’Ariccia and Vladkova-Hollar, 2005; Kraft and Jankov, 2005). The EBRD (2005, 39) argues that this credit boom resembles that of the cohesion countries (Greece, Ireland, Portugal and Spain) prior to the introduction of the euro and thus rather supports the view that the ongoing credit boom is a structurally driven financial deepening. Nevertheless, monetary authorities have responded to this possible financial stability challenge by tightening monetary conditions and prudential standards (ECB, 2006) and pay increasing attention to the growth drivers.

³⁹ Rapid growth of consumer credit is a widespread phenomenon in both CEE and SEE; see Kraft (2004). Cottarelli, Dell’Ariccia and Vladkova-Hollar (2005) analyse credit growth in CEE with regard to the likely convergence to “normal” credit/GDP-levels of countries with similar fundamentals.

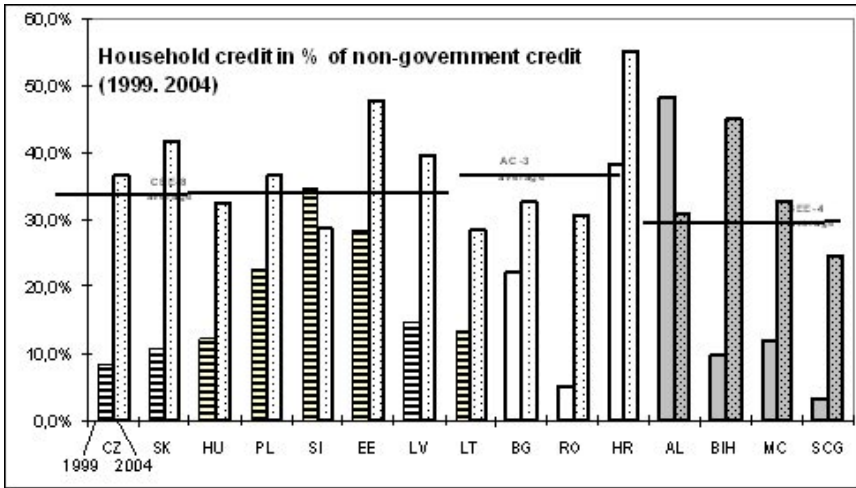
Figure 4.1 Private Sector Credit Growth (2004)



Data source: Mihaljek (2006)

The major factors behind further growth forecasts are per capita income doubling within a decade, rising financial product usage, and GDP growth (Perrin and Bruckbauer, 2004:38; Bruckbauer, 2004:6). Hitherto underdeveloped customer and product groups are increasingly targeted, especially retail banking with an overall market share of 36 per cent in the CEECs compared to 55 per cent in the EU in 2001 (Di Maggio, Romanowski and Walter 2003). Overall, competition has strengthened in CEE banking as evidenced by a shift in bank portfolios from government securities to private sector lending (Iakova and Wagner 2002) and by shrinking interest rate margins (Perrin and Bruckbauer, 2004) which are conducive to investment and economic growth.

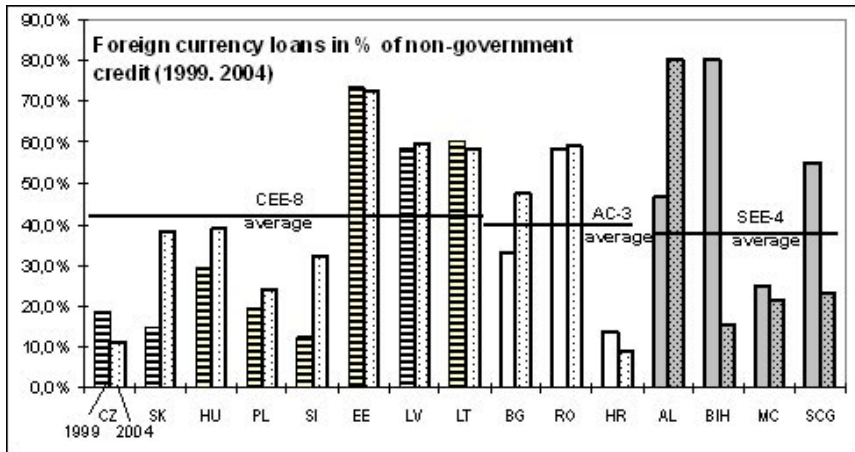
Figure 4.2 Retail Lending (2004)



Data source: EBRD (2005)

The retail sector is driving aggregate credit growth, as lending to households has expanded nearly four times faster than corporate lending during the last years (Backé, Reiningger and Walko, 2006; EBRD, 2005; see figure 4.2 for a comparison between 1999 and 2004 ratios). This can be explained by the market entry of foreign banks which are attracted by the low utilisation of banking products by the respective population compared to the saturated EU-15 markets (Moneta and Mayr, 2006). Households were rather ignored during the initial reform phase in the 1990ies. After privatising them to mainly foreign owners these introduced many products new to the local markets, e.g. housing loans (Mihaljek, 2006). Relatively broad interest spreads and improved collateral (e.g. in the form of guarantees and real estate) turned household lending into an attractive new business (Backé, Reiningger and Walko, 2006).

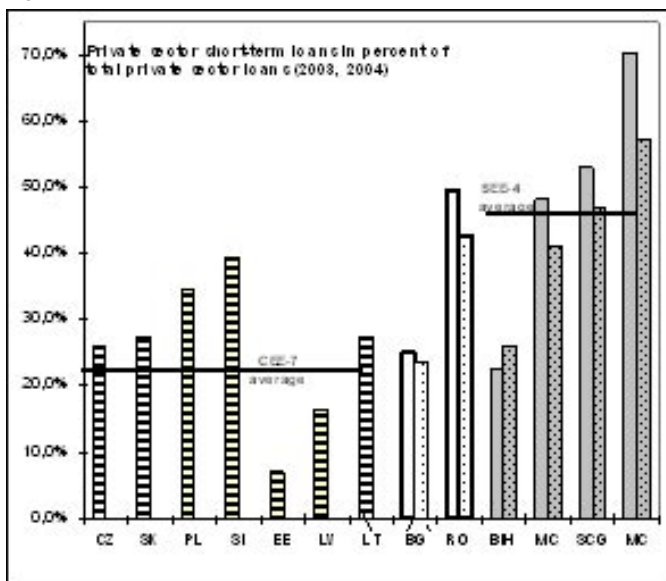
Figure 4.3 Foreign Currency Lending Growth



Data source: BA-CA (2005b); EBRD (2005)

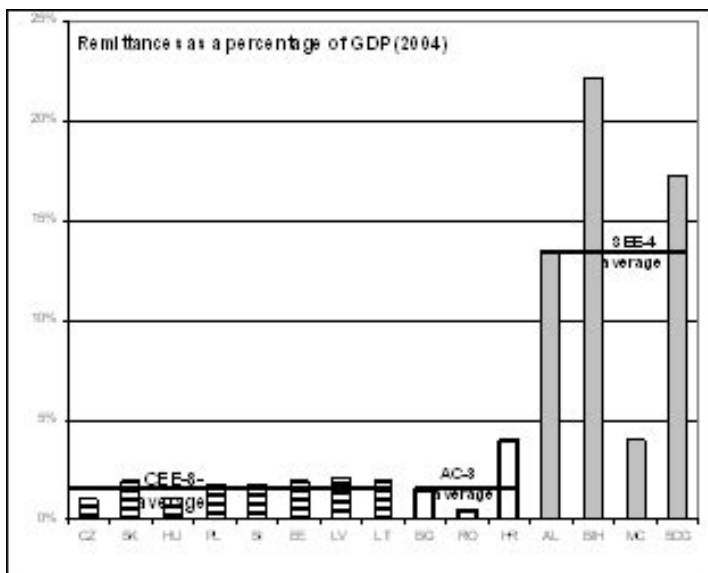
Compared to the euro area share of foreign currency (FX) lending of about 5 per cent (with only Austria showing quite higher ratios), with roughly 40% the share of FX loans is quite high across the CEE, AC and SEE regions. Lower borrowing rates in FX and longer maturities are certainly an attraction to borrowers. While credit growth will boost investment and growth, much of the credit especially in South Eastern Europe is used to purchase imports, putting pressure on the external balance (Sorsa, 2006). While corporate borrowers are the main source of FX loan demand, particularly unhedged non-euro FX borrowing by households for consumer goods and by small and medium sized enterprises (SME) raises concerns (Got and Ross, 2006). As much of the rise is in FX, whether or not this may make the countries more vulnerable to shocks depends on the respective currency regime and on the foreign currency used to pick up loans.. The growth in FX lending was facilitated by cross-ownership with euro-area Member States (EU, 2004, 15) and was particularly pronounced in currency board countries (BG, EE, BIH) and in Slovenia prior to adopting the Euro (EBRD, 2005). Among the remaining countries, those with a combination of higher currency volatility and higher FX exposure (HU, RO, and to a certain extent HR and PL) are closely watched (Got and Ross, 2006). Vulnerabilities might also be higher in countries with lower GDP levels, as is the case across the SEE region.

Figure 4.4 Share of Short Term Loans



Data source: BA-CA (2004, 2005b); EBRD (2005)

Figure 4.5 Remittances



Data source: EBRD (2005); Guilano & Ruiz-Arranz (2005)

South Eastern Europe also sticks out with regard to a still high share of short-term lending. At an average of about 50 per cent, the share of short-term lending in SEE is about twice as high as for the CEE New Member States. In CEE, the proportion of short-term credit in total private sector credit has fallen due to access to more long-term funding, including foreign credit lines (EBRD, 2005). Another factor where SEE sticks out are remittances. Migrants transfers, workers remittances and compensation received by employees account for 14 per cent of GDP for the SEE-4 average, compared to just 2 per cent for CEE and AC. While remittance inflows usually support consumption, in countries with a weak financial sector, remittances can also finance new or existing business or be used as collateral (EBRD, 2005). Remittances thus can substitute for the lack of financial development and hence promote growth in countries where they are sizable like in Serbia (Giuliano and Ruiz-Arranz, 2005).

4. Bank Reform in Serbia – Current Status and Open Issues

The recent political history, the former workers' self management system and the diaspora of guest workers differentiates the legacy countries of the former SRF Yugoslavia from other European transition economies. These facets have repercussions to the economic and financial system in Serbia. In order to delineate growth implications from financial sector reform, it thus makes sense to take a closer look at the specifics of financial development in Serbia.

On the political side, a major territorial issue is worth clarifying. While Serbia and Montenegro formed a state union in February 2003 and represented a single legal person in international law in succession of the SFR Yugoslavia, the National Bank of Serbia continued to operate on the territory of Serbia (Dvorsky, 2004); in May 2006, Montenegro finally separated. Even previously, banking licences for Montenegro were a matter of the Central Bank of Montenegro, which introduced the Deutsche Mark as republic's legal currency and withdrew the dinar from circulation in 2000 (Barisitz, 2003; Bastian, 2003). Various highly sensitive territorial issue had repercussions on bank operating licenses, FDI, investor sentiment and financial market and economic prospects at large over the last years (Bastian, 2003; Jansson, 2005). We will concentrate mainly on Serbia from 2000 in the following, while tying in related aspects.⁴⁰

⁴⁰ For financial sector reform in the Kosovo and in Montenegro, see Gardó (2005), European Commission (2004a), and Popovic (2004); for Macedonia, see Petkovski and Bishev (2004). For a review of earlier financial market development in Serbia and Montenegro, see Barisitz (2003) or Fink, Haiss and Ugljesic (2005).

Recent developments and data on Serbian banks

Much of the more recent data on banking reform in Serbia reflects the fact that Serbia started reforms late. As mentioned before, Serbia ranks poorly compared to SEE peers in terms of aggregate credit intermediation, credit to the private sector, deposits relative to GDP, the share of foreign banks in total assets, profitability, and average loan quality (see tables 4.1 to 4.4). Lack of collateral and difficult claim enforcement kept lending cautious for a prolonged period, and short-term lending prevails. Taking a look at developments over time provides a more optimistic picture.

Table 5.1:

Banking-sector related indicators for Serbia									
	1997	1998	1999	2000	2001	2002	2003	2004	
Number of Banks	106	104	75	81	54	50	47	43	
Return on Assets (ROA)	n.a.	n.a.	n.a.	-6,2	-3,6	8,7	-0,3	-1,0	
non-performing assets (in % of total classified assets)	n.a.	n.a.	n.a.	13,7	12,6	24,3	21,8	23,3	
Spread between lending and deposit rates	52,7	44,2	42,1	71,6	28,4	16,5	12,1	11,0	
Corporate loans (in % of GDP)	27,9	31,0	29,3	54,5	29,7	15,2	13,2	16,2	
Private sector loans (in % of GDP)	29,7	32,5	29,6	56,6	31,7	17,2	16,0	21,5	
Private sector FX loans (in % of private sector loans)	56,9	58,7	55,0	81,2	75,2	41,7	29,8	23,2	
Private sector short-term loans (in % of private sector loans)	42,5	43,6	45,6	27,5	28,2	49,8	52,9	47,1	
Private sector loans to private sector deposits (in %)	323,0	313,6	305,6	385,0	37,3	114,4	90,3	104,1	
Total bank assets in % of GDP	95,6	91,2	79,8	185,2	126,7	36,4	31,5	38,8	
Concentration ratio (C5 - total assets, in %)	n.a.	n.a.	n.a.	n.a.	n.a.	46,6	39,5	37,7	
Market share of foreign-owned banks (total assets, in %)	n.a.	n.a.	n.a.	n.a.	13,2	27	38,4	34,7	
Source: Gardó (2005:8) and BA-CA (2005b), data excludes Kosovo and Montenegro									

While arguably still overbanked, the number of banks in Serbia was cut to 43 at the end of 2004, about one third of the 1995 peak level (EBRD, 2004). Since 2004, reviving private consumption and strong investment activity boosted credit demand especially for loans to households (+126%), with corporate loans growing by 43% and access to credit by private enterprises still somewhat limited (Gardó, 2005; EBRD, 2004). Despite a low base, the National Bank of Serbia is ready to intervene with the usual measures (raising of minimum reserve requirements, minimum down payments for loan applicants, credit risk provisions, etc.) to avoid overheating loan growth (Gardó, 2005). The establishment of the Central Credit Registry (CCR) in mid-2002 also helped in this respect. Shrinking interest rate spreads reflect the more competitive banking scene. Both private sector deposits and loans are on the rise. Banking concentration (47% for the largest five banks) showed an upward trend throughout the last years, driven by foreign bank entry in the ongoing privatisation process.

The rather high level of non-performing loans combines the intertwined issues of enterprise reform and banking restructuring (Cocozza et al, 2002:19). Banking reform must go hand in hand with real sector reform, the latter still operating under soft budget constraints (Gardó 2005:11). Given that the banking sector is still partly burdened by the unresolved problem of claims on heavily indebted companies, a strategic decision concerning non-performing loans in the portfolios of banks will have to be made as this blocks privatisation of both banks and indebted companies and may cause additional delays (EU Commission, 2004b:26). Continuing banking reform and privatisation and ensuring sufficient budgetary resources for restructuring and recapitalisation of the banking system are among the short-term priorities identified in the European Partnership with Serbia and Montenegro (EU Commission. 2004c:9).

Privatization via FDI in the Serbian Banking Sector

Foreign ownership and participation in the banking sector generally form a crucial part of bank privatisation in transition countries (Bonin, Hasan and Wachtel, 2005). Specific to Serbia⁴¹ was the particular need to re-establish public con-

⁴¹ and for pyramid scheme reasons, also in Albania

confidence to banks. For a population that was expropriated repeatedly by hyperinflation, bank closures and the freezing of foreign currency deposits, and that suffered from being shut off economically from most of the rest of the world (Barisitz, 2003), strong signals were necessary to re-establish confidence in the banking system. While Serbia started late with full-fledged bank privatisation, both the visible support of the EBRD encouraging foreign bank entry and the arrival of foreign banks provided such strong signals to the economy and investors at large and helped to restore confidence (Bastian, 2003).

The EBRD acquired a 25% stake in Komercijalna Banka in Spring 2006, and National Bank of Greece bought Vojvidjanska Banka in fall 2006. Consequently, the market share of foreign banks rose markedly towards levels common in CEE markets. While growth so far has been driven more by private consumption and foreign direct investment in Serbia than by domestic financial intermediation, the strong presence of foreign banks is likely to change this trend. In addition to the provision of financial services at market standards, foreign banks play a special role in framing expectations by market participants sending visible signals of change (Vives, 1996). For banks to fully reach their potential in bringing about healthy economic growth in Serbia, it was imperative to find a solution to the highly sensitive territorial issues and overcome the legacy of workers' self management system and still pending enterprise restructuring.

Summary and Conclusion

This article discusses if and how the banking sector in South Eastern transition economies can influence economic growth with a specific emphasis on financial sector reform in Serbia. We review empirical findings on the "finance-growth-nexus" in European transition economies and discuss ongoing banking reforms in South Eastern Europe (SEE) and in Serbia in particular and provide data on various financial sector aspects in Central and Eastern European (CEE) and SEE countries.

From the empirical evidence on the finance-growth-nexus in European transition countries, we conclude that financial sector reform, especially of the banking sector, can contribute to economic growth and speed up transition. Empirical research by Cottarelli, Dell'Arriccia and Vladkova-Hollar (2005) and others has

provided evidence that factors originating in the banking system, rather than the corporate sector, were responsible for growth differences in transition economies. In extending the conventional finance-growth framework and based on observations in CEE, we suggest that strong foreign bank investment and related cross-border credit from parent banks may have been a substitute for domestic bank growth, thus supporting real sector growth in SEE. Given the massive-scale involvement of foreign banks in CEE and SEE, more research is necessary in this area whether this is transition-specific or applies generally to emerging markets.

In South East European countries, economic and bank transition started later than in CEE because of political circumstances. Serbia is at an earlier stage of transition compared to the peers. Ensuring smooth relations with the European Union, as was the case with the Stabilisation and Association Agreement (European Commission 2004c, 2005) would provide signals of growing institutional stability and EU involvement to foreign and domestic investors in Serbian banks and enterprises at large. The 2005 EBRD annual meeting in Belgrade and the massive entry of foreign banks have called attention to new developments. Such signals strengthen investor confidence and thus help markets to grow. The “EU-factor” (Sergi, 2004:15) alone, however, will not be enough to enable the financial sector to contribute to economic growth. The financial sector can only trigger positive growth if the real sector also follows market rules and if state frameworks allow for good investment opportunities (European Commission. 2004a).

As evident from the experience in CEE, financial development is not growth-supportive when the institutional and legal framework given to market participants is not appropriate. Unsound banking intermediation has a direct impact on economic growth as such behaviour perpetuates economic stagnation and the inefficient use of resources. Unsound financial sectors can also indirectly hamper economic growth, as they pose serious obstacles to inflows of foreign direct investment which in turn would contribute to economic growth. Given the particularities of the loan market in South Eastern Europe (fast credit growth from a low level, particularly in the household sector and in foreign exchange denominated loans; a still high, albeit shrinking, share of short term lending), some more time is required to improve the legal and economic framework. When financial institutions are subject to poor governance and incentive structures, finance can hardly promote growth. Instead of supporting growth, granting bad loans back to the companies of their owners,

for example, lead to resource misallocation, reduced private sector confidence and results in lower investment and growth. Policies should therefore continue to focus on alleviating the bottlenecks to financial intermediation by guaranteeing stable macroeconomic conditions and a sound institutional legal and supervisory environment. The involvement of prudent foreign banks is found to be a major factor for stabilizing the banking sector and making it fit to support economic growth.

Serbia is still overbanked, however recently financial intermediation has been rising robustly from a very low base. With rising foreign involvement by reliable banks with a long-term commitment, confidence returned to the banking sector. This is further supported by the fact that these banks focus on establishing a regional network, with the implication not to abandon their regional strategy should local difficulties arise. Access to capital for the private corporate sector however still remains limited and the level of non-performing loans is still high in Serbia. The first necessary steps have already been taken, but lasting reform requires persistent commitment and strong support. Lending growth must not be accompanied by a return to dubious lending practices. Expectations on finance's contribution to growth have not yet been fully met in Serbia, as financial development in a proper sense may have just started.

Continuing reform will attract foreign investors, improve the overall business environment, encourage investments and bring back the confidence of the population. The relationship with international organizations will continue to play a crucial role in the assessment of the stability and progress in Serbia and will be a precondition to further integration into the EU. In most of Central and Eastern Europe, the financial architecture has converged to a bank-based system with substantial foreign ownership. There are encouraging signs that financial development in Serbia may follow the successful path of Central and Eastern Europe, but the banking sector should not get too far ahead of the rest of the economy.

References

Allen, Franklin / Bartiloro, Laura / Kowalewski, Oskar (2005), The Financial System of the EU 25, paper presented at the conference on European Economic Integration 2005, Vienna, OeNB, http://www.eonb.at/de/img/allen_bartiloro_kowalewski_financial_system_eu25_tcm14-33981.pdf

- BA-CA (2004), Banking in CEE, ExtraReport Xplicit, April 2004, <http://economicresearch-e.ba-ca.com>
- BA-CA (2005a), Banking in Serbia and Montenegro, ExtraReport Xplicit, May 2005, <http://economicresearch-e.ba-ca.com>
- BA-CA (2005b), Banking in South-Eastern Europe On the Move, ExtraReport Xplicit, Sept. 2005, <http://economicresearch-e.ba-ca.com>
- Backé, P. and Thimann, Ch. (2004) 'The Acceding Countries' Strategies Towards ERM II and the Adoption of the Euro: Analytical Review, ECB Occasional Paper No. 10, <http://www.ecb.int>
- Backé, P., Ègert, B. and Zumer, T. (2006) 'Credit Growth in Central and Eastern Europe: New (Over)Shooting Stars? Focus on European Economic Integration 1/2006, 112-139, <http://ceec.oenb.at>
- Backé, P., Reininger, T. and Walko, Z. (2006) 'Main Features of Recent Banking Sector Developments in Selected Southeastern European Countries', Financial Stability Report 11, 66-82, <http://www.oenb.at>
- Barisitz, S. (2003) 'On the Catching-Up route – The Development of Banking in Serbia and Montenegro since 2000', Focus on Transition 1/2003: 89-216, Oesterreichische Nationalbank, http://www.oenb.at/de/img/ftr_20031_tcm14-1668.pdf
- Barro, R.J. (1991) 'Economic growth in a cross-section of countries', Quarterly Journal of Economics, 106(2): 407-443.
- Bastian, J. (2003) 'Banking on Southeast Europe: Financial Sector Reform amidst Regional Economic Volatility', Journal of Southeast European and Black Sea Studies 3(1): 81-107.
- Beale, L., Ferrando, A., Hördahl, P., Krylova, E. and Monnet, C. (2004) 'Measuring Financial Integration in the Euro Area, ECB Occasional Paper no. 14, April, <http://www.ecb.int/pub/pdf/scopes/ecbocp14.pdf>
- Beck, T. and Levine, R. (2001) 'Stock markets, banks, and growth: correlation or causality?', World Bank Working Paper, 2670.
- Beck, T., Levine, R. and Loayza, N. (2000b) 'Finance and the sources of growth', Journal of Financial Economics, 58 (1–2): 261–300.
- Blum, D., Federmair, K., Fink, G. and Haiss, P. (2002) 'The financial–real sector nexus – theory and empirical evidence', EuropeInstitute Working Paper 43, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>

- Bolton, P. (2002) 'Banking in Emerging Markets', *Journal of Financial Intermediation*, 11:362-365.
- Bonin, J. and Wachtel, P. (2003) 'Financial Sector Development in Transition Economies: Lessons from the First Decade', *Financial Markets, Institutions & Instruments* 12(1): 1-66.
- Bonin, J., Hasan, I., and Wachtel, P. (2005) 'Bank performance, efficiency and ownership in transition countries', *Journal of Banking & Finance* 29(1): 31-53.
- Breuss, F., Fink, G. and Haiss, P. (2004): How well prepared are the New Member States for the European Union, *Journal of Policy Modeling* 26: 769-791.
- Breyer, P. (2004) 'Central and Eastern Europe – The Growth Market for Austrian Banks, Monetary Policy & The Economy Q3/2004: 63-89, Oesterreichische Nationalbank, <http://www.oenb.at>
- Bruckbauer, S. (2004) 'CEE Banking Market after EU Accession', Xplicit, Banking in CEE, April: 4-12, Bank Austria Creditanstalt, <http://economicresearch-e.ba-ca.com>
- Buch, C.M., Kleinert, J. & P. Zajc, (2003) 'Foreign Bank Ownership: A Bonus or Threat for Financial Stability?' *SUERF Studies* 2003/4, 45-83.
- BA-CA (2004) 'HVB Bank Serbia and Montenegro.a.d.', <http://www.ba-ca.com/de/1650.html>
- BA-CA (2005) 'CEE Report 4/ 2004: Business information on Central and Eastern Europe,' <http://economicresearch-e.ba-ca.com>
- Cocozza, E., Fabbrini, A., Gisolo, E., Gresti, M. and Micucci, G. (2002) 'The Banking and Financial Sector in the Countries of South-Eastern Europe, Banca d'Italia Working Paper, <http://www.bancaditalia.it>
- Cottarelli, C., Dell'Ariccia, G. and Vladkova-Hollar, I. (2005) 'Early Birds, late risers, and sleeping beauties: Bank credit growth to the private sector in Central and Eastern Europe and in the Balkans, *Journal of Banking & Finance* 29(1): 83-104.
- Di Maggio, F., Romanowski, P. and Walter, C., (2003) 'Eastern European Banking Matures'. *The McKinsey Quarterly* 2/2003.
- Drakos, K., (2003) 'Assessing the success of reform in transition banking 10 years later: an interest margins analysis', *Journal of Policy Modeling* 23:309-317.
- Duenwald, Ch., Gueorguiev, N. and Schaechter, A. (2005) 'Too Much of a Good Thing? Credit Booms in Transition Economies: The Cases of Bulgaria, Romania, and Ukraine', IMF working paper no. 05/128, <http://www.imf.org>

- Dvorsky, S. (2004) 'Central Bank Independence in Southeastern Europe with a View to Future EU Accession, Focus on European Economic Integration 2/04: 50-75, <http://www.oenb.at>
- EBRD (2004): Transition Report 2004, London.
- EBRD (2005): Transition Report 2005, London
- EBRD (2006): Transition Report Update, May 2006, London.
- ECB (2003): Bond markets and long-term interest rates in European Union accession countries, 2003 edition, 6 October, European Central Bank, www.ecb.int/pub/pdf/other/bondmarketacc2003en.pdf
- ECB (2004a) 'The Acceding Countries' Economies on the Threshold of European Union', ECB Monthly Bulletin, European Central Bank, February, Frankfurt: 45-56.
- ECB (2004b): Bond markets and long-term interest rates in non-euro area member states of the European Union and in Accession Countries, 2004 edition, 24 November, European Central Bank, www.ecb.int/pub/pdf/other/bondmarketnoneumember_accctr2004en.pdf
- ECB (2006) 'Macroeconomic and Financial Stability Challenges for Acceding and Candidate Countries, ECB Occasional Paper No. 48, July 2006, <http://www.ecb.int>
- European Commission (2003a) 'Progress towards meeting economic criteria for accession: the assessment from the 2003 comprehensive monitoring reports and regular report', Enlargement Papers No. 19, November 2003.
- European Commission (2003b) 'Communication from the Commission to the Council and the European Parliament: Access to finance of small and medium-sized enterprises', Brussels, December 2003, Com (2003) 713 final.
- European Commission (2004a) 'The Western Balkans in transition', Enlargement Papers No. 23, http://europa.eu.int/comm/economy_finance/publications/enlargement_papers/2004/elp23en.pdf
- European Commission (2004b) 'Serbia and Montenegro Stabilisation and Association Report 2004, Commission Staff Working Paper COM (2004) 206 final / SEC(2004) 376 March 30, http://europe.eu.int/comm/external_relations/see/sap/rep3/cfr_s-m.htm
- European Commission (2004c) 'Proposal for Council decision on the principles, priorities and conditions contained in the European Partnership with Serbia and Montenegro including Kosovo as defined by the U.N. Security Council Resolution 1244 of 10 June 1999,

COM(2004), http://europe.eu.int/comm/external_relations/see/sap/rep3/cfr_s-m.htm

European Commission (2004d) 'Financial market integration and the use of the euro in the new Member States', Quarterly Note on the Euro-Denominated Bond Markets, No. 75, Sept. 2004, http://ec.europa.eu/economy_finance/document/eurobond/eurobondindex_en.htm

European Commission (2005) 'Serbia and Montenegro: Commission confirms sufficient progress to open negotiations on a Stabilisation and Association Agreement, IP/05/421 – Brussels, 12 April 2005, http://europa.eu.int/comm/external_relations/see/news/2005/ip05_421.thm

Evans, A.D., Green, C.J. and Murinde, V. (2002) 'Human capital and financial development in economic growth: new evidence using the translog production function', *International Journal of Finance and Economics*, 7(2): 123–40.

Fink, G., Haiss, P., Orlowski, L. and Salvatore, D. (1998): Central European Banks and Stock Exchanges: Capacity-building and Institutional Development, *European Management Journal* 16(4): 431-446.

Fink, G. and Haiss, P. (1999) 'Central European financial markets from an EU perspective: theoretical aspects and statistical analyses', *EuropaInstitute Working Paper No. 34*, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>

Fink, G., Haiss, P. and Vuksic, G. (2004) 'Changing Importance of Financial Sectors for Growth from Transition to Cohesion and European Integration', *EuropaInstitute Working Paper No. 58*, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>

Fink, G., Haiss, P. and Mantler, H.C. (2005) 'The Finance-Growth-Nexus: Market Economies vs. Transition Countries, *EuropaInstitute Working Paper No. 64*, <http://fgr.wu-wien.ac.at/institut/ef/nexus.html>

Fink, G., Haiss, P. and Hristoforova, S. (2005) 'Credit, Bonds and Stocks in Seven Large Economies, paper presented at the Asian Finance Association Conference, Kuala Lumpur, Malaysia, July 2005

Fink, G., Haiss, P. and Ugljesic, M. (2005) 'Serbia's Reform of the Banking Sector – Implications for Economic Growth and Financial Development, Paper presented at the IPSI Conference, Belgrade, June 2005.

Fries, S. and Taci, A. (2005) 'Cost efficiency of banks in transition: Evidence from 289 banks in 15 post-communist countries, *Journal of Banking & Finance* 29(1): 55-81.

- Gardó, S. (2005) 'Serbia and Montenegro – Coming to terms with the past', Xplicit, Banking in Serbia and Montenegro, May 2005: 4-19, Bank Austria Creditanstalt, <http://economicresearch-e.ba-ca.com>
- Gardó, S. Pudschel, W. and Saravanja, G. (2005) 'Legacy of the past overshadows the road to the EU, Xplicit, South-Eastern Europe – On the right track, May 2005: 4-5, Bank Austria Creditanstalt, <http://economicresearch-e.ba-ca.com>
- Giannetti, M., Guiso, L., Jappelli, T., Padula, M. and Pagano, M. (2002) 'Financial Market Integration, Corporate Financing and Economic Growth, Economic Papers No. 179, http://europa.eu.int/comm/economy_finance/publications/economic_papers/2002/ecp179en.pdf
- Got, X. and Ross, A. (2006) 'The Foreign Currency Gamble – Rising Risks For Banks in Central and Southeast Europe, Ratingsdirect 23. Aug. 2006, <https://www.ratingsdirect.com>
- Guiliano, P. and Ruiz-Arranz, M. (2005) 'Remittances, Financial Development, and Growth', IMF working paper no. 05/234, <http://www.imf.org>
- Iakova, D. and Wagner, N. (2002), Financial Sector Evolution: Challenges in Supporting Macroeconomic Stability and Sustainable Growth, Into the EU – Policy Frameworks in Central Europe, IMF, 35-95
- Jaffee, D. and Levonian, M. (2001) 'The structure of banking systems in developed and transition economies', *European Financial Management*, 7(2): 161–81.
- Jansson, E. (2005) 'Serbia – Confident times', *The Banker* 155(951, May): 118-120.
- Khan, M. and Senhadji, A. (2000a) 'Financial development and economic growth: an overview', IMF Working Paper, 00/209.
- Khan, M. and Senhadji, A. (2000b) 'Threshold Effects in the Relationship Between Inflation and Growth', IMF Working Paper, 00/110.
- King, R. and Levine, R. (1993a) 'Finance and growth: Schumpeter might be right', *Quarterly Journal of Economics*, 108(3): 717–37.
- King, R. and Levine, R. (1993b) 'Finance, entrepreneurship, and growth – theory and evidence', *Journal of Monetary Economics* 32: 513–42.
- Kominek, Z. (2002), 'Stock markets and industry growth: and Eastern European perspective', EBRD Working Paper, 81.

- Koivu, T. (2002) 'Do efficient banking sectors accelerate economic growth in transition countries?', BOFIT Discussion Paper, 14/2002.
- Kraft, E. (2004): 'Banking Reform in Southeast Europe: Accomplishments and Challenges, Paper presented at the OeNB Conference on European Economic Integration, Nov. 28-30, 2004, Vienna, http://www.oenb.at/en/img/ceei_paper_kraft_tcm16-22784.pdf
- Kraft, E. (2005): 'Banking Reform in Southeast Europe: Accomplishments and Challenges'', in Liebscher, K., Christl, J., Mooslechner, P., Ritzberger-Grünwald, D. (eds.): European Economic Integration and South-East Europe, Edward Elgar, Cheltenham, 350-367.
- Kraft, E. and Jankov, L. (2005) 'Does speed kill? Lending booms and their consequences in Croatia', *Journal of Banking & Finance* 29(1): 105-121
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (1998), 'Law and finance,' *Journal of Political Economy* 106(6): 1113-55.
- Levine, R. (1998), The Legal Environment, Banks, and Long-Run Economic Growth, *Journal of Money, Credit and Banking* 30: 610-621
- Levine, R. and Zervos S. (1998) 'Stock markets, banks and economic growth', *American Economic Review*, 88(3): 537-58.
- Levine, R. Loayza, N. and Beck, T. (2000) 'Financial Intermediation and Growth: Causality and Causes, *Journal of Monetary Economics* 46(1): 31-77.
- Mamatzakis, E., Staikouras, C and Koutsomanoli-Fillipaki, N. (2005) 'Competition and concentration in the banking sector of the South Eastern European region', *Emerging Markets Review* 6(2): 192-209
- Mehl, A. and Winkler, A. (2003) 'The finance-growth nexus and financial sector environment: New evidence from Southeast Europe', paper presented at The Ninth Dubrovnik Economic Conference on "Banking and the Financial Sector in Transition and Emerging Market Economies, organized by the Croatian National Bank, June, <http://www.hnb.hr/dub-konf/9-konferencija-radovi/mehl-winkler.pdf>
- Mihaljek, D. (2006) 'Rapid Growth of Bank Credit in Central and Eastern Europe: the Role of Housing Markets and Foreign-Owned Banks, Paper presented at the 12th Dubrovnik Economic Conference, HNB, July 2006, <http://www.hnb.hr>
- Moneta, A. and Mayr, M. (2006) 'Retail Banking on the move: the latest trends and developments in CEE, presentation at the EBRD Annual Meeting, London, May 2006, <http://>

[www.ba-ca.com / press releases / 21.05.2006](http://www.ba-ca.com/press_releases/21.05.2006)

NBS Supervision Department (2003), Banking Sector in FRY

Penev, S. and Rojec, M. (2004) 'Foreign direct investment and the investment climate in South-East Europe', *Economic Annals* no. 163, Oct. 2004 – Dec. 2004: 71-92, <http://www.ekof.bg.ac.yu/visitors/Annals/163.htm>

Perrin, L. and S. Bruckbauer (2004) 'Banking in CEE Post-EU accession', *Xplicit, CEE – from Transition to Convergence*, July 2004: 34-41, Bank Austria Creditanstalt, <http://econom-icresearch-e.ba-ca.com>

Petkovski, M. and Bishev, G. (2004) 'Understanding Reforms in Macedonia, Global Development Network Southeast Europe (GDN-SEE), http://www.wiiw.ac.at/balkan/files/GDN_UnderstandingREform_Macedonia.pdf

Platek, M. (2002) 'Financial Sector Development and Economic Growth in Transition Countries', Difo-Druck, Bamberg 2002.

Popović, S. (2004) 'The role of the capital market in the transition of the Montenegrin economy', *South-East Europe Review* 7(4): 69-78, http://www.boeckler.de/pdf/SEER_2004_Popovic.pdf

Ristić, Z. (2004) 'Privatisation and foreign direct investment in Serbia', *South-East Europe Review* 7(4): 121-136, http://www.boeckler.de/pdf/SEER_2004_Ristic.pdf

Rousseau, P. and Wachtel, P. (1998) 'Financial intermediation and economic performance: historical evidence from five industrialised countries' *Journal of Money, Credit and Banking* 30: 657-678.

Rousseau, P. and Wachtel, P. (2002) 'Inflation thresholds and the finance-growth nexus', *Journal of International Money and Finance* 21: 777-793

Rousseau, P. and Wachtel, P. (2005) 'Economic Growth and Financial Depth: Is the relationship extinct already? Paper presented at the UNU / WIDER Conference on Financial Sector Development for Growth and Poverty Reduction, July, Helsinki

Sergi, B. (2004) 'Understanding the 'EU-factor': the Balkans regions as recipients of FDI and industries, *South-East Europe Review* 7(4): 7-20, http://www.boeckler.de/pdf/SEER_2004_Sergi.pdf.

Sherif, K. (2003) 'Direct Fiscal Costs of Restructuring in Transition Countries. Paper, presented at the "East-West Conference 2003', Oesterreichische Nationalbank (OeNB) and Joint

Vienna Institute, Nov. 4, 2003, Vienna, <http://www.ksherif.com/pages152503/index.htm>.

Sorsa, P. (2006) 'Macroeconomic Challenges with EU Accession in Southeastern Europe: An Overview, IMF working paper no. 06/40, <http://www.imf.org>

The Banker (2005) 'Intesa extends its CEE network with Serbian acquisition', The Banker 155 (949, March): 13.

Vives, X. (1996) 'Social learning and rational expectations, European Economic Review 40(3-5): 589-601

Wachtel, P. (2001), 'Growth and Finance: What Do We Know and How Do We Know It?', International Finance 4:3, 335-362.

Wachtel, P. (2003), 'How much do we really know about growth and finance?' Federal Reserve Bank of Atlanta Economic Review 88:33-47

Wagner, N. and Iakova, D. (2001) 'Financial Sector Evolution in the Central European Economies: Challenges in Supporting Macroeconomic Stability and Sustainable Growth', IMF Working Paper No. 01/141, September 2001.

CHAPTER II

FOREIGN BANK PENETRATION

Banking Sector Reform Efforts in South East European Countries

*Todor Vanev*⁴²

Introduction

Building of viable and sound financial systems in South Eastern Europe (SEE) has been a fundamental aspect of the transition to a market economy. Building such a system has proven to be very difficult and challenging.

Various studies and analyses have confirmed that in the beginning of the transition process the financial sector was weak and underdeveloped. During the second half of the 1990s banking reform efforts were impeded either by internal setbacks or by external causes.

Every single banking system suffered shocks, downturns and in most cases it was a turning point for the banking and macro economy of SEE countries. And it can't be different as far as economic performance, macro economic stability and long term growth depend on the extent to which financial institutions and markets carry out their activities efficiently within an adequate infrastructure.

As a result of macroeconomic stability and reached predictability of the main processes within the region, trough privatization in general, banking sectors of SEE countries attract foreign investors. It should be stressed that strategies of market entrants vary widely. Major players in the market, Raiffeisen Zentralbank, UniCredito, HVB BA-CA, Erste Bank and KBC Bank and Insurance have all built a presence in the region by acquiring local universal banks. As far as the peak of investments

⁴² The author thanks Svetoslav Veselkov for his dedicated research assistance

fade the conclusion possible is that we are against next stage of developments in the banking markets of SEE. Competition is set to heat up in these still relatively fragmented banking markets, and first signs of consolidation we can see.

To thrive in SEE, banks must continue to adopt international best practices, such as raising volumes by expanding product portfolios and service channels, as well as making organizations more cost-efficient by reducing head counts, refining branch processes, and applying centralized IT solutions.

Reforms in banking sectors

Albania

Reforms of banking sector in Albania started with the introduction of the Laws on the Bank of Albania and on the Banking System in the Republic of Albania (1992). The banking system was transformed from a mono-system into a two-tier one, introducing the central bank's (Bank of Albania) independent status and its primary function of maintaining monetary stability and carrying out banking supervision activities.

Next step was in 1993 when the four state-owned banking institutions were consolidated into three commercial banks: the Savings Bank, National Commercial Bank and Rural Commercial Bank. Lack of public confidence in an inefficient banking system and insufficient capacity of authorities resulted in the broad use of alternative channels for deposits and encourage pyramid schemes to be born. By year-end 1996 the pyramid schemes' estimated liabilities were USD 1.2 bln. or some 50 % of GDP.

The pyramid schemes' existence and their subsequent collapse pushed further banking sector legislative and structural reform. Amendments in 1996, 1997 and 1998 to the 1992 banking laws dealt with issues such as minimum capital requirements, capital adequacy, credit exposures and connected lending, largely in line with the Basel Committee's Basic Principles of Banking Supervision. Prudential measures were tightened, with the BoA given increased supervisory authority.

Rehabilitation of Albania's banking actually started in 1997 when the Bad Asset Resolution Trust (BART) was established to deal with the banks' non-performing loans. Between 1998 and 2000 BART assumed more than USD 235 mln. bad

loans from National Commercial Bank and Savings Bank. In addition Albanian government recapitalised both banks with USD 161 mln. (mainly treasury bills) in order to facilitate the privatisation process.

The National Commercial Bank (NCB) was privatised in 2000 and Savings Bank in 2004 thus finalising big scale privatisation of the banking sector in the country.

Bulgaria

At the end of 1989, following the dramatic political changes that year, major institutional reform took place in the banking system as it moved to a two-tier system. Existing sector-specific (transport, high-tech etc.) banks were then transformed into universal banks which loaned to all sectors of the economy. At the same time, new local commercial banks were created out of the 59 branches of the BNB. In June 1991 the Law on the Bulgarian National Bank came into effect, altering fundamentally the roles, objectives and functions of Bulgarians central and commercial banks. In 1992, another key financial act, the Law on Banks and Credit Activity, was enacted. This law established the regulatory framework for the activities of banking institutions. Under this law, all banks, even state-owned banks, were given significant autonomy.

To overcome problems with the fragmentation of the banking sector the government established the Bank Consolidation Company (BCC) to encourage the formation of larger state-owned banks through mergers.

Outside this consolidation process, however, many new private banks entered the market. Since only limited regulatory controls were in place at the time, these banks operated in an environment without the regulatory supervision found in developed market economies. In many instances the financial resources needed to open these private banks was borrowed from state-owned banks. The origins of the private banks shaped their later behaviour and contribute significantly to the deepening the crisis of 1996-1997.

Not long after that political uncertainty, economic instability, lack of structural reforms, soft budget constraints, a lack of market discipline on the part of newly-

founded banks (moral hazard), as well as factual absence of supervision of banks' activities led to undercapitalisation at Bulgarian banks. Initial restructuring efforts involving the issue of ZUNK bonds (government bonds denominated in foreign currency) in light of still state-owned major banks and related interference in the day-to-day management failed to solve the problem of non-performing loans. Banks' financial situation deteriorated as a result of the continued subsidisation of state-owned enterprises. Liquidity and solvency problems of the bank system resulted in a massive bank run. The crisis followed developed into a full-blown economic and financial crisis. As a result, economic performance contracted sharply, dropping by 9.4 % in 1996 and another 5.6 % in 1997 and nearly half of the banks were closed. Unemployment rose and inflation exceeded 1000%.

The introduction of the currency board arrangement in 1997 (Bulgarian Lev was pegged to DM, now to EUR) not only stabilised the currency and prices, it also tightened liquidity by restricting the central bank ability to practice "lender of last resort" function thus, as a side effect, disciplining both the government and the commercial banks. In the end, the stabilisation measures got the economy back on track in 1998, and since then Bulgaria has experienced positive economic development. Over the last years the country recorded average economic growth of 4.9%. The disciplined fiscal course followed in recent years resulted in budget deficits of less than 1 % of GDP for several years and more recently in the accumulation of huge budget surpluses and the only cause for concern remains accelerating current account deficit. Between 1998 and 2001 most of Bulgarian state-owned banks were privatised by attracting foreign investors. The last two privatisation deals in the sector took place in 2001 and 2003. Last one opened the retail market for Hungarian OTP through take over of DSK Bank.

Croatia

In contrast to other transition countries in Central and Eastern Europe, upon independence in October 1991 Croatia already possessed a set of market-like banking practices and a basic institutional and legal framework, although somewhat limited in scope. Unfortunately the years of military conflict in the Balkans, unstable economic and reform-reluctant political environment, prevented the country from leveraging these initial comparative advantages.

The first steps in the field of bank restructuring were taken as a reaction to the National Bank of Yugoslavia freezing private foreign currency deposits. Yet, these measures were merely of a financial nature, thus neglecting the need to implement effective corporate governance structures. As a result, problems (e. g. soft budget constraints, moral hazard, bad debt legacy) that had been concealed by the economic recovery in 1994 in the wake of stabilisation measures taken in 1993, resurfaced at three of the four largest banks in 1996 . After recognising the importance of the problem the Croatian National Bank (CNB) launched a second round of restructuring measures with the help of the Bank Rehabilitation Agency, which was founded in 1994 . These new measures aimed to restructure individual banks, including Privredna, Splitska and Rijecka Banka, at an estimated combined fiscal cost of USD 1.6 bn or 8.3 % of average 1991 – 2002 GDP.

Nevertheless, Croatia's banking sector continued to experience difficulties, which were exacerbated by the high-risk activities of some small and medium-sized banks. These accumulated problems ultimately lead to a full-blown banking crisis between 1998 and 1999.

The Banking Act of 1998 finally provided a basis for decisive intervention by the CNB, paving the way for the 1999 launch of key reforms which were already a decade overdue. In the end, the closure of insolvent banks, the withdrawal of the state from the banking sector, and ultimately, the injection of financial and human capital through privatisation established a sound foundation for the recovery of Croatia's banking sector

Foreign banks' market access to Croatia started in 1994, but was slow due to military conflicts, the hostile political environment and the obvious problems plaguing the country's banking sector in the early 1990s. In 1998, when foreign banks' market share in terms of total assets had already climbed to over 60 % in other transition countries (e. g. Hungary), Croatia lagged far behind with a mere 6.7 %, as foreign banks preferred greenfield investment. However, in 1999 and 2000 Croatia also raced ahead in the field of bank privatisation, quickly moving from the rear into the vanguard. The breakthrough came with the sale of a 66 % share package in Privredna Banka to Banca Commerciale Italiana in late 1999. Shortly thereafter, Unicredito Italiano acquired a 51 % interest in Splitska Banka, and Bayerische Landesbank bought 60 % of Rijecka Banka. Market conditions, however, altered

rapidly, leading to changes in the ownership structure at most of the country's major banks. Splitska Banka, for example, has been a subsidiary of BA-CA since April 2002 and Hungary's OTP bought a 95.6 % stake in seventh-placed Nova banka in December 2004 for EUR 236 mn, a price well above market estimates of some EUR 150 mn. Foreign banks' market share has continued to increase, reaching 91.3 % in 2004. By contrast, state-owned banks' market share declined from 45.6 % in 1999 to 3.1 % in 2004, leaving only two banks, Croatia banka and Hrvatska Postanska banka, directly or indirectly owned by the state

FYR Macedonia

Despite having inherited from the SFRY a two-tier banking system the country's four commercial banks played marginal role in terms of lending to the real sector. Characterised by ownership by formerly socially-owned enterprises commercial banks did not succeed to build reliable lending practices and in fact were not interested to improve their profitability. The lack of corporate governance stemming from the banks' ownership structures encouraged connected lending, with banks continuing to fund loss-making enterprises whose finances had deteriorated in the post-independence period. By year-end 1992 the misallocation of funds had driven the share of non-performing loans to 85 % of the banks' total loan portfolio. Public confidence in the banking system was low, exacerbated by the freezing of households' foreign exchange deposits and prohibitively high lending rates.

This situation in the banking sector began to reverse itself somewhat with the introduction of the Macedonian denar (MKD) in April 1992, marking monetary independence from the SFRY. Monetary independence was accompanied by the issuance of the National Bank of the Republic of Macedonia Act (April 1992), which confirmed the National Bank of the Republic of Macedonia (NBRM) as an independent entity, entrusted with the primary tasks of maintaining monetary and price stability and carrying out the banking supervision function. Furthermore, the Bank and Savings House Act was introduced in 1993 (with subsequent amendments), based on the principle of universal banking. Minimum capital requirements for founding a bank and licensing requirements were tightened and legally mapped out in the wake of the proliferation of commercial banks from four prior to 1992 to 19 by the end of 1993, during which time the NBRM had set

lenient requirements. The Banking and Savings House Act also set down regulations that included those relating to capital adequacy and single exposures.

By 1995 Macedonia's banks were still confronted with a high level of non-performing loans (44.4 %) and the issue of frozen foreign currency deposits. Rehabilitation and restructuring of the banking sector got underway in 1995, with the adoption of the Act on Rehabilitation and Restructuring. The process was administered by the Bank Rehabilitation Agency (BRA). Rehabilitation focused on writing off DM 1.4 bln. (EUR 0.7 bln.) in frozen foreign currency deposits from the banks' balance sheets; writing off debts related to the Paris and Zurich Club Creditors; and restructuring the country's largest bank, Stopanska banka, a. d. Skopje, which included transferring the bank's bad loans to the BRA and recapitalising the bank with 15-year government bonds. An additional debt/equity swap occurred at the end of 1999, prior to Stopanska banka privatisation. Furthermore, market share of Stopanska banka (65 %) was diluted to 34 % by spinning off its five largest branches into stand-alone banks. In addition, in 1995 as part of a Special Restructuring Programme a debt / equity swap eliminated claims against 25 large loss-making companies from the banks' balance sheets.

The cost of rehabilitating Macedonia's banks was significant, reportedly amounting to 42.3 % of GDP (12.1 % attributable to the loan portfolio restructuring and 30.2 % to costs associated with the payment of frozen foreign currency household deposits) as of year-end 1995. Additional costs incurred in the above-mentioned 1999 recapitalisation of Stopanska banka a. d. Skopje boosted the total cost of the banks' rehabilitation to 45.8 % of GDP

Serbia

The history of banking reform in the country was deeply substituted by political processes until 2000. In 2000, a turnaround in political thinking in the form of a new government and the related easing in the country's economic isolation led the beginning of the banking reform. The basis of reforms became the ratification of two new laws - the "Law Governing the Relations between the Federal Republic of Yugoslavia and Banks within the Territory of the Federal Republic of Yugoslavia, being the original Debtors or Guarantors toward the

Paris Club and London Club Creditors” and the “Law on the Settlement of the Public Debt of the Federal Republic of Yugoslavia arising from the Citizens’ Foreign Exchange Savings”. These two laws constituted the legal framework for solving the problem of non-performing loans, and for providing compensation to private individuals whose foreign currency deposits had been confiscated. In addition, the Law on the Agency for Deposit Insurance and Bank Rehabilitation, Bankruptcy and Liquidation (BRA) of 1989 was amended. The amendment officially named the BRA as the agency responsible for overseeing the reform of the banking sector, and specifically outlined its competencies in regard to the restructuring, insolvency and liquidation of banks. The Law on the National Bank and the Banking Act were also amended.

An extensive screening of the banking sector began in the context of the new legal framework. This included the classification of the commercial banks into four groups according to their liquidity and solvency, and prompted the BRA to close 19 smaller insolvent banks in 2001, which accounted for about 10 % of the banking sector’s total assets. At the beginning of 2002 this was followed by the closure of the four largest Serbian banks (Jugobanka, Beobanka, Beogradska banka, Investbanka) on account of fiscal restrictions. Based on the banking sector’s total assets, these banks had a market share of 57 % and a recapitalisation requirement of an estimated EUR 4 bln. Within the framework of portfolio restructuring, the state furthermore acquired majority or significant minority interests in sixteen banks through debt-equity swaps pursuant to the new laws of 2001 and 2002, i. e. the state assumed the obligations of ailing Serbian banks (most of them socially-owned) towards Paris and London Club creditors, and in return received equity in the banks involved. These restructuring measures were followed by the initiation of the privatisation process. Initial privatisation successes and the growing presence of foreign-owned banks in the market have in the last few years strengthened confidence in the banking sector.

Romania

The beginning of bank privatisation was marked by the sale of 51 % of the Romanian Development Bank to Société Générale in 1999, with GE Capital and Banco Portugues do Investimento (BPI) acquiring 45 % of Banc Post in the same year. A

next step in the bank privatisation process was the sale of Banca Agricola to Raiffeisen Zentralbank in April 2001. October 2002 brought the sale of a further state holding of 17 % in Banc Post to Greek EFG Eurobank Ergasias. These privatisation successes raised the market share of foreign banks in terms of the banking sector's total assets to 62 % by the end 2004, compared with just 20 % in 1998. Based on capital, foreign banks' market share at year-end 2004 was even higher, at 69.3 %, with some 80 % of the total foreign capital originating from EU member states. In terms of total foreign capital the keenest interest in the Romanian banking sector was shown as of June 2004 primarily by Austrian (33.5 %), Greek (15.2 %), Italian (9.5 %), Dutch (9.2 %) and French (8.6 %) investors.

An important derivable from the restructuring of the markets is the number of banks, especially foreign owned, and dynamics in which they enter the market.

SEE : Number of banks (foreign owned)

	1998	2000	2003	2005
Albania	10 (8)	13 (12)	15 (13)	17 (14)
FRY (Serbia/Montenegro)	104 (3)	81 (3)	47 (16)	39 (21)
FYR Macedonia	24 (6)	22 (7)	21 (8)	20 (8)
Croatia	53 (13)	43 (21)	41 (19)	n.a.
Bulgaria	34 (17)	35 (24)	35 (26)	35 (26)
Romania	36 (16)	33 (21)	30 (21)	31 (24)

Source : EBRD Transition report

Market Structure

With total assets close to EUR 95 bln. in 2005, the banking sector in SEE is less than one-quarter the size of the New EU Member States, which in 2005 report total assets of around EUR 420 bln. The region's GDP is expected to reach EUR 157 bln. for 2005 and thus approximately 30% of GDP of the New EU Member States (2005 GDP: EUR 524 bln.).

2004

	population mln.	GDP (PPP) USD	in % of EU - 25
Albania	3.2	4,929	20
FYR (Serbia/Montenegro)	10.6	n.a.	25
FYR Macedonia	2.0	6,767	n.a.
Croatia	4.4	12,336	46
Bulgaria	7.8	8,026	31
Romania	21.7	8,413	31
Total :	49.7		

Source : EBRD Transition report, wiiw

Compared to EU25 in terms of GDP per capita Romania and Bulgaria count for 31% of the target level, Albania for 20%, Serbia for 25% and the leader of the group , Croatia has 46%.

Overall, SEE is served by 224 banks and thus, despite the lower volume of banking transactions and the smaller number of inhabitants, by more banks than the New EU Member States (205 banks).

Increased level of reforms including legislation, recapitalisation of banks and passing out the legacy of bad debt loans marks foreign banks entry into markets of SEE.

SEE Countries' Banking System Reform Index

	1998	2000	2003	2005
Albania	2.0	2.3	2.3	2.7
FYR (Serbia/Montenegro)	1.0	1.0	2.3	2.7
FYR Macedonia	2.7	2.7	2.7	2.7
Croatia	n.a.	3.3	3.7	4.0
Bulgaria	2.7	3.0	3.3	3.7
Romania	2.3	2.7	2.7	3.0

Source : EBRD Transition report

The push of large scale privatisation in banking sector, in terms of few years, drove market share of foreign owned banks to level in excess of 50% (Croatia, Bulgaria and Romania).

Market Share of Foreign-owned banks in total assets In %

	1998	2000	2003	2005
Albania	18.5	35.2	47.1	n.a.
FRY (Serbia/Montenegro)	n.a.	0.5	38.4	n.a.
FYR Macedonia	n.a.	53.4	47.0	n.a.
Croatia	6.7	84.1	91.0	n.a.
Bulgaria	32.3	75.3	82.7	n.a.
Romania⁴³	20.0	46.7	54.8	n.a.

Source : EBRD Transition report

At present, countries such as Croatia, Bulgaria and Serbia have as many or even more banks than countries from Central Europe, thus indicating possible consolidation.

The degree of concentration in terms of market share of total assets held by the top five banks is, at an average 60. This is attributable to the high level of concentration in Croatia and Albania, whereas in Serbia and Bulgaria concentration levels are lower, close to 50% and comparable to the markets of Central Europe.

Bank Market Concentration (in total assets), Top 5

	1998	2004
Albania	n.a.	82
FYR (Serbia/Montenegro)	n.a.	47
FYR Macedonia	n.a.	53
Croatia	53	65
Bulgaria	56	52
Romania	67	60

Total number of bank branches in Bulgaria, Croatia and Romania marks increase of almost 20% between 1999 and 2004 (4328 and 5151 respectively) with practically unchanged number of bank employees (close to 89,400). Thus indicating increased bank penetration level.

In general countries from South Eastern Europe that privatised their banks at a fairly early stage currently enjoy a higher level of financial intermediation.

⁴³ After closing the privatisation deal for BCR market share of foreign banks will increase to approximately 89%.

Total assets / GDP in %

	1998	2004
Albania	50.4	53.5
FYR (Serbia/Montenegro)	91.2	38.8
FYR Macedonia	45.6	56.7
Croatia	67.8	108.9
Bulgaria	35.2	65.6
Romania	40.2	38.3

Clear sign for the diverse landscape within the region of SEE is the fact that here we find the country with the lowest intermediation rate (Romania 38%) and the country with the highest one (Croatia 109%) for Central and Eastern Europe in general.

Relationship between a country's level of income in terms of per-capita GDP and the level of intermediation would be difficult to explain in absolute, even because of the fact that one of wealthiest countries (Romania) record lowest rate of intermediation. Income, therefore, cannot be used as a valid explanation of differences in intermediation between these countries.

Loans in % of GDP

	1996	2004
Albania	5	9
Bulgaria	52	36
Croatia	29	62
FYR Macedonia	9	17
Romania	25	18
Serbia	36	20

Source: National banks

The current level of intermediation, measured in terms of the ratio of loans to GDP, was significantly influenced by the level of intermediation that had been reached by the mid 1990s and which in Croatia and Serbia was clearly higher than in Albania or Macedonia. This must of course be considered against the fact that a number of countries, among them Bulgaria and Romania as well as Serbia, have experienced periods of hyperinflation since the mid-1990s. A

noticeable positive correlation can also be identified between the degree of intermediation and privatisation. Countries that privatised more than 50 % of their banks early on, today boast a higher intermediation level, with a large presence of foreign banks providing additional momentum in this regard.

Regarding possible explanations for financial deepening as reflected by a higher ratio of loans to GDP in recent years, it appears that countries with largely privatised banking sectors also experience stronger loan growth, with foreign ownership contributing to this development. Solving the problem of non-performing loans was also of key importance for credit growth. Countries such as Croatia and Bulgaria, which had a head start in privatising their banking systems, have a large share of foreign banks and a low proportion of non-performing loans, and lending has expanded at an annual rate equivalent to six percentage points of GDP. The situation is even more acute in Serbia, where 60 % of the banks had been privatised by the end of 2004, with slightly more than half foreign-owned. The non-performing loans ratio in Serbia, at 23 %, was by far the highest in the region as of year-end 2004.

However, as all of the countries that are lagging behind in privatisation have stepped up their efforts substantially in recent, an upward trend may be expected in the coming years even in countries with a still low level of intermediation.

Retail Business in Focus

In the coming years, new business (loans and deposits) is expected to amount to around EUR 80 bln. The expectations are the retail banking revenue pool to increase by an average of 14 percent a year, to EUR 16.4 billion by 2010. Profits over the same period will increase fivefold, to EUR 6.8 billion — a 19 percent compound annual growth rate. Retail banking share of the overall banking market will exceed 50 percent by 2010, at the expense of corporate banking. Although retail banking profits are expected to grow two or three times faster in the region than they will in leading EU markets over the next decade, the profit pool, currently no bigger than Spain's, will remain small for the foreseeable future. And while revenues and profits are set to grow quickly, so too is competition, which will make it harder to maintain strong returns.

In many countries in SEE, retail lending gathered momentum once the problem of non-performing loans had been resolved. The banks' risk assessment expertise

improved and the legal environment strengthened. Over the past years, retail lending expanded at an annual rate of 53 %. This segment therefore showed even more growth in SEE than in the New EU Member States, where retail lending also grew very vigorously at an annual rate of 24 %, compared with growth of just 6 % in the EU area. Despite this fast-paced expansion, however, retail lending volume is still only some 12 % of GDP versus 50 % in the EU area. On the other hand, 12 % indicates that retail lending has attained a similar level to the New EU Member States, although the distribution is still very uneven. At 32 %, Croatia has hit a level that is significantly above that of the New EU Member States and not even roughly within the reach of any of these countries. At the same time, the corresponding levels in Romania, Serbia, Albania and Macedonia are around 5 % or less, and thus considerably below that of the New EU Member States.

Measured in terms of household deposits, lending in SEE stands at 52 %, a level similar to the New EU Member States, where lending amounts to 46 % of deposits and still exhibits potential for growth (EU area - 91 %). In Croatia and Bosnia and Herzegovina, however, the corresponding rates are very high. In terms of per capita retail lending, Croatia, at close to EUR 2,000, is significantly above the New EU Member States average as well as clearly above the level of Slovenia, the frontrunner among the New EU Member States (EUR 1,600). Even though retail lending growth potential will be limited in Croatia during the next few years, expected annual growth rates remains close to 10 %. The region's more heavily populated economies such as Romania and Serbia offer considerable potential, with growth rates expected to rise to 20 % or even 30 % and in Serbia, even higher. Forecasts for annual growth rates of retail lending are close to 20 %, in line with the projection of higher nominal GDP growth in SEE. Accordingly, retail lending as a percentage of GDP will not exceed 15 % in 2008, thereby remaining below the levels the expected for the New EU Member States (17 %). Per capita loan volume is expected to reach EUR 665, or slightly less than half the level of the New EU Member States in 2008.

At 22 % of GDP, deposits of households in SEE were lower than in the New EU Member States (28 %) and in the euro area (55 %), although the difference is less substantial than in retail lending. In line with the somewhat lower catch-up potential, deposits expanded at a slower pace (29 % per year) than retail lending (53 %) and the gap with the EU area was therefore less significant. At 29 %, the

rate of growth was significantly higher in SEE than in the New EU Member States, where deposits grew at approximately 6 % per year and thus at the same rate as in the EU area. In the New EU Member States, a shift to alternative investments is becoming increasingly noticeable as bank deposits are no longer the only type of assets held by wide parts of the population. In addition, the decline in interest rates has reduced the attractiveness of bank deposits in many of the New EU Member States. Despite the highly diverse situation where bank deposits are concerned, Croatia and Albania, at 40 % or more, are already above the New EU Member States average and approaching the level of the EU area. Serbia and Romania, at 10 % and 15 %, respectively, are still clearly below the New EU Member States level. Overall, deposits are expected to expand at a faster pace in SEE than in the New EU Member States. At an annual growth rate of 16 %, deposits will reach 26 % of GDP by 2008, a level similar to that of the New EU Member States. In SEE, deposits will thus be growing faster than nominal incomes, which are no longer expected to be the case in the New EU Member States.

The Effects

The immediate effect from the political changes in the beginning of 1990s for the banking sector was illiquidity of corporate clients, mainly state-owned. Raising debt and contractions of real sector shifted, for a long time, attention from the problems of corporate governance of the banks. Essential issues such as organisational and functional organisation, reporting, credit risk assessment and pricing, corporate risk management, human resources and information technology, with small number of exceptions were not in focus.

Up to late 1990s organisational structures of the banks in Bulgaria were developed with understanding about functionalities, i.e. accounting, lending treasury etc. but not in terms of business lines, respective market segments and products. Even newly founded, private banks copied in full the approach. In common, outlets (branches and offices), as an organisation, were mirrors of the headquarters system of divisions, thus implying some of the foundations of inefficiency for the bank system at all.

Reporting was completely substituted by general accounting. In most cases managers were more interested and informed about interest income in foreign

and local currency (traditional accounting elements) than about the breakdown of non-interest income from individuals by products, for instance. The broken link between structure of information reported and market elements headed management of the banks into the comfort of believing that they know everything about market. Here, should be clarified that for the years in discussion the market was weak and incentives to think and compose banks behaviour in market based manner were relatively low. And it can't be different when prevailing part of the income comes from state owned enterprises. In addition technology support for client/market oriented type of reporting was weak.

Another issue with crucial impact for the performance of the banks was credit risk assessment. The structure of incomes (mainly interest income and based on the debt of state owned enterprises) was one of the origins of so called "directed lending". In the years of shallow reforms, for the state owned companies raising debt was equivalent of survival. On the other side, financing of private sector, erode, for the prevailing part of the banks, into forming of huge exposures to related parties what marked the beginning of the crisis in 1996-1997. Actually bad practices from the 1990s were just the signs of weak regulatory framework and lack of structural reforms. For the banks itself assessing the credit risk as a system was subdued by understanding about lending as a single process with different phases i.e. analysis, granting and administering and most important – covered by a single expert, thus eliminating healthy approach of separated sales from assessment of related risks. Emerging market conditions, weak regulatory practices and fight for market share resulted in inadequate pricing of bank products (not related to inherent risks) and unreasonable maturity extensions in loan portfolio of most banks. Not surprisingly liquidity problems started in a late 1995 and led 16 banks to insolvency. Short after crisis from 1997 regulatory requirements were tightened and, for instance, banks were obligated to form independent bodies with main responsibility to deal with provisioning of credit risk.

Information technology implemented in Bulgarian banks marked significant developments through 1990s. In the very beginning of transitions main provider of production systems (centralised with provider) for the banks was then state owned company Banservice. Rapidly increased number of banks in short time caused strong demand for technology backup. By assigning development of information systems for so called local accounting and processing some of the

banks tried to bypass sluggish services from Bankservice. In fact up to 1996 on the market existed at least five such systems (domestically developed). As a philosophy these systems were accounting and transaction oriented, in other words pure production systems with insufficient or completely absent analytical support. Even at that time the gap between needs and provided functionalities was clear. The first attempt, well developed technology to enter Bulgarian banking was in 1992 when The Economic bank bought well known in western banks system "MIDAS CAPITY" (now MISYS). The project was not success due to several reasons. First of all attempt to provide real-time processing of transactions on a basis of existed telecommunication infrastructure was impossible. Second and more important, the project has just IT meaning, what in fact stipulated additionally subdued core functionalities of the technology.

Another big scale project took place in 1994 when Balkanbank tried to develop card business with the first smart card in SEE. Unfortunately the project was too revolutionary and short after that the bank suffered liquidity crisis so technology jump was suppressed. Common problem for the banking in terms of analysis of risk and market behaviour of clients was lack of satellite systems such as corporate register and loan register. For instance for the period 1989 to 1998 corporate register changed corporate's ID (BULSTAT) four times. Loan register became operative just after 1999 and for some time with limited functionalities.

Conclusions

No doubt foreign owned banks entry into the markets of SEE helped restoration of confidence in financial systems of those countries. In addition such a presence became fore post of sound practices in fields proven to be essential for the stability of the banking i.e. credit risk management and general corporate governance.

The first challenge for the banks acquired from foreign financial institution was completely restructured process and substance of reporting. Clarified fields of activities and implemented set of performance measures pushed forward the process of building new corporate culture based on focused responsibilities for the staff and managers within the bank. Basic elements of balance sheet and

profit and loss account became more visible and understandable in terms of market segments and products caused concrete volumes. Strict planning and goal placing through all the levels of selling process were implemented, thus building the prerequisites for increased efficiency of the system. Traceable goals and increased intensity of reporting changed management of the banks too.

Another process with strong impact on the privatised banks was organisational and functional reengineering. Two basic segments of the market were institutionalised, respectively retail and corporate banking divisions were formed. From some point, such functionalities existed even in the beginning of 1990s but were, more or less, derivable from the type of processing, including accounting specifics, of the client orders. The new, for the banking system in Bulgaria divisions took the responsibility for the management of the product portfolio and sales. Something more, these institutionalised business functions were, from the beginning, structured as a mirror of the market. For instance typical retail banking division consists of at least two subdivisions, in some banks clear specialisation of senior experts, affluent customers and mass market. After 2001 completely new element of the business model for most banks was introduced – relationship management. Thus, backed by improved reporting, management of the banks straighten selling capabilities of commercial system. On branch level the process of organisational and functional reengineering resulted in full shift of back office functionalities to headquarter. In addition optimised business processes significantly promote improved quality of client servicing.

Credit risk assessment was significantly developed as an organisation and implied analytics. Redefined goals and performance measures for the underwriting function with headquarters of the banks transformed that function into real policy maker in field of credit risk. In addition increased level of standardisation of loan based products relaxed the day-to-day pressure on underwriting. A natural extension of renewed underwriting was introduction of credit analysts, on branch level, with main responsibilities to provide analytical backup for the relationship managers with loan related products. The differences between the banks now is not in the logic implemented, but in the practical issues such as available resources (people), scale of business in concrete point of sale and related reasonability to be enacted in full the model.

Not surprisingly all of the banks acquired by foreign financial institutions changed their banking information systems short after the acquisition. Focal point for the projects was centralisation of clients' files and processing capabilities. But another similarity can be found – all the projects were extremely complex with targeted coverage of functionalities from retail system, going through wholesale systems, client relationship modules, enterprise resource planning system and finishing with reporting and MIS modules. Now in the banking sector we can see solutions from the leading providers of IT technology for the banking incl. iFlex, MYSIS, Fiserv, Temenos.

References

EBRD transition report 2004

EBRD transition report 2005

Bank Austria Creditanstalt publications incl.:

- a. Report Xplicit – Banking in South Eastern Europe, September 2005;
- b. Report Xplicit – Banking in Serbia and Montenegro, May 2005;
- c. Report Xplicit - Banking in CEE, April 2004;
- d. CEE Quarterly

Unicredit Group Publications incl.:

- a. Banking & Finance Monitor, May 2006;
- b. New Europe Banking Outlook, May 2006;

McKinsey Quarterly

National banks of the countries in focus - web sites

Foreign Banks Penetration in Albania, FYR Macedonia and Serbia

*Irena Mladenova*⁴⁴

Introduction

This study analyzes and presents a cross-country comparison of the banking systems of Albania, Macedonia and Serbia, with references to EU member states.

The banking sectors in the three countries envisaged in this study are at different levels of development, although there could be identified some similarities. The reforms started in late 1990s, somehow later than the reforms in most Eastern European countries. Like in most transition countries the reforms did not follow a straightforward path, and were interrupted by financial crises and political turmoil. The conflicts in former Yugoslavia further hampered the reforms in practically all economic and social fields, including the financial sector, and created impediments to the development of the whole region as well. The restructuring of the banking sectors has been delayed by various adverse developments, including war, political instability (Serbia and Montenegro), hyperinflation (Serbia) and pyramid schemes in the late 1990s (Macedonia and Albania). Only recently some macroeconomic stability has been reached in these countries.

The financial sector restructuring was undertaken within the overall economic and social reforms. The restructuring agenda, however, was followed with dubious persistence and did not lead to the desired results quickly. At the beginning, the financial sectors envisaged were characterized by prolonged maintenance of the state ownership and poor governance, lax regulations on licensing new private banks and connected lending, lack of lending expertise, inadequate banking supervision and a poor institutional and legal environment.

Main focus of the reforms agenda in most countries was the restructuring of the bad debts the state-owned banks had acquired, separating the vicious circle and link-

⁴⁴ The author thanks Valentin Maximov for his dedicated research assistance

ages with the state-owned companies, and putting the banking sector on a market-principle base. The logical way to do that was to initiate privatization of the banks.

The privatization of the banking sector has advanced during the last years although at an unequal pace among the three countries envisaged. The privatization process was characterized by opening up to foreign ownership, which has gradually increased, as domestic capital was scarce and foreign capital was seen as a key solution to this and other structural problems. Privatization and opening to foreign capital started slowly as comparison to other SEE and CEE countries. Key role in this process played not only private foreign banks but also institutions like the European Bank for Reconstruction and Development.

The restructuring of the banking systems in the countries envisaged was characterized by restructuring the bad debt of state-owned banks and the withdrawal of the state from the banking sector. This was aimed to deal with the structural problems of the banking sectors in particular (and economies in general), including bad management and interrelationship of banks and enterprises, poor capitalization, low productivity, low banking services penetration, etc. In this regard, two dimensions of ownership structure should be discerned – private versus state-ownership, and domestic versus foreign ownership.

Albania

Since 1998, Albania registered considerable progress in the restructuring and modernization of the banking sector as a result of the legal and regulatory reforms⁴⁵. The banking sector dominates the financial system in Albania. Still, the banking sector remains underdeveloped, and the economy is largely a cash economy. Only 10% of people have bank accounts or any kind of a promissory paper from a bank.

According to the Economist Intelligence Unit, “the inadequacy of Albania’s financial sector has been an important factor inhibiting the development of the economy. Most transactions are carried out in cash, and banking services remain undeveloped; there are few cash dispensers, and payment by credit

⁴⁵ Among which the most important are: Law on the Bank of Albania (23.12.1997), with which the Bank of Albania became independent, and exercises the banking supervisory functions; Law on Banks in the Republic of Albania (02.07.1998); deposit insurance scheme was introduced in 2004

card is relatively rare.” The banking system is highly liquid, with liquid assets at a high 75 percent of total assets, mainly because of a lack of lending opportunities and relatively high and safe returns on government securities. Besides, the Albanian banking system has much of its assets and loans denominated in foreign currency (principally Euro and U.S. Dollar).

Privatization was initiated in late 1990s. Lack of consistent and straightforward reforms led to a severe financial crisis in 1997, when by the end of 1996 12 out of 16 existing pyramid schemes⁴⁶ collapsed. The consequence was a severe economic, social and political crisis, which was accompanied by social unrest, and (partly violent) mass protest and riots. Political and economic stabilization was restored after an intervention of UN-led troops, and a process of dynamic growth started. Privatization was given a major boost after 2002.

The total number of banks operating in Albania composed of 16, as of end of 2004, compared to 15 in 2003. The increase in the number was due to the completion of the final license of a new bank – Popular Bank – which was founded solely on domestic capital and started operation in February 2004. On December 30, 2005 the Central Bank of Albania declared that it has issued its final banking license to Union Bank, which is the country’s third private bank. Thus, the number of banks operating in Albania increased to 17.

By the end of 2004 the banking system consisted of 88 branches and 100 agencies (compared to 67 branches and 94 agencies in 2003). The expansion of the network envisaged both existing locations (where banks were already operating), as well as in new regions, thus improving the bank presence in the country. This development corresponded to the development of the banking system (in terms of increasing loan portfolios, larger amount of total assets, as well as personnel increases, which was 26 percent higher compared to 2003). In 2004, total assets for the entire banking system were increased to 52.8 Billion ALL, or 14.1 percent or about 18.5 Billion ALL more than in 2003.

1. Ownership structure as regards level of privatization

The capital structure of the banking system reflects the progress of the privatiza-

⁴⁶ More than 50 percent of Albania’s total GDP of 1996 (i.e. around USD 12 bln) were invested in highly speculative pyramid schemes.

tion process. The privatization was finalized in 2004 with the sale of the shares of the last entirely state-owned bank – the Savings Bank, which accounted for 80 percent of all deposits – to the Raiffeisen Zentralbank Oesterreich AG Group. The second largest bank – the National Commercial Bank – was privatized four years ago, in 2000, by a Turkish bank (SFID) and IFC.

At present all 17 operating banks in Albania are privately owned. The domestic government capital accounted for 6 percent in 2004, which is a substantial decline as compared to 32.1 percent in 2003.

2. Ownership structure as regards the share of foreign vs. domestic capital

The banking sector structure as regards foreign vs. domestic ownership is representative for the goals and progress of the privatization process. Out of the 17 operating banks, there are two whose capital is domestic – the Popular Bank, the Credins Bank – which both started operations in 2003.

Table 1: *Financial sector in Albania – structure (2000 – 2004)*

Entities	2000	2001	2002	2003	2004
Banks and branches of foreign banks	13	13	14	15	16
Non-bank financial institutions	2	4	5	7	7
Foreign exchange bureaus	19	38	58	58	54
Savings and credit associations	-	-	113	131	130
Unions of savings and credit associations	-	-	2	2	2

Source: *Bank of Albania*

Foreign capital dominates the group of the largest banks (G3), representing 100 percent, while in the medium-sized (G2) and small banks (G1) foreign capital accounts for over 50 percent. The majority of foreign entered Albania in the aftermath of the 1997 collapse of pyramid investment schemes that led to the fall of the government.

According to the Bank of Albania data, the banking system is characterized by 94.1 percent foreign equity, 3 percent government equity, and 2.9 percent private domestic equity. The dominance is even higher if we take into consideration the direct and indirect control of total assets. As a result, foreign shareholders have direct control on 97.1 percent of total assets of the entire banking system.

Besides, the government planned to sell its 40 percent stake in two small banks – the Italian-Albanian Bank and the United Albanian Bank. During early December 2005, the government sold its shares in the Italian-Albanian Bank, the last bank under partial public ownership in Albania.

Former Yugoslavia

The former Yugoslavia, which included Macedonia and Serbia, transformed its banking system in mid-1960 into a two-tier system, separating the commercial banks from the central bank. Until the reforms in the beginning of 1990s, the Yugoslav banking system was functioning in a quasi-market environment. Bank management had a certain degree of autonomy in managing business decisions and business policy, however, they were characterized by all the problems other Eastern European countries faced due to the state-ownership – low profitability and a lack of business efficiency. After 1989 formerly state-owned banks were transformed into joint-stock companies, and at the same time a large number of private banks appeared.

The successor-countries of former Yugoslavia inherited similar problems and had to address common issues in order to improve the efficiency of the banking system and thus to ensure development and growth of their economies. They approached the issues differently, and at different speed, which led to different results and successes.

Macedonia

In 1991, Macedonia gained its independence peacefully by referendum. At that time the country was the least developed of all Yugoslav republics. Macedonia engaged in economic and social reforms, which were hampered till 1996 by the UN embargo on Yugoslavia (the country's largest market), a Greek economic embargo over the constitutional name, and in 2001 by the ethnic Albanian insurgency.

The country's banking system is two-tier. In 1992, the National Bank of Macedonia was created to become the Central Bank with the right to issue currency, conduct monetary policies, and regulate the banking sector of the country.

The reforms of the banking system in Macedonia started at the beginning of 1995, when the Bank Rehabilitation Agency was established. As part of the re-

structuring procedures, the largest banks were audited. The Bank Rehabilitation Agency undertook the bank loans of the largest Macedonian Bank – Stopanska Banka – and in a number of cases converted them into equity in the indebted enterprises. This also resulted in constituting a substantial portfolio of stocks in a number of Macedonian enterprises, which were also available for sale through the Macedonian Privatization Agency.

The banking system is still weak and suffers from a legacy of bad loans. Although, the reforms have advanced during the past several years. According to the European Bank for Reconstruction and Development, the banking sector supervision standards are well advanced.

The banking system comprises two segments: banks and savings houses. As of March 2005, there were 21 banks and 15 savings houses operating in the country. However, banks represent the major segment, accounting for 98.7 percent of the total assets. Despite the steady progress in the restructuring, the banking sector remains highly concentrated and is still not competitive enough, according to the European Bank for Restructuring and Development. The three largest banks hold about three-quarters of total deposits in the banking sector in 2003.

1. Ownership structure as regards level of privatization

Macedonia has advanced steadily in the banking sector reform, and especially in the area of privatization. Private capital dominates the ownership structure of the banking system. As of March 2005 the government operates only one state-owned bank, and the degree of privatization is more than 90 percent, or 95.6 percent if the entirely state-owned Macedonian Bank for Development Promotion is exempted from the analysis⁴⁷. The Macedonian Bank for Development Promotion was established to conduct special activities for development promotion through financing small- and medium-sized enterprises and supporting exports solely through other domestic banks, in accordance with the Law on Establishing Macedonian Bank for Development Promotion (“Official Gazette of the Republic of Macedonia” no. 24/98 and 6/2000)

⁴⁷ The degree of privatization is lower in the group of medium-sized banks, estimated at 80.1 percent. The groups of the small-sized and the large banks are at approximately the same level of privatization – 95.7 and 96.4 respectively (Report on Banking Supervision and Banking System of the Republic of Macedonia in 2004, National Bank of the Republic of Macedonia, May 2005)

2. Ownership structure as regards the share of foreign vs. domestic capital

Macedonia has opened up its banking sector to foreign investments through direct sale or licensing of new entities. By the end of 2004 foreign capital is present in 15 banks out of all 21 banks operating in Macedonia.

8 banks, including two of the three largest, are majority foreign-owned, representing 47.6 percent of the total capital and 47.3 percent of the total assets of the banking system. Four of these eight banks are subsidiaries of foreign banks:

Stopanska Banka a.d. Skopje (subsidiary of the National Bank of Greece - Greece),

Tutunska Banka a.d. Skopje (subsidiary of Nova Ljubljanska Banka d.d. Ljubljana - Slovenia,

Alpha Bank a.d. Skopje (subsidiary of Alpha Bank Athens - Greece), and
T.C. Ziraat Bankasi Skopje subsidiary (subsidiary of T.C. Ziraat Bankasi - Turkey).

Banks owned by domestic and private shareholders have approximately the same share in the total capital as the banks owned by foreign shareholders.

In terms of grouping according to the size of the banks, foreign capital has the largest share in the large banks group and accounts for 56.9 percent. In the medium-sized banks group this share is 34.5 percent, while in the small-sized banks it is 48.8 percent.

Table : Structural share of banks according to the type of ownership⁴⁸

Type of ownership	Number of banks		Share in the capital at the level of the banking system		Share in the assets at the level of the banking system	
	Dec 31 2003	Dec 31 2004	Dec 31 2003	Dec 31 2004	Dec 31 2003	Dec 31 2004
Banks owned by domestic private shareholders	12	12	46.6%	47.5%	51.3%	50.8%
Banks owned by the state	1	1	4.8%	4.9%	1.8%	1.9%
Banks owned by foreign shareholders	8	8	48.6%	47.6%	46.9%	47.3%
Total	21	21	100%	100%	100%	100%

Source: National Bank of the Republic of Macedonia

⁴⁸ The type of ownership is determined according to the dominant ownership of shares (over 50%) by domestic legal entities, government or foreign entities.

Serbia

The beginning of the transformation in Serbia in 1990s was marked by nearly a decade of sanctions, wars and decline. The inherited uncollected claims and problems were addressed only with the reform of the banking system which was launched in May 2001 when the Bank Restructuring Strategy was adopted. At the first stage, banks were classified into four groups on the basis of a detailed financial analysis which identified the actual status of bank assets: 1) good banks, 2) solvent banks that have been allowed a period of recapitalization, 3) insolvent banks of strategic importance, and 4) insolvent banks without strategic importance. After deciding that no option for financial rehabilitation was viable, four state-owned banks (Beogradska banka, Beobanka, Investbanka, and Jugobanka) and 19 smaller banks were liquidated; nearly 66 percent of the balance sum of the overall banking system was concentrated in those banks.

The first step of the restructuring and privatization efforts was the establishment of the Agency for Deposit Insurance, Rehabilitation, Bankruptcy and Liquidation of Banks in 2001. At the end of 2002, the Bank Privatization Strategy was adopted, outlining the privatization method, competent institutions and the dynamics of the process. A total of 25 banks were put into liquidation, among them four of the largest banks holding 57% of aggregate bank assets. Privatization was initiated, and has been relatively slow during the first years..

The banking system has advanced in the process of restructuring and privatization. At present, banks in Serbia are founded as joint-stock companies, and are of general and universal nature. They conduct their business independently, with a view to generating profit in line with the principles of solvency, profitability and continually maintained liquidity. The supervisory functions are conducted by the central bank – the National Bank of Serbia.

Table: *Number of banks operating in Serbia (2002-March 2006)*

	Dec 31 2002	Dec 31 2003	Dec 31 2004	Dec 31 2005	March 31 2006
Number of banks	50	47	43	40	39

Source: *National Bank of Serbia*

The number of banks operating in Serbia has steadily decreased over the period as a result of the restructuring measures (including liquidation and/or merger of banks). The banks licensed by the National Bank of Serbia as of March 2004 are listed in Attachment).

1. Ownership structure as regards level of privatization

The privatization of the banking system is still under way, although well advanced for the five years after the initiation of the process. Out of the total of 39 banks currently operating in Serbia, 11 are in majority ownership of the Republic of Serbia. Three banks are under way of privatization procedures: Vojvodanska banka, Panonska banka and Credy banka. 71.8 percent of the banking system is in private hands.

2. Ownership structure as regards the share of foreign vs. domestic capital

The entry of foreign banks has progressed steadily in line with the privatization. Out of all banks, 19 are in majority ownership of foreign stakeholders as of March 2006 (representing 47.7 percent of all banks), compared to 12 as of end of 2004 (representing 24 percent). Out of the domestically owned banks 9 are in majority ownership of domestic private capital (physical and legal entities).

Table : *Ownership structure of banks operating in Serbia*

	2004	2006*
Foreign capital (incl. banks and other entities)	12	19
Domestic private capital	15	9
Socially-owned capital	8	
State owned capital	4	8
In process of privatization	11	3
Total	50	39

* as of March 2006

Source: *National Bank of Serbia*

Conclusions

The reforms of the banking systems in the three countries envisaged in this study have progressed steadily, although a lot is yet to be done.

State ownership has been reduced to minimal levels in Albania and Macedonia. Albania practically finalized the privatization process in 2004 with the sale of the Savings Bank to Raiffeisen Zentralbank Oesterreich AG Group. The situation is practically the same in Macedonia, where the government operates only one state-owned bank - Macedonian Bank for Development Promotion – which was created on special purpose to support the SME sector in the country. Serbia started the reforms later than the other countries of the Western Balkans, and is lagging behind in the advancing with the privatization. As of March 2006, 28.2 percent of the banking system is state-owned, however the country is proceeding with the privatization process.

Changes in the structure and ownership and the clean-up of the banks' balance sheets have kept total banking sector **assets** rather stagnant in the region. However, in all three countries banking sectors are dominating the financial sectors. Financial penetration is low, compared to other CEE countries.

All three countries opened their banking systems to foreign capital at early stages of reforms. Foreign capital entered mainly through privatization, although there are a number of green-field investments as well. Like in the rest of the transition economies in Central and Eastern Europe, foreign capital originates primarily from the neighboring and closely situated developed countries – Italy, Austria, Germany, Greece, etc. Foreign banks dominate in all three countries.

Attachment : List of banks operating in Albania

No.	Name of the bank	Year of opening
1	National Commercial Bank	1992
2	Savings Bank	1992
3	Italian-Albanian Bank	1993
4	United Bank of Albania	1994
5	Dardania Bank	1994
6	Tirana Bank	1996
7	National Bank of Greece	1996
8	International Commercial Bank	1997
9	Alpha Bank	1998
10	American Bank of Albania	1998
11	ProCredit Bank	1999
12	First Investment Bank	1999
13	Commercial Bank of Greece	1999
14	Credit Bank of Albania	2003
15	Credins Bank	2003
16	Popular bank	2004
17	Union Bank	2005

Source: *An Investor's Guide to Albania, 2005*

Attachment : List of banks operating in Macedonia

№	Name of the bank
1	Alpha bank a.d. - Skopje
2	UNI bank a.d. - Skopje
3	Eurostandard banka a.d. - Skopje
4	Internacionalna privatna banka a.d. - Skopje
5	Investbanka a.d. - Skopje
6	Izvozna I kreditna banka a.d. - Skopje
7	Komercijalna banka a.d. - Skopje
8	Komercijalno investiciona banka a.d. - Kumanovo
9	Ohridska banka a.d. - Ohrid
10	Postenska banka a.d. - Skopje
11	ProKredit banka a.d. - Skopje
12	Sileks banka a.d. - Skopje
13	Stopanska banka a.d. - Bitola
14	Stopanska banka a.d. - Skopje
15	Teteks Kreditna banka a.d. - Skopje
16	Tetovska banka a.d. - Tetovo
17	NLB Tutunska banka a.d. - Skopje
18	Makedonska banka a.d. - Skopje
19	Macedonian Bank for Development Promotion a.d. - Skopje
20	Bank Austria Creditanstalt AG Representative Office - Skopje

Source: *National Bank of Macedonia*

Attachment : List of banks operating in Serbia

№	Name of the bank
1	AIK banka a.d. Nis
2	A banka a.d. Beograd
3	Alpha Bank A.E. Beogradska afilijacija, Beograd
4	Banka Intesa a.d. Beograd
5	Continental banka a.d. Novi Sad NLB Grup
6	Credy banka a.d. Kragujevac
7	EFG Eurobank a.d. Beograd
8	ERSTE Bank a.d. Novi Sad
9	Findomestic banka a.d. Beograd
10	HVB banka Srbija I Crna Gora a.d. Beograd
11	Hypo-Alpe-Adria Bank a.d. Beograd
12	Jubanksa a.d. Beograd
13	JUBMES banka a.d. Beograd
14	Jugobanka Jugbanka a.d. Kosovska Mitrovica
15	Komercijalna banka a.d. Beograd
16	Kosovsko-Metohijska banka a.d. Zvecan
17	Kulska banka a.d. Novi Sad
18	Laiki Bank a.d. Beograd
19	LHB banka a.d. Nis
20	Meridian bank - Credit Agricole group a.d. Novi Sad
21	Metals banka a.d. Novi Sad
22	Nacionalna stedionica-banka a.d. Beograd
23	National Bank of Greece S.A. Filijala Beograd
24	Niska banka a.d. Nis
25	Panonska banka a.d. Novi Sad
26	Pireus Atlas banka a.d. Beograd
27	PB Agrobanka a.d. Beograd
28	Postanska stedionica a.d. Beograd
29	Privredna banka a.d. Pancevo
30	Privredna banka Beograd a.d. Beograd
31	ProCredit banka a.d. Beograd
32	Raiffeisenbank a.d. Beograd
33	Societe Generale Yugoslav Bank a.d. Beograd
34	Srpska banka a.d. Beograd
35	Univerzal banka a.d. Beograd
36	Vojvodanska banka a.d. Beograd
37	Volksbank a.d. Beograd
38	Zepter banka a.d. Beograd
39	Cacanska banka a.d. Cacak

Source: *National Bank of Serbia*

Foreign Banks Penetration in Bulgaria, Romania and Croatia

*Ivanka Petkova*⁴⁹

Introduction

Due to a growing trend towards globalization and financial integration, banking sectors are experiencing important transformations. A rapid increase in the degree of foreign bank participation is one of their basic features. Foreign participation in the banking sectors of South East European countries counterparts the trend of rapidly increasing inflows into the financial sectors of emerging market economies since mid 1990s. In their expansion strategies banks have been accompanied also by securities and investment firms. Nevertheless, banks account for the majority of financial sector foreign direct investment.

There are several positive effects expected by host countries on foreign entry into the banking sectors of transition economies. The increase of quality of assets, transfer of better management practices, upgrading of efficiency coefficients, widening of the clients' base, are some of them. The impact on lending by domestic banks is also associated with foreign bank entry. There are insufficient studies that capture both the direct and the indirect effects for host countries. It is difficult to isolate the impact of foreign bank penetration on domestic lending and access to credit from macroeconomic and technological changes, especially given that data is usually available for only short periods.

This paper presents the findings and conclusions on restructuring, rehabilitation, consolidation and foreign bank entry in Bulgaria, Croatia and Romania. In the three observed countries foreign banks now account for a major share of total banking assets. The analysis concentrates on the developments in the last decade. References have been made to countries' experience in Central Europe, or to EU countries. The paper is structured in cross countries comparisons and conclusions.

⁴⁹ The author thanks Tsvetelina Maximova for her dedicated research assistance.

Cross country comparisons

Bulgaria

Bulgaria was one of the countries, which managed to start practical experience in building (or imitate) commercial banks during the central planning period of the economy. With all the natural limitations the system put at that time, in 1980 Mineralbank, a bank to support small and medium enterprises, has been created to operate on commercial basis. It was the second bank (after the Foreign Trade Bank) possessing the opportunity to act on the international financial markets. In mid 80-ies (before the political changes) there were 12 commercial banks set up on a sectoral basis to the respective ministries. These institutional experience has not been effectively used at the beginning of the political and economic transformation to a market economy.

The creation of the Bank Consolidation Company in 1991 did not help substantially in transforming the Bulgarian banking sector, being rather a passive observer of the situation. In addition to the 42 branches of the central bank (the Bulgarian National Bank), several licenses for the operation of new commercial banks have been issued. Many of these banks intensively granted credits to their owners. In mid-90-ies the economy was overbanked by 81 banks most of them (both private and state-owned) undercapitalized and facing a big bad-debt burden. They were acting in an environment of soft budget constraints of the corporate sector, slow and unclear structural reforms of the economy and political uncertainty. The government attempts to securitize the non-performing loans⁵⁰ was not sufficient to overcome the problems.

In 1996 Bulgaria faced a severe financial and banking crises and in July 1997 a currency board arrangement was introduced. The qualitative change the currency board arrangement created, is the very narrow maneuvering room for moral hazard by banks and for soft budget constraints at state-owned enterprises, the tight fiscal policy resulted in less a of 1% GDP budget deficits.

The introduction of the currency board arrangement helped the banking system to recover and consolidate. By the end of 1997 the number of bank fell from 81 to 34.

The Bulgarian National Bank is arranging the banks into three groups for statistical purposes based on the amount of their assets. The first group always con-

⁵⁰ By issuing long-term government bonds, denominated in foreign currency (so called ZUNK bonds)

sists of 10 banks, the second group comprises all the remaining banks, and the third group comprises the branches of foreign banks in Bulgaria (Attachment 1). This grouping does not entail any rating element, and should not be interpreted as rating of their financial position. The content of the groups can change as of each particular period (Attachment 2). As of 1 March, 2006 the first group had a share of 74,89% , the second group 22% and the third group 3,119 % in total assets of the banking system (Attachment 3). The number of banks remained unchanged and in May 2006 there are 28 commercial banks with an international banking license and 5 branches of foreign banks operating on the market.

Foreign banks did not show particular interest in the Bulgarian banking sector almost until mid 90-ies. Financial markets kept memory on declaring the moratorium on foreign debt payments by the government in 1990 and the associated consequences for private creditors to Mineralbank. Foreign banks started to open branches and subsidiaries in 1994/95. They played a crucial role in privatization of state-owned banks after the crisis in 1996/97 and in consolidating the sector. In 2001 in terms of total assets the banking sector was dominated by foreign banks with a market share of 70%. After the sale of Bank Biochim to Bank Austria Creditanstalt in 2002 and the sale of the savings bank DSK to the Hungarian OTP Group the share of foreign banks increased to 82,5% by the end of 2004.

Foreign banks generated considerable impulses to the second wave of consolidation of the banking sector. Bank Austria Creditanstalt initiated the process by acquiring Hebrobank in late 2004 getting a market share of more than 10%. In early 2005 the Greek Pireaus Bank bought almost 100% of the capital of Eurobank. In the second half of 2005 the operations of the United Bulgarian Bank have been merged with the activities of the local branch of the National Bank of Greece. Currently, the level of concentration of the banking sector is relatively modest, with the five biggest banks having a market share of 54 %: DSK Bank (15,18%) Bulbank (11,01%), United Bulgarian Bank (10,39%),Raiffeisenbank (Bulgaria) - (9,28%), HVB Bank Biochim (8,14%)⁵¹. For the first time Bulbank is ranked not on the first place. Not only moved DSK Bank to the first place, but the market share distance between them increased as well. Measured as a percentage in total assets the market share of Bulbank in 2004 was 14,5% and of DSK Bank 13,1%.⁵²

The market of banking services in Bulgaria is currently dominated by foreign banks.

⁵¹ See Attachment 4.

⁵² Bulgarian National Bank

Ownership and Market Share of the Largest Bulgarian Banks (March , 2006)

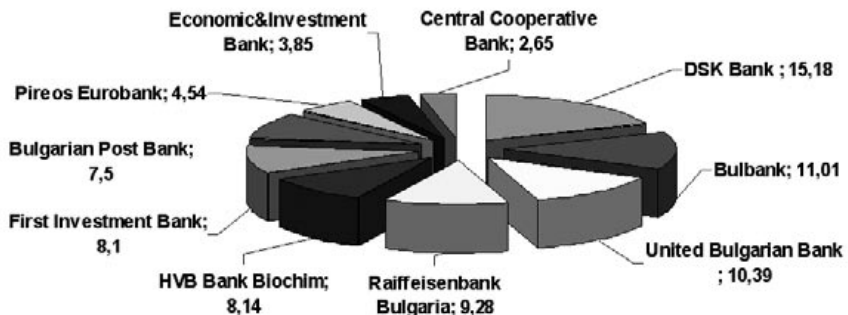
Bank Name	Main Shareholders	Total Assets (in BGN)	Market share (in %)
DSK Bank	OTP (100%)	4 751 229	15,18%
Bulbank	UniCredito Italiano SA (85,2%)	3 444 665	11,01%
United Bulgarian Bank	National Bank of Greece (99,9%)	3 252 022	10,39%
Raiffeisenbank Bulgaria	Raiffeisen International Bank-Holding AG (100%)	2 902 991	9,28%
HVB Bank Biochim (including Hebros Bank)	Bank Austria Creditanstalt (99,6%)	2 548 366	8,14%
First Investment Bank	Ivaylo Mutafchiev (31,8%), Tzeko Minev (31,8%), EBRD (20%)	2 535 616	8,10%
Bulgarian Post Bank	Aliko/CEN Balkan Holdings AG (91,7%)	2 348 413	7,50%
Pireos Eurobank	Piraeus Bank Group (99,66%)	1 419 802	4,54%
Economic & Investment Bank	Katex AD (21,1%)	1 205 080	3,85%
Central Cooperative Bank	CCB Group Asset Management EAD (67,38%); Chimimport JSC (3,05%); Armeets Insurance Company (5%); Chiminvest, Vaduz (4,86%); Hansapank Clients (4,65%)	828 887	2,65%

Source: BNB, web-sites of respective banks

As of the market share, the first three places are occupied by foreign owned banks (a Hungarian, Italian and a Greek one). All the big five banks have also foreign owners.

Market Share of Individual Banks (in percent)

In their aims at acquiring a market share, banks are relying on the clients' trust.



2005: about 45% of the respondents have designated this bank as the bank they trust in most. This ranking rather rely on the long-term history of the bank as the only saving bank, which is well known among a broad scope of clients, as the bank which remained stable during the financial and political crisis in 1996/1997, then on the positive trust-building changes of the bank after being privatized by the Hungarian OTP. The distance the next bank is ranged however is remarkable: OBB has been chosen by 20% of the respondents to trust in. The list is followed by Bulbank (9%) and Postbank (8%).

The impact of foreign bank entry on the domestic banking market can be measured by the increase of the number of clients. According to a survey, by the end of 2005 bank services have been used by 60% of the population in Serbia, 45% of the population in Romania, 39% of the population in Bulgaria.⁵⁴ In Bulgaria 65% of the bank clients are between 20 and 50 years old. The demographic characteristics play a substantial role in the results of the survey.

Using of debit cards rate (25 % in 2005) is still low, but becomes more intense among bank clients in Bulgaria. Credit cards are used by 4% (in 2005) of the population only.

Foreign banks contributed to widening the array of products offered to investors in the Bulgarian leva market. For example, end of September, 2006 the European Investment Bank launched its first floating rate note in Bulgarian leva (BGN)⁵⁵. This issue was also a proof to EIB's commitment to responding to investor needs. The transaction was jointly arranged by Raiffeisen Zentralbank Austria AG (RZB) and Raiffeisenbank (Bulgaria) EAD. This was the first ever international Floating Rate Note denominated in Bulgarian Leva for the EIB. The RZB Group was the sole-Lead-manager of this pioneering deal for the issuer. This Floating Rate Note issue shows that the RZB subsidiary in Bulgaria has the capacity to serve its partners in the capital markets.

Croatia

During the period being part of Yugoslavia, Croatia practiced the two-tier banking

⁵³ Gogova, A. , GfK Bulgaria, in: Capital Weekly, 22-28 April, 2006.

⁵⁴ Ibid.

⁵⁵ The issue was launched under EIB's Euro Medium Term Note programme and has a volume of BGN 150 million (approximately EUR 77 million) with an issue price of 100.00% The bond bears a coupon linked to the BGN 3M SOFIBOR and matures on 20 October 2009.

system since the 60-ies. The banking sector was based on the principals of market socialism and workers' self-management of enterprises. One can speculate, whether this experience could had brought more positive or negative impacts on the real market transformation of the banking system of Croatia in view of the example of Slovenia. Unfortunately, this initial advantage of Croatia has been offset by the military conflict, which destroyed the banking infrastructure of the country.

Restructuring was approached to all banks and was organized in the frame of a rehabilitation program envisaging the issuance of big bonds and counterpart bonds. Thus, corporate governance structure has been neglected⁵⁶ and the problems of moral hazard and non-performing loans have been not sufficiently addressed. Accumulated these deficiencies urged the National Bank of Croatia to initiate another package of restructuring measures directed this time to selected banks.

The consolidation process in Croatia started in 1998/99 with 60 banks and developed gradually. In 2001 the number of banks fell to 43 and till 2004 declined to 37 banks due to bank mergers.⁵⁷ Regulatory amendments initiated saving banks to consolidate (from 26 in 2000) to four in 2004 and remained at this level.⁵⁸

The banking system is structured in two basic groups – banks and saving banks. All banks are arranged into licensed banks, licensed Housing Savings Banks, the Croatian bank for Restructuring and Development (Hrvatska Banka za Obnovu I Razvitak) and the Representative Offices of Foreign Banks (Attachment 5).⁵⁹

Consolidation of the Croatia's Banking Sector (1995- 2006)

⁵⁶ Banking in South Eastern Europe on the Move. Xplicit, Bank Austria Creditanstalt, September, 2005.

⁵⁷ National Bank of Croatia

⁵⁸ As of 22 May, 2006, according to the National Bank of Croatia.

⁵⁹ The Croatian National Bank publishes also the list of Banks and Savings Banks Under Bankruptcy Proceedings, Banks and Savings Banks Under Liquidation Proceedings and Banks and Savings Banks Whose License Was Revoked, But Have Not Initiated Liquidation Proceedings

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2006
Number of Banks	54	58	60	60	53	43	43	46	41	37	34
Number of Savings Banks	21	22	33	36	34	26	18	4	4	4	4

Source: National Bank of Croatia

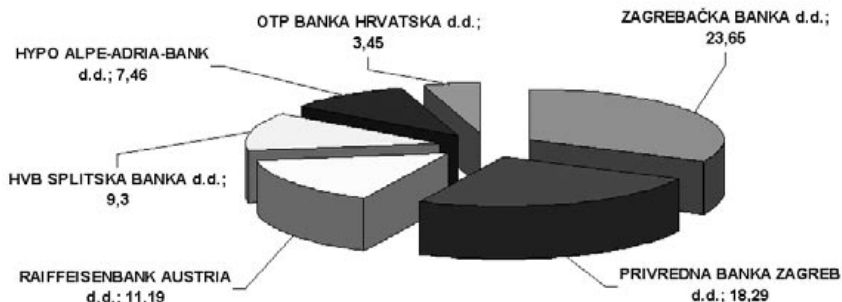
Five banks together take currently a share, which accounts 70% of total bank assets. These are Zagrebacka Banka (23,65%), Privredna Banka Zagreb (18,29%), Raiffeisenbank Austria (11,19%), HVB Splitska Banka (9,3%), hypo-Alpe-Adria-Bank (7,46%).

Share of individual banks in total bank assets (31 March, 2006)

Banks	Total Assets (in thousand kuna)	Share in Total Assets (in %)
Total Assets	262 748 447	100,00
ZAGREBAČKA BANKA d.d.	62 134 075	23,65
PRIVREDNA BANKA ZAGREB d.d.	48 058 123	18,29
RAIFFEISENBANK AUSTRIA d.d.	29 394 764	11,19
HVB SPLITSKA BANKA d.d.	24 424 960	9,30
HYPO ALPE-ADRIA-BANK d.d.	19 611 723	7,46
OTP BANKA HRVATSKA d.d.	9 075 409	3,45

Source: Croatian National Bank

Market Share of Individual Banks (in percent of total bank assets)



The interest of foreign banks in the Croatian banking sector has been shown in mid 90-ies, however due to military conflicts this investment interest could not be realized on a broader hand. In addition, at that time the Central Bank of Croatia together with the Bank Rehabilitation Agency started restructuring measures on individual banks (Splitska, Rijecka, Privredna). After the banking crises in 1998/1999 a boost to reforms in the banking sector was created by the more prospective relations with the EU. Insolvent banks have been closed, capitalization of banks has been reached by privatization deals. Typical feature of foreign investments inflows in the Croatian banking sector is, that at the beginning foreign banks entered the market by green field investments. End of 1999 and in 2000 foreign banks participated in bank privatization. Banca Commerciale Italiana started the process by acquiring 66% of the capital of Privredna Banka. Unicredito Italiano bought 51% of the capital of Splitska Banka and Bayerische Landesbank became owner of 60% of Rijecka Banka. Ownership structure has been changed as a result rather of policy decisions taken by foreign banks' headquarters or of structural changes of foreign banks. In April 2002, Splitska Banka became a subsidiary of Bank Austria – Creditanstalt. In December 2004, the Hungarian Bank OTP bought a 95,6% stake in Nova Banka (ranked seventh in total assets). In 2004 the share of foreign banks in total assets reached 91,3%. There are two banks– Hrvatska Postanska Banka and Croatia Banka - owned by the state.

Currently, the structure of the banking sector is a mixture of domestic and foreign (mainly Austrian) banks as of end of March 2006: Zagrebacka Banka (with a share of 23,65% of total banking assets), Privredna Banka Zagreb (18,29%), Erste&Steiermärkische Bank (11,71%), Raiffeisenbank (11,19%), HVB Splitska Banka - a subsidiary of Bank Austria-Creditanstalt (9,3%), and Hypo Alpe-Adria Bank (7,46%)⁶⁰.

The banking market is highly concentrated, however according to the share in total assets the three of the first four places (54,2%) occupy domestic banks. In terms of deposits held, the first four banks have a share of 61, 4%, symmetrical to their share in lending activities (61,7%).⁶¹

Privatization and restructuring of the banking sector have been completed. Mergers and acquisitions increased the level of market concentration. Banks are ringing for a market share, which will help avoid any mistreatment of dominant market position.

⁶⁰ See Attachment 8

⁶¹ Croatian National Bank

Romania

There were several developments in the Romanian banking sector, which marked a different path in restructuring and consolidating at the beginning of the 90-ies. First, compared to other transition countries in the region with clear EU perspective Romania was a latecomer in reforming the banking sector. The sector was characterized by undercapitalization, an extensive bad debt problem and a lack of market discipline on the part of banks (moral hazard).⁶² Second, the banking sector crisis followed lasted for a longer time in comparison to the same group of countries. During this period a lot of banks collapsed. Third, an investment fund sector crisis and a related crisis in the credit co-operative sector in 2000 were clear signals calling for deep reforms. Cleaning-up of the non-performing loans and restructuring of the two biggest state-owned banks (Bancorex and Banca Agricola) required a considerable amount of budget expenses. Next step was to close of insolvent banks (Bankcoop, Banca Albina) and privatize banks (Bank Post, BRD) and open the market to foreign banks entry.

Bank privatization with foreign participation was gradual and marked by foreign owner reaching about 50% of the capital of domestic banks at the beginning. The process started in 1999 with Société Générale, acquiring 51% of the Romanian Development Bank, and GE Capital and Banco Portugues do Investimento (BPI) buying 45% of Banc Post. The next stake (17%) of Post Bank has been sold in 2002 to the Greek EFC Eurobank Ergasias. Similar approach has been applied to the Romanian Commercial Bank (in 2004 the ownership structure involved 36,88 state ownership and 25% of the capital owned by the EBRD and IFC). After selling 68,11 % of the bank shares to Die Erste at the end of 2005, other shareholders remained: the five Financial Investment Companies (SIFs) - holding 30 percent of the bank, and the bank's employees, holding eight percent of the capital.⁶³

The share of foreign private capital in the banking sector increased from 20% (1998) to 69,3% (2004).

The significant structural changes in the banking sector since 2000 contributed to the high growth rates of the total bank assets (between 66% and 77%).

⁶² Banking in South Eastern Europe on the Move. Xplicit, Bank Austria Creditanstalt, September, 2005.

⁶³ Bucharest Dayli News, 21 December, 2005.

Total Assets of Romanian Banks (ROL Million)

Year	Assets	Growth Rate to the previous year (%)
2000	232 673 620	
2001	352 146 442	66%
2002	478 192 132	73,6%
2003	617 367 026	77,4%
2004	913 844 579	67,5%

Source: National Bank of Romania, Annual Report, 2004

The structural reforms also accelerated the consolidation process. As a result of closing, privatizing and the entry of foreign banks the share of state-owned banks declined from 84,3% (1995) to 6,8 (2004) and 3,2% in 2005⁶⁴. Excluding privatization deals only foreign banks play a considerable role both in consolidation of the sector⁶⁵ and in changing its ownership structure. Some cases show changing of ownership between foreign banks only (the acquisition of Robank by the Hungarian OTP from a Turkish bank).

Romanian Banks Ranked by Total Assets (as of October, 2005)

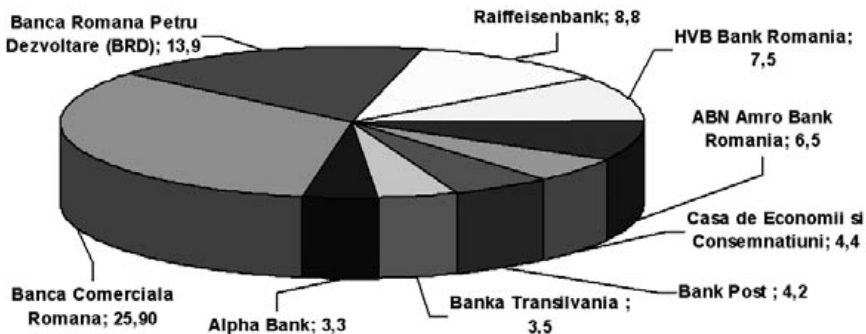
Bank	Main Shareholders	Market share in %
Banca Comerciala Romana (BCR)	Erste (61,88%), SIFs (30%), bank employees (8%)	25,9 %
Banca Romana Petru Dezvoltare (BRD)	Société Générale (58,3%), EBRD (5,0%)	13,9 %
Raiffeisenbank	Raiffeisengroup (99,5%)	8,8 %
HVB Bank Romania	Bank Austria Creditanstalt (99,7%)	7,5%
ABN Amro Bank Romania	ABN Amro (100%)	6,5%
Casa de Economii si Consemnatiuni	Ministry of Finance	4,4%
Bank Post	EFG Eurobank (55,3%), GE Capital (7,5%), EBRD (7,3%), IFC (7,3%)	4,2 %
Banka Transilvania	EBRD (15%)	3,5%
Alpha Bank	Alpha bank Group (95,4%)	3,3%
Top 10 banks		82,9%

Source: National Bank of Romania, bank reports.

⁶⁴ Romanian National Bank

⁶⁵ About the consolidation process , see Attachment 7

Market Share of Individual Banks (in percent of total assets)



The five biggest banks have a market share of 62,6% in terms of total assets. In terms of asset value the biggest bank in Romania is Banca Comerciala Romana with a more than a quarter market share. This bank has a network of 325 branches and about 4,9 million clients.⁶⁶ The second biggest bank is the Romanian Development Bank – Groupe Société Générale (BRD) with a twice smaller market share.

The privatization process of the Romanian Savings Bank (CEC) will continue in a similar manner as the privatization of BCR. 69.9% of the CEC stocks will be sold to a strategic investor. This percentage includes those 6.9% of the stocks which are a part of the Proprietatea Fund. The Fund will receive the value of the stocks after the privatization process is completed.⁶⁷

Conclusions

First, during the last decade the structure of the banking sectors of the analyzed countries has been profoundly altered. Extraordinary quantitative changes since the beginning of the 90-ies made the structure of banking markets comparable to those in developed market economies and created the grounds for their qualitative transformation.

Second, the three observed countries went through a painful process of restructur-

⁶⁶ Bucharest Daily News, 21.December, 2006

⁶⁷ InvestRomania, Bucharest, April 13, 2006.

ing and consolidating the banking sectors, accompanied either by a longer (Romania) or a short lasting, but severe crisis (Bulgaria and Croatia). The crises have been followed by recovery and rehabilitation of the banking sector. Focusing rather on cleaning up of bank balance sheets during this process and avoiding to address the profound corporate governance reasons required at least two waves of programs (Bulgaria, Croatia) were necessary to apply in order to achieve results.

Third, there are two common features between the Bulgarian and Croatian banking sector. In both countries the foreign bank entry after the crisis was connected with the privatisation of domestic banks via the sale of the large majority of the banking sector to well-capitalised foreign banks. The other one is the credit expansion of foreign banks since 2001. Especially a rapid growth in consumer credit was induced.

Fourth, the restructuring process envisaged measures to close state-owned banks, to clean-up bad loans of banks, which created a big burden for the state budget (Romania), to securitize part of the bad debt burden, which also increased government expenses (Bulgaria).

Fifth, the three countries gradually accelerated bank privatization after the crisis in the sector (since 1997 Bulgaria, since 1998 Croatia and since 2000 Romania), simultaneously opening the market for foreign bank entry. The share of state-owned banks in the three countries is under 5 %.

Sixth, at the beginning most of the acquisitions of domestic by foreign banks were based on privatization deals.

Seventh, political actions have influenced the consolidation process in the three countries. The consolidation process in Croatia was based on bank mergers, in Bulgaria it was accelerated by banks mergers or acquisitions of foreign banks as a decision taken outside of the market of the host country (the acquisition of HVB Bank by UniCredit). A growing interest has been shown by foreign banks to take part in the process of consolidation by buying foreign owned domestic banks (Romania).

Eighth, the concentration rate measured by the market share of the five largest banks, is far from the Euroland average (39%)⁶⁸ and differentiates in the observed countries. More similar G5 rates show Bulgaria (54 %) and Romania

⁶⁸ Deutsche Bank Research, N 13, 28 June, 2004.

(59,8%). Quite higher is this rate in Croatia (74,14%).

Ninths, as to the indicator bank density (the number of banks per 100 000 inhabitants) Romania is the country with the highest score (6,03), followed by Bulgaria with 2,24 and Croatia with 1,29.

Tenth, Austrian, Greek and Italian investments dominate in the banking sectors of the three countries. The Raiffeisenbank, UniCredit and later OTP are presented in all the analyzed South East European countries. The entry of these banks creates the basis for the banking markets in the host countries to spread across geographical space and national boundaries.

Eleventh, among the three analyzed countries, the most aggressive policies in occupying market share in the host country has been followed in Bulgaria: measured in total assets, the first three (and even five) places are occupied by foreign owned banks. In Croatia the first three places take domestic banks. In Romania the first three places are occupied by banks with foreign participation.

Twelfth, basic institutional characteristics of the banking sectors are differentiating in the three countries. The three countries have a different number of branches per institution. Typical for these countries is that foreign banks decided to expand their branch networks in order to be closer to customers (UniCredit in Bulgaria).

References

- George R.G. Clarke, Robert Cull, and Maria Soledad Martinez Peria, Does Foreign Bank Penetration Reduce Access to Credit in Developing Countries? Evidence from Asking Borrowers, World Bank Policy Research Paper, Sept. 2001
- Van Lelyveld I. and Ralph de Haas , Foreign Bank Penetration and Private Sector Credit in Central and Eastern Europe, DNB Staff Reports, N 91, 2003.
- Luiz Fernando Rodrigues de Paula, The determinants of recent foreign bank penetration in Brazil, CEPAL Review N° 79 , April 2003, p. 159-176.
- Lensink, R. Foreign Banks and Economic Transition, Journal of Emerging Market Finance, 8 2004; vol. 3, p. 95 - 98.

Ilko Naaborg, Bert Scholtens, Jakob de Haan, Hanneke Bol, and Ralph de Haas How Important are Foreign Banks in the Financial Development of European Transition Countries? *Journal of Emerging Market Finance*, 8 2004; vol. 3: pp. 99 - 123.

Kraft, E. Foreign Banks in Croatia: Reasons for Entry, Performance and Impacts, *Journal of Emerging Market Finance*, 8 2004; vol. 3: pp. 153 - 174.

George R. G. Clarke, Robert Cull, and Maria Soledad Martinez Peria. Does Foreign Bank Penetration Reduce Access to Credit in Developing Countries? Evidence fro Asking Borrowers, The World Bank, February 2002.

The banking industry in the emerging market economies: competition, consolidation and systemic stability, BIS Papers, N 4, 2001, August.

Claessens, S, A Demirgüç-Kunt and H Huizinga . How does foreign entry affect domestic banking markets?, *Journal of Banking and Finance*, N 25, 2001, p. 891-911.

BIS Committee on the Global Financial System (CGFS). Foreign direct investment in the financial sector of emerging market economies, March, 2004.

Attachment 1

LIST OF BANKS AND BANK BRANCHES AS AT 31/03/2006

I Group	II Group	III Group
1.DSK Bank	1.DZI Bank	<u>Branches of foreign banks</u>
2.Bulbank	2.Central Cooperative Bank	1.ING Bank - Sofia Branch
3.United Bulgarian Bank	3.Hebrosbank	2.Alpha Bank - Sofia Branch
4.Raiffeisenbank (Bulgaria)	4.Allianz Bulgaria	3.Citibank - Sofia Branch
5.HVB Bank Biochim	5.Corporate Commercial Bank	4.T.C. Ziraat Bankasi - Sofia Branch
6.First Investment Bank	6.Procredit Bank	5.National Bank of Greece S.A. - Sofia Branch
7.Bulgarian Post Bank	7.Municipal Bank	
8.Piraeus Eurobank	8.Union Bank	
9.Economic and Investment Bank	9.Bulgarian-American Credit Bank	
10.Societe Generale Expressbank	10.BNP Paribas	
	11.International Asset Bank	
	12.Investbank	
	13.West-East Bank	
	14.Emporiki Bank - Bulgaria	
	15.Encouragement Bank	
	16.D Commerce Bank	
	17.Tokuda Bank	
	18.Private Entrepreneurial Bank	
	Texim	

Source: Bulgarian National Bank

Attachment 2

ASSETS OF THE BULGARIAN BANKING SECTOR

Bank	Assets (in BGN)
Internatioanal Asset Bank	303 833
Invest Bank	288 461
Municipal Bank	479 379
First Investment Bank	2 535 616
Raiffeisenbank (Bulgaria)	2 902 991
Bulgarian American Credit Bank	414 090
Poreos Eurobank	1 419 802
Unionbank	475 857
United Bulgarian Bank	3 252 022
Corporate Commercial Bank	675 684
ProCredit Bank (Bulgaria)	584 312
D Commerce Bank	91 990
Tokuda Bank	91 931
DSK Bank	4 751 229
Allianz Bulgaria Commercial Bank	702 489
Encouragement Bank	95 709
Bulbank	3 444 665
HVB Bank Biochim	2 548 366
Central Cooperative Bank	828 887
Hebros Bank	790 489
Economic and Investment Bank	1 205 080
Bulgarian Post Bank	2 348 413
ING Bnank N.V. – Sofia Branch	501 937
National Bankl of Greece – Sofia Branch	1 870
City Bank N>A> - Sofia Branch	254 030
T.C. Ziraat Banksi – Sofia Branch	39 527
Alpha Bank S.A. – Sofia Branch	263 628

Source: Bulgarian National Bank

Attachment 3

Asset Structure of the Bulgarian Banking Sector (March, 2006) (in BGN)

Banks	Total Assets	Share in total assets (in %)
Banking sector	34 012 676	
First Group	25 473 194	74,89
Second Group	7 479 490	21,99
Third Group	1 060 992	3,119

Source: Bulgarian National Bank

Attachment 4

BANKS IN BULGARIA RANGED BY ASSETS (in BGN)

Bank	Assets
DSK Bank	4 751 229
Bulbank	3 444 665
United Bulgarian Bank	3 252 022
Raiffeisenbank (Bulgaria)	2 902 991
HVB Bank Biochim	2 548 366
First Investment Bank	2 535 616
Bulgarian Post Bank	2 348 413
Poreos Eurobank	1 419 802
Economic and Investment Bank	1 205 080
Central Cooperative Bank	828 887
Hebros Bank	790 489
Allianz Bulgaria Commercial Bank	702 489
Corporate Commercial Bank	675 684
ProCredit Bank (Bulgaria)	584 312
ING Bank N.V. – Sofia Branch	501 937
Municipal Bank	479 379
Unionbank	475 857
Bulgarian American Credit Bank	414 090
International Asset Bank	303 833
Invest Bank	288 461
Alpha Bank S.A. – Sofia Branch	263 628
City Bank N>A> - Sofia Branch	254 030
Encouragement Bank	95 709
D Commerce Bank	91 990
Tokuda Bank	91 931
T.C. Ziraat Banki – Sofia Branch	39 527
National Bank of Greece – Sofia Branch	1 870

Source: Bulgarian National Bank

Attachment 5

Licensed Banks in Croatia (as of May 22, 2006)

1. BANKA BROAD d.d. Slavonski Brod	18. KARLOVAČKA BANKA d.d. Karlovac
2. BANKA KOVANICA d.d. Varaždin	19. KREDITNA BANKA ZAGREB d.d. Zagreb
3. BANKA SONIC d.d. Zagreb	20. KVARNER BANKA d.d. Rijeka
4. BANKA SPLITSKO-DALMATINSKA d.d. Split	21. MEĐIMURSKA BANKA d.d. Čakovec
5. CENTAR BANKA d.d. Zagreb	22. NAVA BANKA d.d. Zagreb
6. CREDO BANKA d.d. Split	23. OTP BANKA HRVATSKA d.d. Zadar
7. CROATIA BANKA d.d. Zagreb	24. PARTNER BANKA d.d. Zagreb
8. ERSTE & STEIERMÄRKISCHE BANK d.d. Rijeka	25. PODRAVSKA BANKA d.d. Koprivnica
9. GOSPODARSKO KREDITNA BANKA d.d. Zagreb	26. POŽEŠKA BANKA d.d. Požega
10. HRVATSKA BANKA ZA OBNOVU I RAZVITAK Zagreb	27. PRIMORSKA BANKA d.d. Rijeka
11. HRVATSKA NARODNA BANKA	28. PRIVREDNA BANKA ZAGREB d.d. Zagreb
12. HRVATSKA POŠTANSKA BANKA d.d. Zagreb	29. RAIFFEISENBANK AUSTRIA d.d. Zagreb
13. HVB SPLITSKA BANKA d.d. Split	30. SAMOBORSKA BANKA d.d. Samobor
14. HYPO ALPE-ADRIA-BANK d.d. Zagreb	31. SLATINSKA BANKA d.d. Slatina
15. IMEX BANKA d.d. Split	32. SLAVONSKA BANKA d.d. Osijek
16. ISTARSKA KREDITNA BANKA UMAG d.d. Umag	33. ŠTEDBANKA d.d. Zagreb
17. JADRANSKA BANKA d.d. Ljibenik	34. VABA d.d. BANKA Varaždin
	35. VOLKS BANK d.d. Zagreb
	36. ZAGREBAČKA BANKA d.d. Zagreb

Source: Croatian National Bank

Attachment 6

Banks in Romania

1. ABN-AMRO	22. BANCA C.R. FIRENZE ROMANIA S.A.
2. Alpha Bank Romania	23. GarantiBank International NV - Bucharest Branch -
3. Anglo-Romanian Bank Limited, Anglia Londra	24. HVB Bank Romania
4. BANC POST	25. HVB Banca pentru Locuinte
5. Banca Comerciala "CARPATICA"	26. ING Bank N.V., Amsterdam - Bucharest Branch -
6. Banca Comerciala Romana	27. Libra Bank
7. Banca de Export-Import a Romaniei EXIMBANK	28. Banca pentru Mica Industrie si Libera Initiativa
8. Banca di Roma	29. MINDBANK S.A
9. Banca Ion Tiriac	30. Nova Bank
10. Banca Italo Romena	31. OTP Bank România S.A.
11. Banca Romana pentru Dezvoltare (BRD)	32. Piraeus Bank Romania
12. Banca Romaneasca	33. Porsche Bank Romania
13. Banca Transilvania	34. ProCredit Bank
14. BLOM Bank Egypt - Bucharest Branch	35. Raiffeisen Bank
15. C.E.C. (Romanian Savings Bank)	36. Raiffeisen Banca pentru Locuinte
16. Citibank Romania	37. Romanian International Bank
17. Emporiki Bank – Romania (previous Commercial Bank of Greece)	38. ROMEXTERRA Bank
18. EGNATIA Bank	39. Sanpaolo Imi Bank Romania
19. EUROMBANK	40. UniCredit Romania S.A.
20. FINANSBANK (ROMANIA)	41. Volksbank Romania
21.	

CHAPTER III

LEGAL ASPECTS

Banking Law Perspective: Regulatory Challenges and Implications of the Basel Core Principles and Basel II

*Dimitar Totev*⁶⁹

Introduction

This part of the research project “Foreign Banks’ Penetration on Southeast Europe” (the “Project”) relates to the banking legislation of the researched countries: Albania, Bulgaria, Croatia, Macedonia, Romania and Serbia (“Researched Countries”). The paper presents a discussion on issues of banking law of the Researched Countries. The study relates mainly to the rules affecting the supervision of a bank authorised in a country other than any if the Researched Countries (a “foreign bank”) which carries on bank operations through an established presence in a Researched Country.

The latest developments in the international standards of bank supervision of cross-border banks notably the principles of effective banking supervision of the Basel Committee of Banking Supervision and the new Basel Capital Accord, as well as the EU banking directives enacted in 2006, manifest the major regulatory issues that need to be unified across jurisdictions: mutual recognition of foreign banks’ supervision (home country supervision principle); cooperation between supervisors in the oversight of banking groups of which a parent institution in one state owns a subsidiary in another; and the capital adequacy standards.

In the geographical area of the Researched Countries, bank regulation is entirely national, including in the two EU countries among the Researched countries

⁶⁹ The author thanks Radoslav Borov for his dedicated research assistance.

– Bulgaria and Romania. The EU banking legislation has been recently codified in the “Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast)” (the “Banking Directive”) and the “Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (the “Capital Adequacy Directive”).

The issues are discussed on the basis of the current legislation operating in the Researched Countries. The existing legislation in almost all of the Researched Countries is new and replaced the laws operating at the periods when the foreign banks’ penetration in the countries had begun and produced the current shape of the Researched Countries’ banking sectors. Therefore, the paper is oriented more towards future establishments of foreign banks’ operations in the Researched Countries rather than historical analysis of those countries’ legislation at the time when the process of foreign banks’ penetration started. Still, the discussion is relevant to the existing foreign banks’ operations there since some of the researched issues are not one-off rules taking effect at the entry, but such that continue to affect the cross-border banking business as the consolidated supervision principle and the capital adequacy standards.

In addition to the rules on the licensing of foreign bank’s establishments (applying to future entries of foreign banks’ establishments), the paper covers questions of the distribution of the on-going supervisory powers between the local supervisor (“host country supervisor”) and the supervisor in the country where the foreign bank which “branched” into the local market or started direct cross-border operations, or set up a presence in the form of a subsidiary was authorised (the supervisor of that country generally referred to as the “home country supervisor”). Therefore, the home – host supervisors’ issues are central to the present paper. A clear overview of the host – home relationship issues brought about by cross-border banks (both in the case of bank branching abroad or a banking group setting up subsidiaries) is provided by Borchgrevink and Moe in a paper released in 2004⁷⁰.

Going back to the Project’s title, the legal perspective presented in this paper does not specifically deal with any practical effects of the foreign banks’ pen-

⁷⁰ **Henrik Borchgrevink**, economist in the Financial Institutions Department, and **Thorvald Grung Moe**, senior economist in Norges Bank Financial Stability, “Management of financial crises in cross-border banks”,

etration in the Researched Countries. Rather, it is aimed at providing a general overview of the legal environment in which international banks operate locally. Focus was kept on legal issues that are presumed to have higher priority from the perspective of the internationally active banks carrying out operations in the Researched Countries.

1. International Standards And Rules

In the context of the increased role of the foreign banks in the Researched Countries' financial markets, the paper discusses the extent to which the countries' banking laws follow the internationally accepted principles of modern banking legislation. The widely accepted model rules on banking supervision are those developed by the Basel Committee of Banking Supervision (BCBS), entitled "The Core Principles of Effective Banking Supervision", as revised and reissued in October 2006 (the "Basel Core Principles"). The other set of prudential standards agreed on in the BCBS is the capital accord, initially published as "International Convergence of Capital Measurement and Capital Standards" of 1998 (the "Basel Capital Accord"), and now replaced by "International Convergence of Capital Measurement and Capital Standards: A Revised Framework", commonly referred to as "Basel II"⁷¹.

In the analysis of the banking laws of Bulgaria and Romania, who recently joined the EU, references are made to EU legislation, and specifically to the Banking Directive and the Capital Adequacy Directive. A basic feature of the first one is that it resolves the distribution of competencies among the home and host regulators in case a bank authorised in a member state enters the market of another member state either by directly providing services there (through cross-border agreements), or through the establishment of a branch, or by way of participation in the share capital of a local banking institution (a bank subsidiary, if that participation leads to control over the institution). With respect to direct cross-border operations or the establishment of a branch, the Banking Directive fully adopts the principle of home country control. The rules of the directive on the home country control are also known as the Single License principle, that is, the right of a credit institution authorised as such in a member state to do banking business in any other member state without further authorisation. The Capital Adequacy Directive is aimed at unifying at the most detailed level practically

⁷¹ For a brief and clear introduction of the Basel II framework see Andrew Cornford, "Basel II: Origin, Rationale, and Concepts", December 2004

possible the capital adequacy of banks and investment firms in the EU countries. The directive strictly follows Basel II.

EU law is important from another aspect too – European banks represent the most substantial part of the foreign banks' direct activities or ownership in the local banks in the Researched Countries.

Basel II – introductory remarks

Basel II and its implementation in the legislation of the Researched Countries is particularly relevant to the Project. Capital adequacy rules require banks to maintain the amount and quality of capital that can cover losses from risks inherent to their activities. The rules are intended to serve as comprehensive set of risk management policies and as a regulatory tool for the bank supervisors to assess degree of risk that each bank carries and the adequacy of the bank's capital relative to that risk. As such, Basel II rules are central in the prudential supervision.

Basel II builds on the capital adequacy standards issued by BCBS in 1988 and presents a more sophisticated set of rules aimed at aligning the capital requirements more closely to the individual risk profile of each bank. Under Basel II, banks may choose to develop their own internal models of risk assessment for particular types of risk and have them approved by the regulator. The requirements on the reliability and sophistication of the internal models make them costly at a degree where only very large, internationally acting and sophisticated banks will opt for them. Those who do not will calculate their capital requirements under standard methodologies which compared to the 1988 standards are also modified providing a more flexible and sensitive risk assessment methods. Basel II is designed for internationally acting banks, but its implementation in the EU changes their original scope. First, the Capital Adequacy Directive will apply to European credit institutions irrespective of how active they are internationally. Second, the Capital Adequacy Directive provides a comprehensive framework for credit institutions, as well as investment firms.

Home or host country authority

As a result of the increasing role of the internationally active banks, the banking markets (and more generally the financial markets) of the Researched Countries become more integrated with other countries' markets. The rules relating to the distribution of competencies between the host and home supervisors thus become more relevant. Without such distribution resolved on a national law level, a bank which carries on operations abroad through a branch may have to comply with one set of rules in the host country (with respect to the branch) and with another set of rules in the home country with respect to the bank itself. Even if the rules are the same in the home and the host countries (i.e. leading to same results under similar processes) there would be a duplication of the compliance costs because the rules in the home country would typically take into account the financial position of the branch abroad, but still the branch would have to comply separately for the purposes of the local supervision. Supervision, however, is not just following rules. It also involves the manner in which those rules are enforced by the country's regulator. Therefore, even if the rules are the same in the home and host jurisdiction, the regulator that would have to leave full supervision to the foreign regulator under the first regulator's national legislation would have to have confidence in its foreign counterpart – that it will supervise the institution “to the same standards as those required for domestic institutions.” (Basel Core Principles, Principle 25).

Considering the issues of home and host supervision, BSBC published “High-level principles for the cross-border implementation of the New Accord” in August 2003 (the “High-level principles”). It concerns the issues of cooperation between supervisors with respect to the implementation of Basel II across the organization of a bank or a banking group spread in more than one country. While it focuses on Basel II implementation, the High-level principles influenced the Banking Directive in the general approach to home – host cooperation and exchange of information.

Internationally developed rules of bank supervision of internationally active banks should take into account divergent interests of the supervisors in whose territorial jurisdiction a bank or a banking group operates.

The differences in the interests of the home and the host supervisors become more evident in cases of crisis in internationally active banks. If a bank estab-

lishes foreign operations in the form of branches, a solvency crisis in the bank directly affects any branch. A number of issues concerning the responsibility of the bank arise when the crisis becomes evident in the respective branch or branches. The supervisor of the country hosting the branch would expect some form of involvement of the foreign bank which owns the branch so that the results of the crisis on the local financial system are avoided or mitigated. It follows from the legal nature of the branch as a legally dependent place of business of the foreign bank, that the bank is financially responsible for the liabilities of the branch. If the crisis is present in the bank as a whole however, there may be uncertainty about the assets which have to cover the liabilities of the respective branch. The longer this remains uncertain, the greater the risk of loss for the deposits in the branch. In such situation, the home supervisor is not necessarily motivated to act quickly in reducing the risks for the deposits of the bank in the foreign branch. If the bank is an important part of the financial structure of its country of authorisation, the home supervisor may be reluctant to act quickly in liquidating the bank on the expectation that some measures to save it are still available.

In the same cross-jurisdictional context a foreign bank may own a subsidiary (instead of a branch), which from the local law perspective is a self-standing institution subject to local licensing and supervision on the same basis as the other local banks. But the fact that the locally incorporated bank has foreign shareholder(s) is taken into account in the national legislation both in terms of the licensing procedure, as well as with respect to the on-going supervision.

Regulation of cross-border banking supervision deals with different issues depending on the form that a bank may choose for its operations outside its country of authorisation (branch or subsidiary).

- (a) Foreign bank with a branch in the host country – the home country control principle

With respect to foreign banks operating on the local market through a branch, the principle of home country control plays a role in leaving the capital adequacy and other important aspects of prudential supervision to the home country. From international law perspective, the rule is simply an example of the well known principle of mutual recognition adopted in many areas of international law. The home country control principle

is implemented to a widest possible extent in the EU law through the Banking Directive and is present in the Bulgarian and Romanian banking laws. According to the Banking Directive, recital 7 the harmonization is aimed at securing “the mutual recognition of authorisation and of prudential supervision systems, making possible the granting of a single license recognised throughout the Community and the application of the principle of home Member State prudential supervision.” Under Article 23 of the Banking Directive, any Member State shall allow any credit institution to carry on banking activities (as formulated in Annex I of the Banking Directive) there directly - through cross-border transactions, or by the establishment of a branch, if such institution has obtained license for those activities in another Member State.

As a result of the full implementation of the Banking Directive and the Capital Adequacy Directives in their national legislation, Bulgaria and Romania apply the home country control principle to banks licenses elsewhere in the Community. From the perspective of the foreign European banks, these countries present the only question of whether their supervisory practices are compatible with those of the respective European home countries. In the rest of the Researched Countries the level of implementation of the home country control principle and the Basel II is a central issue. With respect to the home country supervision principle, these countries, being outside the EU, either adopt the principle with explicit reservations in their national laws or simply leave it to the regulator to decide on a case by case basis whether and how to apply it.

(b) Subsidiary of a foreign bank – consolidated supervision

Where the foreign bank has established a subsidiary, it is subject to the licensing rules relevant to any other bank of the same country. The fact that the subsidiary of the foreign bank is fully controlled by the foreign parent bank brings the issue of the influence of the management of the parent bank on the management of the subsidiary. In practice, the management is often concentrated with the parent bank and thus brings the issue of its responsibility with respect to the financial condition of the subsidiary. While the subsidiary remains fully independent from home and host legal perspective, effective supervision supposes that

the capital requirements and other prudential rules are checked against the consolidated financial position of both the parent and the subsidiary. This is done through the consolidated supervision of the parent in whose financial reports the subsidiary's financial position is also taken into account. The consolidated supervision would be effective only if the supervisor which performs it (the home country supervisor of the parent) has relevant information on the subsidiary collected and provided by the supervisor of the subsidiary (the host country supervisor). The High-level principles and the Banking Directive provide rules for cooperation and coordination between the home and host supervisors with respect to banking groups in order to achieve the objectives of the effective supervision on a consolidated basis.

As mentioned, the host country supervisor preserves its full scope of competencies with respect to the local subsidiary of the foreign bank treating it just as any other locally incorporated and licensed institution. Under the High-level principles, the host supervisor is expected to provide the home supervisor with the relevant information with respect to the subsidiary so that the home supervisor exercises effective supervision on a consolidated basis with respect to the parent bank. According to Principle 24 of the Basel Core Principles supervisors shall "supervise the banking group on a consolidated basis, adequately monitoring and, as appropriate, applying prudential norms to all aspects of the business conducted worldwide." Further, according to Principle 2 of the High-level principles "The home country supervisor is responsible for the oversight of the implementation of the New Accord for a banking group on a consolidated basis."

The High-level principles recognise that a bank group may be structured in more than one level where a bank subsidiary of another bank and has its own subsidiary bank as well. Each level of the group may be present in a different country. In that case, within a country, a supervisor shall perform consolidated supervision with respect to the local bank of the group, which has a subsidiary in another country, but is itself a subsidiary of a parent bank abroad. The functions performed by such supervisor are generally referred to as "sub-consolidated" supervision. (Point 2 of the High-level principles).

According to the Banking Directive, a credit institution which participates in another credit institution or in a financial institution (including where they are controlled by the parent and thus become subsidiaries) is supervised on a consolidated basis by its home supervisor, unless that parent credit institution is itself a subsidiary of another credit institution authorised in the same state or of a financial holding company set up in the same state. Such a credit institution (which participates in another one or in a financial institution and does not have a credit institution or a financial holding company in the same state as parent) is referred to in the Banking Directive as a “parent credit institution in a Member State” (art. 4(14) of the Banking Directive). It may be a subsidiary of another credit institution or a financial holding company from another member state, and still fall into the definition. Taking the bank group as a whole, each credit institution from the group shall have its home country supervisor as a supervisor on a consolidated basis so long as the credit institution is complying with the above condition of not being subsidiary of a credit institution authorised in the same country or of a financial holding company set up in the country. Where the credit institution does not have as parent any credit institution authorised in any member state or a financial holding company setup in a member state, it is referred to in the Banking Directive as “EU parent credit institution” (art. 4(16) of the Banking Directive).

Rules on consolidated supervision become more complicated when “at the top” of the group of companies (having at least one bank) stays a company which is not a bank (although it may provide some non-banking financial services). While the parent is not a bank (and not subject to bank supervision) it is the company through which consolidated supervision is only possible for the whole group that includes at least one bank and such supervision becomes more necessary if the parent is in the business of financial services, though not in the banking business. The EU law uses the expression “financial holding company” to define the institution which is not a bank, but performs some non-banking financial services, and “the subsidiary undertakings of which are either exclusively or mainly credit institutions or financial institutions, at least one of such subsidiaries being a credit institution ...” (art. 4(19) of the Banking Directive).

Corporate groups involving banks and other financial institutions present unique challenges in their supervision on a consolidated basis. The supervision of such groups in the EU is performed in accordance with the special rules designed for them in the Directive 2002/87/EC of the European Parliament and of the Council of 16 December 2002 on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate, as amended by Directive 2005/1/EC, (the “Financial Conglomerates Directive”). It builds on the rules of the Banking Directive. The member states, Bulgaria and Romania implemented the Financial Conglomerates Directive in separate laws and regulations.

Researched Countries outside the EU also define groups of companies consisting of at least one bank in order to develop the rules on consolidated supervision in their jurisdiction. In Serbian law, for instance, the term “banking group” is used to formulate the requirement that the external audit of the group is performed on a consolidated basis. The parent company which controls directly or indirectly the group is referred to as the “ultimate parent”.

Common structure of the Researched Countries’ bank legislation

As a general note, the Researched Country’s banking sector is formally organised in the traditional two-tier structure, with the National Bank of the country exercising the supervisory functions over the banking institutions (and only over that part of the financial sector). While the model applied in the EU countries is that the oversight of the whole national market of financial services is concentrated in one regulator (combining banking, securities market, and insurance supervision) in the Researched Countries the banking sector is supervised by the national bank and the business in other financial services is supervised by other specialised institutions, except the Serbian National Bank which supervises also the insurance business. The banking legislation is structured in two legislative acts – one relating to the taking up and the pursuit of the banking business (referred to as the “banking law”, regulating the permissible activities that define a business as a bank, licensing procedure and on-going supervision) and another act regulating the functions and competencies of the central bank.

Structure of the Researched Countries' presentation

The country by country analysis is organised under the following headings:

- Authorisation – the Researched Country's rules on the authorisation of a foreign bank to provide banking transactions on the local market either cross-border or through the establishment of a branch and the rules on the acquisition of controlling stake in a local banking institution by a foreign bank thereby creating a foreign bank's subsidiary; and
- Supervisory regulations, relating to on-going supervisory issues relevant to the regulation of international banks performing operations on the Researched Countries' markets.

The topics are discussed in reference to the Basel Core Principles and with respect to the EU member countries – to the Banking Directive.

2. Highlights of the Countries' Banking Regulations

ALBANIA

Relevant legislation

Albanian banking legislation is laid down in the Banking Law of 1998 (the "Albanian Banking Law") and the Law on Bank of Albania of 1997. Bank supervision is performed by the Bank of Albania.

Authorisation

Definition of 'bank'

Under the Albanian Banking Law, 'bank' denotes a juridical person licensed by the Bank of Albania to engage in banking business. Banking business is defined as publicly attracting deposits and making loans or investments for own account, as well as such other business as the Bank of Albania may specify in a regulation. The Bank of Albania has the discretion to define banking business (modifying the legal definition), as well as to exempt entities engaging in such

business from the regulations of the Albanian Banking Law, and also to consider whether an entity actually engages in banking business and should be made subject to the law. In practice, the Bank of Albania decides on which entity is or is not subject to the law.

Licensing

The licensing process is based on provision of relevant information and evidences by the applying institution on issues such as minimum required subscribed and deposited share capital and its origins, business plan, disclosure of controlling shareholders, due incorporation of the entity, and fit and proper test of the management.

Foreign banks may operate in Albania through a branch following a process of authorisation of the foreign bank proposing to establish it. Such foreign bank is subject to the licensing process applied to the local banks with the usual additional requirements: proofs of proper authorisation of the applying foreign bank from its home country supervisor as well as home country approval to open the branch, standard financial disclosures with respect to the foreign bank, as well as endowment capital (deposit of the branch dedicated to covering liabilities arising from its activities in Albania).

If a foreign bank proposes to own more than 10 per cent of the capital in a local bank, it has to prove its authorisation to do banking business in its country obtained from its home supervisor.

Prudential Regulations

The Albanian Banking Law generally requires each bank to operate under internal management rules defining the bank's organizational structure and its operational units. Each bank is required to have an Audit Committee whose independence from the directors is provided for by its election from the general meeting of shareholders.

The law refers to special regulations of the Bank of Albania on prudential matters such as capital requirements, large exposures, and liquidity.

BULGARIA

Relevant legislation

The banking activities in Bulgaria are regulated on the basis of the recently adopted “Credit Institutions Act”, promulgated in July 2006. The legal status and functions of the Bulgarian National Bank are set forth in the “National Bank of Bulgaria Act” of 1997 (amended in 2006 to comply with certain requirements of the country’s EU accession in 2007)

The Basel II accord is implemented (through the transposition of the Banking Directive and the Capital Adequacy Directive) in a detailed regulation of the Bulgarian National Bank No 8 of 14 December 2006 on the capital adequacy of the credit institutions, issued in 2006 and in effect from 1 of January 2007.

Authorisation

Definition of “bank”

Following the Banking Directive, the Credit Institutions Act includes banks and the electronic money institutions in the term “credit institution”. The term “bank” is separately defined as a juridical person who performs the activity of publicly attracting deposits or other repayable funds and grants credits or other kind of financing on its own account and at its own risk. The activities which define an institution as a bank are referred to as “banking activities”. Other financial services listed in the Credit Institutions Act are performed by “financial institutions” (defined in accordance with art. 4(5) of the Banking Directive).

Licensing

With respect to banks licensed in EU member states, the Credit Institutions Act adopts the principle of Single License of the Banking Directive (art. 23). According to art. 20 and art. 22 of the Credit Institutions Act, a credit institution from a member state may perform banking activities on the Bulgarian territory directly or through a branch provided that such activities are covered by the institution’s license issued by its home state competent authority.

Locally incorporated entities may receive a banking license if they are set up in the form of joint stock companies and comply with the other conditions of the Credit Institutions Act. Among the requirements to the joint-stock company, the law requires that its shares are only de-materialised (book-entry) shares and the share-capital is paid up in cash up to the required minimum (as opposed to in-kind contributions). In accordance with the Banking Directive, the applicants present a plan of the business activities of the bank (the “program of operations” under the Banking Directive) and descriptions of the management structure of the proposed bank, as well as a description of the internal control and risk management systems of the entity.

In cases where the company proposed to receive a license is a subsidiary of another member state bank or is controlled by a company (or a group of persons) that also control another bank in a member state, the Bulgarian National Bank performs prior consultations with the competent authority that authorised the other member state bank.

The Bulgarian National Bank is entitled to review the application for license considering the experience and integrity of the members of the management and supervisory bodies of the company, as well as the shareholders controlling more than 3 per cent of the company’s capital.

Prudential regulations

Bulgarian banking law follows closely the EU directives.

The minimum own funds requirements, the liquidity regulations and other important prudential standards comply with the Banking Directive and the Capital Adequacy Directive. Regulation No. 8 of the Bulgarian National Bank on the capital adequacy of credit institutions fully implements Basel II.

The rules on consolidated supervision transpose the respective rules of articles 125 and 126 of the Banking Directive (articles 89 and 90 of the Credit Institutions Act). These rules are developed in more detail in the “Regulation No. 12 on the supervision on a consolidated basis” of the Bulgarian National Bank, issued in 2000 and most recently amended in 2005.

In compliance with the Financial Conglomerates Directive, Bulgaria has adopted the “Supplementary Supervision of Financial Conglomerates Act”, promulgated in 2006 and in force from the 1 of January 2007.

CROATIA

Authorisation

Definition of ‘Bank’

Under the Croatian Banking Law the term “bank” refers only to institutions authorised as such by the Croatian National Bank. Only a bank may provide banking services which are defined in line with the Banking Directive as “accepting monetary deposits and extending loans and other placements from these resources by a bank, in its own name and for its own account, as well as issuing means of payment in the form of electronic money.”

Licensing

The licensing regime distinguishes between three types of institutions depending on their country of origin: Croatian entities, banks from Member States and foreign banks from states other than Member States. The regime is designed to provide freedom of establishment to banks from Member States. A bank authorised in a Member State may provide banking services directly or through the establishment of a branch in Croatia (art. 47, sub-par. 1). In case of branch operations, equally to the locally authorised banks, the Member State banks are required to submit their annual audited consolidated financial statements to the Croatian National Bank. That way, Croatia adopts the “single license” principle and regulates Member States banks with the recognition of the home supervisor’s authority. The host supervision with respect to a branch is limited to the requirement for provision of reports and information necessary in the exercise of Croatian National Bank’s competences in the monetary, foreign exchange policy, and the statistics.

The home – host relationships with respect to Member States banks are further detailed with respect to on-site examinations in Croatia of branches of Member States banks by their home regulator. Art. 49 of the Croatian Banking Law

provides for a notification procedure according to which the home regulators receive the same administrative powers as the host regulator with respect to branch's inspection upon sending a notification to the Croatian National Bank on the intended inspection. Alternatively, the home regulator may request the Croatian National Bank itself to conduct the inspection of the branch of the Member State bank. The Croatian National Bank may perform its own inspections of such branches only for the purposes of its limited supervisory powers (monetary and foreign exchange policy and statistics). Generally, the law provides for relatively detailed provisions of home – host supervisory cooperation, covering different aspects of the exchange of information between them.

Banks authorised outside Croatia or a Member States may enter the Croatian market only through a branch (i. e. no cross-border operation). That branch is licensed by the Croatian National Bank. The licensing is done under a separate procedure which provides the Croatian National Bank with the powers to require the foreign bank (as a condition for a license) to provide guarantee deposit with a locally operating bank “for the settlement of liabilities arising from arrangements concluded within the Republic of Croatia”. Further, the law gives the regulator virtually unlimited discretion to allow or reject the licensing of the branch. Under art. 52, sub-par. 4 of the Croatian Banking Law, the Croatian National Bank decides on the request for license considering (based on the documents provided) the financial, managerial and technical capabilities of the proposed branch of “operating in accordance with the provisions of this Law.”

Prudential regulations

Croatian banking law follows the principles of the respective EU directives.

Croatia implements Basel II by means of a set of rules of the Croatian National Bank entitled “Decision on the capital adequacy of banks” of January 2003.

MACEDONIA

Relevant legislation

The banking activities in Macedonia are regulated by the “Banking Law” of 2000,

published in that year's Official Gazette No. 63. It is a comprehensive document covering all major aspects of the modern banking regulation. The law defines the banking activities which are reserved to licensed institutions only, sets forth the licensing procedure, the disclosure of acquisition of control in a bank, and provides legal basis for the supervisory issues such as capital requirements, credit risk concentration levels and mandatory reserves.

The supervision over the banks in Macedonia is performed by the Macedonian National Bank.

Authorisation

Definition of 'Bank'

Bank is any legal entity which carries out "the business of accepting deposits and using such funds, either in whole or in part, for extending credits or investing for the account of the bank" (art. 2, point 2 of the Banking Act). "Deposit" is defined to include a cash claim on the bank whether accruing interest or not, and irrespective of the agreed terms for repayment of the claim (on demand or at a certain period). The above definition of banking business is different from the respective definition in the Banking Directive mainly in limiting the form of attraction of funds only to deposits, thus excluding the issuance of bonds and other comparable securities.

Licensing

Under the Banking Law, a Macedonian entity is not allowed to accept deposits (art. 5 of the Banking Law), or make registration in the Trade Register of a company name with the term "bank" without such entity first obtaining a license from the Macedonian National Bank to carry on banking business.

The licensing process is clarified in terms of procedural steps, required documentation and competencies and powers of the Macedonian National Bank acting as licensing institution. The regulator grants or rejects an application exercising broad discretion while evaluating the level of risk that the applying entity potentially brings to the financial system (art. 11, sup-par. 7, point 3), the legitimacy of the origins of the entity's funding, and the application of fit and proper test for the applicant's shareholders (art. 15, point 8), and under separate

rules – for the applicant’s management. A rejection may be appealed only within the National Bank itself.

There are no restrictions on the nationality of the shareholders (art. 6 of the Banking Law)

Authorisation of foreign-owned subsidiaries

A foreign bank may set up a subsidiary bank in Macedonia as explicitly provided for in art. 6, sub-par. 2 of the Banking Law. The process of authorisation and the degree of discretion of the National Bank to grant or reject an application for license are the same for a foreign-banks’ subsidiaries and locally owned entities, except for the usual additional requirements for the foreign bank’s subsidiary to prove that: the parent bank is authorised in its home country to collect deposits and other sources of funds; the establishment of the subsidiary in Macedonia has been specifically by the home country regulator, and the home country regulator “conducts adequate supervision on a consolidated basis” (art. 19, sup-par. 2, point 3).

Prudential rules

According to art. 28 of the Banking Law, the capital adequacy standards are developed in special acts of the Macedonian National Bank. The capital adequacy ratio is set at 8 per cent in art. 30 of the law. Macedonia implements Basel II by means of a recently adopted national banks’ regulation of the on the capital adequacy of banks (promulgated in 2007).

The consolidated supervision is based on a rule in the Banking Law establishing the requirement for any bank in Macedonia to prepare consolidated financial statements in cases to be defined in a regulation of the Macedonian National Bank.

ROMANIA

Relevant legislation

In line with the EU law, Romania has taken the approach of codifying the law on financial market players. To that end, the “Emergency Ordinance No. 99 on Credit Institutions and Capital Adequacy” (“Romanian Credit Institutions Act”)

was enacted in 2006 (Official Gazette No. 1027 of 27 December 2006) as a comprehensive document providing detailed rules on credit institutions and financial investment companies. It is intended to provide full coverage on the subject matter of regulation, closely following the main EU financial market regulation documents – the Banking Directive and the Capital Adequacy Directive. Another part of the Romanian Banking legislation – the “Law on the National Bank of Romania” regulates the functions of the Romanian central bank.

The Credit Institutions Act is a modern and sophisticated piece of legislation implementing in a comprehensive manner the current EU law on credit institutions. Generally, it applies to the activities on the territory of Romania of credit institutions and financial investment companies, and also regulates the Romania’s payment and securities settlement systems. That way, the law codifies the rules concerning the main institutions on the Romanian financial market and the relevant market infrastructure.

Authorisation

“Credit institutions”

The regulation of the banking business is based on the definition of ‘credit institution’ (in line with Art. 4, sub-par. 1 of the Banking Directive) which is an undertaking in the business of receiving deposits or other repayable funds from the public and granting credits for its own account, or an electronic money institution whose business is the issuance of means of payment in the form of electronic money.

Licensing

The National Bank of Romania is the competent authority for the licensing, regulation and prudential supervision of credit institutions.

In accordance with art. 23 of the Banking Directive, the “Romanian Credit Institutions Act” permits any credit institution authorised in another member state to provide directly or through the establishment of a branch the services for which it was authorised in its home country with the condition only that the credit institution shall observe the laws of Romania which are established “in the interest of the general good” (art. 45(1) of the Act.)

Locally incorporated entities are licensed under clear rules following the respective provisions of the Banking Directive. Together with usual requirements for the applicants such as the obligation of the shareholders to pay up the company's capital in full and in cash only, the licensing rules also require provision of information by the applicants on person that is going to have 10% or more of the capital or of the voting shares of the company ("qualifying holding") whose licensing is requested. Under the law, the National Bank of Romania has the right to reject the application if it finds that those persons are not suitable for the sound and prudent management of the institution. In line with art. 7 of the Banking Directive, an applicant for a banking license is required to present a programme of operations of the future institution. The National Bank of Romania has the discretion to decide that the programme is not convincing with respect to the institution's ability to achieve the goals set forth in the programme. Such inability constitutes a ground for rejection of the application.

Prudential regulations

The Credit Institutions Act provides for elaborate provisions to define the National Bank of Romania's competence to exercise supervision on a consolidated basis with respect to parent credit institutions that are Romanian legal persons, authorised in Romania to act as credit institutions. As mentioned in A., 4. (b) above, the Banking Directive provide uniform rules on the definition of the bank institution with respect to which its home country supervisor shall exercise supervision on a consolidated basis. These rules are transposed in Part I, Title III, Chapter II of the Credit Institutions Act. Article 176 of the Credit Institutions Act defines the types of credit institutions which are subject to consolidated supervision by the National Bank of Romania. The rules follow the respective article 125 and 126 of the Banking Directive. Generally, credit institutions which are set up in Romania and authorised to act as such by the National Bank of Romania are subject to consolidated supervision. In line with the Banking Directive's terminology, such institutions may either be parent credit institutions in Romania (art. 4(14) of the Banking Directive) or EU parent credit institutions (art. 4(16) of the Banking Directive). Art. 176 of the Credit Institutions Act further details types of credit institutions which are subject to consolidated supervision by the National Bank of Romania in accordance with the rules the Banking Directive (articles 125 and 126).

The parent – subsidiary relationship is defined as broadly as possible to allow in fact the regulator to treat any entity over which “in the opinion of the competent authorities” the credit institution exercises a “dominant influence” as a subsidiary of that credit institution, thus requiring the institution to include that subsidiary in its consolidated reporting for the purposes of prudential supervision. A “participation” in an undertaking is present where the institution holds 20% or more of the voting shares of that undertaking.

Romania implements Basel II following the respective provisions of the Banking Directive and the Capital Adequacy Directive. The requirements for the minimum level of own funds (set forth in art. 75 of the Banking Directive) are implemented by the National Bank of Romania through “Regulation NBR-NSC no. 13/18/2006. The operational risk is regulated in the special “Regulation No. 24/29/2006 regarding the calculation of the minimum capital requirements for operational risk of credit institutions and investment firms”.

SERBIA

Relevant legislation

The “Law on Banks” of Serbia was passed in November 2005 – Official Gazette No. 107/2005 (the “Law on Banks”) replacing the “Law on Banks and Other Financial Organisations” enacted in 1993 (and amended several times the last being in 2002). The Law on Banks is viewed as improving many of the deficiencies of the old law in bringing Serbian banking regulation more closely to the EU standards and the Basel principles⁷². The National Bank of Serbia operates under a separate law defining its supervisory authority and its lender of last resort functions. The function and competencies of the National Bank of Serbia are set forth in the Law on the National Bank of Serbia of 2003 (as amended in 2004).

Authorisation

Definition of ‘Bank’

Bank is defined with reference to its legal form (a joint stock-company), and the

⁷² International Monetary Fund, Country Report No. 06/96 of March 2006 “Serbia and Montenegro: Serbia – Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Monetary and Financial Policy Transparency, Banking Supervision and Payment Systems”, Executive Summary, point 3

conduct of the core banking activities (deposit taking and provision of loans) carried on pursuant to a license granted by the Serbian National Bank. The term “foreign bank” is defined separately to include a foreign legal entity (i. e. with registered office outside Serbia), registered and licensed as a bank by the competent authority of its home state, being the state of incorporation and where its head office is located.

Licensing

The persons proposing to incorporate and own the legal entity which is proposed to receive a bank license (the “founders”) apply to the Serbian National Bank for preliminary approval on the basis of the draft documentation for incorporation and other documents in set forth in Art. 15 of the Serbian Law on Banks. If preliminary approval is granted, as a second step, the founders request operating license for the entity after its incorporation. As mentioned, the entity may be only in the form of a joint-stock company so the founders applying for the authorisation appear in their capacity of prospective shareholders in the first step of the licensing process and actual shareholders in the second step. Specific rules of the licensing process apply to a founder which is a foreign bank or a financial organisation that is under special supervision under its national law. The special requirements relating to such prospective shareholders during the first step of the licensing procedure depend on the size of their prospective participation in the joint-stock company subject to licensing. If such a person would own a controlling stake, the National Bank of Serbia requires proofs that the competent regulatory authority in the home country (the parent institution country) has permitted the establishment the subsidiary and its licensing as a bank in Serbia – a requirement complying with Principle 3 of the Basel Core Principles. If the proposed participation by the foreign entity in the Serbian joint-stock company is less than a controlling one, the foreign person must comply with the procedure for acquisition of a qualifying holding (that is 5 per cent or more) in the local entity. The qualifying holding rules (established under Art. 94) require a foreign entity proposing to own a qualifying participation in the local bank to comply with specific conditions set forth in a special regulation of the National Bank of Serbia.

In the substantive review of the application for the preliminary approval the National Bank of Serbia makes the usual consideration of the proofs of the qualifications and reputation of members of the board of directors and the executive board

of the company subject to licensing. Also, the regulator requires presentation of “the bank’s proposed program of activities for the period of three years and draft business policy”, which is in line with Principle 3 of the Basel core Principles and Art. 7 of the Banking Directive. Both the “fit and proper test” of the management and the programme of operations are reviewed by the regulator with full discretion and serve as a basis for rejection of the application for preliminary license.

Prudential regulations

The Law on Banks establishes the principle of consolidated supervision.

The new Law on Banks contains capital adequacy rules which reflect some features of Basel II (interest rate risk, liquidity risk and operational risk are treated separately). In 2006 the National Bank of Serbia issued a regulation on the capital adequacy calculation (“Decision on Capital Adequacy of Banks”). Subject to valuation are balance-sheet and off-balance sheet assets. The risk assessment of the assets in terms of the risk they carry for the bank (risk-weighting of assets) is made by grouping them in different categories each applying a different percentage to the value of the asset depending on the level of risk assigned to each group (the higher the risk, the higher the percentage). For balance sheet items, the credit risk is zero for assets such as cash, or claims to the National Bank of Serbia or the Republic of Serbia, where loans secured by real estate in value covering the loan amount receive 50% risk weight, and corporate loans are weighted with 100%. The classification of certain borrowers according to the credit rating assigned to them by recognised credit agencies, as for instance the 20% weighting of the claims on banks that have been awarded the rating of at least BBB by certain recognised credit rating agencies, shows that Serbia is in the group of countries implementing Basel II. The Decision on Capital Adequacy also marked a significant step of Serbia’s banking law reform that had started with the passing of the new Law on Banks.

Generally, the National Bank of Serbia has adequate powers to influence the Serbian banking sector players. The Law on Banks provides the regulator with instruments which are significantly aligned with the internationally adopted standards (Basel Core Principles, Basel II and the Banking Directive), including some form of prompt corrective action rules under art. 110 and 111 of the law. Under those rules, the National Bank of Serbia is entitled to prescribed measures to-

wards troubled banks depending of the severity of their de-capitalisation. From that respect, banks who fall below the prescribed capital adequacy ratio (classified as “undercapitalised”) becomes subject to approval by the National Bank of Serbia with respect to taking of new lines of business, increase of assets that are fall into the definition of risk-weighted assets under the capital adequacy rules (practically any banking asset), and automatically becomes restricted to pay dividends or make any capital distributions, and increase the current compensations of the directors. If the capital ratio falls below one third of the prescribed one (but is higher than one half of it) the respective bank is classified as “significantly undercapitalised” and in addition to the restrictions applying to undercapitalised banks, it may not accept deposits, or pay interest rates on deposit higher than market rates, increase salaries, or enter into transactions with related persons without the prior consent of the National Bank of Serbia. A bank, whose capital adequacy ratio is less than half of the required figure, is considered “critically undercapitalised” and is subject to revocation of the license and receivership administered by the National Bank of Serbia.

Conclusions

First, there are great and important differences between the Researched Countries’ national legislation relating to the taking up and pursuit of banking business and the degree of implementation of Basel II.

Second, EU member countries achieved harmonisation with the EU law by transposing the Banking Directive, the Capital Adequacy Directive and the Financial Conglomerates Directive in their national legislation. In those countries, Basel II implementation is fostered by the adoption of the rest of the EU banking law which creates the necessary environment for the application of the capital adequacy rules in line with the EU goal for EU wide financial market integration.

Third, Croatia has achieved considerable level of harmonisation of its banking legislation with that of the EU. It recognises freedom of establishment principle with regard to banks from Member States. It also implements Basel II and the higher degree of integration of its legislation with that of the EU provides the essential legal basis for an effective implementation of the new accord.

Fourth, the other non-EU Researched Countries however follow their own path in shaping their bank legislation, despite the obvious progress of Serbia to harmonize its banking law with the internationally developed standards for cross-border bank supervision and the adoption of the regulation by the Macedonian National Bank for the implementation of Basel II in 2007. The influence of the Basel Core Principles over the legislation of those countries resulted in similarities with respect to licensing of banks (including foreign or foreign owned banks). For example, the requirement for a foreign bank applying to open a branch in the country to provide information to the regulator on the existence and the quality of control of the home country's regulator over its activities; the consideration of the majority owners of the bank as well as the management with regard to their fitness and competence to own and run the bank; and the requirement for transfers of bank's substantial ownership to be disclosed by the new owners to the regulator and above certain levels to obtain permission to acquire the respective stake in the bank's capital. Despite those similarities, each of those countries' legislation present differences as to the level of implementation of the Basel Core Principles.

Fifth, the implementation of Basel II in the Researched Countries that are not EU members was actively pursued in Croatia who achieved considerable level of implementation. The process has not started in Albania, achieved only limited results in Serbia and resulted in a regulation in Macedonia whose effective operation would probably need more advanced harmonisation of the other areas of the Macedonian banking law (such as the rules on consolidated supervision) with the internationally developed models (especially the EU legislation).

Sixth, Basel II presents a challenge even to the industrialized nations. With respect to its implementation in the EU-members among the Researched Countries, this process is pushed by the harmonization of the countries' legislation with the Capital Adequacy Directive. Both Romania and Bulgaria has implemented the directive through relevant acts of Parliament and regulations issued by the supervisors. For them, the Basel II implementation becomes a fact simply because of their EU membership. Since Basel II was finalised and became part of the EU law only recently, it is not yet clear how the newly acceded countries (Bulgaria and Romania) will implement it in practice, and how their respective national banking markets will respond to the rules. At this stage, it is safe to say that Bulgaria and Romania will face the biggest implementation challenge in ac-

quiring the necessary degree of knowledge and skills of the regulators to implement the rules flexibly yet correctly. Also, the complexity and scope of the rules, as well as their influence on the required capital that the banks must maintain to cover eventual losses from the risks they carry, may result in bigger pressure to smaller domestic banks to attract capital or reduce risk (this reducing profits). Whether the locally owned banks will manage to cope with such pressure or leave more room for further increase of the foreign, internationally active banks (for which Basel II was in principle created) is unclear.

Seventh, from the perspective of internationally active banks operating in the Researched Countries, the differences explained above will influence the regulatory challenges each bank would face entering each individual market. In the new EU-members, the practical implementation by the regulator of the rules with respect to domestically licensed subsidiaries of foreign banks would obviously present less problems to the management the more this implementation is aligned with the home regulator. With respect to foreign banks' branches the home country control principle is established similarly to any other Member State.

Eighth, in non-EU members the situation would be different (again with the reservations with respect to Croatia mentioned above). Albania and Macedonia generally follow the Basel Core Principles in structuring their prudential rules. Serbian legislation has made progress in adhering to Basel Core Principles with the passing of the Law on Banks in 2005, but the implementation of Basel II is at an early stage. Croatia implements Basel II and follows the respective European banking directives. Macedonia adopted Basel II rules in the context of general banking law which needs further development in areas which are important for the effective implementation of the new Basel capital accord with respect to cross-border banks.

Ninth, the Researched Countries show a diverse picture with respect to the level of harmonisation of each country's regulations with the recently developed international standards of effective banking supervision and of the capital adequacy of banks.

References

Bank Laws and Regulations of Researched Countries.

Basel II: "International Convergence of Capital Measurement and Capital Standards: A Revised Framework, Comprehensive Version." BIS, June 2006. (<http://www.bis.org/publ/bcbs128.pdf>)

Borchgrevink, H. and Thorvald Grung Moe Management of Financial Crises in Cross-Border Banks, Norges Bank, Economic Bulletin, No. 4, Dec. 2004.

Cornford, A. Basel II: Origin, Rationale, and Concepts, Financial Market Center Publications, Dec. 2004.

Guidelines on Operational Risk Management, Oesterreichische Nationalbank, Dec. 2006.

International Monetary Fund Country Report No. 06/96, March 2006: Serbia and Montenegro: Serbia – Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Monetary and Financial Policy Transparency, Banking Supervision and Payment Systems", Executive Summary, point 3.

Scott, Hal S. and Iwahara, Shinsaku, In Search of a Level Playing Field: The Implementation of the Basel Capital Accord in Japan and the United States, Group of Thirty Occasional Paper 46., 1994.

Scott, Hal S. Supervision of International Banking Post-BCCI,' Georgia State University Law Review 8, 1992, pp. 487-510.

Schaub, A. Divergence of Rules in the Global Context: A New Challenge for Regulators, in: Symposium on Building the Financial System of the 21st Century: An Agenda for Europe and the United States, Harvard Law School Program on International Financial Systems Symposium Report, 2003.

CHAPTER IV

EFFICIENCY AND PROFITABILITY

Efficiency and Profitability of the Host Banking Sector

*Galina Dimitrova*⁷³

Introduction

Using data on a bank and country level for the period 2000-2004 and 2005 this paper analyzes the impact of foreign capital entry on the efficiency and profitability of the banking sector in six transition countries in the South Eastern Europe – Albania, Bulgaria, Croatia, FYR Macedonia, Romania and Serbia. The research period is characterized by political and economic stabilization, rapid economic growth and radical institutional, legislative and regulatory reforms. They were accompanied by massive or significant foreign capital inflows, mainly in the form of acquisitions of the major banks in the countries and consequent dramatic changes in the banking industry in the region. Due to scarcity of reliable public banking information in several of the countries making the building of a consistent own dataset and calculations difficult, the paper draws heavily from the existing country research and studies. Furthermore, the author makes extensive use of the research results and findings contained in the abundant literature concerning the effects of foreign capital entry in transition economies as well as on the determinants of the banking sector profitability and efficiency.

The aim is to capture the effects of foreign capital entry on the financial deepening of the economy, emphasizing similarities and differences resulting from common and specific political and economic factors and developments. The level of the banking sector intermediation and development is important for several reasons.

First, since it reveals the banking business growth potential it seems to be the domi-

⁷³ The author thanks Todor Ilinkolov for his dedicated research assistance

nant driving force and motivation for the expansion of foreign banks in the region. All six countries exhibit high growth rates on the back of the political and macroeconomic stabilization achieved in the period 2000-2005. However, it is also characterized by low levels of financial intermediation and a severe credit squeeze, due to the banking sector inability and unwillingness to lend, and generally low confidence of the public to the national currencies and the domestic banking sector, following the severe financial crises experienced by all six countries in late 1990s. Therefore, the potential for banking business in all countries is enormous and is the major determinant of foreign banks' mode of entry and business strategy. In general, especially for the major foreign players, business strategy seems to be broadly based and domestically focused, targeting both the retail and the domestic corporate sector and the SMEs, nation-wide, rather than following their international clients. It seeks, furthermore to establish a long-term presence as well as to build a new customer base. These in turn, affects both the deepening of the banking sector intermediation and the developments in the banks' profitability and efficiency.

Second, studies so far indicate that the effect of foreign capital on the efficiency and profitability of the host banking sector is associated with the level of financial sector development and financial intermediation. More specifically, these studies indicate that at low levels of development foreign capital entry is associated with higher cost and margins, while at higher levels of development the effects are lower costs and lower margins resulting in improved performance due to efficiency gains. In both cases there might be a profitability and efficiency gains as measured by the evolution of the ROE and ROA. However, a detailed analysis of the factors contributing to profitability and efficiency, both quantitative (based on the DuPont analysis) and qualitative (asset and liability mix, quality and sustainability of earnings, asset quality, funding profile etc.), reveal substantial differences both across countries and within the banking sector of each country. Generally, at lower levels of development of the banking sector and financial intermediation, ROA and ROE, are largely associated with one-off gains, non-recurring revenues or revenues from non-core banking activities, mainly low-risk, low-return investments in government securities or interbank- and off-shore placements and higher interest rate margins, based on low volumes of lending and deposit mobilizing activities. Profits are therefore, highly exposed to market risk and highly volatile and their level highly insufficient, even if fully retained, to allow business expansion or technological advancement. Capital adequacy

and liquidity though at a high level reflect underutilization of funds and lack of risk assumption (due to inadequate risk assessment expertise and risk control systems) while capitalization and internally generated earnings are insufficient for business expansion. High proportion of liquid assets, though prudent under highly uncertain environment represent a drag on the returns of assets.

In contrast, in a more developed banking systems, with higher level of financial intermediation, revenues and profits are more diversified, stemming mainly from the core lending and deposit mobilizing activities, more diversified client and product structure, driven by customers demanding more sophisticated products and services. Intensified competition both within the banking sector and from the non-banking financial sector and easier access to information resulting from IT developments and therefore, higher sensitivity to pricing, result in squeezing interest rate margins. Combined with higher costs and risks associated with increased lending activities and the need to develop new services and products, cost efficiency and the ability to manage risk prudently become the determining factors of banks' profitability while trying to increase or maintain their market shares.

Based on the hypothesis of higher efficiency and profitability effect of foreign capital entry depending on the level of financial intermediation and banking sector development the paper makes a comparative analysis of the performance of the banking sectors dividing the six countries into two groups: Bulgaria and Croatia with higher levels of development of the banking system and a longer history of a dominant foreign capital presence, on the one hand, and Romania, Albania, Macedonia and Serbia, on the other hand. The paper presents the historical evolution of efficiency and profitability in each country, and examines the determinants of their current state and future developments. The analysis is based on the Dupont system of the financial results, analyses of the structure of activities, balance sheets and income statements, interest margins and non-performing loans to capture the effects of foreign penetration in terms of efficiency gains, strategic orientation, banking intermediation, quality and diversity of products and services, funding profile etc. and taking into account the specific effects of the monetary policy in each country on the banking sector performance.

For most of the countries the analysis is based on the aggregate data for the banking system as a whole. This approach differs from the standard approach

of a comparative analysis of the performance of domestic versus foreign-owned banks. Apart from the unavailability of a consistent and reliable time-series of bank-based data due in part to the apparent differences in practices and disclosure requirements, this approach is justified by the following reasons.

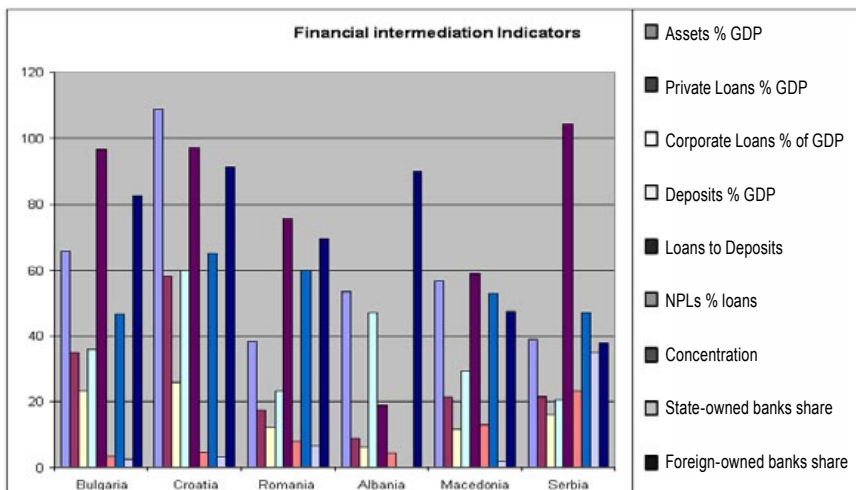
The objective of this project is to evaluate the impact of foreign capital entry on the development and performance of the banking sector as a whole and its role in improving the financial deepening of the economy. We are, therefore, less interested in the differences between foreign and domestic banks but rather in the changes in the performance of the banking sector, which are largely attributable to the direct and indirect impact of foreign capital on the major factors and determinants of banks' profitability and efficiency. This is because the effect of foreign banks entry on the efficiency and price formation in the acquired banks through the introduction of the best banking practices and the transfer of new technology and risk management techniques spreads across the financial system as a whole through heightening competition forcing the domestic banks to restructure to catch up to the best practices and increase efficiency.

Since the share of the majority foreign-owned banks in total banking assets and especially in lending and deposits to the private sector is dominating in most countries, the evolution of the profitability and efficiency indicators of the foreign banks are largely representative of the changes in the banking system as a whole. Where this is not the case as in Serbia and Romania cross-country comparison may also be indicative of the impact of the foreign banks presence on efficiency and profitability.

Takeovers were the dominant form of foreign capital entry. When foreign banks acquired the largest state-owned banks they inherited institutions with profitability and efficiency characteristic similar to the domestically-owned banks. Thus any differences in the consequent evolution of the profitability and efficiency indicators could be attributed to superior corporate governance, business strategy, technological advancements and risk management, product and services know-how, diversification etc., introduced by the foreign partners, which allows them to mitigate and control risk and expand their business activities without sacrificing profitability. Empirical studies indicate also that the presence of foreign banks has the advantage of reducing the sensitivity of banks' profits to do-

mestic downturns due to the financial support of their parents which contributes further to the efficiency and profitability in ROA terms.

1. Historical and comparative review of the banking sector development and financial intermediation and deepening in SEE.



Bulgaria

(⁰⁰⁰ EUR)	1999	2000	2001	2002	2003	2004	2005
Gross Domestic Product	12,163,859	13,678,506	15,190,078	16,532,665	17,663,418	19,433,389	21,188,000
Banking System Assets	4,204,572	4,997,121	6,248,257	7,442,939	8,857,438	12,740,043	16,796,390
change % y-o-y		19.40%	25.04%	19.12%	19.00%	43.83%	31.84%
Loans to non-financial institutions and households	1,226,808	1,545,254	2,119,747	3,085,092	4,609,015	6,823,269	9,068,920
change % y-o-y		24.94%	37.18%	45.54%	49.40%	48.04%	32.91%
Total Deposits	3,122,146	3,638,456	4,885,748	5,768,477	6,950,254	9,984,720	12,993,214
change % y-o-y		16.43%	34.28%	18.07%	20.49%	43.66%	30.13%
Loans to deposits	39.29%	42.47%	43.39%	53.48%	66.31%	68.34%	69.80%
Assets % GDP	34.57%	36.53%	41.13%	45.02%	50.15%	65.56%	79.27%
Loans % GDP	10.09%	11.30%	13.95%	18.66%	26.09%	35.11%	42.80%
Standard Loans (% total loans)	88.28%	91.80%	92.98%	94.47%	92.72%	93.12%	n.a
Capital Adequacy	41.31	35.64	31.32	25.22	22.03	16.58	16.66

Still suffering from the scars of the severe financial crisis in 1996-1997, but also from the legacy of the centrally planned economy, Bulgaria started the period from 2000 with very low levels of development of the banking and the financial sector and financial intermediation. In the following period, however, the Bulgarian banking system experienced one of the most impressive developments in the region. The turning point was marked by the privatization process in the banking sector in which the major state-owned banks were privatized to strong strategic investors from the EU resulting in a massive inflow of foreign capital into the banking sector and the dominance of the majority-foreign-owned banks in the sector holding more than 85% of total banking assets. Stronger capitalization, introduction of modern business practices, IT and risk management expertise brought about by the foreign banks led to radical changes in the banking business in Bulgaria, supported the growth and the diversification of the banking sector activities. Furthermore, foreign capital entry enhanced the stability of the banking sector and helped restore the confidence to it. This in turn has led to dramatic improvements in the monetary aggregates and the share of quasi money in monetary supply grew rapidly accompanied by radical shifts in their currency structure towards the euro and BGL denominated deposits. The resulting widening of the deposit base of the banks now dominating their funding profile increased their lending capacity. Funding opportunities increased also as a result of the support of the foreign parents and the much improved access to the European financial and capital markets. Foreign ownership of the banks have brought about significant improvements in terms of modernization, sophistication, products and service lines, more efficient allocation of funds, improved risk-assessment and management skills. Widening deposit base, access to euro denominated funding and improved risk assessment abilities helped replace the foreign assets investment of the banks by lending with increased exposure to the Bulgarian economy. Improved real sector performance and rising demand for credits resulting from the strong growth of exports to the EU and domestic investments and consumption allowed for a rapid expansion of the banks' lending activity. The asymmetry in terms of currency denomination of the supply and demand for credits was largely eliminated. The initial period of disintermediation was followed by a period of credit boom with credit growth among the strongest in the region. The decelerating growth rates in 2005 and the beginning of 2006 are mainly the result of the restrictive monetary policy on the credit growth introduced by the Bulgarian National bank since 2005.

As at the end of 2004 the ratio of the banking sector's assets to GDP was 65.6%, closely approaching the CEE average of 74%, but far below the EU average of 206%. At the end of 2005 it increased further to 79.3%, which is more than double that level at the end of 2000 (36.53%). The total assets of the banking system amounted to €12.7b at the end of 2004 compared to just €5 b at the end of 2000, and grew further in 2005 to €17.0b. The growth was mainly due to changes in gross loans to non-financial institutions and households which increased nearly six fold between 2000 and 2005 to €9.1b (4.5 fold between 2000 and 2004) with the highest annual growth rates (above 40% and far exceeding the CEE average annual growth rate of 24%) between 2001-2003 before decelerating in 2004 (to 20.3%) and further in 2005 (17.3%) as a result of the restrictive measures imposed by the BNB. Yet lending still grew faster than assets. Group I banks, among which the major majority foreign-owned banks remained the biggest lenders, disbursing 80 per cent of new loans. At the end of 2004 the share of lending in GDP reached 35.11% from as low as 11.31% at the end of 2000 and exceeding the CEE average of 34%. It increased further to nearly 35% at the end of 2005 but is still far below the EU average of 102%.

As a result of these developments loans extended to non-financial institutions now represent the most significant position in the asset structure of the banks, with a share of 54.0%. (53.6% at the end of 2004 and compared to just 31% share at the end of 2000). As of December 31 2005, the structure of the loan portfolio of the banks is as follows: 11% in mortgage loans, 22.6% in consumer loans and 63.1% in corporate loans. Although radically different from that of 2000 (when retail credits were almost negligible) this structure is specific for the Bulgarian banking sector and is reflective of the still low level of penetration of the banking services in the retail sector and its still enormous untapped potential. Recent aggressive marketing and pricing efforts targeting the retail sector and the fierce rivalry between major banks is an evidence of the increasing shift in focus towards this sector that may be expected to lead to radical changes in this structure.

Enhanced lending was financed primarily by growing deposit, which though initially lagging behind the lending growth started to pick up at rates close to those of lending in 2005. As of 31 December 2005, the total deposit base of the banking system reached nearly €13b representing an increase of 3.6 times compared to the end of 2000 levels (2.74 times in 2004) with the highest annual growth

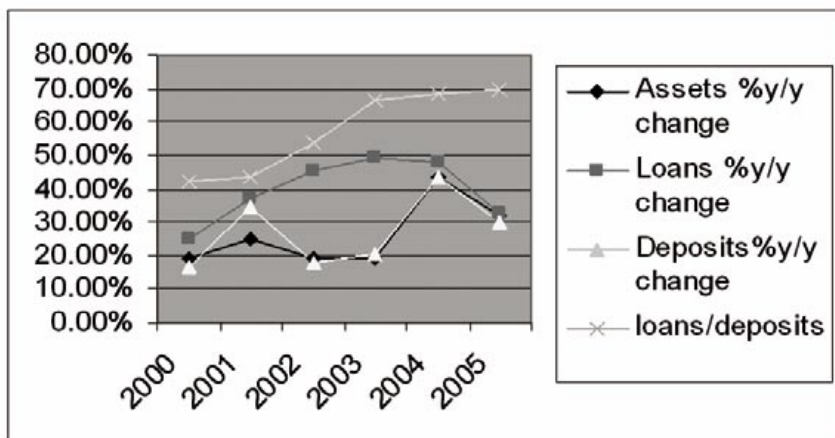
rate achieved in 2004 reflecting both increasing wealth levels and confidence to the banking system, but also more intensive offering of new, more sophisticated products and services to both the retail and the corporate sector enhancing the deposit mobilizing activities of the banks. Deposits from non-financial institutions now account for 77.4% of the liabilities on the balance sheet, and represent a stable and relatively cheap source of funding for the banks radically improving their funding profile. Growth in deposits was accompanied by an improvement in their term and currency structure with time deposits representing 65.1% of total deposits and deposits in the national currency and in euro having almost the same share in their currency structure.

Credit and deposits dynamic during the period led to a significant change in the ratio of loans to deposits which increased from 42% at the end of 2000 to nearly 70% at the end of 2005 evidencing the deepening of the financial intermediation in the economy. The radical shifts in the liabilities and assets mix of the banks resulted in their improved funding, assets and risk profiles. Despite the robust credit growth the Bulgarian banking system remains adequately capitalized. The banking system aggregate equity grew 1.79 times between 2002 and 2005 to reach € 1.79 b owing to capital injections from shareholders and the significant increase in the internal capital generation due to the improved profitability of the banks and the high earnings retention rates. The significant decline in the capital adequacy ratio (from 34.64% in 2000 to 16.6 in 2004-2005) reflects the shift in the asset mix towards more riskier lending and the increased risk taking activities of the banks.

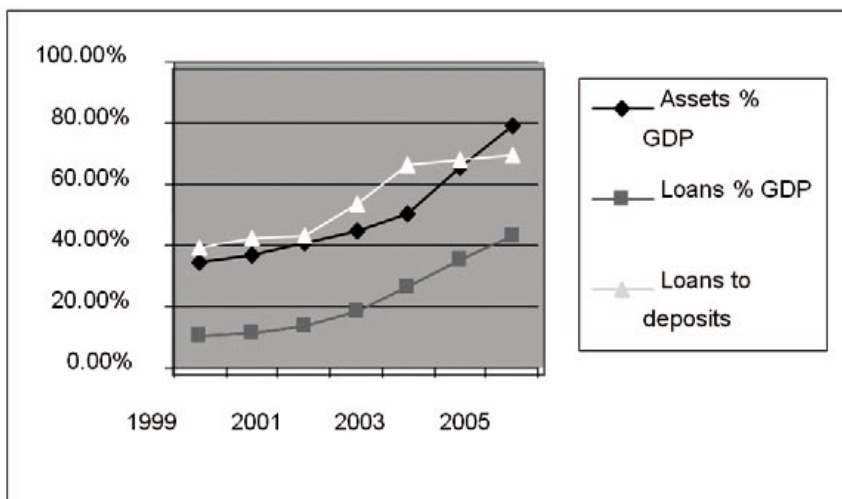
Despite of the aggressive loan growth and the shifts towards more riskier retail and SMEs credit markets the asset quality of the banking system remained good and even improved with the share of standard loans increasing from 91.8% in 2000 to 93.12% in 2004 reflecting partially the dilutive effects of the increased lending volumes but also the improved loan underwriting standards, risk control and risk management techniques and skills of the banks. System liquidity and that at individual banks has also remained high in recent years, despite the aggressive lending and its large share in assets, and the rising liquidity need of the banks due to the enhanced financial intermediation of their clients as banks employed a conservative approach and allocated adequate resources to meet their risk profiles and payment needs.

The performance of the banking sector improved significantly, reflecting the maturing profile of its revenue, asset and funding mix with the disappearance of the heavy dependence on one-off gains or investments in low-risk low-return assets. Despite of the decreasing interest rates and intensifying competition, the banks benefited from growing lending volumes, increasing levels of recurring revenues from fees and commissions, as well as good cost management and more efficient allocation of funds and personnel. The banking system reported profits increased steadily year on year, growing by 16.7% in 2004 and 34.6% in 2005.

The distinguishing feature of the Bulgarian banking sector is the relatively lower level of banking sector concentration compared to its peers in the region and the intense rivalry between larger and medium-sized banks benefiting the public due to competitive pricing and improving quality of products and services offered and increasing the efficiency and welfare effects of the financial intermediation for the economy. As at the end of 2004 the cumulative market share of the five largest banks in Bulgaria decreased to 52.2% and further to 50.8% at the end of 2005. The sophistication of the banking business, products and services improved significantly both on the asset and liability side with banks diversifying their activities into leasing, factoring, insurance, pension and investment funds, cash and asset management to satisfy the ever rising needs and demand of both the corporate and the household sectors for enhanced services, and alternative investment and savings instruments.



Source: BNB



Source: Bulgarian National Bank

Croatia

	2000	2001	2002	2003	2004
Assets % GDP	72.10%	86.10%	92.30%	101.10%	108.90%
Loans to clients		64,111	89,674	106,731	121,913
% y-o-y change			39.87%	19.02%	14.22%
Loans to deposits	113.20%	73.80%	89.80%	93.40%	97.10%
Deposits % of GDP	31.80%	56.90%	56.90%	57.90%	59.80%
Household loans % of GDP	36.00%	42.00%	51.10%	54.10%	58.10%
Corporate Loans % GDP	20.70%	23.10%	26.20%	25.60%	25.80%
Capital Adequacy	21.30%	18.50%	17.20%	16.20%	15.30%
Interest rate spread	7.10%	6.80%	7.30%	7.0%	7.30%
NPLs % of Total loans	9.50%	7.30%	5.90%	5.10%	4.60%
Market Share of state-owned banks in assets	5.70%	5.0%	4.0%	3.40%	3.10%
Market Share of foreign-owned banks in assets	84.10%	89.30%	90.20%	91.00%	91.30%
Concentration in assets	62.00%	60.00%	58.60%	61.00%	65.00%

Source: Bank of Croatia, Bank Austria Credit Anstalt

Croatia is the country with the highest degree of financial intermediation in the region as measured by all indicators of financial intermediation and deepening.

With total banking assets in GDP of 109%, loans to household and corporate sector comprising 84% and deposits 59.8% of GDP as well as with loan to deposits ratio of 97.1% as of 2005 Croatia is not only the leader among the six countries but also compares very favorably with the more advanced countries from the CEE. The banking sector benefited from the strong inflow of foreign capital at much earlier stage of the restructuring and privatization of the banking system and currently accounts for the highest share in the Croatia banking system assets as compared with the other five countries in the region and among the CEE countries. Strong funding and capital support, introduction of modern business practices, services and products, radical shift of focus towards lending and expansion in the retail and corporate sectors, enhanced risk management and IT systems and improved corporate governance brought about by the foreign partners combined with macroeconomic and political stability and prosperity and improved operating environment helped the impressive expansion of the banking sector business and the performance of the banks.

Romania

	2000	2001	2002	2003	2004	2005
Nominal GDP in mln of RON	80,377	116,769	151,475	190,335	238,791	281,200
% y-o-y change		45.28%	29.72%	25.65%	25.46%	17.76%
Banking Assets % GDP	28.90%	30.20%	31.60%	32.60%	38.30%	45.59%
Non-government credit in mln of RON	7,501	11,825	17,873	30,288	41,762	61,864
% y-o-y change		57.66%	51.14%	69.46%	37.88%	48.13%
Non-government credit in % GDP	9.33%	10.10%	11.80%	15.30%	17.00%	21.10%
Non-government credit	11,230	16,984	25,542	36,397	50,183	66,682
% y-o-y change		51.24%	50.39%	42.50%	37.88%	32.88%
Loans to households	52	121	426	1808	4023	10285
% y-o-y change		132.69%	252.07%	324.41%	122.51%	155.65%
Household loans % total loans	0.46%	0.71%	1.67%	4.97%	8.02%	15.42%
Loans to deposits	49.5	53.2	56.3	78.2	75.8	71.0
Deposits % of GDP	18.9	19	21	20.5	23.1	17.7
Household loans % of GDP	9.3	10.1	11.8	16	17.5	12.6%
Corporate Loans % GDP	8.8	9.4	10.4	12.1	12.5	23.0
NPLs % total loans	6.4	3.9	2.8	8.3	8.1	8.3
Capital Adequacy	23.8	28.8	25.04	21.09	20.64	20.3
Concentration of assets	65.4	66.1	62.8	61.5	59.2	58.8
Market Share in Assets of State-owned banks	46.1	41.8	40.4	37.5	6.9	6.0
Market Share in Assets of foreign-owned banks	53.8	60.6	64.9	66.3	62.1	62.2

Source: Bank of Romania, Bank Austria Credit Anstalt and own calculations

Romania is the country with the smallest banking sector compared to its large size and among the lowest level of financial intermediation in the region despite the tremendous growth rates of lending in the last 3 years with the share of total banking assets in GDP of 45.59% as of the end of 2005. The share of GDP accounted for by corporate lending is also particularly low in Romania, amounting to only 12.5% at the end of 2004 and 23% in 2005. The population though overbanked especially with the recent expansion of bank branches is heavily underserved as evidenced by the low though very dynamically increasing share of household's credits in GDP of 17.5% at the end of 2004 and 12.6% in 2005. Persistently low level of confidence to the national currency and the banking system, still insufficient marketing efforts and low pace of modernization of the banking services and products combined with recent rebound in economic activities hampered the mobilization of deposits in the banking system. The dynamics of the share of deposits in GDP is very volatile, with deposits growth reaching its peak in 2004 before subsiding again in 2005 accounting for just 17.7% of GDP. The ratio of loans to deposits increased significantly in the last three years due to the enormous growth in lending activity, but decreased again in 2005 due to the restrictive measures of the Central banks curbing the growth of household deposits.

The major reasons behind were the slow processes of the restructuring and privatization in both the real and the banking sector, and the hesitant and inconsistent political approach to allowing foreign capital penetration in the banking sector which combined with the very volatile macroeconomic environment (high inflation and exchange rate volatility) and political instability led to very slow monetization of the economy despite its impressive stabilization and growth. Major achievements during the period were the rehabilitation, recapitalization and the privatization of the banking sector initiated already in 1999-2000 but only completed with the privatization of the last two but largest state-owned bank - BCR in 2005 and the CEC Savings Bank in 2006. This resulted in the decrease of the state-owned banks in the banking system assets from 46.1% in 2000 to only 6% in 2005. The privatization of the banks was accompanied by the increase in the foreign capital presence in the banking sector as measured by the share of the majority foreign owned banks in the banking system' assets from 53.8% in 2000 to 62.2% in 2005. (69.3% in total banking system' equity). The penetration of foreign banks is even more pronounced if we take into account the relatively high concentration in the sector where the largest five banks, which are majority foreign-owned banks, account for 58.8 % of the banking

system's assets. However, except for Serbia, Romania has the lowest share of foreign capital penetration among the six countries.

Banking sector solvency has improved sharply in recent years, thanks mainly to the successful privatization and steadily higher minimum capital requirements. High capital adequacy ratio, however, evidence the still high aversion to lending due in part to the very tight regulation of the banking sector and restrictive monetary measures but also to the insufficient improvements in risk assessment and management in the banks. The asset structure of the banking sector reveals a persistent focus on low-risk business with interbank market operations, accounting for still very high though diminishing share in assets (31.8%) and credit to non-government, non-banking sector only slowly increasing (47.3% at the end of 2005). The crowding-out of the private sector is still high while at the same time this structure dramatically increases the banks' vulnerability to unexpected exchange rate and interest rate movements. Moreover, the bulk of lending to the private sector is in foreign currency which adds implicitly to the credit risk of the banks.

Albania

	2000	2001	2002	2003	2004	2Q/2005
Banking System Assets in billions ALL	270.8	318.5	339.3	373.6	426.4	476.8
% y-o-y change		17.61%	6.53%	10.11%	14.13%	11.82%
Assets % GDP	50.20%	53.50%	51.60%	50.20%	51.90%	n.a.
Loans to clients	27,725	30,642	32,070	37,111	41,342	58,374
% y-o-y change		10.52%	4.66%	15.72%	11.40%	41.20%
Placements with other banks	27,285	29,576	33,803	37,301		
% y-o-y change		8.40%	14.29%	10.35%	10.20%	
% change in Other securities					46.70%	
Loans to deposits	9.10%	10.20%	13.50%	15.70%	19.00%	
NPLs % of Total loans	36.3	7	5.5	4.5	4.2	
Deposits % of GDP	47.90%	46.80%	45.40%	46.50%	47.30%	
Household loans %of GDP	1.60%	0.70%	1.10%	1.80%	2.70%	
Corporate Loans % GDP	2.80%	4.10%	5.10%	5.60%	6.20%	
Capital adequacy	42	35.3	31.6	28.5	21.6	
Market Share of state-owned banks in assets	42	35.3	31.6	28.5	21.6	

Source: Bank of Albania, Bank Austria Credit Anstalt and own calculations

Albania ranks fourth in terms of the share of banking sector assets in GDP (53.5% in 2004) and second in terms of deposits to GDP (47.4% in 2004) yet has the lowest level of financial intermediation and deepening of the private and household sectors with the shares of household and corporate loans in GDP of only 8.9% and 6.2%, respectively at the end of 2004. The reasons were the slow process of restructuring and privatization of the banking sector in the face of the tremendous scales of the problems of the non-performing loans. This led to prolonged time of credit freeze and restrictions on lending activities of the banks in an effort to stabilize the financial health of the sector. Combined with insufficient capitalization, limited access to funding and the lack of attractive investment opportunities in the slowly developing real sector and the low wealth levels of the population, due in part to high unemployment this limited the activities of the banks to treasury and interbank operations and investments in foreign securities.

However, the period 2000-2005 was marked by the completion of the restructuring and privatization process resulting in the now much healthier, better capitalized and modernized banking system. With more adequate financial resources, the banks are now both more willing and capable to intermediate both the corporate and the retail sector. Moreover, the Albanian banking sector now ranks among the countries with the highest foreign majority ownership in the region, with majority foreign-owned banks accounting for over 90% of total banking system' assets.

The results were quick to come and 2005 saw a boom in the credit activities of the banks with half year volumes exceeding the volumes of 2004. The most dynamic component are the household credits, followed by corporate credits. These developments are driven by strong demand due to rising consumption, booming real estate market and investment activities of the corporations.

Macedonia

	2000	2001	2002	2003	2004	2005
Nominal GDP in mln of denars	236,389	233,841	243,970	251,486	265,257	284,027
<i>% y-o-y change</i>		-1.08%	4.33%	3.08%	5.48%	7.08%
Banking Assets % GDP	55.60%	54.90%	49.90%	52.00%	56.70%	53.35%
Non-government credit in mln of RON	27,725	30,642	32,070	37,111	45,889	58,908
<i>% y-o-y change</i>		10.52%	4.66%	15.72%	23.65%	28.37%
Non-government credit in % GDP	10.80%	11.00%	11.60%	13.40%	17.30%	20.74%
Loans to deposits	72.5	42.3	52.8	52.7	58.8	60.1
Deposits % of GDP	14.9	26	22	25.4	29.4	34.5
Household loans % of GDP	1.5	1.5	2.2	3.5	5.4	
Corporate Loans % GDP	9.3	9.5	9.4	10	11.9	
NPLs % total loans	34.8	33.7	15.9	15.1	13.2	10.9
Capital Adequacy	36.8	35.3	28.1	25.8	23	21.3
Concentration of assets	55.8	55.5	54.1	55.5	52.9	66.1
Market Share in Assets of State-owned banks	1.1	1.3	2	1.8	1.9	
Market Share in Assets of foreign-owned banks	53.4	51.1	44	46.9	47.3	
Interest rate margin	7.70	9.50	8.80	8.00	5.90	6.90
ROE	3.8	-3.2	2.1	2.3	2.3	8.1
ROA	0.8	-0.7	0.4	0.5	1.1	1.3

Macedonia has one of the least developed banking systems in the region despite the relatively high number of banks compared to its small population. (21 banks and a population of 2.1 million at the end of 2004). Despite the fact that the country is overbanked and ranks favorably compared to Serbia, Albania and Romania in terms of most of the indicators, the level of financial intermediation is low and progress in its deepening as well as the development in the banking sector is very slow compared to its peers. Macedonia lags behind most of the countries in terms of growth in assets and most importantly in lending activities to the corporate and the retail sector, except for the recent boom in the consumer lending. This is mainly due to the low level of development and sophistication of the banking sector, still heavily burdened with non-performing loans, and continued practices of inefficient lending to the corporate sector, resulting from the inefficient ownership structure of the banks and poor corporate governance.

Slow process of banking and real sector restructuring and privatization and weak macroeconomic environment prevented a sizable inflow of foreign capital in the country and Macedonia has one of the lowest levels of foreign capital presence in the banking system. (Majority foreign-owned banks' share of 47.3% in total assets).

Serbia

	2000	2001	2002	2003	2004	2005
Banking Assets % GDP	185.20%	126.70%	36.40%	31.50%	38.80%	
Loans to deposits	385	237.3	111.4	90.3	104.1	
Deposits % of GDP	14.7	13.4	15.5	17.7	20.7	
Household loans %of GDP	56.6	31.7	17.2	16	21.5	
Corporate Loans % GDP	54.5	29.7	15.2	13.2	16.2	
NPLs % total loans	13.7	12.7	24.3	22.5	23.3	
Capital Adequacy	0.7	21.9	30.6	31.3	27.9	
Concentration of assets			46.6	39.5	47.3	
Market Share in Assets of State-owned banks	91.4	65.5	49.4	46.7	34.7	
Market Share in Assets of foreign-owned banks	1.4	13.2	27	22.9	37.7	
Interest rate margin	71.60	28.40	16.50	12.10	11.00	
ROE	-78.5	-26	-34.5	-1.2	-5	
ROA	-6.2	-3.6	-8.7	-0.3	-1	

Serbia is a special case in the region due to the very late start of the profound banking sector reforms following a period of a prolonged political, military and economic turmoil, economic sanctions and international isolation. The period 2000-2004 was marked by sweeping and probably the most radical reforms of the banking sector in the region, including: the closure of the four major banks accounting for 60% of banking sector assets and three quarters of the outstanding commercial loans; the mergers between fifteen other banks; a considerable cleansing up of bank portfolios and the recapitalization of banks. Closing down of banks and consolidations resulted in the reduction of the number of banks and a considerable improvements in the capitalization and liquidity of banks but also to a considerable reduction in all indicators of financial intermediation. The turning point in the development of the banking system was 2004 which was characterized by a rebound of the lending activities of the banks. Furthermore, the entrance of foreign banks played a prominent role in the restoration of the confidence in the banking sector helping the growth of the banking

sector deposits, with foreign banks accounting for the lion share in new deposits.

All these positive developments, notwithstanding, the banking sector development has still a long way to go.

The review of the development of the banking sector reveals that the level of financial intermediation as measured by the share of total banking assets/GDP, private sector credits/GDP and private sector deposits/GDP differs substantially among the six countries and as compared with the Euro zone ranging between 108.9%(61.7%, 60.3%) for Croatia, followed by Bulgaria with 65% (35.5%, 39.4) and 38.3% (18.4%, 24.1%) for Romania and compared with the Euro zone average of 206%(102%,73%). Furthermore, the evolution and the deepening of the financial intermediation seems to be associated with the timing and scope of the foreign capital penetration as most of the lending and deposit growth appeared only after a sizable entry of foreign capital following large scale privatizations of banks. Countries with the most dynamic growth of credits to private sector and deposit growth are those with the highest share of foreign banks Bulgaria (85% of total assets), Croatia (91%), Albania (90%) and recently Romania. The reasons were that foreign banks brought about not just capital and access to external funds that helped resolve the undercapitalization and illiquidity problems of the banks, but helped restore confidence to the banking systems, devastated by financial crises, introduced prudent and advanced lending practices, new products and services, customer orientation, modern risk assessment and management practices, IT upgrades that helped both risk management and reach out broader customer base, and western style corporate governance that made the banks both more capable and willing to intermediate the private sector.

2. Country analysis of profitability and efficiency of the banking sector

The paper next makes a comparative analysis of the evolution and current state of the profitability and efficiency of the banking sectors in each country with emphasis of the contribution of foreign capital entry on these developments. Using quantitative (Dupont analysis) and qualitative methods (assessment of the quality of earnings, assets and liabilities, business strategy, product mix, risk management and corporate governance etc.) the paper examines the evolution of the determinants of the banking sector profitability and efficiency.

The Dupont model is based on the following identities starting with the return on equity (ROE) as the generally accepted measure of profitability of an investment:

$$\text{ROE} = \text{EAT/EBT} \times \text{TA/E} \times \text{ROA}$$

Where: EAT/EBT is the ratio of after-tax earnings to earnings before tax and measures the success of tax management policy.

TA/E is the ratio of total assets to equity and is a measure of financial leverage.

Both of the above indicators are relatively stable over time.

ROA is the return on assets, defined as earnings before tax to equity and measures the ability to generate revenues from assets after all expenditures are covered and is the most widely used indicator of comparing banks efficiency and profitability.

ROA or return on assets is further disaggregated into:

$$\text{ROA} = \text{NNII/TA} + \text{EA/TA} \times (\text{IR-IE})/\text{EA}$$

Where:

NNII/TA is the ratio of net non-interest income to total assets and along with other indicators measures the bank's success in maintaining control over operating costs. Very high levels of this ratio may indicate low credit activity, heavy reliance on non-core activities and a focus on investments and foreign exchange transactions. This implies high exposure to market risk, lack of diversification of revenues and assets and therefore high volatility and unsustainability of earnings.

EA/TA is the ratio of earnings assets to total assets. It is indicative of the strategic focus of the bank and the success in diversification of business and product mix and therefore, of revenue diversification. It may be affected by the competition and the monetary policy.

(IR – IE)/EA – Interest revenue minus Interest expenditures to earnings assets or net interest margin (NIM) is a key indicator representing the net income achieved from the core intermediation activities of the banks from investing through borrowed funds.

NIM can be further analyzed by breaking it down into: the return on earnings assets as measured by the ratio of interest revenues to earnings asset which is largely reflective of the level and intensity of competition, the cost of liabilities as measured by the ratio of interest expenditures to liabilities, which depends on the access to funding and the ability to mobilize deposits, and the ratio of liabilities to earnings assets as a measure of intensity of bank's investment activities and business focus.

Apart from revealing the determinants of the profitability and efficiency of the banking sector in each country, the Dupont analysis' indicators will be reflective of the developments in the banking sector capturing also the impact of foreign capital penetration in terms of deepening financial intermediation, better risk management, business strategy and corporate governance.

The analysis includes various other indicators of cost efficiency, non-performing loans, capitalization and liquidity of the banks as well as the developments in interest margin that help capture the effect of foreign capital entry in terms of competitive environment, micro- and macroeconomic efficiency of financial intermediation and risk management, improvements in financial soundness and stability of the banks and the sustainability of efficiency and profitability in the future.

When using the components of the Dupont system the generally accepted rule says that if the sector is competitive the profit margin should decrease over time as a result of efficiency gains due to the decreased overheads, transferred to customers. Enhanced corporate governance, efficient cost control systems, and productivity gains would normally lead to a steady decrease in the non-interest expense to net operating income and cost to assets ratios despite considerable investment and labor cost, contributing to improved efficiency. High overheads especially with respect to profit before taxes are clearly an indicator of inefficiency.

The relative weight of interest revenue and non-interest revenue is also of specific importance here as its evolution reflects the changing role of the banking system in the financial deepening of the economy, as well as the ability of the banks to diversify the sources of their revenues.

Since economies of scale and scope are an extremely important factor for the efficiency and profitability gains of the banks, the superiority of the foreign banks in providing the bulk of net loans due to better risk assessment and credit expansion expertise attracts special attention. Moreover, since foreign banks seem to rely less on deposit-based funding, and have much better access to whole-sale and parents capital, loan growth is usually stronger and less volatile, contributing to better performance results.

The Bulgarian Banking sector

	1999	2000	2001	2002	2003	2004	2005
Gross Domestic Product	12,163,859	13,678,506	15,190,078	16,532,665	17,663,418	19,433,389	21,188,000
Banking System Assets	4,204,572	4,997,121	6,248,257	7,442,939	8,857,438	12,740,043	16,796,390
% y-o-y change		19.40%	25.04%	19.12%	19.00%	43.83%	31.84%
Loans to clients	1,226,808	1,545,254	2,119,747	3,085,092	4,609,015	6,823,269	9,068,920
% y-o-y change		24.94%	37.18%	45.54%	49.40%	48.04%	32.91%
Total Deposits	3,122,146	3,638,456	4,885,748	5,768,477	6,950,254	9,984,720	12,993,214
% y-o-y change		16.43%	34.28%	18.07%	20.49%	43.66%	30.13%
Loans to deposits	39.29%	42.47%	43.39%	53.48%	66.31%	68.34%	69.80%
Assets % GDP	34.57%	36.53%	41.13%	45.02%	50.15%	65.56%	79.27%
Loans % GDP	10.09%	11.30%	13.95%	18.66%	26.09%	35.11%	42.80%
ROA	2.47%	3.14%	2.90%	1.99%	2.38%	2.06%	2.02%
ROE	16.45%	20.35%	20.25%	14.85%	18.02%	17.32%	18.91%
Net Interest Margin	4.87%	5.47%	5.09%	4.57%	5.55%	5.70%	5.47%
Cost-Income Ratio*	59.48%	50.06%	62.94%	63.23%	61.99%	57.77%	54.74%
Loan Loss Reserve Ratio	na	6.50%	5.16%	4.11%	3.85%	3.37%	3.49%
Net Interest Income/Gross operating Income						88.04%	65.54%
Price of Financing						1.94%	3.09%
Recurring earnings power						1.85%	2.27%
Standard Loans (% total loans)	88.28%	91.80%	92.98%	94.47%	92.72%	93.12%	na
Equity/Assets ratio	15.55%	15.35%	13.54%	13.30%	13.17%	10.97%	10.49%
Tier I CAR	30.31%	25.10%	22.01%	17.05%	14.40%	14.06%	na
Total CAR	41.31%	35.64%	31.32%	25.22%	22.03%	16.08%	na
Degree of asset coverage	15.28%	15.15%	13.60%	12.75%	13.24%	9.84%	na

Source: BNB and own calculations

* adjusted cost/income ratio to exclude other non-interest income for 2003: 65.87%, 2004:60.35% and 2005:58.13%

Note: BNB requires a 6.0% Tier I ratio and 12% total CAR

The performance of the now transformed and predominantly foreign-owned banking sector in Bulgaria improved significantly during the period 2000-2005 with the increasing share of assets deployed in loan rather than trading activities, government securities and interbank placements and the elimination of their heavy dependence on one-off gains from currency revaluations and on revenues in which banks have little influence on yields. The earnings have been increasingly diversified with revenues from lending now dominating the earnings profile and with the broadening client base and revenue mix that improved their quality and sustainability. The diversification of revenues, the increased volume and diversification of lending led to improved and more sustainable results despite the decreasing interest rate margins resulting from the intensified competition.

Revenue growth was driven by high net interest income from the booming loan activity and strong fees and commission income on new products and services, both in lending and borrowing. Steady revenue growth from core operations, high net interest revenue, supported by increased share of the higher margin retail and SMEs sectors were the most significant determinants of ROE and ROA. They were further supported by strong deposit base of the banks which dominate their funding profile (72% share of customer deposits in total liabilities) and benefited from positive inflows due to increasing corporate and household wealth and liquidity. Banks have been also diversifying further their funding profile by increasing recourse to capital markets both at home and abroad.

The gradual decline of ROE and ROA over the period reflected the outpacing growth of assets compared with the main revenue sources (interest, fees and commissions), diminishing average return on earnings assets due to declining lending rates resulting from the intensified competition, rising cost of funding and provisioning and higher non-interest costs driven by the investment requirements in new IT and infrastructure upgrade and new distribution channels. This was reflected in the declining net interest margin from 5.7% in 2004 to 5.5 % in 2005. All these trends notwithstanding, and despite of the tightening monetary measures which curbed the credit expansion from the peak of 43% in 2004 to less than 20% in 2005, net profits continued to rise which is especially pronounced in the last two years. The net income of the system amounted to €299m in 2005, up from €222m in 2004. Despite the stiffened competition between the banks, resulting in a decrease of the interest rates on loans and increase of the interest rates on deposits, the profitability of the banking system remained robust. Profits, however, are concentrated among the largest banks which benefit from pricing power, economies of scale, more efficient allocation of funds and good cost management. In 2005 the ROE of the system increased from 17.3% in 2004 to 18.9%, the ROA remained almost flat – at 2.0% and the net interest margin decreased from 5.7% in 2004 to 5.5%.

The interest rates spread (measured as the difference between the weighted average interest rate on BGN-denominated long- and short-term loans and overdraft and the weighted average interest rate on the BGN-denominated term deposits of households and institutions, incl. savings deposits and overnight) continued to decrease to 7.26% as of the end of December 2005. The decline was driven mainly by the decrease of the weighted average interest rate on

loans to 8.88% in December 2005 with interest rate on deposits increasing only slightly to 1.62%. The interest rates on corporate loans (short- and long-run) decreased to 9.10% in December 2005, whereas the average interest rate on consumer loans (short- and long-run) decreased to 10.58% in December 2005, narrowing the spread between the consumer and corporate loans to 1.48%. The decrease of the rates on consumer loans resulted from the increased competition in the banking sector and the desire of the banks to offer more favorable rates for the long-term loans, associated with a longer “binding” of the clients and guaranteeing interest and non-interest income of the banks.

Despite robust credit expansion the asset quality remained good with nonperforming loans to total customer loans of 3.6%, at the same time the standard loans increased from 92.72% in 2003 to 93.12% in 2004. Capitalization although declining from the previously high level to 16.08 % currently is adequate and well above the required minimum of 12% and the degree of balance-sheet liquidity is high. Thus the financial health of the banking system and the quality and degree of their intermediation between the borrowers and savers improved dramatically. The efficiency ratio (56.67 per cent by June 2005) improved both on June 2004 (60.58 per cent) and on the same period of 2003 (63.46 per cent) showing good profitability at most institutions.

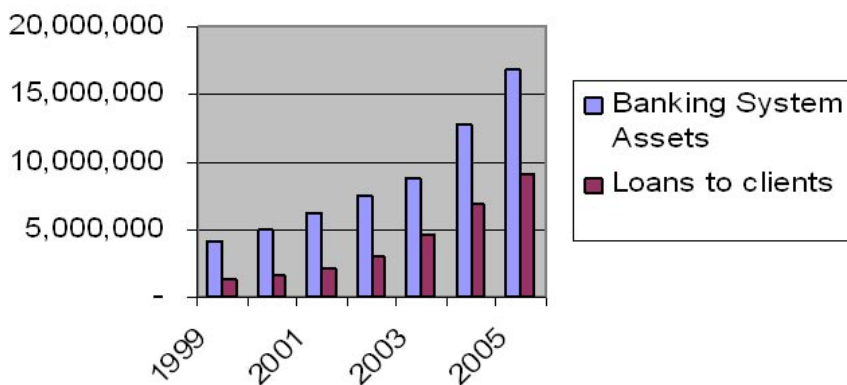
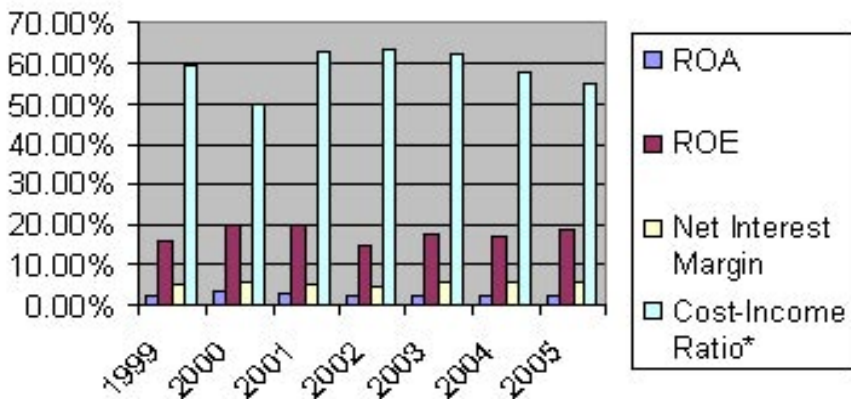
The impressive improvements in pre-provisioning income provides a comfortable cushion against unexpected deterioration of loan quality and was the source for internal generation of capital needed for the business expansion of the banks, investments in new product and service lines, modernization and technological innovation.

Under the conditions of the restrictive monetary policy, increased credit risk and intensified competition, as well as squeezing net interest margin, the banks sought to diversify their revenues and enhance their profitability by entering new lines of businesses like investment banking and consulting, underwriting bonds, discretionary and non-discretionary asset management, custody, trading, leasing, factoring, investment and pension plans and life insurance etc. that along with protection against squeezing net interest margins provided them with protection against loss due to increasing savings and asset disintermediation.

The wholesale banking is increasingly turned into a mix of fee-generating and loan providing services in order to support corporate sector needs. In addition to provid-

ing loans to businesses the banks started to explore opportunities for underwriting bonds, arranging project finance for the large projects in the local market expected to be launched within the EU initiatives, provide advisory, trading, custody and asset management services to support their financial plans and growth.

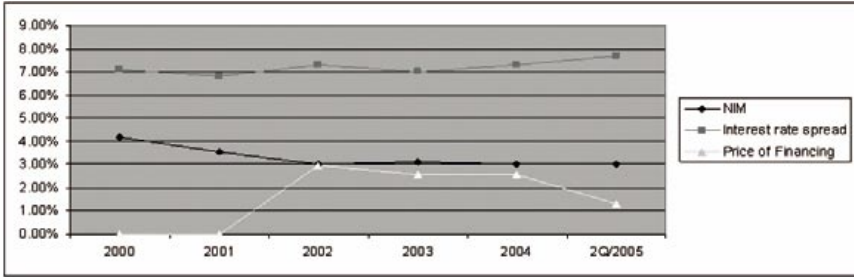
The banks now control fully the intermediation between savers and borrowers and most of the other areas of financial activities like share brokerage, fund management, leasing companies and insurance. As the financial markets develop, opportunities will increase for banks to diversify and enhance their earnings as well as to lower their risks through new services and products.



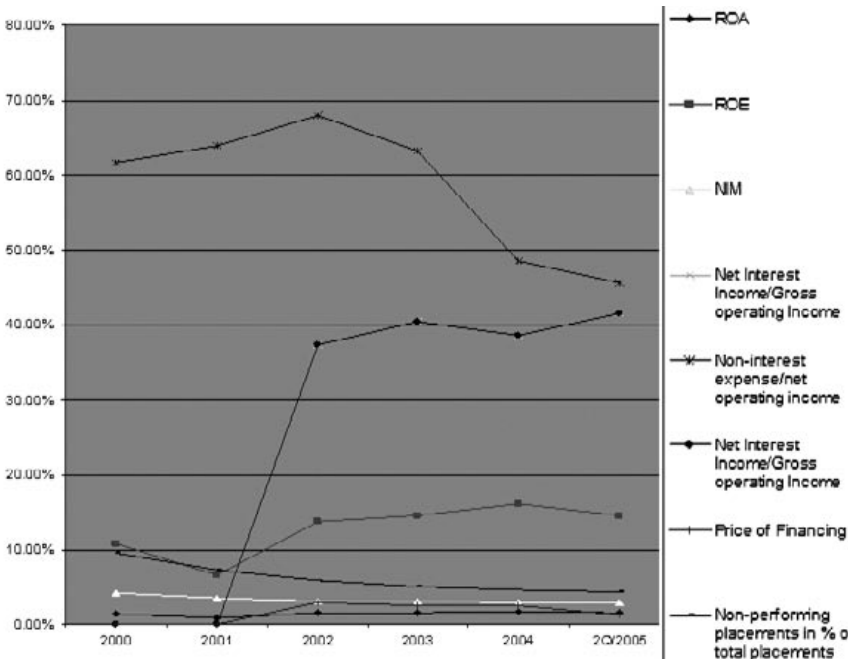
The Croatian Banking system

in millions Kunas and %	2000	2001	2002	2003	2004	2Q/2005
Total Assets		148,428	174,139	204,115	229,305	235,748
<i>% y-o-y change</i>			17.32%	17.21%	12.34%	2.81%
Loans to non-financial institutions and households		64,111	89,674	106,731	121,913	134,929
<i>% y-o-y change</i>			39.87%	19.02%	14.22%	10.68%
Loans/assets		43.19%	51.50%	52.29%	53.17%	57.23%
Total Liabilities		134,732	157,630	185,958	209,623	214,995
Deposits		104,697	124,472	143,693	155,278	155,947
<i>% y-o-y change</i>			18.89%	15.44%	8.06%	0.43%
Deposits/liabilities		77.71%	78.96%	77.27%	74.07%	72.54%
Loans/Deposits		61.23%	72.04%	74.28%	78.51%	86.52%
Equity		13,696	16,509	18,157	19,681	20,753
Equity/liabilities		10.17%	10.47%	9.76%	9.39%	9.65%
Equity/deposits		13.08%	13.26%	12.64%	12.67%	13.31%
ROA	1.40%	0.90%	1.60%	1.60%	1.70%	1.50%
ROE	10.70%	6.60%	13.70%	14.50%	16.10%	14.50%
Interest income			9,919	11,093	11,825	6,237
Interest expenditure			4,655	4,784	5,368	2,790
Net interest income			5,264	6,309	6,457	3,447
NIM	4.19%	3.56%	3.02%	3.09%	3.00%	3.00%
Net Income from commissions and fees			1,373	1,482	1,642	910
Net Other income			1,580	1,494	1,819	228
Net non-interest income			2,953	2,976	3,461	1,137
Total non-interest expenses			1,932	2,317	2,058	913
Overhead&depreciation			4,427	4,832	5,055	2,583
Net operating income before provisions			3,096	3,666	4,244	2,001
Gross operating income			14,110	15,598	16,726	8,287
Provisions			552	655	552	180
EBT			2,544	3,011	3,693	1,775
Net Income			2,075	2,507	3,142	1,461
Total Operating expenses			11,014	11,933	12,481	6,286
Operating costs/assets	3.44%	3.08%	6.32%	5.85%	5.44%	2.67%
Non-interest expense/net operating income	61.74%	63.96%	67.98%	63.20%	48.49%	45.63%
Net Interest Income/Gross operating Income			37.31%	40.45%	38.60%	41.60%
Price of Financing			2.95%	2.57%	2.56%	1.30%
Non-performing placements in % of total placements	9.50%	7.30%	5.90%	5.10%	4.60%	4.30%
Capital Adequacy	21.30%	18.50%	17.20%	16.20%	15.33%	15.06%
Interest rate spread	3.30%	3.80%	7.30%	7.00%	7.30%	7.70%

Source: Bank of Croatia and own calculations



Source: National Bank of Croatia



Source: National Bank of Croatia

Profitability and efficiency evolution of the banking sector in Croatia reflect the benefits associated with the strong foreign banks penetration into the system, which contributed to the competition, modernization and strengthening of the banking business on both the asset and liability side, in terms of volumes and quality of banking products and services. Earnings have improved strongly since 2000, with increasing share of revenues from core banking activities and di-

verification into new lines of activities leading to a steady increase of income from commissions and fees. Credit expansion was accompanied by significant improvements in assets quality due to better bank risk management. The reduction in the share of non-performing loans reduced sharply the provisioning costs of the banks and was among the major factors behind the improvement of the net results of the banks. The share of non-performing placements to total placements decreased from 9.5% in 2000 to 4.3% in 2005. Enhanced corporate governance, efficient cost control systems, realized economies of scale and productivity gains led to a steady decrease in the non-interest expense to net operating income and cost to assets ratios despite considerable investment and labor cost, contributing to improved efficiency. Restrictive monetary measures as well as banks' successful efforts in mobilizing deposits improved the funding profile of the banks limiting to a certain extent its previous heavy reliance on foreign borrowings and allowing to keep control on funding costs despite intensifying competition leading to a rise in the interest rates on deposits. Recent decrease in the net interest margin, despite the relatively stable interest rate spreads can be attributed to the decrease in the interest earnings assets associated with the restrictive monetary policy. High minimum liquidity requirements and the requirements of the banks to maintain a minimum coverage of their foreign currency liabilities in short-term foreign currency claims imposed by the Central bank to curb the foreign borrowings of the banks which was heavily used by the banks to finance their domestic credit expansion have led to a shift in the asset structure of the banks towards lower yielding assets that have had a negative effect on the profitability of the banks.

In Croatia the predominance of the lending to households as opposed to corporate lending and within the retail sector, is predominated by mortgage lending against consumer lending. This structure enhances profitability from higher exposure to the higher margin retail sector and improves the risk profile of the credit portfolios of the banks due to the collateralized nature of housing loans as opposed to uncollateralized consumer lending and the high concentration risk of corporate lending. It also reflects the high level of household intermediation in Croatia. On the other hand, however, still low levels of corporate lending reveals the insufficient levels of banking intermediation of the private corporate sector and the conservative risk-taking approach to consumer lending, further restraint by the restrictive monetary policy.

The considerably lower rates of credit growth in recent years in Croatia accounts for the major differences between the ROE and ROA evolution in the Bulgarian and the Croatian banking sector. Despite of the comparable interest rate margins, the net-interest margin of the Bulgarian banks is considerably higher contributing to much better results in terms of ROA and ROE. Part of the explanation of these results is also the differences in concentration levels of the banking sectors in the two countries. Much higher concentration in the Croatian sector allows for efficiency gains due to economies of scale, however, fierce rivalry within the more segmented Bulgarian banking sector exerts hard pressure on improving efficiency of the banks.

The Romanian Banking system

	2000	2001	2002	2003	2004	2005
ROA	1.5	3.1	2.6	2.2	2	1.7
ROE	12.5	21.8	18.3	15.8	15.6	13.0
Equity/Assets	8.62	12.11	11.61	10.89	8.93	8.8
General risk ratio	38.67	39.73	42.9	50.57	46.95	47.8
Interbank placements/ assets	37.08	38.62	38.75	32.77	33.58	29.5
Loans to clients/Assets	30.5	32.02	35.9	48.24	45.64	46.6
Net interest income less provisions/assets				4.1	4.1	3.0
Net interest income less provisions/gross income				11.6	15.3	6.3
Liquid assets/total assets				62.7	63.6	61.8
Liquid assets/short-term liabilities				210.8	193.9	245.7
f.c.loans/total loans				56.4	61.5	54.4
f.c.liabilities/total liabilities				45	46.8	44.3
off-balance-sheet credit equivalents/total loans				35.3	33.8	33.9
monthly average T-Bill yield	62.4	38.4	17.4	18.4	11.5	6.2
real monthly average T-Bill yield	15.4	6.3	-0.3	3.7	2	-2.2
Interest Rate Spread	20.8	19.6	18.3	15.4	14.5	17.7

The dynamics of the ROE and ROA for the Romanian Banking sector has been volatile reflecting the dynamic and radical changes in the banking industry and operating environment of the banks. Though much higher until 2002 ROE and ROA were largely associated with the volatile macroeconomic environment (high inflation and interest rates) with banks benefiting from investments in government

securities providing high, risk-free return and very high interest margins in the corporate and retail sectors to compensate for the very low credit volumes. Furthermore, improvements in financial results were associated with the decrease in the provisioning requirements due to a large extent to the cleansing up of the portfolios of the banks, by transferring non-performing loans to a specialized agency, but also due to the very risk averse lending behavior of the banks which engaged mainly in foreign currency and trading activities and safe investments at the expense of the lending to the real sector, comprising only 30% of their assets. Despite the impressive figures of ROE and ROA, the profits of the banks were meager and insufficient to generate internal capital which coupled with their low capitalization did not allow sizable expansion of the banks. Subsiding inflation rates, accompanied by decreasing interest rates and yields on the government securities market forced the banks to seek opportunities to enhance profitability by increasing their exposure to the corporate and the retail sectors. This was further facilitated by the bank's now much better capitalization resulting from the restructuring and the privatization of banks associated with large capital injections as well as by the improved funding profile of the banks with the rebound in the growth of the deposits from households and corporations and sizable inflow of foreign capital into the banking system.

The period after 2003 saw the first visible results of improved profitability due to core banking activities with net profits rising at double digits rates due mainly to the expansion of net interest margin associated with the tremendous increase in the lending activities of the banks to the non-government sector. Moreover, the banks with the largest increase in their credit market share accounted for the bulk of the profitability growth rates.

Net interest margin increased on the back of a tremendous increase in the volume of lending to corporations and households which grew more than eightfold between 2000 and 2005 and now account for 47.3% of the banking system assets compared to 30.5% in 2000 and 36% in 2002. Improvements of profitability and efficiency were also associated with better diversification of revenues in terms of client and product base, which allowed banks to make profits despite the fast decreasing interest margins due to monetary policy measures and as competition for market share intensified. Moreover, strengthened and efficient credit risk control allowed credit expansion without a significant deterioration of the quality of assets, despite tightening classification requirements.

Still low contribution of interest revenues from lending activity, high proportions of provisioning costs, combined with still insufficient interest income lead to low and diminishing net interest margins despite the high interest rate margins and the relatively low funding costs of the banks as low interest deposits provide the main funding source for the banks. Extremely high liquidity ratios though prudent under the still very volatile macroeconomic environment and fragile confidence towards the banking sector represent a considerable drag on the return of assets. Explosive growth of labor, administrative and investment costs associated with the expansion of the banking infrastructure is an additional factor for the low efficiency of the banks.

The Albanian Banking System

	2000	2001	2002	2003	2004	2Q/2005
Share of Treasury and interbank transactions in total assets			80.6%	76.5%	72.4%	69.7%
Incl. treasury bills			51.6%	49.6%	45.8%	44.5%
Incl. interbank transactions			18.3%	16.2%	15.6%	14.7%
Loans to private sector and households			10.9%	12.8%	15.2%	16.1%
Of which: real estate loans			1.9%	2.1%	2.5%	2.5%
Securities transactions			5.0%	5.4%	7.0%	8.9%
Net Interest Income	2,594	1,858	2,430	2,536	3,017	3681.33
<i>% y-o-y change</i>		-28.37%	30.79%	4.36%	18.97%	22.02%
Net Provisions	2,922	2,542	1,798	2,334	229	45.04
Net Interest income after provisions	-328	-684	632	202	2,788	
Net fees and commissions income	1,866	1,802	2,287	1,927	1,103	1069.05
Operating costs	3,084	3,525	4,059	4,281	2,364	2504.35
Operating expenditures	10,691	10,860	11,242	11,088		
Net Income	6,450	-6,200	3,960	4,456	9149	3316
ROE	20.70%	21.60%	19.10%	19.50%	21.10%	24.29%
ROA	2.10%	1.50%	1.20%	1.40%	1.28%	1.46%
NIM	-0.50%	-0.70%	0.80%	3.23%	3.08%	3.30%
Interest revenue/earning assets	2.60%	1.30%	3.30%	2.00%	6.96%	6.70%
Cost of borrowing	3.30%	2.20%	2.80%	2.00%	3.88%	3.40%
NPLs/total loans	33.60%	7.00%	5.50%	4.50%	4.20%	2.40%
Capital Adequacy	42.00%	35.30%	31.60%	28.50%	21.60%	19.80%

Source: Bank of Albania

The Albanian banking system shows consistently high results in terms of ROE and relatively good results in terms of ROA over the period 2000-2005. A closer look at the components of ROE and ROA, and the determinants of these results, however, reveal heavy reliance on inter-bank and treasury operations which accounted for the bulk of the banking sector business and revenues. Improvements in net results were mainly based on the lucrative government securities market providing the banks with consistently high and relatively risk-free income at the expense of real sector lending which accounted for just between 11 and 16% of all banking assets. Furthermore, improvements in performance were associated with the drastic decrease in non-performing loans as a result of the cleansing up of the banking sector loan portfolios as part of the restructuring and privatization process of the banks from 2002 on. Despite the considerable lending potential judging from the high proportion of deposits in GDP (more than 47%) compared to private sector lending of just 11% in GDP and loans to deposits ratio of only 19% the banks followed extremely risk-averse lending behavior partly because of the weak real economy but also as a result of the lending freeze imposed on the banks with high share of non-performing loans as well as the lending restrictions on the largest Savings Bank holding 56.5% of total deposits, which resumed its lending activity only in 2005. Despite of the large interest rate spread the contribution of net-interest income from lending activities has only minimal contribution to profitability and efficiency of the banking system. The risk-averse behavior is also evidenced by the high capital adequacy ratios and the high proportion of liquid assets (over 75%) in total assets.

Starting from 2004 the lending activities of the banks increased particularly from the beginning of 2005 with lending volumes in the first half of the year exceeding their annual volume for the whole 2004. Despite narrowing interest rate spreads resulting from the easing of the monetary policy, revenues from lending activities increased considerably contributing to improvements of the net results despite the increase in operating expenditures and other costs associated with the broadening banking infrastructure, IT upgrades and personnel developments.

The Macedonian Banking system

	2000	2001	2002	2003	2004	2005
ROE	3.8	-3.2	2.1	2.3	2.3	8.1
ROA	0.8	-0.7	0.4	0.5	1.1	1.3
Total assets	131,432	128,379	121,741	130,773	150,401	151,528
Placements to other banks	27,285	29,576	33,803	37,301	37,711	42,906
in % assets	20.76%	23.04%	27.77%	28.52%	25.07%	28.32%
Placements to clients	27,725	30,642	32,070	37,111	42,119	62,973
	21.09%	23.87%	26.34%	28.38%	28.00%	41.56%
Liabilities	81,999	105,633	93,213	104,875	109,159	145,377
Equity	19,102	19,159	19,279	20,075	20,479	22,607
Assets/Equity	7	7	6	7	7	7
Net Interest Income	2,594	1,858	2,430	2,536	n.a.	1,300
Net provisions	2,922	2,542	1,798	2,334		199
NII after provisions	-328	-684	631	202	n.a.	1,101
Net fees and commissions income	1,866	1,802	2,287	1,927	n.a.	666
Other income	3,039	2,020	2,259	2,902	n.a.	277
incl. extraordinary income	2,306	1,384	1,785	2,136	n.a.	175
Operating costs	3,084	3,225	4,059	4,281	n.a.	1,265
Operating income	11,500	10,346	11,713	11,619	n.a.	2,044
Operating expenditure	10,691	10,860	11,242	11,088	n.a.	1,341
EBT	809	-514	471	531	n.a.	818
Net Income	645	-620	396	448	n.a.	
NIM	1.97%	1.45%	2.00%	1.94%	n.a.	0.86%
NNII/TA	3.73%	2.98%	3.73%	3.69%		0.62%
IR/TA	3.90%	3.49%	4.46%	3.95%		1.42%
IE/Liabilities	33.00%	22.00%	2.80%	2.00%		0.59%
Interest rate margin	7.70	9.50	8.80	8.00	5.90	6.90
NPLs % total loans	34.8	33.7	15.9	15.1	13.2	10.9

Except for the Serbian banking system, the Macedonian banking sector has the lowest performance indicators in the region in terms of ROE and ROA. Apart from the negative impact from the political crisis in 2001 (contributing to the negative results for the banking sector) the major factors for these results were the inefficient structure of banking sector activities and assets. With insufficient capitalization, limited access to external funding, and weak deposit base as well as heavily burdened with problem loans the banks had little to offer as lending to the real sector, which combined with their risk-averse behaviour and weak real sector left them with very limited investment opportunities. Mostly derived from revenues from low-yielding placements in financial institutions or govern-

ment securities and heavily depending on one-off extraordinary revenues the financial results were weak and volatile and barely able to cover provisioning (which despite considerable decline in non-performing loans remain a significant burden for the banks) and operating costs not to speak for business expansion or modernization. Net interest margins declined despite the declining deposit interest rates, serving as bank's main source of funding, along with the access to low-interest credit lines (which were only 45% utilized) due to the decreasing rate of return on assets as lending activities were growing only modestly.

The low skills and capacity of the banking management and inadequate corporate governance standards in both the banking and the real sector leaving a significant scope for unsound or inefficient lending practices and the lack of profitability orientation were also an important aspect and a significant constraint on the banking sector development and performance in Macedonia.

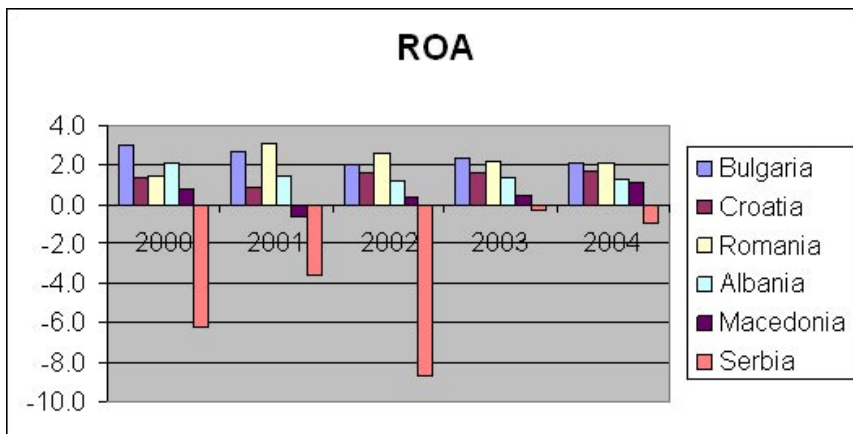
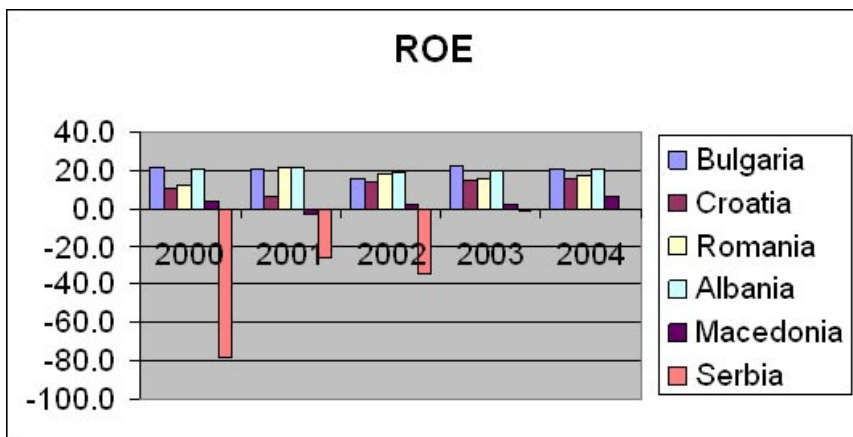
Serbia

Extremely volatile and uncertain macroeconomic environment hampering the normal functioning of the financial system and the poor financial health of the banking system, inherited from the past periods, determined the extremely poor performance of the banking sector in Serbia until 2002. Restructuring measures that resulted in substantial reduction of provisioning costs, stronger capitalization and liquidity and the gradual increase in the lending activities of the banks helped reduce the losses in the system. However, performance is still poor and characterized by the following weaknesses:

High level of bad debt portfolios and low levels of interest-bearing assets, resulting in low profits; low levels of reserves to absorb potential loan-loss provisions; low levels of capitalization, limiting the ability to absorb losses and support business expansion; high levels of liquid assets dragging on returns on assets; inadequate system of internal control and risk management; poor corporate governance, managerial skills and capacity

Countries with the most developed banking systems and the highest levels of foreign capital penetration, where beneficial effects of foreign presence on

banks activities and performance could develop, are the countries with the highest profitability and efficiency indicators. Bulgaria, taking the lead, with ROE and ROA as of the end of 2004 of 20.6% and 2.1%, respectively, Croatia - 16.1% and 1.7% and recently Romania with ROE of 17% and ROA of 2.1% comparing favorably with the CEE average of 18.2% and 2%, respectively. A distinguishing case is the Albanian banking sector with the highest ROE of 21.1% (but among the lowest ROA of 1.3%) which derived most of its profitability from non-core activities by investing the bulk of its assets in high yielding government securities.



Conclusions

1. The general conclusion of the analysis is that among the many factors contributing to the improvements in profitability and efficiency of the banking sector in the region, the foreign banks entry seems to play a crucial role. It was the main driving force behind the recent impressive developments of the banking system and financial intermediation in all countries. Privatization, which in most of the countries preceded the entry of foreign capital, did not contribute to the development of the banking sector, despite a spike in the level of the banking sector intermediation as measured by the share of credits/GDP in the early years of the economic transition. Reasons were lending practices to related companies, lax banking supervision and regulations, soft budget constraints, easy access to Central bank refinancing etc. Retail sector was neglected and although overbanked the population was heavily underserved. The result was extremely low quality of the banking assets, with share of non-performing loans reaching record levels, illiquidity and heavy reliance on the Central bank refinancing. Despite the enormous cost of loan restructuring in the form of transforming non-performing debts of state-owned enterprises and capital injections into ailing banks the situation in the banking sector did not improve. The resulting spike of inflation and currency depreciation was followed by a run on the banks and banking and financial crises. The period following the financial crises was characterized by the introduction of stricter monetary and fiscal policy, banking legislation, regulations and supervision contributing to the financial stabilization in terms of a drop and stabilization of inflation and exchange rates volatility and gradual improvement of the economy and the real sector. However, banking intermediation lagged far behind with banks both incapable and unwilling to lend. The credit squeeze resulting from the risk aversion of the banks and their limited credit resources and the slow recovery of the deposit base as a consequence of the lack of confidence in both the national currencies and the banking sector hampered the development of both the real and the financial sector with the bulk of banking assets invested in low risk, but also low yield foreign assets or government securities.

Evidence from all six countries shows that macroeconomic stabilization as well as the privatization and balance sheet restructuring of the banks alone seem not be sufficient prerequisites for the improvements in profitability and efficiency of the banking sector (as evidenced by the experience of most of these countries and

especially Romania). The majority of state-owned banks-when privatized-were handed over with a fairly clean asset base, following state-sponsored bail-out. Many of these banks, however, were in dire need of restructuring and modernization. The entry of foreign capital helped resolve many of the persisting problems of the banking sector - low capitalization and limited access to external financing, poor corporate governance, non-performing loans etc., by introducing the best market practices, expertise in risk management and assessment, product development, IT and planning, by strengthening credit risk control practices through introduction of enhanced risk models and centralization of credit processes. Furthermore, under the conditions of low confidence level to both the banking sector and the domestic currencies capital support from strong foreign shareholders was essential to the banking business, to fund growth and development, stimulate competitiveness and efficiency and provide stability to the system. All these developments helped restore the core banking activities which is the main driving force behind the recent improvements in the profitability and efficiency of the banking sector in the regions. Strategic focus, customer orientation and expansionary policies in core banking activities benefited the corporate sector, the SMEs and the households by offering higher quality and diversified products and services at competitive prices.

The comparative analysis shows that those countries that were slow to allow or attract sizable foreign capital in reforming their banking systems lag far behind their peers in terms of efficiency and profitability of their banking sectors and the level of financial intermediation and deepening.

2. With respect to the level of intermediation we distinguished two groups of countries: Croatia and Bulgaria, on the one hand, and Romania, Serbia, Macedonia and Albania, on the other hand. As mentioned above, studies indicate that the effects of foreign capital on efficiency and profitability of the banks is associated with the level of financial intermediation. More specifically, at low levels of development, foreign capital entry increases both the costs and margins. At higher levels of development it leads to lower cost, higher efficiency and lower margins. Therefore, we would expect low or improved profitability in the countries of the second group due mainly to higher margins – either attributable to pricing power or to shift in focus to high margin sectors, but no cost advantages.

At higher levels of development represented by the first group, profitability is mainly associated with cost efficiency, revenue diversification, contributing to improved profitability despite pressures on interest margins. Explanation is intensified competition. Under these circumstances profitability depends on the ability to profitably expand credit portfolio, controlling its quality, diversify products and services, improve efficiency, achieve economies of scale and manage maturing credit portfolios. In such countries revenue growth is driven by high net-interest income from core banking activities and strong commission and fee on new products and services, both in lending and borrowing. Net interest margin is further supported by the increased share of SMEs and retail business due to risk assessment expertise. Despite higher costs driven by investment requirements in IT, infrastructure investments, alternative distribution channels, as well increasing staff cost due to performance based compensations, rising funding and provisioning cost, performance improves due to productivity and efficiency gains, improved risk management and practices.

3. The Dupont analysis of the financial results of the Bulgarian and the Croatian banking systems as well as the analysis of interest rate margins did in fact show that they are more efficient both in terms of ROA, ROE and overhead costs.

Both countries' banking systems were devastated by massive credit-related problems, which resulted in eventual state bailouts and restructuring with a number of the large state- and privately owned banks not surviving. Both countries suffered a severe credit squeeze in the aftermath of the financial crises. Both countries followed the strategy of privatizing major banks to strong foreign strategic investors. Both countries now reap the fruits and the benefits of foreign capital entry in terms of deeper financial intermediation. After 2000, both quality of revenues and sustainability of profits were improved. Higher efficiency from technical upgrade as well as realized economies of scale helped reduce operating costs. Profitability improved despite the declining interest margins due to intensified competition and falling interest rates and despite the restrictive monetary policies in both countries aiming at curbing the credit activities of the banks. This was due to the more efficient allocation of funds and good cost management leading to a substantial decline in the cost to income ratios. ROE,

although declining is still high, despite the maintenance of high levels of capital adequacy, which will give the banks the continuing ability to grow their lending. Another important factor was the relatively low cost of financing due to the banks' improved funding profile and liquidity as core deposits increased substantially due to foreign banks expertise in savings products and services.

Additional indicator of banks' efficiency is the decline in the amount of non-performing loans in banks' balance sheets. The overall figures of NPLs in these countries are low compared to its peers both because of the dilution effect of the expansionary credit activities and due to improved risk management practices.

4. All these developments notwithstanding, negative trends started to emerge concerning the banking sector and macroeconomic stability: high capital erosion due to high credit growth and business expansion and intensified pressure on capital from the shift in savings to alternative investment, unfavorable currency structure of consumer and mortgage loans presents a foreign exchange risk that may turn into a credit risk, increased reliance on external and wholesale financing leading to growing indebtedness of the banking sector and higher cost of financing, some banks employ high pricing policy to lure depositors into longer-term deposits, credit restrictions to curb credit growth starts to bite into profitability, especially for banks with aggressive growth, increasing competition from external financing following the increased recourse of corporate sector to external direct financing may bite into the domestic banking business, loan growth outpacing deposits growth may lead to increased cost of funding, increasing credit risk due to potential decrease in asset quality, increased size of largest loans to meet growing clients and attract new ones, growing indebtedness of clients, vulnerability to external shocks, still existing concentration of credit portfolios exposure to certain sectors-tourism and real estate in Croatia and Bulgaria, high deposit and securities concentrations restricts liquidity and financial flexibility and endangers profitability if the bank's largest exposures become nonperforming and its credit costs increase sharply.

5. The group of the other four countries lags far behind in profitability and efficiency with the notable exception of the Albanian banking system, which man-

aged to achieve double digit ROE during the period. Profitability, however is derived by non-core banking activities, with the bulk of assets (77% in 2003) invested in treasury transactions. Efficiency is low, however, as measured by ROA not exceeding 1.5 during the period. Despite the high level of foreign ownership, the lending activities of the banks were constraint by the extremely high levels of non-performing loans and the restrictions imposed by the central bank

Serbia and Macedonia have high levels of concentration of the banking sector with most of the deposits and assets concentrated in a handful of banks. This structure results in a lack of competition among banks, thus hurting their efficiency. The financial systems remain vulnerable to weak governance and to the weaknesses in the banks' balance sheets reflected in the high percentage of nonperforming loans. Banking is characterized by high real interest rates, large spreads, and a limited appetite for lending. Interest rate spreads are above 8 percentage points, reflecting lack of competition, inefficient operations (overstaffing), and high credit risk. Most banks are expanding lending only modestly, reflecting their own weak balance sheets as well as a legal environment not conducive to repayment and loan recovery. Historical analysis and comparative approach with the other transition countries point to an insufficient level of development and poor performance. The DuPont analysis of the banks' financial results shows high level of non-interest revenues (from fees and commissions) and lesser interest revenues, meaning that earnings from non-core activities (rather than the core business of financial intermediation) are the main determinant of the banks' profitability. The high level of non-performing loans is hurting the performance of the banks despite the high interest margins.

There have been some positive trends moving the banking sectors of these countries closer to the standards of the more advanced transition countries. The most significant trend is the reduction of the lending rates, which resulted in increased lending and narrowing of the interest margin. On the other hand, the reduction of deposit rates has not decreased the positive trend of deposits growth, implying a strengthening of confidence in the banking system. Recent expansion of the banks' credit portfolio and the introduction of new banking products and services have resulted in improved performance.

Profitability in the Romanian banking system has been volatile and vulnerable

to economic trends. While the efficiency and profitability of Romanian banks suffered badly during the crisis years, it has improved markedly in the recent past thanks to the growing stabilization of the macroeconomic environment and the (slow but steady) progress made in restructuring and privatizing the banking sector. The main impact of the consolidation measures was a drastic reduction in the proportion of non-performing loans in the total loan portfolio, from 35.4 per cent in 1999 to 8.1 % in 2004. Shrinking interest margins, higher provisioning needs (due to stricter loan classification framework) and increasing operating expenses have put downward pressure on banks' profitability. Banks need to find more sustainable and diverse sources of profitability, which are vital elements for the development of the industry as a whole. A significant portion of banks' profit comes from interbank and trading activities income which is a volatile and unsustainable revenue source and is not considered to be a recurrent or core source of income. On the positive side, net interest revenues have increased significantly in the past two years, supported by lending growth. Fee and commission income still remain low compared to interest income, but is growing with a broader range of products and services. Interest rates have fallen significantly in the past years reflecting declining inflation.

References

- IMF Country Report No. 05/274 - Albania: Financial System Stability Assessment, International Monetary Fund August 2005
- Barisitz, Stephan, Oesterreichische Nationalbank - Banking in Central and Eastern Europe since the Turn of the Millennium — An Overview of Structural Modernization in Ten Countries, 2005
- Yakov Amihuda, Gayle L. DeLong, Anthony Saunders - The Effects of Cross-Border Bank Mergers on Bank Risk and Value, 2002
- Bank Austria Creditanstalt – Banking in CEE – <http://economicresearch-e.ba-ca.com>
- Bank Austria Creditanstalt – BA-CA Comparison of Banks: International Banks in the new Europe 2004/2005, July 2005
- Bank Austria Creditanstalt – Banking in the South Eastern Europe. On the Move, September 2005

- Ruding, H Onno – Financial Stability Institute of BIS – Occasional Paper No 2 – The Transformation of the Financial Services Industry, March 2002
- Deutsche Bundesbank – The Role of FDI in Emerging Market Economies compared with other Forms of Financing: Past Developments and Implications for the Financial Stability, February 2003
- Handziski, Borko - The efficiency of the Macedonian banking sector, 2004
- Fries, Steven & Taci, Anita - Banking reform and development in transition economies, EBRD Working paper No. 71, June 2002
- European Central Bank - Financial FDI to the EU Accession Countries, March 2004
- BIS, CGFS Papers No 25, Summary of follow-up workshops to the CGFS report, “Foreign direct investment in the financial sector of emerging economies” - Foreign direct investment in the financial sector - experiences in Asia, central and eastern Europe and Latin America, June 2005
- Marc Farnoux, Marc Lanteri, Jérôme Schmidt - Foreign Direct Investment in the Polish Financial Sector - Case study prepared for the CGFS Working Group on Financial Sector FDI, June 2004
- George Clarke, Robert Cull, Maria Soledad Martinez Peria, Susana M. Sdnchez - Foreign Bank Entry - Background paper for World Development Report 2002, The World Bank, Development Economics, October 2001
- Kraft, Evan - Foreign Banks in Croatia: Reasons for Entry, Performance and Impacts, Journal of Emerging Market Finance, 3:2 (2004)
- Claessens, Stijn, the World Bank – Competitive Implications of Cross-Border Banking – WPS3854 – Paper prepared for FRBconference on Cross-Border Banking: Regulatory Challenges, October 6-7, 2005
- Stijn Claessens, Asli Demirgüç-Kunt, and Harry Huizinga - How Does Foreign Entry Affect the Domestic Banking Market? - East-Asia and Pacific Region, The World Bank, Development Research Group, The World Bank, and Center and Department of Economics, Tilburg University, May 1998
- Maria Giovanna Bosco - Are Foreign Banks More Efficient than Domestic Banks? An empirical study of Transition and MED countries, May 2003

- IMF Country Report No. 03/374 - Former Yugoslav Republic of Macedonia: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision, Payment Systems, Monetary and Financial Policy Transparency, and Anti-Money Laundering and Combating the Financing of Terrorism, 2003
- Olena Havrylchuk, Emilia Jurzyk - Profitability of Foreign and Domestic Banks in Central and Eastern Europe : does the Mode of Entry Matter ?, 2005
- Bank of Romania – Banking Statistics - Recent Developments in non-Government Credit and Bank Deposits, December 2005
- Fries, Steven & Taci, Anita - Cost efficiency of banks in transition: Evidence from 289 banks in 15 post-communist countries, EBRD Working paper No. 86, April 2004
- Soussa, Farouk – A Note on Banking FDI in Emerging Markets: Literature Review and Evidence from M&A Data, March 2004
- Hyun E. Kim, Byung-Yoon Lee – The Effects of Foreign Bank Entry on the performance of Private Domestic Banks in Korea, March 2004
- Stubos, George and Tsikripis, Joannis – Banking Sector Developments in South-Eastern Europe, May 2004
- N. Hermes and R. Lensink: Foreign Bank Presence, Domestic Bank Performance and Financial Development
- Polster, Armin, Deutsche Bank Research – Auslandsvertraege Europaeischer Banken: Einheit in Vielfalt, January 2006
- Central Bank Statistics of all six countries

Banking Efficiency in Bulgaria and Romania Following Privatisation

*Sonya Dilova*⁷⁴

Introduction

Banking privatisation is largely perceived by academics and policy-makers as a major factor for economic growth. This was evidenced in transition economies in Eastern Europe like Bulgaria and Romania, which following financial crises at the early years of reforms reviewed their restrictive regulations on foreign direct investment (FDI). EU-based banks were well positioned to benefit from the deregulation due to expected geographical synergies and funding requirements of their major corporate clients. Hence, the privatisation of the banking system in East European countries has been one of their main sources of FDI alone, while upon its completion foreign banks became the main facilitator of FDI in those countries.

Foreign banks penetration in domestic banking systems in Eastern Europe increased competition and called for diversification of banking products. It also coincided with a period of increasing purchase power of population which resulted in higher demand for loans. The latter resulted in an aggressive loan growth on average of 50% per annum for the last three years which called for concerns on systemic risks at the back drop of raising current account deficits (Duenwald, Guerguiev and Schaechter, 2005). Lending restrictions imposed by respective supervisory authorities in those counties proved to be efficient in the short-term. However, in-depth review of the monitoring process can outline some further measures required, especially in light of banks' faced trade-off between exit and commitment costs (Blavy, 2005).

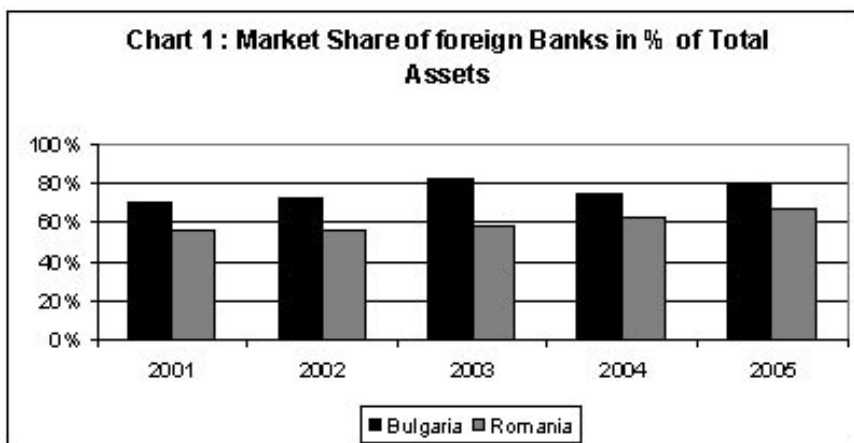
There is a school of thought who argues that synergies created via clusters of corporate networks contribute to improvement in efficiency, strengthen domestic markets and increase returns via spillovers (Yehoue, 2005). It is natural to compare foreign banks and their networks of large corporate clients to such clusters. However, increased concentration of banking assets into a handful number of

⁷⁴ The opinion expressed is personal and does not represent the view of the institution the author is working for.

foreign banks called for increased intutional responsibilities of their respective parent banks through cross-border supervision (Majaha-Jarby and Olafsson, 2005). With increasing globalisation of the financial services and ongoing consolidation of European banks, cross-border supervision of banks' operations in countries with dominant presence of foreign banks like Bulgaria and Romania, is not only needed but required. It will underpin financial discipline of the banks and prevent cross-border systemic risks.

1. Penetration of foreign banks in Bulgaria and Romania

By 2001, banking privatisation has already gathered pace in both Bulgaria and Romania as foreign banks accounted for an average 60% of total assets which increased to an average 70% in 2005 (see Chart 1). Despite this growth and largely completed privatisation of the banking system in both countries as of today, the level of financial intermediation measured by the share of banking assets to GDP remains below the average of 90% in Hungary and the Czech Republic, for instance. This is largely due to the late start of the banking privatisation in the former two countries following financial crises and high inflationary periods in mid 19 90s.



Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

It is also notable that the majority of foreign banks which entered both Bulgaria and Romania via privatisation process had EU-origin headquarters. As Table 1 shows banks present in one country are more likely to be present in the other. This provides them with geographical synergies and facilitates EU integration process through cross-border investment of EU-based corporations.

Table 1: Market share of Major Foreign Bank (%Total Assets in 2005)

Foreign Banks	Bulgaria	Romania
Erste Bank	-	26.3
ABN Amro	-	3.8
HVB Bank	19.0	7.3
OTP	13.6	-
NBG	8.8	-
Raiffeisen Bank	8.5	8.6
EFG Euroobank	5.2	4.5
Soc Gen	3.3	15.2
ING Bank	1.2	5.2
Total	59.6	70.9

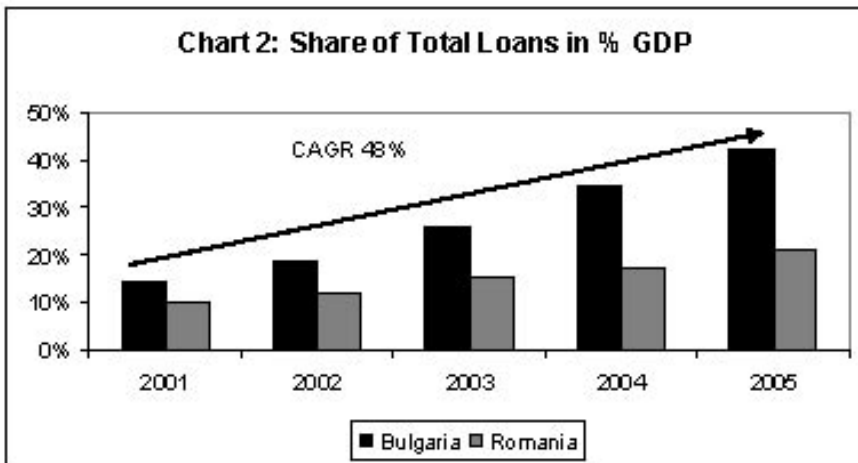
Source: Raiffeisen Research, 2006

Thanks to the progress made towards adopting EU regulation as part of the accession process, both banking systems in Bulgaria and Romania demonstrated strong financial soundness and ability to underpin financial services in South East Europe. In particular, credit growth is strong and largely supported by healthy deposit levels as well as good capitalisation ratios (see Chart 6). Profitability ratios like net interest margin (NIM) and return on assets (ROA) are marginally higher than the average of 1% in some major European banks (see Charts 7-10).

2. Lending Policy

The significant level of penetration of foreign banks in both countries contributed to high competition, addressed over-banking and encouraged pro-active lending policies, despite that banks' profitability became under pressure. Raising foreign banks' presence in both countries coincided with a period of robust economic growth and an increase in purchasing power of population. Given the significant

level disposable income and demand for luxurious goods, it was not surprising that the period was also associated with a strong demand for loans. As a result, both countries experienced aggressive credit expansion with an average CAGR of 48% since 2001 (see Chart 2).



Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

It is of note however, that this credit expansion is mainly driven by a few banks. In particular, the top ten foreign banks in both countries accounted for more than 60% of banking assets in 2005 (see Table 1). It is reasonable to conclude, therefore, that smaller banks are more likely to opt for aggressive and less prudent lending activities, which can potentially pose financial but limited systemic risks.

Larger banks can afford to take bigger risks than the smaller ones, perhaps partly due to 'too big to fail' notion. The size also provides an advantage to those banks to service relatively large but few clients as substantial capital is required to provide meaningful facilities to large corporate players. Similar financial flexibility is less feasible for small banks, which focus on niche markets and rely on corporate rather than household deposits as a source of funding. The concentration of the banking assets in a few banks contributes to the polarisation of the banking systems in both Romania and Bulgaria.

A lack of banking defaults in both countries since the financial crises in mid-1990s, increased the self-confidence of banks' management. Banks absorbed

with an ease less familiar banking products such as consumer lending which posed challenges to their internal risk management and ability to manage large number of small clients. Given that consumer lending is generally short-term and higher margin, it seems to gain some momentum at the expense of corporate lending (see Charts 3 and 4). Nevertheless, the banks are yet to test their consumer lending portfolio in a downturn economic cycle.

Chart 3: Share of Corporate Credit in Total Credit

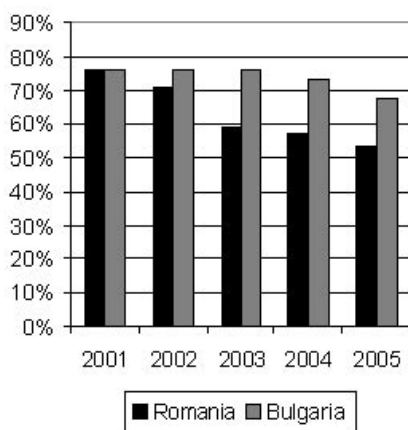
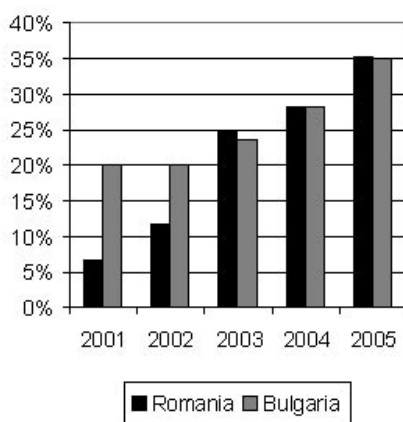
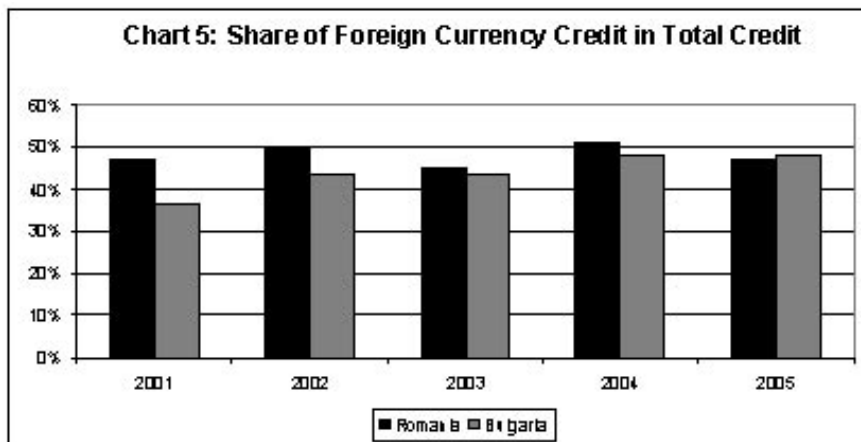


Chart 4 : Share of Household Credit in Total Credit



Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

Another area of credit expansion in both countries is mortgage loans which increased their share in total loans from 0% to 10% over the last three years. Nevertheless, mortgage lending accounted for just 5% of GDP in both Bulgaria and Romania, which is well below the EU average of 50% in 2005. Despite the low level of mortgages in total loans, the pace of their growth generated a lot of headline risks. In particular, raising property prices, called for concerns about a property bubble and a liquidity squeeze on banks. But those calls for systemic risk associated with mortgage lending are likely to be exaggerates. The latter can be further supported by the average 100% security taken by the banks against the amount of their mortgage portfolio. Moreover, asset-backed securitisation is far from being developed in either of the countries which can potentially diminish the value of the underlying mortgage security on banks' balance sheet.

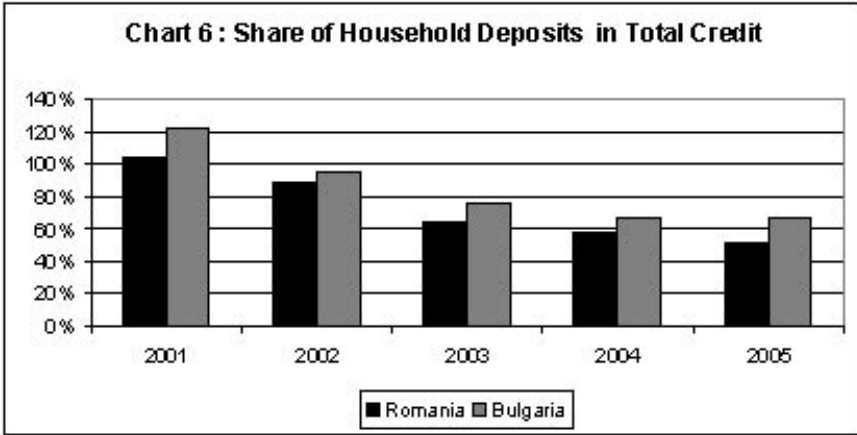


Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

Despite the growth dynamics of banks' lending activities for the last three years, there is a fine balance between banks' assets and liabilities in foreign currency. Chart 3 shows that corporate loans accounted for more than 60% of banks' loan portfolio since 2001 which are mainly denominated in foreign currency, predominantly euro. This is balanced against the fact that roughly half of deposits are denominated in foreign currency (see Table 4). However, the banks may face some liquidity squeeze should deposits fail to catch up with the lending growth (see Chart 6).

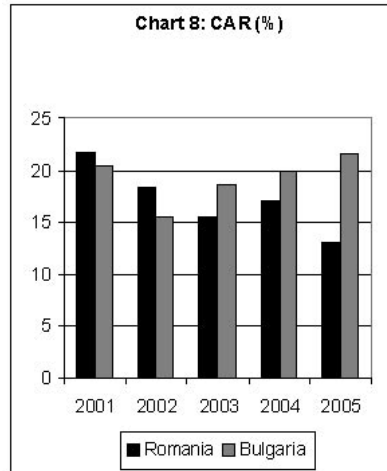
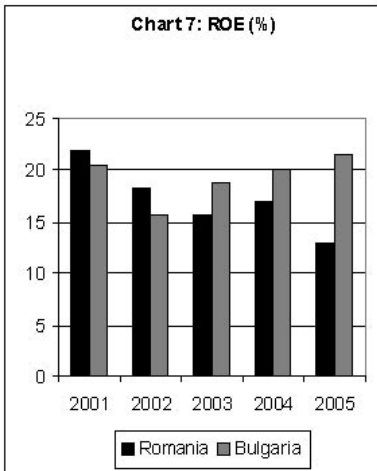
3. Sources of Funding

Romanian and Bulgarian banks traditionally financed their loan growth via deposits, mainly from the households. Despite the change of banks' ownership following privatisation, household deposits continue to be the main source of funding although their volume is declining (see Chart 6).



Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

Capital injections by the parent banks have been kept at minimum reflected in generally low level of return on equity in some banks, particularly in Romania (see Chart 7). Furthermore, following the privatisation and becoming subsidiaries of large international banks, neither of the commercial banks in both countries has been able to underpin its capital base via external sources of funding (e.g. debt capital markets). This is mainly due to their limited ability to access international markets on stand-alone basis. Hence, their capital adequacy ratios are also declining particularly in Romania (see Chart 8).



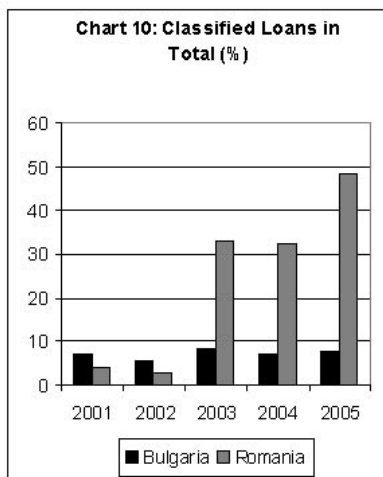
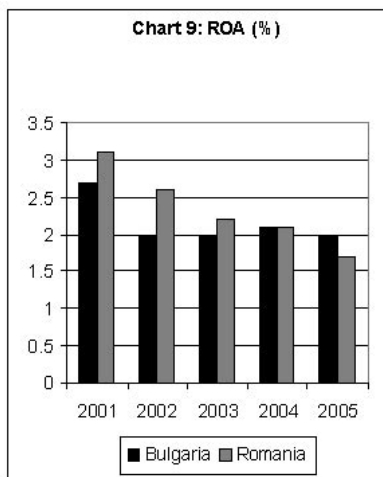
Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

In contrast, countries with limited foreign banks entry like Russia and Kazakhstan have been able to diversify their sources of funding through debt capital markets, thus adequately responding to raising domestic credit demand. Without undermining the importance of foreign banks in developing banking systems in Bulgaria and Romania, the reliance on deposits as a source of funding of loan growth is unlikely to be sustainable in the long-run. Particularly in the environment where the annual loan growth is above 50%. Perhaps subsidiaries of foreign banks in those countries should be allowed to raise funds on stand-alone basis. This needs to be facilitated by increasing co-operation between supervisory authorities of countries involved. In light that both Romania and Bulgaria just joined EU, it is plausible to assume that such co-operation is feasible as the majority if not all of the foreign banks operating in their domestic banking markets are with EU-headquarters.

4. Monitoring

It is largely agreed that foreign banks expansion into Eastern Europe is mainly driven by the globalisation of the financial service industry and international operations of their major clients. This highly competitive environment constrains banks' profitability. Banks, therefore, are prepared to face the challenge of venturing into less developed and much riskier markets in a search for high profits. On the other hand, host countries expect foreign banks penetration into their domestic banking systems to provide fresh sources of funding, to improve management expertise and efficiency and to strengthen financial discipline. The latter particularly implies an ability to share the existing know-how in EU banking supervision, in particular. However, hosts' countries over-reliance on foreign banks' home-supervisory authorities and a lack of co-ordination in cross-border supervisory efforts can contribute to deficiencies and malpractices.

The quality of the monitoring can be measured by the cost of exit and cost of commitment, respectively. The former measures imperfections in the functioning of the banking systems and can be approximated by either the share of classified loan or NPLs in banks' loan portfolios. The cost of commitment reflects banks' profitability (Blavy, 2005). He argues that should the costs of commitment are higher than the exit costs, the banks are likely to terminate a lending contract. However, the cost of contract termination could be high when banks face significant agency problems and weak internal risks controls (et al).



Source: Compiled from Scenario 2020, Raiffeisenbank Research, November 2006

Despite the significant increase of the loan portfolios of Bulgarian and Romanian banks since 2002, the share of provisions in net loans remained unchanged over the last three years (see Table 1). On average, provisions made by Bulgarian banks are higher than those made by Romanian banks despite the similar pace in credit growth. This is at the backdrop of a relatively low level of provisioning at about 1% in EU-based peers. However, there is an argument that the level of provisions should be higher in banks which experience a significant credit expansion as it takes time to test the quality of the loan portfolio in high growth environment. It is plausible to assume, therefore, that the exit cost for foreign banks operating in Bulgaria and Romania is high, thus implying some operational risks as well.

The aggressive credit expansion is viewed as one of the factors for existing economic imbalances such as raising current account deficits. Nevertheless, lending growth in both countries should not be reviewed in isolation from the global operations of foreign banks which participated in the banking privatisation of East European countries. There are views that the overall risk management should be conducted on group basis and facilitated by cross sector and cross country supervision (Majaha-Jarby and Olafsson, 2005). The latter can be particularly enforced by cross-country memorandums of understanding (MOU) which have proved to be successful in EU, in the case of Nordic countries (et al). Furthermore, monitoring process can determine banks' lending behaviour

(Blavy, 2005). Hence, improvement in banks' financial performance can partly result from foreign banks transfer of know-how and risk-control practices and partly from the quality of banking supervision. Overall, countries like Bulgaria and Romania with largely completed banking privatisation can imply increased banking efficiency via clusters of networks which facilitate investment, strengthen domestic market and increase returns via spillovers (Yehoue, 2005).

Conclusion

Since 2003, both Bulgarian and Romanian banking system benefited from strong economic growth, largely completed privatisation of the state-owned banks and raising demand for bank products due to increase income per capita. Despite the significant foreign bank penetration and increased compliance of regulatory framework with EU benchmarks, banks' credit activity entailed significant level of risk in both countries. It is mainly associated with a concentration of bank lending in a few banks, reliance on implicit support by the parent foreign banks and a short-term track record of the lending portfolio.

Upon completion of the banking privatisation, banking systems in both countries remained largely concentrated in a few foreign banks. Other banks which operate in those markets are privately owned and mainly niche players. Given the composition of the banking systems in both countries, any potential systemic risk is likely to be associated with larger rather than smaller banks. Hence, the applied implicit support by the parent foreign banks can prove inadequate.

Banking systems in Bulgaria and Romania can face liquidity squeeze due to the diminishing level of household deposits, while banks' access to alternative sources of finding remains limited. In particular, subsidiaries of foreign banks have not been able to access debt-capital markets on stand-alone basis.

The increased concentration of banking assets into a handful number of foreign banks called for increased intuitional responsibilities of their respective parent banks through cross-border supervision. With increasing globalisation of the financial services and ongoing consolidation of European banks, cross-border supervision of banks' operations in countries with dominant presence of foreign banks like Bulgaria and Romania, is not only needed but required. It will underpin financial discipline of the banks and prevent cross-border systemic risks.

Reference

- Blavy R., 2005, Monitoring and Commitment in Bank Lending Behavior, IMF Working Paper No222
- BNB, 2005, Commercial Banks, Sofia
- BNB, 2004, Commercial Banks, Sofia
- BNB, 2003, Commercial Banks, Sofia
- BNB, 2005, Monthly Bulletin, Sofia
- BNB, 2004, Monthly Bulletin, Sofia
- BNB, 2003, Monthly Bulletin, Sofia
- Claessens S., 2006, Competitive Implications of Cross Border Banking, World bank Policy Research Working Paper 3954, February
- Duenwald C., N. Guerguiev and A. Schaechter, 2005, Too Much of a Good Thing? Credit Booms in Transition Economies: The Cases of Bulgaria, Romania and Ukraine, IMF Working Paper No128
- Majaha-Jartby and Thodor Olafsson, 2005, Regional Financial Conglomerates: A Case for Improved Supervision, IMF Working Paper No 124
- Moody's, 2006, Bulgaria, Moody's Investors Service, Global Credit Research, March
- Moody's, 2006, Banking System Outlook: Bulgaria, Moody's Investors Service, Global Credit Research, November
- Moody's, 2005, Romanian Banking Statistics Moody's Investors Service, Global Credit Research, November
- National Bank of Serbia, 2005, Third Quarter Report, September
- Raiffeisen Bank, 2006, Scenario 2020, Raiffeisenbank Research, November
- Ueda K., 2006, Banks as Coordinators of Economic Growth, IMF Working Paper No264
- Yehoue E., 2005, Clusters as a Driving Engine for FDI, IMF Working Paper No193

Profitability of Foreign and Domestic Banks

Marko Košak

Introduction

Banking sectors in Eastern Europe have undergone a remarkable transformation from the beginning of the 1990s, which resulted in a relatively consolidated and to a large extent privatized banking industry that is characterized by a heavy presence of foreign owned banks. While several authors emphasize the beneficial effects of foreign banks' entry in developing Eastern European economies (e.g. Fries and Taci, 2005), there is still very little evidence on the impact of foreign-owned banks on bank performance in the South-East European region. Some of the countries from the region were included as subsets in broader studies (e.g. Demircuc-Kunt and Huizinga, 1999), but research focused on this region is scarce.

The purpose of this paper is to investigate the relationship between bank ownership (foreign vs. domestic) and bank profitability in six South-Eastern European countries (SEE-6): Albania, Bulgaria, Croatia, FYR Macedonia, Romania, and Serbia & Montenegro, using individual bank data. The analysis is based on the bank level, industry level and macroeconomic data for the period 1995 – 2004 and consists of two parts. The first part of the analysis contains a series of the mean equality tests for four profitability indicators for domestic and foreign owned banks in each of the studied countries. The second part of the analysis relies on the econometric analysis of the bank profitability determinants in selected banking sectors. Results do not reveal any substantial statistically significant differences in profitability measures of domestic and foreign owned banks, while the econometric tests identify several factors that are clearly associated with bank profitability.

In section 2 we describe the banking sector developments in selected SEE-6 countries, section 3 reviews the findings of previous studies on foreign bank entry and banking industry performance measurement. Section 4 introduces the characteristics and corresponding variables that can be explored as bank performance determinants. In section 5 data and methodology are explained. Section 6 brings two sets of the empirical results. First, the outcome of the profitability indicators' equality testing for each country in the sample, and second, the

results of the four profitability models, explaining the determinants of bank profitability, using pooled data across all analysed countries. Section 7 concludes.

1. Banking sector development in the selected SEE-6 countries

Performance analysis in this paper focuses on banking sectors in six Balkan countries: Albania, Bulgaria, Croatia, FYR Macedonia, Romania, and Serbia and Montenegro⁷⁵. This region is considered to be highly heterogeneous with regard to the stage of integration with the EU, the level of economic development, the degree of financial intermediation and the development of banking sector. Despite the differences among countries the overall size of banking sector (measured by total assets or loans extended to private sector) is small in comparison to the EU banking sectors. Consequently, a degree of financial intermediation remains significantly smaller than in the EU countries, although the region is quickly developing in all respects.

The lower development stage of banking sector has the roots in the pre-transition political and economic history. Since the beginning of transition in the early 1990s, the banking sector in all transition economies has undergone tremendous changes. However, the starting position in the individual countries in the SEE-6 group was quite diverse. According to Bonin (2004), former centrally planned economies used to be characterized by a noticeable structural segmentation (i.e. large specialty banks monopolizing specific market segment), state ownership of a significant proportion of banking assets and high concentration ratios. Conversely, banking system in former Yugoslav republics (Croatia, FYR Macedonia and Serbia & Montenegro in our sample) used to be a two-tier banking system, with universal banks operating in individual republics. Furthermore, banks were not state-owned (since 1950s), rather they were owned collectively according to the principles of Yugoslav self-management (Bonin, 2004). Introduction of internal company banks in the late 1970s further contributed to a more diverse banking structure.

Despite the pre-transition historical differences, during the past decade the banking systems in SEE-6 have been transformed by three major trends - privatisation, consolidation and the entry of foreign banks on a large scale (Turner, 2006). The role of foreign-owned banks has become dominant in Central and

⁷⁵ In the analysed period, until 2004, Serbia & Montenegro constituted one country.

Eastern Europe, including in the SEE-6 countries. Foreign banks penetrated these markets either directly by establishing greenfield operations or by participating in privatisation of domestic state-owned banks. The later represented an important entry channel for foreign banks.

Table 1 illustrates rapidly growing proportion of foreign-owned banks⁷⁶ in total number of banks in all SEE-6 countries since the mid-1990s. At the end of 2004, the proportion of foreign-owned banks was the highest in Albania, where it reached 87.5 percent, followed by Romania with 71.9 percent and Bulgaria with 68.6 percent in total number of banks. In Croatia and FYR Macedonia the proportion of foreign-owned banks was 40.5 percent and 38.1 percent respectively, while the banking sector in Serbia & Montenegro was largely dominated by domestic-owned banks.

The data on asset share (Table 2) to some degree mirrors the data on the proportion of foreign-owned banks in total number of banks. Serbia & Montenegro, with the smallest proportion of foreign-owned banks in total number of banks, had also the smallest market share under control of foreign-owned banks (37.7 percent of total assets), whereas foreign-owned banks in Croatia and Bulgaria controlled 91.2 percent and 81.6 percent of the total banking assets, respectively. Thus these data also reveal the size structure of the individual banking sectors and/or the size structure of banks controlled by foreign shareholders. Namely, for example foreign banks in Croatia represented only 40.1 percent of total number of banks, but on the other hand they represented 91.2 percent of total banking assets in the country, indicating that mostly large banks have got under control of foreign shareholders.

Table 1: The proportion of foreign-owned banks in total number of banks in SEE-6 countries for the 1995-2004 period (in percent)

In %	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bulgaria	7.3	7.1	25.0	50.0	64.7	71.4	74.3	76.5	71.4	68.6
Romania	25.0	25.8	39.4	44.4	55.9	63.6	72.7	77.4	70.0	71.9
Croatia	1.9	6.9	11.5	16.7	24.5	48.8	55.8	50.0	46.3	40.5
Albania	50.0	37.5	33.3	80.0	84.6	92.3	92.3	92.3	86.7	87.5
Macedonia	50.0	22.7	9.1	25.0	21.7	31.8	38.1	35.0	38.1	38.1
Serbia & Montenegro	---	---	---	---	4.0	3.7	14.8	24.0	34.0	25.6

Note: Foreign-owned banks are defined as those with foreign ownership exceeding a 50 % share as end-of-year.

Source: EBRD, *Transition report, different issues*

⁷⁶ As foreign-owned banks are considered the banks where foreign ownership exceeds 50 percent

Table 2: Asset share of foreign-owned banks in SEE-6 countries for the 1999-2004 period (in percent of total bank sector assets)

	1999	2000	2001	2002	2003	2004
Bulgaria	42.8	75.3	72.7	75.2	82.7	81.6
Romania	43.6	46.7	51.4	52.9	54.8	58.5
Croatia	40.3	84.1	89.3	90.2	91.0	91.2
Albania	18.9	35.2	40.8	45.9	47.1	---
Macedonia	11.5	53.4	51.1	44.0	47.0	47.3
Serbia & Montenegro	0.4	0.5	13.2	27.0	38.4	37.7

Note: Share of total bank sector assets in banks with foreign ownership exceeding 50%, as of end-of-year.

Source: EBRD, *Transition report, different issues*

The lowest proportion of foreign-owned banks in Serbia & Montenegro is largely a consequence of lower degree of banking sector privatisation as compared to the other countries in SEE-6 group. At the end of 2004, state-owned banks in Serbia & Montenegro still represented 23.4 percent of total banking market in the country, while their share was well below 10% in the rest of the SEE-6 group (Table 3). In Albania for example, banks have been almost completely privatised⁷⁷, whereas in Bulgaria, Croatia and Macedonia state-owned banks controlled 2 – 3 percent of the market, and in Romania 7.5 percent of the market at year end 2004. For most of the countries in the SEE-6 group the percentage of foreign-owned banks has increased substantially in the 1995 – 2004 period. In most of these countries relatively large proportions of foreign-owned banks and rapid changes in their cumulative market share can be explained by a relatively low total number of banks at the beginning of economic transition, which however has increased through the 1990s and after year 2000.

Table 3: Asset share of state-owned banks in SEE-6 countries for the 1995-2004 period (in % of total assets)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bulgaria	0	82.2	66	56.4	50.5	19.8	19.9	14.1	2.5	2.3
Romania	84.3	80.9	80	75.3	50.3	50	45.4	43.6	40.6	7.5
Croatia	51.9	36.2	32.6	37.5	39.8	5.7	5	4	3.4	3.3
Albania	94.5	93.7	89.9	85.6	81.1	64.8	59.2	54.1	51.9	0
Macedonia	0	0	0	1.4	2.5	1.1	1.3	2	1.8	1.9
Serbia & Montenegro	94.7	92	89.8	90	89	90.9	68	35.6	34.1	23.4

Note: State-owned banks are defined as those with state ownership exceeding a 50 % share as end-of-year.

Source: EBRD, *Transition report, different issues*

⁷⁷ According to CEE Banking Sector Report (RZB Group, 2005) there are still two minority state stakes left to be sold in the Italian Albanian Bank and in the United Bank of Albania.

As it is evident from the data, the potential for foreign bank entry through the state-owned banks privatisation in the SEE-6 region remains insignificant.

2. Foreign bank entry and performance in banking sector

There exists a substantial body of the literature focusing on performance measurement and on analysis of performance determinants in banking. Studies on foreign bank entry and performance represent a quite extensive part of this literature. Initially these studies focused almost exclusively on individual countries. They tried to identify any systematic differences in bank performance and establish possible relationships with the ownership structure or the origin of banking firms. Although some surveys date back to the 1980s, an important progress in the field was made in the 1990s. DeYoung and Nolle (1996) made a significant contribution with their research where they investigated relative profit efficiency of foreign-owned U.S. banks and U.S.-owned banks between 1985 and 1990. Their results suggest that foreign-owned U.S. banks were significantly less profit efficient than U.S.-owned banks during the investigated period. Since in that period foreign banks expanded rapidly in the U.S. market, the results were consistent with the hypothesis that foreign banks sacrificed profitability in exchange for increased market share.

Similarly, Williams (1998) investigated factors affecting the performance of foreign owned banks in Australia. Consistent with DeYoung and Nolle (1996) results, he found that foreign banks in Australia were willing to sacrifice profits to achieve size targets. Namely foreign bank size was found to be a positive function of holding a bank licence, parent size and duration of operations in Australia, and a negative function of Australian net interest margins and fees. His research further reveals that profits in the host nation are a function of firm characteristics and nation-specific factors, with the nation-specific factors being relatively the least important. In his latter work, Williams (2003) integrates the existing multinational bank literature with the domestic bank profits literature. One of the most important conclusions based on the integrated approach applied to Australian banking market was that concentration in the host market reduces profits of the foreign entrants. Thus the market concentration acts as an effective barrier to entry.

Results of the research performed in the individual banking markets represented a challenge for researches who tried to broaden the scope of bank profitabil-

ity empirical investigation to multinational level. Demirguc-Kunt and Huizinga (1999) analysed determinants of commercial bank interest margins and profitability for 80 countries in the 1988–1995 period. According to their findings, in developing countries, foreign banks have higher net interest margins and profits than domestic banks, while the opposite holds for developed countries. Their analysis also shows that a larger ratio of bank assets to GDP and a lower market concentration ratio lead to lower margins and profits, controlling for differences in bank activity, leverage, and the macroeconomic environment. The same authors (Demirguc-Kunt and Huizinga, 2000) investigated the impact of the level of financial development and market structure on bank performance using bank level data for a large number of developed and developing countries over the 1990–1997 period. Their results indicate that a higher level of bank development lowers banks' profits and margins, which can be explained by the fact that higher level of development brings tougher competition, higher efficiency and lower profits. Claessens, Demirguc-Kunt and Huizinga (2001) focused on studying the effect of foreign entry on domestic banking markets and confirmed the results of the Demirguc-Kunt and Huizinga (1999) study.

Martinez Peria and Mody (2004) analysed the impact of foreign participation and high concentration level on the evolution of banking sectors' market structures in five Latin American countries in the late 1990s. Their results suggest that foreign banks were able to charge lower spreads relative to domestic banks. This particular characteristic proved to be more typical for "de novo" banks than for those that entered through acquisitions. Further, their results indicate that the overall level of foreign bank participation influenced spreads indirectly, primarily through its effect on administrative costs.

In a more recent paper, Micco et al. (2006) used a fairly broad data set, covering the period 1995–2002, to reassess the relationship between bank ownership and bank performance, providing separate estimations for the developing and industrial countries. Specifically, the authors focus on the question whether the differential in performance between public and private banks is driven by political considerations. Their findings suggest that state-owned banks located in the developing countries tend to have lower profitability and higher costs than their private counterparts, and that the opposite is true for foreign-owned banks. They did not find a strong correlation between ownership and performance for banks located in industrial countries.

The research on bank performance and more specifically on bank profitability covering European banking sectors has lagged the research on U.S. banking and used to be relatively scarce through the 1990s (one exceptions is Molyneux and Thornton, 1992). In recent research efforts Goddard et al. (2004) studied profitability determinants in six European banking sectors (Denmark, France, Germany, Italy, Spain and the UK) for the period 1992–1998. Their results suggest that despite intensifying competition it was possible to detect significant persistence of abnormal bank profits from year to year. Although they found some significant size-profit relationships in some of the estimations, the evidence for any consistent or systematic size-profitability relationship was not found. Apart from that they discovered a positive relationship between the capital-asset ratio and profitability, but systematic relationship between ownership type and profitability could not be established. Pasiouras and Kosmidou (2006) examined bank-specific and environmental factors influencing the profitability of domestic and foreign commercial banks in 15 EU countries over the period 1995 – 2001. Their results indicate that profitability of both domestic and foreign banks is affected not only by bank-specific characteristics but also by financial market structure and macroeconomic conditions.

Despite the existence of several multi-market studies in the EU some researchers focus their attention on specific individual banking markets in the region. Athanoglou et al. (2006) examined the effect of bank-specific, industry-specific and macroeconomic determinants of bank profitability in Greek banking for the period 1985-2001. The results produced by testing the traditional structure-conduct-performance hypothesis show that profitability persists to a moderate extent, indicating that departures from perfectly competitive market structure may not be too large. All bank-specific determinants, with the exception of size, proved to have a significant effect on bank profitability. No firm evidence was found in support of SCP hypothesis. Another interesting single market study was published by Kosmidou et al. (2006). The authors investigated the performance of the banking sector in the UK, focusing on the performance of the domestic banks as opposed to the performance of the foreign banks operating in the UK, over the period 1998 – 2001. Their results suggest that domestic banks exhibit higher overall performance compared to the foreign banks operation in the UK. The results of their study generally support the home advantage hypothesis under which domestic institutions are overall more efficient than foreign-based institutions.

With some exceptions the research on bank performance has been restricted throughout the 1990s to the developed market economies. With the transition processes in several European economies and the revitalization of their banking sectors, banking markets in transition countries are attracting growing attention of researchers investigating bank performance. Although this research does not abound, some studies focusing on (former) transition economies can be found. Fries, Neven and Seabright (2002) examined the performance of 515 banks in 16 transition economies for the period 1994–1999. Their results indicate that banks' performance differs significantly depending on the reform environment, as well as the competitive conditions in which they operate. Further, banks with high market shares have higher costs and achieve lower margins on their loan and deposit activities. Their research also reveals that interest margins are declining over time but are substantially higher in low- reform environments. The results indicate that an appropriate policy and regulatory framework may be the necessary conditions for achieving any significant progress.

A recent work in the field represents the paper by Havrylchuk and Jurzyk (2005) who concentrated on the investigation of foreign and domestic banks' profitability in Central and Eastern Europe, covering only the "new" EU member states and the two accession countries (i.e. Bulgaria and Romania) in the region. However, their methodological approach and results may be relevant also for other transitioning countries in the region. The authors offered the following conclusions: first, foreign-owned banks are not affected by business cycles of their host countries which makes them more competitive with respect to domestic banks. Second, the macroeconomic conditions in the foreign banks' home countries have no impact on the profitability of foreign-owned banks in Central and Eastern European markets which is considered to be one of the potential dangers of foreign bank ownership for host countries. In respect to market concentration–bank profitability relationship, their results show that profits of foreign banks are not affected by market concentration, whereas domestic banks find it more profitable to operate in such markets. The authors also take into account the mode of foreign bank entry and find a superior performance (in terms of ROA) of greenfield banks as compared to domestic and acquired banks. Interestingly, the profitability of acquired banks does not turn out to be significantly different from the domestic banks, which could be ascribed to the economic policy of some countries that allowed foreign bank entry only after crisis.

Our research draws heavily on Havrylchyk and Jurzyk's (2005) work, but complements it with the suggestions offered by several other authors (e.g. Micco et al., 2006; Claessens, Demirguc-Kunt and Huizinga, 2001). As compared to Havrylchyk and Jurzyk (2005), who concentrate methodologically exclusively on banks' profitability, specifically on ROA (return on assets) measure, based on its accounting definition, we consider a wider set of bank performance measures. In addition, our study is carried out in an interesting but ill-researched setting encompassing six South-Eastern European countries

3. Determinants of bank performance

In this section the bank performance measures and performance determinants, as known from the literature, are introduced. The relationships between both are elaborated according to the prior theoretical findings and results already reported in the empirical literature.

Bank performance measures

Generally bank performance studies rely on two types of indicators: accounting-based indicators and profit or cost efficiency indicators based on the efficiency and productivity analysis. In this paper we use accounting-based profitability indicators in banking.

Profitability ratio return on asset (ROA) is considered to be a core performance indicator used in majority of studies. ROA directly or indirectly incorporates most of the aspects of the banking business. It can be derived from a simplified bank income statement equation:

$$NI = (II - IE) + (NII - NIE) - EXP - TAX,$$

where NI = net income, II = interest income, IE = interest expenses, NII = non-interest income, NIE = non-interest expenses (w/o operating expenses and LLP), EXP = operating expenses (inc. LLP) and TAX = taxes. Dividing simplified income statement equation by TA (total assets) gives us the following expression:

$$ROA = NIM + NNIM - \frac{OVH}{TA} - \frac{LLP}{TA} - \frac{TAX}{TA},$$

where NIM = net interest margin, NNIM = net non-interest margin, OVH = overhead costs and LLP = loan-loss provisions.

An alternative profitability indicator frequently used in bank performance studies is return on equity (ROE) ratio. If ROA reflects the ability of bank management to generate profits from the available bank's assets, then ROE indicates the return to shareholders' equity. Both indicators are directly related through the asset-to-equity ratio, which measures the financial leverage of the banking firm. Despite the popularity of both indicators we need to be aware of their shortcomings. The ROA indicator may be biased because it ignores the off-balance sheet activities of banking firms, while the ROE indicator disregards the impact of risk associated with different levels of leverage that in connection with ROA directly determines the size of ROE.

In the present study we employ two additional profitability measures: PBTTA (profit-before-taxes over total assets) and NIM (net interest margin). The PBTTA measure is designed to capture the profitability of a banking firm without potentially disturbing taxation effects. Namely because of different taxation practices in individual countries profitability measures based on after tax profit (i.e. usually ROA and ROE indicators) can be misleading and therefore, profit before tax measure should help to detect differences in bank profitability that can not be attributed to the management of each bank but rather to the environment in which a specific bank operates. Similarly, net interest margin (NIM) as a performance measure reveals performance of a banking firm resulting from the core banking business (i.e. it is taking into account interest income from interest bearing activities and interest expenses that appear as a cost bank funding).

Bank-specific performance determinants

The relationship between ***banking firm size*** and its performance (especially profitability) has traditionally been one of the most widely studied relationships in the field. In spite of many research efforts the direction of this relationship is not completely straightforward as the studies produced mixed results. Williams (2003) finds that larger foreign banks in Australia are more profitable over the longer run. Similarly Chmielewski and Krzesniak (2003) detected a positive size–ROA relationship for Polish banking sector. On the other hand Pasiouras and Kosmidou (2006) find negative relationship between size and bank perform-

ance in 15 EU countries, regardless of bank ownership. Boyd and Runkle (1993) tested predictions of two theories that try to explain the impact of the size of banking firm: deposit insurance theory and modern intermediation theory. Their empirical results could not support either of theories. However, they found an inverse relationship between size and two other variables: the rate of return on assets and the ratio of equity to assets. Many authors (CITATI?) explain such size-profitability relationship by diseconomies of scale, which are present in larger banks especially after the periods of accelerated growth. On the contrary, a positive size-profitability relationship is usually rationalized by positive effects of scale and scope economies. Additionally, large banks may be able to exert market power through stronger brand image or implicit regulatory (to-big-to-fail) protection. In many studies the impact of banking firm size on profitability remains precarious. Athanasoglou et al. (2006) report that the effect of bank size on profitability is not important and Goddard et al. (2004) find no systematic evidence for relationship between size and performance.

Capital strength of a banking firm is the next important bank-specific determinant included in almost all studies. The level of bank capital is typically closely linked to the level of credit risk (Thakor, 1996) and therefore banks with high capital-asset ratios are considered relatively safer in the event of loss or liquidation. A high capital adequacy ratio should signify a bank that is operating over-cautiously and ignoring potentially profitable trading opportunities (Goddard et al., 2004), which implies a negative relationship between equity to asset ratio and bank performance. At the same time, banks with higher equity to asset ratio will normally have lower needs of external funding and therefore higher profitability (Pasiouras and Kosmidou, 2006). Again the direction of the relationship between bank capital and bank profitability can not be unanimously predicted in advance.

Another important dimension of banking management is efficient **liquidity management**. Generally, liquidity of banking firms is a necessary condition for ongoing banking operations and any severe liquidity disruptions can eventually lead to a bank failure. On the other hand, maintenance of a superfluous liquidity very easily leads to the underperformance of banking assets and thus to lower profitability of banking firm. Following other authors (Pasiouras and Kosmidou, 2006, Kosmidou K. et al., 2006) we include a liquidity ratio in our empirical model and expect this ratio to be negatively related to bank profitability.

Cost efficiency of banking firm is predicted to be negatively associated with bank performance and specifically with bank profitability. It is important to separate operating cost from other expenses (e.g. taxes, depreciation, etc.), as operating expenses are a cost category that can be actively controlled by bank management. The indicators that account for operating expenses thus reflect management's ability to influence bank performance. In previous research, several attempts have been made to measure the impact of cost efficiency. Athanasoglou et al. (2006) computed the ratio of the operating expenses to total assets, while Pasiouras and Kosmidou (2006) included standard cost to income ratio, which basically reflects the ability of bank's management to cover operating expenses by the generated bank income.

Credit risk exposure is usually treated as a separate determinant of bank performance (profitability). Some authors describe this factor as assets quality (Kosmidou et al., 2006), which can be usually measured only indirectly by taking into account the loan-loss provisions. As provisions roughly indicate the probability of loans to become non-performing, higher provisions are expected to be negatively related to bank profitability. Again, different authors try to capture this effect by using different indicators, for example Athanasoglou et al. (2006) use loan-loss provisions to loans ratio and Kosmidou K. et al. (2006) loan-loss provision to total assets ratio. In either case the relationship with bank profitability is expected to be negative.

Bank asset structure can also be regarded as a significant factor determining bank performance. The sign of the relationship with bank profitability depends on the choice of the indicator. Demircuc-Kunt and Huizinga (2000) use for example loan to total assets ratio as an indicator of bank asset structure and expect the ratio to be positive. Analogously, Claessens et al. (2001) employ non-interest earning-assets-to-total-assets variable and expect the ratio to be negative. Similarly, Kosmidou et al. (2006) include in their analysis the short term earning assets to total loans ratio and expect the ratio to be negatively related to bank profitability, since a greater proportion of short term earning assets results in lower profitability of the overall portfolio. A quite unique approach is taken by Goddard et al. (2004), who incorporate OBS ratio in their analysis. OBS ratio is measured as a ratio between total off-balance sheet items and sum of total on- balance sheet and off-balance sheet items. According to their interpretation, the ratio accounts of non-interest income and fee generating services from various contingent liabilities.

Bank income structure also reflects the changing dynamics of banking business, which normally results in bank performance. Namely, it is well known that income structure in banking industry is changing and that the structure is shifting in favour of bank non-interest income. Therefore, the bank income structure variable should capture this effect and convey information on the impact on performance of the banking firm. Following this principle Kosmidou et al. (2006) employed a share of net interest revenues in total earning assets as a proxy for bank income structure and established that domestic-owned banks exhibited a clear dominance regarding the significance of net interest revenues for their profitability. However, alternative ratio definitions are also applicable and the sign of the income structure–performance relationship depends on the structure of the ratio itself.

Banking sector and macroeconomic determinants

Empirical studies investigating bank performance commonly strictly differentiate between bank-specific determinant and all other factors that may have an impact on bank performance. For example Williams (1998, 2003) includes a set of variables reflecting market conditions and general macroeconomic conditions in home country and, when testing multinational hypotheses, some variables reflecting market and macroeconomic conditions in host countries. Likewise, Athanasoglou et al. (2006) implement variables reflecting industry-specific (e.g. concentration ratio) and macroeconomic profitability determinants (e.g. inflation expectations, cyclical output). Claessens et al. (2001) also include some control variables that account for environmental effects (e.g. GDP per capita, annual inflation, real interest rate, etc.).

Some authors (e.g. Havrylchyk and Jurzyk, 2005; Pasiouras and Kosmidou, 2006) include in the analysis beside common bank-specific characteristics, some specific factors denoting financial structure development (e.g. total banking assets to GDP ratio, stock market capitalization to GDP ratio, EBRD index of financial sector development), which is an important aspect of investigation when comparing banks from the economies at the different level of development.

Surprisingly, some authors don't pay a lot of attention to possible macroeconomic effects on bank performance or account for them only partially or indirectly (e.g.

Micco et al., 2006, Goddard et al., 2004). In the next section we present the selected data set, estimation methodologies and variables' definitions, including the characteristics of selected bank specific variables and variables representing different external (i.e. banking system and macroeconomic) factors used in our analysis.

4. Data, variables and methodology

Data and definition of variables

Three types of data were used in the analysis. First, individual bank-level data, which were obtained from the BankScope database. Only data for banks with unconsolidated financial statements were used for the statistical analysis. Second, market-specific data, illustrating major characteristics of specific banking markets. The data in this category were obtained from the BankScope and from the IFS database. Third, macroeconomic data, reflecting some macroeconomic characteristics in countries included in the analysis. This set of data was obtained from the IFS database and from the EBRD publications for the 1995 – 2004 period with annual frequency. All the variables are summarized and explained in Table 4.

As already explained four variables were employed as bank performance measures: return on assets, return on equity, net interest margin and profit before tax compared to total assets.

The first set of the explanatory variables refers to the individual bank characteristics. Banking firm size (SITE) is measured as a log of total loans and total other earning assets of each individual bank. Variable EQTASUR measures bank capital strength and is calculated as equity to total assets ratio that exceeds 10%. Further, LOANFUND is calculated as total loans over total deposits ratio and depicts the liquidity of banking firm. Cost efficiency is expressed by a conventional cost-to-income ratio (CIR) and credit risk exposure by loan loss provisions to total assets ratio (LLPTA). Two additional variables reflecting bank asset structure and bank income structure, are computed as net earning assets to total assets ratio (NEATA) and as other operating income to net interest revenues ratio, respectively.

The second set of the explanatory factors consists of three variables reflecting banking market characteristics and therefore vary across countries. Interest rate

spread (SPREAD) is obtained as a difference between the average aggregate loan rate and average aggregate deposit rate as provided by the IFS dataset. The other two variables in the set describe the market situation. The variable HHITACEL is the Hirschman-Herfindahl concentration index based on the individual bank total assets, whereas MKTSHARE reflects market share of each individual bank.

Table 4: List of the variables used in the empirical analysis

	Symbol for the variable	Description of the variable
<i>Dependent variables</i>		
1	ROAA	Return on average assets
2	ROAE	Return on average equity
3	NIM	Net interest margin
4	PBT/TA	Profit before tax over total assets
<i>Bank-specific variables (explanatory)</i>		
1	SIZE	Size of a banking firm
2	EQTASUR	Excessive capitalization of banking firm
3	LOANFUND	Loans-to-funding ratio
4	CIR	Cost to income ratio
5	LLPTA	Loan loss provisions over total assets
6	NEATA	Non-earning assets over total assets
7	OOINIR	Other operating income over net interest revenue
<i>Market-specific variables</i>		
8	SPREAD	Difference between loan and deposit rate (average aggregate rates)
8	HHITACEL	HHI index measured by total assets
10	MKTSHARE	Market share of individual bank, measured by total assets
<i>Macroeconomic variables</i>		
11	STOCKGDP	Stock market capitalization as a share in GDP
12	LOGCNGGDP	Log of relative change in GDP
13	LOGCNGFXRATE	Log of relative change in the official foreign exchange rate
14	EBRDBANK	EBRD index of banking sector reform

Source: BankScope, IFS, EBRD

The third set of the variables consists of the macroeconomic variables. The STOCKGDP variable is calculated as the stock market capitalization to GDP ratio in each country. The LOGCNGGDP variable is log of the GDP growth rate and LOGCNGFXRATE is log of the local foreign exchange growth rate. The EBRDBANK variable is the EBRD index of banking sector reform as regularly published in the EBRD Transition reports.

Methodology

In order to investigate bank specific and environmental factors that affect the performance indicators of banks in selected SEE countries, the following general model is applied:

$$\pi_{it} = \alpha + \sum_{j=1}^J b_j X_{it}^j + \sum_{m=1}^M c_m X_{it}^m + \sum_{l=1}^L d_l X_{it}^l + \varepsilon_{it}$$

where i refers to an individual bank, t refers to year and j refers to specific country. The dependent variable π_{it} denotes a selected performance measure observed for bank i in year t , X_{it}^j stands for a set of J bank specific variables, X_{it}^m for M banking sector variables that vary across banking markets and time, but not across individual banks within a country, X_{it}^l for L macroeconomic variables that vary across countries and time, but not across individual banks within a country. ε is an error term.

The structure of the available data implies the use of panel data estimation techniques. First, the appropriateness of fixed effects model as opposed to random effects model was tested with the Hausman test. The test was performed for different model specifications and three different sample subsets: pooled data, a subset of foreign-owned banks and a subset of domestic-owned banks. Test results are presented in Table 5. With the exception of one model specifications (domestic banks and ROAA dependent variable) use of fixed effects model was indicated.

Table 5: Summary of Hausman test Chi2 statistics and significance levels for different model specifications

Depend. Variable/ Subsample	ROAA	ROAE	NIM	PBTTA
Pooled	73.98	102.34	58.83	65.24
	0.0000	0.0000	0.0000	0.0000
Foreign	41.47	50.12	42.6	23.87
	0.0001	0.0000	0.0001	0.0475
Domestic	18.34	34.92	22.09*	50.77
	0.1915	0.0015	0.0000*	0.0000

* Breusch-Pagan test for random effects. The test procedure renders a failure in meeting asymptotic assumptions of the Hausman test.

Fixed effect estimation technique was thus employed to estimates series of

models, using various bank performance measures ($ROAA_{ij}$, $ROAE_{ij}$, NIM_{ij} , $PBTTA_{ij}$) interchangeably as a dependent variable π_{ij} .

$$\begin{aligned} \pi_{it} = & a + \sum_j b_j (SIZE_{it} + EQTASUR_{it} + LOANFUND_{it} + CIR_{it} + LLPTA_{it} + NEATA_{it} + OGINIR_{it}) + \\ & + \sum_m b_m (SPREAD_{kt} + HHITACEL_{kt} + MKTSHARE_{kt} + EBRDBANK_{kt}) + \\ & + \sum_l b_l (STOCKGDP_{kt} + LOGCNGGDP_{kt} + LOGCNGFXRATE_{kt}) \end{aligned}$$

The estimation results are presented in Tables 1A to 4A in the Appendix.

5. Empirical results

First we present the results of the mean equality tests for four performance measures between foreign-owned and domestic-owned banks for all SEE-6 countries separately. Then we pool the data for all countries and use econometric analysis to establish which indicators are significant determinants of bank performance.

Performance of foreign vs. domestic banks

Four accounting based indicators were used to assess the differences in bank performance in SEE-6 countries. Since the ambition of the comparison was to detect the performance differences resulting from ownership structure characteristics, banks were separated in two groups: foreign owned and domestic banks. Banks were considered to be foreign owned if foreign shareholders controlled more than 50 percent of the shares and analogously they were considered to be domestic if domestic shareholders controlled more than 50 percent of the stakes. Mean equality tests were performed separately for two periods: 1995-1999 and 2000-2004 period in order to capture developments in the performance-ownership relationship. The two timeframes approximated two typical evolution periods in banking sectors of Eastern European countries. The first timeframe covered the early years of transition, and was characterised by intensive consolidation and privatisation processes, resulting in foreign bank dominance in most of the countries. The second timeframe covered the period after year 2000 when consolidation was largely finished and banking sectors started to develop more intensively. The results of group mean testing are presented in Table 6.

Contrary to our expectations the results for the two most widely used performance (profitability) indicators across countries were highly insignificant, meaning that substantial differences in ROAA and ROAE between foreign-owned and domestic banks were statistically undetectable. The only exceptions were Bulgaria and Croatia in the 2000–2004 period, where foreign-owned banks outperformed the domestic ones in terms of ROAE. In case of Albanian banking sector it was not possible to carry out the standard t-tests due to a small number of banks in one of the groups (i.e. the group of domestic banks).

The best discriminator between foreign-owned and domestic banks was net income margin (NIM). The differences were statistically significant in two countries (Bulgaria and Romania) in the first observed period (1995-1999), and in three countries (Bulgaria, Romania and Croatia) in the second observed period (2000-2004). The results show that only in case of Bulgaria foreign-owned banks outperformed the domestic ones, while in case of Croatia and Rumania the situation is just the opposite: domestic banks operated on average with a higher NIM than foreign-owned banks. This findings are surprising to some extent, since foreign owned banks are typically expected to operate with lower NIM due to their indisputably better access to lending funds via their parent banks in Western Europe.

Statistical insignificance of results is found also with the fourth performance variable, PBTTA, which means that also the pre-tax profitability of foreign owned banks does not really differ from the profitability of domestic banks before the taxation. This finding might indicate the absence of any major differences in taxation of banking operations in the studied countries.

Table 6: Group mean equality test for four selected performance variables (ROAE, ROAA, NIM and PBTTA) in six SEE countries for 1995-1999 and 2000-2004 period.

Period	ROAA	AL	BG	CS	HR	MK	RO
1995 - 1999	Mean value - Domestic	0.0%	0.7%	2.8%	0.9%	3.0%	5.8%
	Mean value - Foreign	0.2%	1.3%	6.7%	0.7%	5.5%	1.6%
	t =	--	-1.411	-1.566	0.303	-1.281	1.324
	Pr(T > t) =	--	0.164	0.128	0.763	0.211	0.195
2000 - 2004	Mean value - Domestic	1.3%	-1.9%	-0.4%	1.3%	2.3%	-0.5%
	Mean value - Foreign	1.3%	6.9%	-0.8%	1.4%	2.0%	0.5%
	t =	--	-0.872	0.140	-0.234	0.348	-0.949
	Pr(T > t) =	--	0.385	0.889	0.815	0.730	0.345

Period	ROAE	AL	BG	CS	HR	MK	RO
1995 - 1999	Mean value - Domestic	0.0%	5.2%	21.1%	1.6%	9.2%	22.8%
	Mean value - Foreign	1.9%	12.7%	31.3%	-0.9%	14.9%	10.7%
	t =	--	-1.537	-0.830	0.292	-1.218	0.988
	Pr(T > t) =	--	0.130	0.413	0.771	0.233	0.330
2000 - 2004	Mean value - Domestic	11.2%	-11.7%	-8.8%	7.2%	8.2%	2.0%
	Mean value - Foreign	-8.8%	85.7%	-6.4%	12.2%	4.2%	6.2%
	t =	--	-1.999	-0.176	-2.858	1.112	-0.629
	Pr(T > t) =	--	0.048	0.861	0.005	0.272	0.531

Period	NIM	AL	BG	CS	HR	MK	RO
1995 - 1999	Mean value - Domestic	0.0%	4.4%	9.5%	6.9%	8.0%	23.4%
	Mean value - Foreign	1.6%	5.9%	13.7%	5.7%	12.6%	11.3%
	t =	--	-2.016	-1.059	1.304	-1.354	2.500
	Pr(T > t) =	--	0.049	0.298	0.196	0.187	0.018
2000 - 2004	Mean value - Domestic	3.1%	-1.4%	8.8%	5.3%	6.0%	15.8%
	Mean value - Foreign	4.9%	6.4%	8.1%	4.5%	6.1%	7.3%
	t =	--	-3.251	0.641	1.981	-0.137	7.803
	Pr(T > t) =	--	0.002	0.523	0.050	0.891	0.000

Period	PBT / TA	AL	BG	CS	HR	MK	RO
1995 - 1999	Mean value - Domestic	0.0%	0.8%	2.3%	1.0%	3.4%	8.1%
	Mean value - Foreign	2.9%	1.6%	5.5%	0.9%	6.0%	2.6%
	t =	--	-1.013	-2.038	0.579	-1.416	1.681
	Pr(T > t) =	--	0.315	0.048	0.564	0.166	0.099
2000 - 2004	Mean value - Domestic	1.2%	-1.5%	-1.2%	1.4%	2.4%	0.3%
	Mean value - Foreign	1.5%	9.6%	-1.6%	1.4%	2.0%	0.8%
	t =	-1.869	-1.114	0.420	0.335	0.272	-0.726
	Pr(T > t) =	0.071	0.268	0.675	0.738	0.787	0.469

Explanation of the abbreviations: Albania (AL), Bulgaria (BG), Serbia and Montenegro (CS), Croatia (HR), Macedonia (MK), Romania (RO).

Source: Author's calculations.

Determinants of bank performance in selected SEE-6 countries

The estimation outcomes are separately reported in four different sets of results in Tables 1A through 4A in the Appendix. Table 1A displays regression results for ROAA equation, Table 2A for ROAE equation, Table 3A for NIM equation and Table 4A for PBTTA equation. Each of the equations was estimated first for the entire sample of banks and then for foreign-owned and domestic banks separately.

Dependent variables in each equation represent three groups of explanatory factors, as discussed in section 4: variables describing individual characteristics of banking firms; variables representing banking market characteristics; and variables reflecting macroeconomic characteristics of individual countries in the SEE-6 group.

6. Bank-specific determinants

The **size (SIZE)** of a banking firm does not seem to be an important determinant of bank performance measures. Postulated positive relationship is detected only between SIZE and ROAE for the entire sample of banks, while in a sub-sample of foreign banks, a negative relationship with ROAA and PBTTA proved to be statistically significant. A possible explanation for such an outcome could be found in different market positioning of foreign as opposed to domestic banks in SEE countries. Namely, foreign-owned banks usually experience above average growth rates immediately after the entry in the market. With increase in size, foreign-owned banks also improve their performance, which is typically poor at the beginning of their operations in a new market (e.g. because of initial investments) and is gradually improving when the entrant is gaining market share and customers. A positive relationship between size and bank profitability is for example reported by Williams (2003) for foreign-owned banks in Australia, while Goddard et al. (2004) and Athanasoglou et al. (2006) didn't detect any statistically significant association between size and profitability.

Capital strength parameter (**EQTASUR**) is significant for the entire sample and for the sub-sample of domestic banks. According to Goddard et al. (2004) the capital–profitability relationship is expected to be negative, since overcapitalization of banks is generally a sign of unused investment opportunities, which is also in line with Thakor (1996). On the other side some authors point out, that well capitalized banks normally have lower needs for external funding which can lead to better profitability (Pasiouras and Kosmidou, 2006). In our setting a positive relation of EQTASUR to ROAA needs to be observed together with a negative relationship between EQTASUR and ROAE. In our opinion higher EQTASUR enables banks to invest more aggressively on account of the extra capital coverage, which eventually can lead to higher return on assets. However, at the same time, higher EQTASUR does not enable banks to operate with significantly higher ROE indicators. The latter is confirmed with insignificant

coefficients in the ROAE equation for the entire sample and the sub-sample of foreign-owned banks. In case of domestic banks even the association between EQTASUR and ROAE is confirmed to be positive. A positive relationship between capital strength and profitability is confirmed also in the NIM and PBTТА equation. The latter indicates that different taxation regimes should not have any significant impact on the capital strength determinant.

Liquidity management determinant (LOANFUND), does not have any impact on performance indicators in our analysis. All estimated parameters, with the exception of the LOANFUND parameter in ROAA equation for domestic banks, are statistically insignificant.

Cost efficiency (CIR) is the next factor that importantly determines banking performance. The estimated coefficients (with only one exception) are highly significant and according to prior expectations also negative.

Credit risk exposure, measured by the **LLPTA** variable, which demonstrates the proportion of loan-loss provisions in total banking assets is expected to be inversely related to different profitability measures. Only the relationship with the NIM measure is expected to be positive, since NIM represents a basis for the formation of loan-loss provisions, meaning that a bank which has intention to build up loan-loss provisions needs to create sufficient net interest and net non-interest margin. Given that banks in developing markets predominantly rely on traditional banking activities we expect the net interest income to be prevalent in the banking income structure and accordingly net interest margin is expected to demonstrate a relatively high degree of association with loan-loss provisioning capabilities. The estimated LLPTA parameters conform to prior expectations. In three profitability equations (ROAA, ROAE and PBTТА) the coefficients are negative and highly significant. In the NIM equation coefficients are statistically significant as well, but all have a positive sign. It is important to note that the obtained results do not detect any significant differences between foreign owned and domestic banks, with regard to the LLPTA variable, so we can conclude that foreign and domestic banks behave in a similar way.

The impact of **bank asset structure** is captured by only one variable: **NEATA** (net earning assets to total assets), which reflects the proportion of assets that

directly enable a bank to generate banking income. However, the estimated coefficients in all the profitability equations (ROAA, ROAE and PBT TA) are statistically insignificant, indicating no relationship between asset structure and bank profitability. Only the NEATA parameter in NIM equation, estimated for the entire sample of banks proved to be significant and negative. There is no straightforward explanation for this particular result, unless one believes that higher proportion of net earning assets in total assets would absolutely imply higher loan-loss provisions. In any case, this particular issue needs detailed investigation. Alternative asset structure variables (e.g. loans to total asset ratio) that were also employed in some other studies instead of NEATA variable did not render any improvements in the significance of the results.

Analogously to the bank asset structure, the **bank income structure** was investigated by employing the **OOINIR** (other operating income to net interest revenues ratio) variable. The variable should explain the importance of non-interest income for the profitability of banking operations. Only in the PBT TA equation the OGINIR coefficient proves to be significant. The result shows that OGINIR is positively related to PBT TA, when the relationship is tested for the entire sample of bank and for the sub-sample of foreign-owned banks. The detected positive relationship indicates that profitability of banks is sensitive to the proportion of non-interest income in total income structure. For the sub-sample of domestic banks a negative, although not very strong, relationship is detected, so we could infer a greater dependence of domestic bank profitability on interest income as compared to the relationship detected with foreign-owned banks. This interpretation is partly supported by estimation results for the ROAE and ROAA equation, although not all the parameters are significant.

7. Market-specific determinants

Interest rate spread (SPREAD) measures earning potential in the market (i.e. the greater the interest spread the greater is the earning potential of financial intermediaries) and indirectly also competitiveness in the market, since greater interest spread reflects lower competitiveness, while a narrower spread indicates more intense competition in the market. In all the equations the results for the entire sample and for the sub-sample of foreign-owned banks are in line with

our prior expectations. In both samples spread proves to be positively related to profitability indicators ROAA, ROAE and PBTTA. This means that on average, an increasing interest rate spread can be associated with better profitability opportunities. Surprisingly, the results are just the opposite for the sub-sample of domestic banks, where the estimated coefficient has a negative sign and is most cases also significant. One of the explanations for a different reaction of domestic banks could be in their lower profitability efficiency as compared to foreign banks. Obviously the results obtained on the entire sample are influenced by the impact of foreign owned banks which dominate the sample.

The degree of **banking market concentration** is measured by HHI index based on total assets (**HHITACEL**). In three (ROAA, ROAE, NIM) out of four equations the estimated coefficient proves to be significant only for the sub-sample of domestic banks, but not for the sub-sample of foreign owned bank or for the entire sample. The estimated HHITACEL parameters for domestic banks are also strictly negative, meaning that higher market concentration adversely affects the profitability of domestic banks. One possible explanation is that the banking market concentration is increasing at the expense of domestic banks, which loose their position in the market. Additionally, we could also assume that foreign-owned banks on average have certain competitive advantages over domestic banks (Berger et al., 2004), which results in market share loses of domestic banks.

In order to control for the impact of the **market share** we include the **MKTSHARE** variable, which is calculated as a share of total assets of each individual bank in the total assets of the entire banking sector. The estimated parameters are significant only for NIM equation for the entire sample of banks and for the sub-sample of foreign-owned banks. Both coefficients are positive, which means that on average, foreign-owned banks improve their net interest margins (NIM) by increasing their market shares. This result is to a large extent consistent with market concentration results.

8. Macroeconomic determinants

As suggested by previous research (e.g. Havrylchyk and Jurzyk, 2005; Pasiouras and Kosmidou, 2006) we control for **stock market capitalization** by including **STOCKGDP** variable (stock market capitalization to GDP ration) reflecting the development level of the stock market in each individual country. Negative rela-

tionship between stock market capitalization and bank profitability is expected. In our case only one coefficient in the ROAA equation turns out to be significant and also negative. However, all other coefficients are not significant

Most performance models control, directly or indirectly, for the GDP growth in the local economy. In our sample, **GDP growth rate (LOGCNGGDP)** is statistically significant predictor of ROAA, ROAE and PBTТА for the entire sample and of ROAA and ROAE for the sub-sample of foreign banks. According to our expectations it has a positive sign. Again we can conclude that foreign-owned banks are more successful in taking advantage of favourable macroeconomic conditions.

Similar results as observed in case of **growth rate of the foreign exchange rate** in domestic economy (**LOGCNGFXRATE**). A positive growth rate of the foreign exchange rate indicates depreciation of national currency, which should stimulate export industry. Analogously to GDP growth rate we expect the sign of the LOGCNGFXRATE to be positive. In fact, positive regression coefficient is detected for the entire sample of banks and for the foreign-owned banks in ROAA, ROAE and PBTТА equation and for the foreign-owned banks in NIM equation. Coefficients for the sub-sample of domestic banks are mostly insignificant.

EBRDBANK variable indicates the **general development level of the banking sector**. The direction of the association with the dependent variables is the same for foreign-owned and domestic banks, although the estimated coefficient proves to be significant only for all three parameters in the ROAA equation, one parameter in ROAE equation and two parameters in the PBTТА equation. The obtained results are consistent with findings of previous studies.

Conclusions

The purpose of this paper was to investigate the relationship between bank ownership (foreign vs. domestic) and bank performance in selected set of six South-East European countries (SEE-6): Albania, Bulgaria, Croatia, FYR Macedonia, Romania and Serbia & Montenegro.

The entire region was characterized by a substantial influx of foreign investors in local banking markets in the last 10 – 15 years. In most of these countries (the only

exception was Serbia & Montenegro) the market share of foreign owned banks was close to 50 percent or even well above it. Foreign investors (mostly larger Western European banks) entered East European markets either by establishing greenfield operations or by acquiring domestic banks, in most cases heavily troubled. Intuitively one would expect that a significant presence of foreign-owned banks would be reflected in performance indicators of the banking industry.

Our analysis was based on the bank level, industry level and macroeconomic data for the period 1995 – 2004. The data were obtained from the BankScope database, IFS dataset provided by IMF and from the EBRD publications. The first part of the analysis consisted of a series of the mean equality tests for four performance measures between foreign owned and domestic banks in each of the studied countries. The second part of the analysis relied on the econometric investigation of the bank performance determinants in selected banking sectors.

Our results obtained in the first part of the analysis demonstrated only a limited differentiation between the performance indicators for foreign-owned banks and domestic banks across countries. The most pronounced differences between domestic and foreign owned banks were detected only with the net interest margin indicator, while with the other performance indicators statistically significant differences appeared to be rare. Any systematic differences in equality testing for both sub-periods (1995-1999 and 2000-2004) were not detectable.

The econometric investigation of bank performance explanatory factors offered only limited evidence on the relationship with performance determinants. While bank specific factors reflecting capital strength, cost efficiency and credit risk exposure proved to be associated with performance measures according to prior expectations, liquidity management and bank asset structure factors did not demonstrate any statistically significant link to performance indicators. The results with size and income structure were mixed and could not lead to any systematic conclusions. Further, among market specific and macroeconomic factors only interest rate spread and HHI index and to some extent GDP growth rate and the growth rate of the foreign exchange rate proved to have significant explanatory power, whereas market share and stock market capitalization to GDP ratio turned out to be inconclusive.

Further research should rely on the employment of additional explanatory variables that could better reflect differences in banking business structure among banks. Control variables for the mode foreign bank entry into the market need to be added and state owned banks, although almost inexistent in some of the countries, should be treated as a separate group.

References

- Berger A. N., Demirgüç-Kunt A., Levine R. and Haubrich J. G. (2004): "Bank Concentration and Competition: An Evolution in the Making." *Journal of Money, Credit and Banking*, Vol. 36, No. 3, pp. 433-451.
- Bonin J. P. (2004): "Banking in the Balkans: the structure of banking sectors in Southeast Europe." *Economic Systems*, Vol. 28, p. 141-153.
- Boyd J. H. and Runkle D. E. (1993): "Size and performance of banking firms." *Journal of Monetary Economics*, Vol. 31, pp. 47-67.
- Claessens S., Demirguc-Kunt A. and Huizinga H. (2001): "How does foreign entry affect domestic banking markets?" *Journal of Banking and Finance*, Vol. 25, p. 891-911.
- De Haas R. and Van Lelyveld I. (2006): "Foreign banks and credit stability in Central and Eastern Europe. A panel data analysis." *Journal of Banking and Finance*, Vol. 30, p. 1927-1952.
- Demirguc-Kunt A. and Huizinga H. (1999): "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence." *The World Bank Economic Review*, Vol. 13, No.2, p. 379-408.
- Demirguc-Kunt A. and Huizinga H. (2000): "Financial Structure and Bank Profitability." Working paper, mimeo
- DeYoung R. and Nolle D. E. (1996): "Foreign-Owned Banks in the United States: Earning Market Share of Buying It?" *Journal of Money, Credit and Banking*, Vol. 28, No. 4, pp. 622-636
- EBRD (2005): "Transition report 2005. Business in Transition", EBRD, London
- Fries S., Neven D. and Seabright P. (2002): "Bank Performance in Transition Economies." HEI Working Paper, No 07/2002.

- Fries S. and Taci A. (2005): "Cost efficiency of banks in transition: Evidence from 289 banks in 15 post-communist countries." *Journal of Banking and Finance*, Vol. 29, pp. 55-81.
- Goddard J., Molyneux P. and Wilson J. O. S. (2004): "The Profitability of European Banks: A Cross-Sectional and Dynamic Panel Analysis." *The Manchester School*, Vol. 72, No. 3. pp. 363-381
- Havrylchyk O. and Jurzyk E. (2005): "Profitability of Foreign and Domestic Banks in Central and Eastern Europe: does the Mode of Entry Matter?" CEPII, Working Paper, No 2005-21.
- Chmielewski T. and Krzesniak A. (2003): "Individual characteristics influencing bank profitability in Poland." *Financial Stability Report 2003*, National Bank of Poland
- Martinez Peria M. S. and Mody A. (2004): "How Foreign Participation and Market Concentration Impact Bank Spreads: Evidence from Latin America." *Journal of Money, Credit, and Banking*, Vol. 36, No. 3, p. 511-537.
- Micco A., Panizza U. and Yanez M. (2006): "Bank ownership and performance. Does politics matter?" *Journal of Banking and Finance*, Vol. 31, pp. 219-241.
- Molyneux P. and Thornton J. (1992): "Determinants of European bank profitability: A note." *Journal of Banking and Finance*, Vol. 16, No. 6, pp. 1173-1178.
- Pasiouras F. and Kosmidou K. (2006): "Factors influencing the profitability of domestic and foreign commercial banks in the European Union." *Research in International Business and Finance*
- Stubos G. and Tsikripis I. (2005): "Regional Integration Challenges in South East Europe: Banking Sector Trends." Bank of Greece, Working Paper, No 24/2005.
- Thakor A. V. (1996): "Capital Requirements, Monetary Policy, and Aggregate Bank Lending: Theory and Empirical Evidence." *Journal of Finance*, Vol. 51, No. 1, pp. 279-324
- Turner P. (2006): "The banking system in emerging economies: how much progress has been made?" BIS Papers, No 28
- Williams B. (1998): "Factors affecting the performance of foreign-owned banks in Australia: A cross-sectional study." *Journal of Banking and Finance*, Vol. 22, pp. 197-219
- Williams B. (2003): "Domestic and international determinants of bank profits: Foreign banks in Australia." *Journal of Banking and Finance*, Vol. 27, pp. 1185-1210

Appendix

Table 1A: Estimation results for the ROAA equation estimated for the entire sample of banks, foreign owned and domestic banks.

	<u>_ROAA_3_</u> (All banks)	<u>_ROAA_1_</u> (Foreign)	<u>_ROAA_0_</u> (Domestic)
size	-0.003 (0.008)	-0.024* (0.011)	0.003 (0.002)
eqtasur	0.154** (0.047)	0.107 (0.082)	0.048*** (0.014)
loanfund	-0.004 (0.006)	-0.008 (0.008)	0.013** (0.004)
cir	-0.055*** (0.009)	-0.113*** (0.019)	-0.046*** (0.004)
llpta	-0.348*** (0.055)	-0.420*** (0.068)	-0.543*** (0.059)
neata	-0.055 (0.047)	-0.007 (0.079)	0.005 (0.011)
ooinir	0.001** (0.000)	0.001 (0.001)	-0.000 (0.001)
spread	0.507*** (0.103)	0.658*** (0.154)	-0.074** (0.028)
hhitacel	-0.032 (0.020)	-0.037 (0.026)	0.033*** (0.009)
mktshare	-0.056 (0.082)	-0.083 (0.098)	-0.005 (0.017)
stockgdp	0.013 (0.087)	0.095 (0.142)	-0.037* (0.015)
logcnggdp	0.099*** (0.015)	0.119*** (0.019)	0.017 (0.010)
logcngfxrate	0.083*** (0.021)	0.101** (0.032)	-0.003 (0.006)
ebrdbank	0.030* (0.012)	0.040* (0.019)	0.005* (0.002)
Constant	-0.023 (0.090)	0.252* (0.124)	-0.002 (0.021)
R-squared	0.218	0.267	
N	518	318	200
F	16.392	15.153	

se values in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Author's calculations.

Table 2A: Estimation results for the ROAE equation estimated for the entire sample of banks, foreign owned and domestic banks.

	<u>ROAE_3</u> (All banks)	<u>ROAE_1</u> (Foreign)	<u>ROAE_0</u> (Domestic)
size	0.189** (0.058)	0.094 (0.080)	-0.007 (0.036)
eqtasur	-0.012 (0.332)	-1.058 (0.579)	0.323* (0.126)
loanfund	0.005 (0.044)	0.000 (0.054)	0.038 (0.034)
cir	-0.272*** (0.066)	-0.562*** (0.136)	-0.180*** (0.020)
llpta	-2.607*** (0.388)	-3.501*** (0.477)	-1.693*** (0.361)
neata	-0.111 (0.331)	0.781 (0.557)	0.054 (0.116)
ooinir	0.007* (0.003)	0.002 (0.004)	-0.022*** (0.004)
spread	5.060*** (0.727)	6.571*** (1.091)	-0.737* (0.350)
hhitacel	-0.225 (0.142)	-0.267 (0.182)	0.238** (0.086)
mktshare	-0.922 (0.584)	-1.381* (0.689)	0.520 (0.960)
stockgdp	-0.211 (0.617)	0.109 (1.000)	-0.121 (0.214)
logcnggdp	1.084*** (0.105)	1.262*** (0.137)	0.069 (0.084)
logcngfxrate	0.681*** (0.147)	0.808*** (0.229)	-0.191** (0.063)
ehrdbank	0.034 (0.082)	0.007 (0.136)	0.071* (0.031)
Constant	-2.128*** (0.636)	-0.710 (0.874)	0.018 (0.382)
R-squared	0.249	0.347	0.495
N	518	318	200
F	22.757	21.738	18.072

se values in parentheses.

* p<0.05, ** p<0.01, *** p<0.001

Source: Author's calculations.

Table 3A: Estimation results for the NIM equation estimated for the entire sample of banks, foreign owned and domestic banks.

	<u> </u> <u> </u> <u> </u> _NIM_3_ (All banks)	<u> </u> <u> </u> <u> </u> _NIM_1_ (Foreign)	<u> </u> <u> </u> <u> </u> _NIM_0_ (Domestic)
size	0.009 (0.006)	0.004 (0.006)	0.007 (0.013)
eqtasur	0.178*** (0.036)	0.155*** (0.042)	0.132** (0.047)
loanfund	0.001 (0.005)	-0.002 (0.004)	0.016 (0.013)
cir	-0.022** (0.007)	-0.042*** (0.010)	-0.008 (0.007)
llpta	0.200*** (0.042)	0.080* (0.034)	0.382** (0.135)
neata	-0.124*** (0.035)	0.017 (0.040)	-0.030 (0.043)
ooinir	0.000 (0.000)	-0.001*** (0.000)	0.010*** (0.002)
spread	-0.199* (0.078)	-0.053 (0.078)	-0.399** (0.130)
hhitacel	0.033* (0.015)	0.010 (0.013)	0.146*** (0.032)
mktshare	0.267*** (0.063)	0.203*** (0.049)	-0.186 (0.358)
stockgdp	-0.114 (0.066)	-0.043 (0.072)	-0.124 (0.080)
logcnggdp	0.006 (0.011)	0.019 (0.010)	0.020 (0.031)
logcngfxrate	0.012 (0.016)	0.045** (0.016)	-0.042 (0.024)
ebrdbank	0.004 (0.009)	-0.000 (0.010)	0.005 (0.011)
Constant	-0.044 (0.068)	0.019 (0.063)	-0.038 (0.142)
R-squared	0.069	0.088	0.629
N	518	318	200
F	9.098	10.841	21.250

se values in parentheses.

* p<0.05, ** p<0.01, *** p<0.001

Source: Author's calculations.

Table 4A: Estimation results for the PBTTA equation estimated for the entire sample of banks, foreign owned and domestic banks.

	<u>PBTTA_3</u> (All banks)	<u>PBTTA_1</u> (Foreign)	<u>PBTTA_0</u> (Domestic)
size	0.001 (0.006)	-0.021* (0.009)	-0.004 (0.008)
eqtasur	0.139*** (0.041)	0.066 (0.069)	0.082* (0.032)
loanfund	-0.002 (0.005)	-0.005 (0.006)	0.015 (0.009)
cir	-0.060*** (0.008)	-0.097*** (0.014)	-0.043*** (0.005)
llpta	-0.373*** (0.044)	-0.409*** (0.062)	-0.308*** (0.052)
neata	-0.041 (0.040)	-0.010 (0.070)	-0.047 (0.027)
ooinir	0.003*** (0.000)	0.002*** (0.001)	-0.002* (0.001)
spread	0.352*** (0.089)	0.413** (0.130)	-0.089 (0.083)
hhitacel	-0.019 (0.017)	-0.027 (0.022)	0.022 (0.019)
mktshare	0.045 (0.064)	0.054 (0.075)	0.123 (0.237)
stockgdp	-0.000 (0.076)	0.054 (0.122)	-0.022 (0.052)
logcnggdp	0.046*** (0.013)	0.031 (0.017)	0.004 (0.015)
logcngfxrate	0.076*** (0.018)	0.090** (0.027)	-0.011 (0.015)
ebrdbank	0.026** (0.010)	0.037* (0.017)	0.012 (0.007)
Constant	-0.050 (0.073)	0.210* (0.105)	0.050 (0.090)
R-squared	0.344	0.416	0.528
N	581	351	230
F	24.795	21.550	16.670

se values in parentheses.

* p<0.05, ** p<0.01, *** p<0.001

Source: Author's calculations.

Credit Efficiency and Consumer Loans Price

Mileti Mladenov and Irina Kazandjieva

Introduction

The increase of financial market integration includes a wide scope of factors, e.g. institutional factors for regulating the financial market, different types of control on capital movement, application of definite accounting standards and tax laws. But the creation of common standards and the lack of artificial barriers are not enough for the development of the financial integration within the European Union.

In a more narrow sense the integration of financial markets is not only a possibility to perform cross border transactions, but it is also the desire of investors to take part in such transactions. According to Obstfeld (1986) there are two concepts in measuring the financial markets integration – the first concept is based on the amount of cross border transactions and the second one on the market efficiency⁷⁸. The small amount of transactions on the international financial markets means not always market segmentation. It can be due to the investors' perception that their investments on the local and international markets are not profitable and for that reason they do not participate in them. On the other hand, the capital flow due to monetary and financial crisis is not an indicator for high degree of integration of financial markets. For that reason we can consider the existence of competition and market efficiency as a more precise measure for market integration compared to the number of transactions. When measuring the existing competition on the financial markets and their efficiency, the law of one price has a very important application. According to this law the prices of identical financial products become equal when there is market integration. It means that the assets held by the investor have the same risk and the yield that is going to be achieved from them will be the same no matter where these instruments are traded. If there are differences in the prices of a financial asset when it is traded on different markets, this is an indicator for the existence of market segmentation and it leads to a decrease of the amount of cross border transactions.

⁷⁸ Obstfeld, M., Capital Mobility in the World Economy: Theory and Measurement, NBER Working paper, 1986.

The main aim of the creation of the EU is the creation of a single market which has to foster the existence of financial market integration. For that reason a number of regulations and directives are adopted by the EU Commission and they have to be transposed by the member states. Despite the existing regulatory framework the integration of the retail financial market is taking place with slow paces and the national differences and market segmentation are common for retail credit markets within the EU countries⁷⁹. From the three main types of barriers – natural, political and private that influences the demand and supply of financial products on the European market, the natural barriers are of great importance. Cultural difference, language and geographical distances hinder the creation of a single market, but it can be supposed that the integration is possible for the natural language areas as Germany and Austria or Great Britain and Ireland, or for neighboring countries with traditionally close trade links.

Regarding the credit market in the EU Dell'Araccia (2001)⁸⁰ argues that the competition is different on the different market segments, that's why financial regulations have a different effect on the different categories of debtors. If there are differences in credit reporting in the EU countries as well as different access to credit, it may hinder the creation of a single credit market. It should be also taken into consideration the banks' behavior on the concentrated markets, where banks influence strongly price setting for the different products, which causes higher transaction costs for the client when he or she changes the bank.

The aim of the paper

The paper is going to explore the transposition of the consumer credit directive⁸¹ in Bulgaria and Romania, the obligation for credit institutions to announce the Annual Percentage Rate⁸² (APR) and its influence on the loan supply and demand. This concept is going to be developed in the light of penetration of for-

⁷⁹ Kleimeier, S., H.Sander, Consumer Credit Rates in the Eurozone: Evidence of Emergence of Single Retail Banking Market, ECRI Research Report №2, 2002;

Schüler, M., F. Heinemann, How Integrated are the European Retail Financial Market? A Cointegration Analysis, Center for European Economic Research, Mannheim University, 2002.

⁸⁰ Dell'Araccia, G., Competition among Regulators, Working paper №01/73, 2001.

⁸¹ Council Directive of 22 December 1986 for the approximation of the laws, regulations and administrative provisions of the member states concerning consumer credit.

⁸² APR (Annual Percentage Rate) is a measure of the total cost of credit to consumers and it includes interest and other charges which consumer has to pay on the credit contract. APR is calculated in accordance with a definite mathematical formula which is applied by all member states.

eign banks in Bulgaria and Romania. As the consumer credit directive has a considerably long history of almost 20 years, the EU credit institutions are quite aware of its application and the calculation of the APR on consumer loans. The paper is going to measure the non interest rates component of the APR, applied by the foreign credit institutions in Bulgaria and Romania and we are going to investigate how integrated are consumer credit markets in both countries with the EU market by using the interest rates on consumer loans. For that reason correlation and cointegration techniques are going to be implemented in this paper. The correlation analysis has some deficiencies and it can not be used to make conclusions for the integration of the credit market, but it is good to be performed for the interest rates time series as it gives information for the type (positive or negative) and the degree of relation between the time series. If credit markets in Bulgaria and Romania are integrated with the EU credit market, the correlation coefficients should be positive and close to 1. The paper is going to explain the possible differences between the interest rate levels on consumer loans in Bulgaria and Romania and the existence or non-existence of integration between them and the rest of the EU countries.

The existence of cointegration of interest rates on consumer loans in Bulgaria and Romania with those in the rest of EU countries means that a long-run relationship exists among them. It can be argued that as a result of moving away market barriers within the EU, the nonstationary time series of the interest rates on consumer loans will be cointegrated, which means that they may be linked in the long run in the sense that they tend not to drift apart over time. Considering the cointegration of interest rates, it should be noted that convergence and cointegration are different empirical phenomena. Convergence implies a tendency of two variables to move together in a common path, while cointegration implies the existence of equilibrium between two non-stationary variables, which means that when two variables are converging it is not a prerequisite for cointegration.

The paper is concentrating not only on Bulgaria and Romania, but Croatia, Albania, FYR Macedonia and Serbia despite that these cases are going to be analyzed in a different aspect. As these countries are not EU members yet, they do not have to comply with the EU regulations and directives, esp. the consumer credit directive. Nevertheless, there have been a strong penetration of foreign banks in these countries and it is reflected in the diversity and types of banking

products offered to retail clients in Croatia, Albania, Macedonia and Serbia. The foreign banks are implementing the know-how as well as the banking products and services that are common for the EU countries but these products and services are structured according to the development of the banking sector and the financial market in the country. The paper is going to investigate the existence of any initiatives by the foreign banks penetrating in Croatia, Albania, Macedonia and Serbia to announce the total cost of consumer loans and the influence of the foreign banks entrance on the level of interest rates on consumer loans in a way that they become more integrated with the EU credit market.

The paper consists of three parts. The first part is investigating the existence of any legal framework that requires credit institutions to calculate the total cost of consumer loans, and if it exists how it is applied by the credit institutions in the country. The analysis in the first part is concentrated on Bulgaria and Romania because as EU member states they have to comply with the consumer credit directive and to calculate APR on consumer loans. The aim of the second part is to estimate the component of other charges in APR of the foreign credit institutions and to investigate how integrated are the credit markets in Bulgaria and Romania with the rest of the EU countries. The third part of the paper will be concentrated on the influence of foreign banks, entering the market in Croatia, Albania, Macedonia and Serbia on credit interest rates and if this influence leads to a higher integration of the credit market in these countries with the rest of the EU.

I. Review of the legal framework regarding consumer loans and its application by the credit institutions

This part is deliberately divided into two sub parts as it is expected to find huge differences between the new EU member states – Bulgaria and Romania and Croatia, Albania, Macedonia and Serbia which are treated as potential candidate countries. Having in mind the history of the development of the consumer credit regulation in Bulgaria and Romania before the implementation of Consumer Credit Directive we can come to the conclusion that we can expect the existence of fragmented legal framework regarding the cost of consumer loan in different legal acts, e.g. the Law on Banks, Commercial Law or the Law Protecting Consumer Rights in Croatia, Albania, Macedonia and Serbia. This kind of regulation is proved to be inefficient, not strictly kept and debtors are not always aware of its existence.

There are several factors that may hold back the expansion of foreign investments in the countries in South Europe and they are macroeconomic uncertainties, weakness of property rights and legal framework, underdeveloped business culture, low transparency of business, inadequate flows of information, inefficiencies relating to the use of collateral and so on. That's why we consider that the introduction of legal framework regulating consumer loans and imposing the calculation of an effective interest rate and contracts that provide comparison between consumer loans in the different countries in South Europe will contribute to the expansion of consumer loans on national level and will also foster the cross border consumer lending.

Bulgaria and Romania

Bulgaria and Romania transposed the Consumer Credit Directive in their national legislation before 2007 – in Romania this happened in 2004 and in Bulgaria in October, 2006. Both countries adopted separate legal acts and transposed entirely the requirements of the consumer credit directive in their national legislation. Regarding the total cost of consumer loans and the requirement for the calculation of APR in accordance with a single mathematical formula, a negative approach is adopted for the other charges (fees and commissions) which should be excluded from the calculation of APR. These charges are as follows: charges payable by the borrower for non compliance with the commitments in the contract; charges other than the purchase price despite the services or goods are paid in cash or by consumer credit, charges for transfer of funds and charges for keeping the account intended to receive payments on the loan; membership subscription and insurances and guarantees which are not obligatory for the client to be approved for a consumer loan. In Bulgaria the list of charges is extended to those paid for the estimation of collateral and their amount is significant.

The aim of the consumer credit directive is to encourage market integration and to decrease the overindebtedness of consumers by providing circumstances for supplying them with clear information on the total cost of credit. The requirement for the banks to announce APR does not have a positive attitude as it will lead to increasing the level of the interest rates as it is going to include the cost of other charges. When measuring the price of the consumer credit we have to take into consideration two elements – the interest rate component and the component of other charges. This part of the paper is going to compare the size of the non

interest rate component of the APR offered by domestic and foreign credit institutions in Bulgaria and Romania. The indicator for efficiency is the size of the non interest component and the smaller it is, the more efficient a credit institution will be. When considering this indicator, we also have to explore the level of APR, because banks may apply small nominal interest rates which will be “compensated” by higher charges. The results of the research how credit institutions in Bulgaria and Romania announce APR on their web sites is presented in Annex 1.

The Consumer Credit Directive is transposed in the Bulgarian legislation by the Law on Consumer Credit⁸³ that entered into force in October, 1st 2006. Before that time there have been existing since December 2005 a gentlemen agreement between commercial banks and the Bulgarian Association of Commercial Banks to announce APR on consumer loans, but this agreement was on a voluntary basis and it had no binding effect. The Law on Consumer Credit sticks to the minimum requirements set in the Directive and those fees and commissions that are excluded from the APR calculation are defined in it. Art. 7 of the Law complies entirely with the Directive as it states the requirements credit institutions to announce APR in the consumer loan contract, conditions for changing fees and commissions on consumer loans, conditions for loan repayment, other fees and commissions part of the total cost of consumer loan, but not included in the APR calculation. The Law on Consumer Credit follows the negative approach set in the Directive as in Division 7 of the Law those fees and commissions that are not included in APR calculation are listed. Except for the exclusions set in the Directive, it is added that those charges related to the collateral valuation should be excluded from APR calculation.

The Law on Consumer Credit in Bulgaria contains some flaws and they can be summarized to the following. First of all, the scope of the Law should be over all types of loans granted to consumers, including loans for house purchases and other loans for business purposes granted to consumers as agricultural loans, bridge loans, and loans for education, medical treatment and overdraft. Second, consumer loans regulation should foster consumption and economic growth, but due to the short period of time since the law is in force its effect could not be estimated. Third, conditions set in the consumer credit contract should be transparent and understandable by the debtors and the information in the con-

⁸³ Law on Consumer Credit entering into force on the 1st of October 2006, State Gazette №53 as of June, 30th 2006.

tracts should be standardized similar to the European Standardized Information Sheet⁸⁴. Leasing contracts for consumer goods should also be included in the Law on Consumer Credit as well as loans below 200 EUR because in the majority of cases loans granted in small amounts are the only accessible loans for debtors with a high level of overindebtedness. Loans granted to consumer for investment purposes should be also regulated as these consumers are not professionals and should have the same access to information as those consumers who have been granted a typical consumer loan.

Great deficiency of the Bulgarian law is that it doesn't contain a requirement for the calculation of APR on loans for house purchases as the practice of the majority of the EU countries is that when transposing the Consumer Credit Directive to the national legislation any clauses for the calculation of APR on loans for house purchases were foreseen. We consider that loans for house purchases are a special type of consumer loans (the house is good with special features and the decision of purchasing a house may have a great influence on person's life, incomes and the level of indebtedness) and when making the decision for taking such a loan from a definite credit institution the debtor should be well aware of the expenses related the loan that was granted as well as to the total price of credit whose concentrated expression is APR. It should be also take into consideration the tendencies in the development of the Consumer Credit Directive orientated to the inclusion of loans for house purchase in the scope of the Directive as well as the ECB requirements on interest rate statistics set in the Regulation ECB/2001/18⁸⁵ which requires member states central banks to collect statistics on APR on consumer loans and loans for house purchases from credit institutions.

The authors performed an investigation on the announcing of APR on consumer loans on the commercial banks web sites in Bulgaria⁸⁶. The results of the investigation are given in details in the Annex 1 and here we sum-

⁸⁴ Loans for house purchases (home loans) are arranged by the European Agreement on a Voluntary Code of Conduct on Pre-contractual Information for Home Loans, 5 March 2001, European Commission which can be signed by the credit institutions in member states on a voluntary basis. This agreement sets a standardized form on the contracts for loans for house purchases in accordance with the so called European Standardized Information Sheet.

⁸⁵ Regulation ECB/2001/18 concerning statistics on interest rates applied by MFIs to deposits and loans vis-à-vis households and non-financial corporations.

⁸⁶ The research was finished up to November, 8th 2006. The following banks do not participate in the investigation: National Bank of Greece, Citibank N.A., T.C. Ziraat Bankasi and Bulgarian American Credit Banks due to the lack of web sites of these banks. After reviewing the Quarterly Bulletin of Commercial Banks in Bulgaria it was concluded that these banks do not grant consumer loans to individuals or they grant consumer loans only to employees at favorable condition. It means that excluding these banks from the research we do not interfere the conclusions of the research.

marize the general results. Of all 29 commercial banks participating in the investigation only 12 announce APR on consumer loans on their web sites. Neither of the banks calculates APR on overdrafts and credit cards and only two banks calculate APR on loans for house purchases despite the lack of requirement in the Law on Consumer Credit for calculating APR on these loans. One of these banks announces APR on loans for house purchases by giving an example with definite parameters regarding loan maturity, amount and nominal interest rate and the other bank has developed a calculator which automatically calculates APR when the client sets the type of loan. Only three of all the banks give a legal definition of APR on their web sites. Only one bank points out which fees and commissions are not included in the APR calculation, and another bank explains why APR is higher than the nominal interest rate. The banks announce APR in two different ways – by developing an example (in 8 of the cases) by taking into account definite parameters of the loan, e.g. nominal interest rate, amount and maturity and by developing a calculator (in the rest of the cases), where APR is automatically calculated by entering the type of loan. Neither of the banks calculates APR on compound consumer loan products, e.g. combined credit (overdraft and consumer loan), open credit, etc.

It can be concluded that despite the banks announce APR, there is a lack of transparency because in none of the cases there is an indication which fees and commissions are included in the APR calculation and which not. Basing on definite calculations on consumer loans performed by the authors by taking into consideration the loan parameters announced on the web sites, it was found out that the majority of the banks include only fees and commissions for the loan management in the APR calculation, but they do not include those for the loan administration. Regarding the total cost of consumer credit the heaviest burden of the total cost of credit belongs to the charges for the loan management, but it shouldn't be underestimate the other charges, which according to the law should be included in the APR calculation as the debtor should be acquainted with them in order to make unbiased estimation of the total cost of the consumer credit product he /she chooses. Few of the consumers understand what APR means and that gives possibility for comparing consumer loans offered by the different credit institutions as none of the banks gives any information on the notion of APR.

In 2004 Romania had transposed the requirements of the Consumer Credit Directive in a separate legal Act on Consumer Credit⁸⁷ and due to a Norm on the statistics of the interest rates charged by credit institutions adopted in 2006 it was required by the credit institutions in Romania to report to the central banks APR on newly contracted consumer loans. The authors of the paper made a research on how Romanian credit institutions report APR on consumer loans on their websites in accordance with the requirement of the legal act. It can be concluded that up to 28th of February only a few commercial banks in Romania report APR on consumer loans and the general practice is that announce APR as an example on certain consumer loans.

The Romanian law on consumer credit strictly transposes the Consumer Credit Directive, e.g. the types of loans that are excluded from the scope of the law, the charges that are excluded from the APR calculation, and it also transposes the examples set in the Directive on the APR calculation on the basis of calendar and standard year. Similar to Bulgaria the Romanian law excludes loans for house purchases, but it strictly transposes the types of charges excluded from the APR calculation. Bulgarian law envisages charges payable on collateral on consumer loans to be excluded from the APR calculations, which is different than the scope of the Directive and is controversial regarding the interests of the consumer. Despite the earlier transposition of the Consumer Credit Directive in the Romanian law it can be concluded that the law is not effective as only a few credit institutions report APR on consumer loans and there are no aggregated data available on APR on consumer loans, which can be used for further analyses.

The authors investigated the non interest rate component of consumer loans and on this basis they calculated APR⁸⁸. The results of this investigation are presented in Annex 1a. When analyzing the results we must have into consideration that the calculations are made for definite consumer loans offered by the banks and they do not refer to aggregated levels, which means that when aggregating the data on APR for all consumer loans offered by a certain bank, there are going to be different results. In order to provide greater comparison of the results, the calculations of APR are performed for standard consumer loans, which means that the influence on the interest rates on specific loan products on APR is underestimated,

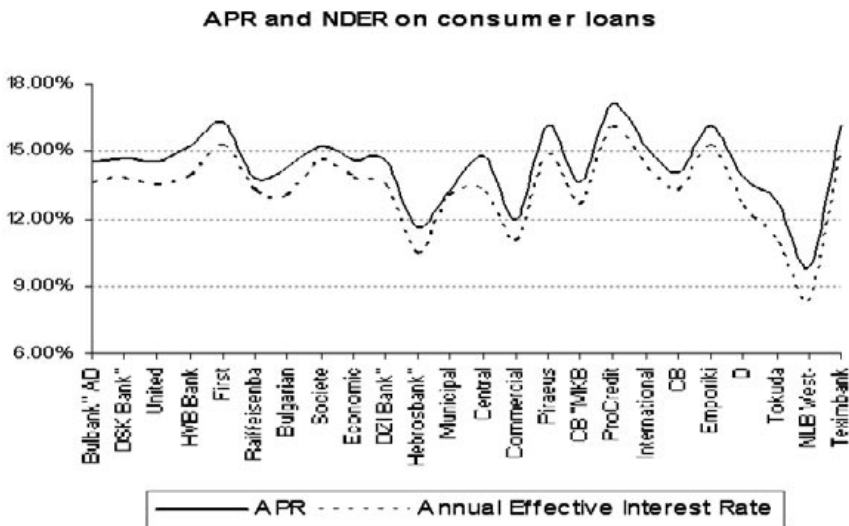
⁸⁷ Law № 289 of June 24th, 2004 concerning legal arrangements with respect to consumer credit agreements for natural persons, Official Gazette № 611 of July 6th, 2004.

⁸⁸ The investigation is performed up to November 30th 2006.

e.g. consumer loans on which the repayments are done on irregular intervals or loans that are granted at initially very low levels of nominal interest rates, fees and commissions. The calculation of APR is performed for consumer loans by taking the same parameters regarding the maturity, the amount of loans and the collateral, e.g. 5 year, 15 000 BGN and a collateral in the form of guarantee.

When making the analyses on the basis of the calculated annual percentage rates and the effective interest rates for the different credit institutions in Bulgaria we argue that if considering the effect of the non interest rate component, there should not exist huge differences in the levels of APRs for the different credit institutions. We can suppose this by taking into consideration the peculiarities in the banking sector in Bulgaria, namely – the lack of market concentration and the existence of strong competition among banks. As it is evident from fig. 1 this assumption is not true. The reasons for this are that there is a weak elasticity of loan supply to interest rates due to market segmentation and the fact that on loan demand different factors influence as facilitated procedures for granting consumer loans, relationship bank-client, the supply of additional banking products and services, etc.

Fig.1



The component of other charges on consumer loans varies a lot for the banks, dividing them into three groups in accordance to Banking Supervision methodology in Bulgaria. For the banks in the first group the amount of the non interest component on consumer loans as a part of the total cost of credit is 6,58% compared to that on loans for house purchases where it amounts to 9,17%. The component for other charges on consumer loans for the banks from the second and third group amounts to 8,08% compared to this amount on loans for house purchases which is 6,84%.

The competition of credit institutions on the market is due the strategic positions they take. Market positions of credit institutions points out the specific benefits for consumers regarding the products offered by the banks, e.g. some banks in Bulgaria offer combined products that consist of loan and insurance. Holding up a definite market position by the bank, it is reflected on its marketing, it development and the products it offers as well as ability to make innovations. The more freedom the banks have, the stronger the competition among them is. If the legal framework limits banks' opportunities to create unique products and to offer them in the most appropriate way, it will reduce competition among them, which will have a negative effect on consumers.

The Romanian banking system is characterized with a high level of specialization of credit institutions and the majority of foreign banks that have entered the market do not grant consumer loans. Such banks that have been specialized in granting loans to non financial corporations, car loans, loans for supporting export commerce are Bankca, Italo Romana, Anglo-Romanian Bank Limited, Banca Comerciala Carpatica, Romanian International Bank, Banca di Roma, Citibank Romania, Garanti Bank International, etc. In Annex I are presented the calculated values of APR on consumer loans granted by the banks in Romania, and we have to take into consideration that these results are not exhaustive, as we based our calculations only on the data published on the web site of the Romanian banks and many of them have a scarce information regarding consumer loans or even do not have translated English versions.

Similar to Bulgarian credit institutions, commercial banks Romania also tend not to announce the values of APR on consumer loans on their web site despite the early transposition of the Consumer Credit Directive in the national legislation.

Contrary to the practice of Bulgarian credit institutions neither of the Romanian banks developed a calculator for automatic calculation of APR on consumer loans and all the banks calculate APR by developing an example with definite parameters of the loan, e.g. amount, maturity, nominal interest rates.

Croatia, Albania, Macedonia and Serbia

For Croatia, Albania, Macedonia and Serbia it is hardly to be expected that any legal framework regarding total cost of consumer credit exists but we are going to compare the initiatives (if any) undertaken by the domestic and foreign banks in these countries to announce the total cost of consumer loans.

According to the development plan of the central bank of Albania for the period of 2006-2008 the stress is put on the development of the legal framework regarding the implementation of BASEL II and the EU Directives, e.g. European Directive 2000/12/EC⁸⁹, European Directive 94/19/EC⁹⁰ and European Directive 83/349/EEC⁹¹. It is also envisaged for the next two years to be developed draft regulation on consumer credit aiming at regulating the activity of the consumer and housing credit by specifying the regulatory framework of this activity pursuant to the European Consumer Credit Directive and the best practices in this field.

In 2005 Macedonia has implemented a Decision on calculating and publishing the effective interest rate on credits and deposits⁹² which enters into force from June, 2006. This Decision sets out a uniform manner of calculating publishing an effective interest rate to loans granted and its aim is to provide comparison between the interest rates on loans offered by the different commercial and saving banks. This Decision stipulates some of the requirements set in the Consumer Credit Directive as the requirement to inform the client on the fees and other commissions charged by the bank when the credit agreement is concluded, but it does not require the banks to calculate APR on consumer loans. After studying⁹³ the public information on the web sites of commercial and sav-

⁸⁹ Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions.

⁹⁰ European Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes.

⁹¹ European Directive 83/349/EEC as of 13 June 1983 on consolidated accounts.

⁹² Decision on Calculating and Publishing the Effective Interest Rate on Credits and Deposits pursuant to Article 31 of the Law on National Bank of the Republic of Macedonia published in the Official Gazette of the Republic of Macedonia, №3/2002, 51/2003, 85/2003, 40/2004, 61/2004.

⁹³ The research was concluded up to 15.03.2007.

ing banks about the terms and conditions on consumer loans in Macedonia we came to the conclusion that neither of the banks in Macedonia announces APR on consumer loans, which means that there is a lack of initiatives from the central banks and commercial banks, esp. foreign banks that have entered the banking market in Macedonia to implement the requirements of the Directive concerning consumer loans without the existence of certain legal framework.

Up to the beginning of 2007 there exists no legal framework in Croatia that transposes the requirements of the Directive 87/102/EEC and neither of the commercial banks calculates APR on consumer loans. According to the instructions given by the Statistical Department⁹⁴ to the commercial banks regarding the reporting of interest rates on newly contracted loans, the banks should report effective interest rates but the formula which should be used is not given and there is no reference given to the Consumer Credit Directive.

In 2005 the central bank in Serbia adopted a Decision⁹⁵ similar to that in Macedonia according to which a common method of calculation of an effective interest rate on loans was implemented. This Decision imposed the calculation of an effective interest rate on an annual basis by applying the compound interest calculation method. According to this Decision loan contracts should include fees and commissions charged by the bank to the client in the process of loan approval as well as those known by the bank on the calculation date and which are charged in the course of loan execution. This condition is consistent with the requirements with the Consumer Credit Directive and it refers to all kinds of loans. It also does not stipulate the calculation of APR and neither bank in Serbia calculates it.

Regarding the implementation of the Consumer Credit Directive and the calculation of APR it can be concluded about Albania, Macedonia, Croatia and Serbia that there exist fragmented legal framework on consumer loans, there is no transposition of the Directive and neither of the commercial banks announces APR on consumer loans. There are no initiatives taken by the foreign banks operating on the market to announce APR on consumer loans but there are some efforts for increasing consumers' understanding on the component

⁹⁴ For more information see www.hnb.hr, Instruction for the Compilation of the Report on Interest rates on Loans and Deposits, Croatian National Bank, Statistics Department.

⁹⁵ Decision on the Uniform Manner of Calculating and Disclosing the Effective Interest Rate on Loans and Deposits, RS Official Gazette, №11/2005 and 108/2005.

of other charges on consumer loans that is reflected in the number of Decisions adopted by the central banks in these countries that require specific information on fee and commissions to be included in the loan contracts.

II. Estimation of the element of non interest charges in the total cost of consumer loans and analysis of the integration of consumer loan markets in Bulgaria and Romania with the EU market

The second part of the paper is concentrated on analysis of the different charges applied by the credit institutions in Bulgaria and Romania and the accent is put on the comparison between domestic and foreign credit institutions. As the majority of the consumer loans in Bulgaria and Romania are granted by foreign banks we can consider the aggregated interest rates on consumer loans as an indicator for measuring market integration with the EU.

a. Calculation and analysis of the non interest component of the total cost of consumer loans

The calculation of the non interested rate component of APR is estimated for the domestic and foreign banks in Bulgaria and Romania and the weights of the different parts of charges in the total cost of credit is calculated. Credit institutions apply different types of fees and commissions on consumer loans, which participate with different weights in the total cost of credit. The most typical fees and commissions that are collected by credit institutions in Bulgaria on consumer loans are fees and commissions for loan management, for documentation, for repaying the loan in advance and for opening and keeping an account. There are no administrative charges for reviewing the loan application, life insurance, credit analyses, for keeping the account intended, estimating the collateral, mortgage fees and for cash drawing.

The amount of non interest charges as a part of APR is different regarding the different types of loans offered to consumers in Bulgaria and Romania. The amount of the non interest expenses as a part of APR regarding the banks in the first group in Bulgaria is as follows⁹⁶:

⁹⁶ The calculations are made the authors.

- Fees and commissions for managing consumer loans vary between 2,47% and 13,86% of the total cost of credit, expressed by APR;
- Administration fees vary between 0,12% and 4,21% of the total cost of credit, expressed by APR;
- Fees and commission for credit analysis of the client vary between 0,41% and 0,85% of the total cost of credit, expressed by APR;
- Other fees and commissions, e.g. for consultations and for documentation are respectively 0,79% and 0,06% of the total cost of credit, expressed by APR.

The amount of the non interest expenses as a part of APR regarding the banks in the second and third groups in Bulgaria is as follows:

- Fees and commissions for managing consumer loans vary between 1,87% and 12,36% of the total cost of credit, expressed by APR;
- Fees and commission for credit analysis of the client vary between 0,36% and 2,52% of the total cost of credit, expressed by APR;
- Fees and commission for reviewing loan application vary between 0,24% and 1,33% of the total cost of credit, expressed by APR;
- Other fees and commissions, e.g. for granting a loan, for documentation, for preliminary negotiation for the loan conditions are respectively 3,56%, 0,31% and 1,41% of the total cost of credit, expressed by APR.

The component of other charges constitutes a huge share of the total cost of credit expressed by APR when taking into consideration consumer loans with a short maturity and small amounts. The Laws on Consumer Credit in Bulgaria and Romania require the creditors to provide detailed information on the consumer credit contract, as well as in the advertisements of credit products as each change in the terms and conditions should be signed by both parties (the debtor and the creditor). The implementation by the laws require credit institutions to perform additional expenses in order to provide the necessary information on credit contracts, to develop their IT systems and to provide specialized training to the staff. It is also impossible a common approach to be applied for all consumer credit products as there exist a number of compound products offered by the banks to the consumers.

The calculated values of APR and the annual effective interest rate on consumer loans in Romania are presented in a table in Annex I. The non interest rate component of APR on consumer loans granted by Romanian banks tends to vary more compared to Bulgarian banks and the difference between APR and the effective interest rate is higher. The parameters on consumer loans in Romania for which APR is calculated are amount of the loan 5 000 EUR, maturity of 5 years and collateral in the form of a guarantee. There is no evidence from these data the banks with foreign capital tend to calculate and announce APR on consumer loans compared to the local banks.

Announcing APR on consumer loans may cause confusion among the debtor as it is higher than the nominal interest rate. Credit institutions should explain very clearly the existence of this difference and they have to point out that APR gives possibility to the debtors to compare the real cost on identical consumer loans offered by different credit institutions. It is very probable that not all consumers are going to understand adequately the information on the total cost on consumer loans and it may worsen the competition among the banks. Announcing APR on consumer loans may lead to an increase or a decrease of nominal interest rates on consumer loans, but this effect couldn't be forecasted at this stage for Bulgaria and Romania due the lack of official statistical data on APR on consumer loans.

It can be forecasted that the implementation of the Laws on Consumer Credit for Bulgaria and Romania may lead to higher expenses on consumer loans and it may reflect in an increase in offering mortgage loans not intended for house purchase, or bridging loans, student loans, etc. Consumers choose on a daily basis what amount of their income to spend by taking into consideration the level of their incomes and their wealth in the form of non cash assets, the alternative price of the expenses when buying a TV set or making a deposit in the bank at a definite level of the interest rate, and the price of the consumer loan, e.g. when buying a TV set by a loan instead of cash. The main factors which define the priorities of credit institutions when granting a consumer loan in Bulgaria are the collateral, the risk of the client, the level of the interest rates, fees and commissions and the demand of loans by customers. The most important factors for supplying consumer loans are the lower level of the consumer's risk and the collateral, while the level of the level of the interest rate, fees and commission are not of high significance.

b. Cointegration analysis on the interest rates on consumer loans

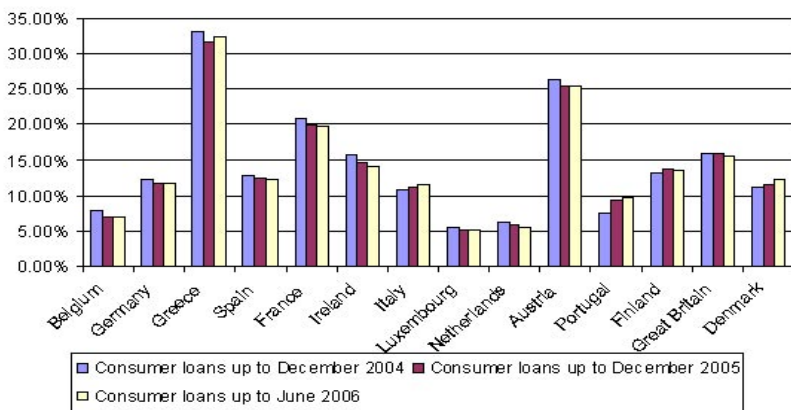
In this section of the paper we are going to estimate the existence of cointegration between interest rate time series on consumer loans in Bulgaria and Romania and the rest of the EU countries. The integration of financial markets in the EU assumes convergence on interest rates on consumer loans. There are a number of investigations on the convergence of interest rates within the euro area and the authors apply different cointegration techniques⁹⁷. Pigott notes that when market integration increases the behavior of interest rates could be influenced by two main factors⁹⁸. The increase of market integration leads to an increase of the arbitrage potentials on the markets, which leads to an increase in the convergence of interest rates on similar assets despite they are issued and traded on different markets. Pigott also considers the possibility for standardizing the conditions on loans as a result of an increase in capital flows.

Despite the fact that the Consumer Credit Directive sets the minimum requirements for harmonization on laws on consumer credit in Europe, full harmonization is difficult to be achieved as the consumer loan market in Europe is very heterogeneous. The importance of consumer loans and loans for house purchases is different in the member states which can be seen from fig. № 2-4 which represent the amounts of consumer loans and loans for house purchases in the total amount of loans to the household sector in the member states. The consumer credit market in Europe shows huge differences regarding the loan size and structure. For the period of 2004 – 2006 the amount of consumer loans for the old member states vary between 5% and 33% as a part of the total amount of loans to households and for the new member states they vary between 7% and 48%. As it can be seen from fig. №4, consumer loans prevail in Bulgaria and 2005 and 2006 there is tendency the amount of loans for house purchase to increase as a part of the total amount of credit to households.

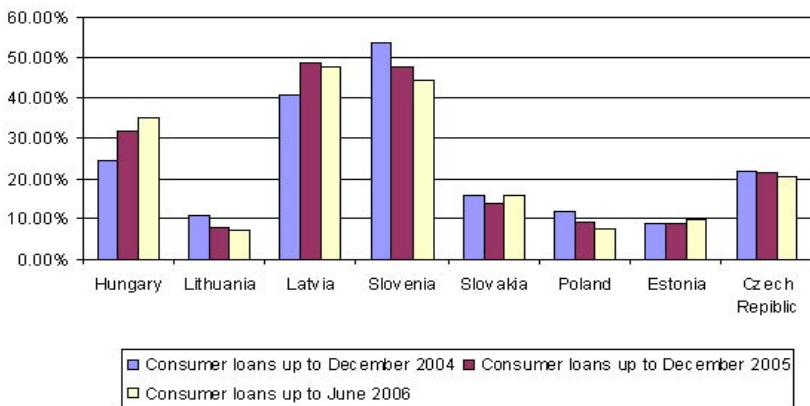
⁹⁷ For more information see Kleimeier, S., H. Sander, Consumer Credit Rates in the Eurozone, ECRI Research Report №2, January 2002; Devine, M., The Cointegration of International Interest Rates: A Review, technical paper, Central Bank of Ireland, 1997; Heinemann, F., M. Schüler, Integration Benefits on EU Retail Retail Credit Markets – Evidence from the Interest Rate Pass-Through, Zentrum für Europäische Wirtschaftsforschung, Mannheim, 2002.

⁹⁸ Pigott, C., International Interest Rate Convergence: A Survey for the Issues and Evidences, Federal Reserve Bank of New York, Quarterly Review, pp.24-37, 1994.

Consumer loans as part of loans to the household sector for the old EU member states⁹⁹
fig.2



Consumer loans as part of loans to the household sector for the old EU member states¹⁰⁰
fig.3

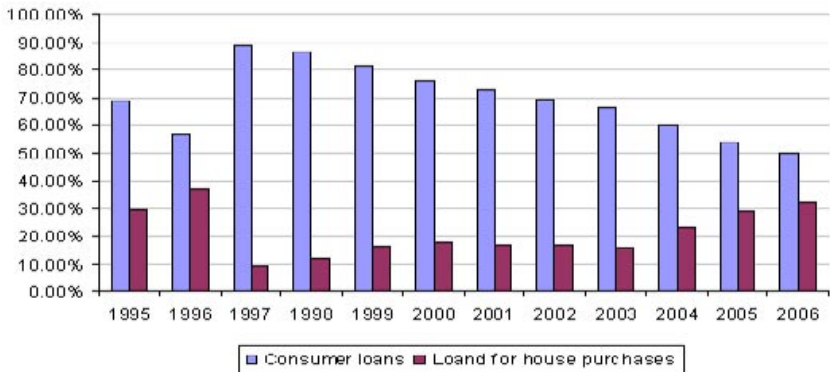


⁹⁹ The authors use the data available on the member states web sites. Consumer loans are calculated as a percentages of the total amount of loans to the household sector up to 31.12.2004, 31.12.2005 and 30.06.2006 for the old member states – Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Great Britain and Denmark. Due to the lack of harmonized data for Sweden, it does not participate in the country comparison shown on fig.2. The amount of consumer loans in Sweden as a part of total amount of loans to the household sector up to 30.06.2006 is 6.70%. The calculations are made by the authors.

¹⁰⁰ The authors use the data available on the member states web sites. Consumer loans are calculated as a percentages of the total amount of loans to the household sector up to 31.12.2004, 31.12.2005 and 30.06.2006 for the new member states – Hungary, Lithuania, Litva, Slovenia, Slovakia, Poland, Estonia and Czech Republic. Cyprus, Malta, Romania and Bulgaria do not participate in the comparison due to the lack of harmonized data. The calculations are made by the authors.

Amount of consumer loans and loans for house purchase as a part of total amounts of loans to household in Bulgaria¹⁰¹

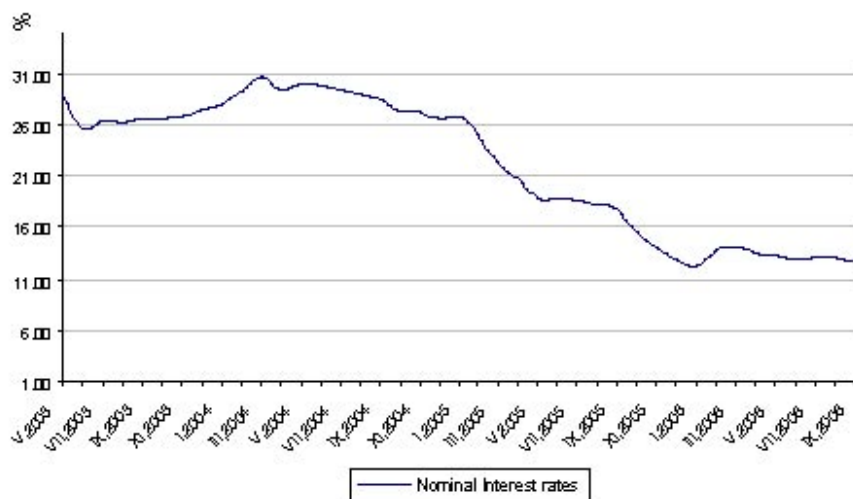
fig.4



The authors argue that interest rates on consumer loans in the EU are going to converge in the near future. On fig.6 are presented the data for Romania as they are not entirely harmonized with the ECB requirements. Despite the harmonization of interest rates on consumer loans in the member states assumed by the Consumer Credit Directive it continues to exist huge differences due to the different features of the products included in consumer loans, requirements for the collateral, the period of initial rate fixation, competition among credit institutions on a national level, peculiarities of the market environment, e.g. the existence bank of bank concentration in supplying consumer loans, access to funding, estimation of credit and interest rate risk, transaction costs, the existence of information asymmetry between credit institutions and their clients and the type of relationship between banks and their clients. Despite the existing differences, the efforts for harmonization of interest rates on consumer loans provide more comparability and opportunities for analysis as the interest rates can be interpreted more precisely and reliably.

¹⁰¹ Total amounts of loans to the household sector in Bulgaria include consumer loans, loans for house purchases, overdraft and other loans. The calculations are made by the authors by using the data available on the BNB web site.

Nominal interest rates on loans to individuals in Romania
fig.6



In the tables in the Annex III are presented correlation coefficients for the time series of the monthly effective interest rates on consumer loans for the EU member states, incl. Bulgaria and Romania. Correlation coefficients measure the relation between the effective interest rates on consumer loans in a definite member state with those of the rest of the EU countries. Correlation coefficients are calculated in EViews 3.1. by the formula:

$$R = \frac{\sigma_{xy}}{\sigma_x \sigma_y} \quad R = \frac{\sigma_{ex}}{\sigma_y^2}, \text{ where } R \text{ is the correlation coefficient, } \sigma_{ex}^2 \text{ is the explained dispersion of } Y \text{ (time series on the interest rates on consumer loans in a definite member state country) and } \sigma_y^2 \text{ is the dispersion of } Y. \text{ The correlation coefficient varies in the limit } -1 \leq R \leq 1. \text{ The interest rates for the rest of the member states are calculated as average weighted values for the member state countries, e.g. } i_{EU} = \frac{\sum_{k=1}^{25} i_k * y_k}{\sum_{k=1}^{25} y_k}, \text{ where } i_{EU} \text{ is the average weighted interest rate for the rest of the EU member states by excluding the times series of the country which is a dependent variable, } i_k \text{ is the interest rate for a definite country and } y_k \text{ is the amount of consumer loans for this country. The correlation coefficients show the type of the relationship between time series of interest rates on consumer loans, e.g. if it is positive or negative. Before investigating correlation coefficients, we should test the time series for the existence of autocorrelation and in the table are given the results of Durbin-Watson statistics at which the hypothesis for the existence of autocorrelation is rejected. The assumption for the existence of autocorrelation means that correlation coefficients are close 1. Correlation coefficients are not enough to make conclusions for the integration of consumer loan market in the EU, due to the deficiencies in the correlation analyses. However, correlation coefficients can be used on a preliminary stage for analyzing the type of relations between variables.}$$

rate for the rest of the EU member states by excluding the times series of the country which is a dependent variable, i_k is the interest rate for a definite country and y_k is the amount of consumer loans for this country. The correlation coefficients show the type of the relationship between time series of interest rates on consumer loans, e.g. if it is positive or negative. Before investigating correlation coefficients, we should test the time series for the existence of autocorrelation and in the table are given the results of Durbin-Watson statistics at which the hypothesis for the existence of autocorrelation is rejected. The assumption for the existence of autocorrelation means that correlation coefficients are close 1. Correlation coefficients are not enough to make conclusions for the integration of consumer loan market in the EU, due to the deficiencies in the correlation analyses. However, correlation coefficients can be used on a preliminary stage for analyzing the type of relations between variables.

APR consists of two components – interest component and component of other charges. The differences in the levels of APR on consumer loans for the member states can be due to the interest rate component, on the one hand, and the component of other charges, on the other hand. The differences in the interest rate

APR consists of two components – interest component and component of other charges. The differences in the levels of APR on consumer loans for the member states can be due to the interest rate component, on the one hand, and the component of other charges, on the other hand. The differences in the interest rate

component may arise from the above mentioned reasons, as the differences in the component of other charges are due to the different transposition in the Consumer Credit Directive, esp. the charges that are not included in the APR calculation.

In order to estimate the influence of Consumer Credit Directive on consumer credit market in the EU, a cointegration analysis on the effective interest rates and APR on consumer loans can be performed. In order to prove the statement that APR contributes to the increase of trans border consumer lending, we should prove the hypothesis for cointegration in more cases for the time series of APRs on consumer loans compared to the time series of effective interest rates on consumer loans. As the aim of this research is to include in the analyses Bulgaria and Romania, which still do not have harmonized data on APR on consumer loans, we performed the analysis by taking into consideration the time series of effective interest rates on consumer loans. In the analysis we are using monthly effective interest rates on consumer loans for the period of January, 2003 – September, 2006. The effective interest rates on consumer loans are harmonized with the requirements with the Regulation ECB/2001/18, which means that these interest rates are comparable as the methodology for their compilation and the scope of instruments is the same. Romania is excluded from the analysis due to the lack harmonized time series on consumer loans.

The time series on effective interest rates on newly contracted loans refer to consumer loans on new business. It should be taken into consideration that data for effective interest rates on consumer loans for Bulgaria are not entirely harmonized with the requirements of the Regulation ECB/2001/18 regarding the methodology of calculation the effective interest rates and the coverage of consumer loans. The cointegration equation that is estimated in this paper is:

$L_{nat_cons,t} = a + b * L_{eu_cons,t} + u_t$, where L_{nat_cons} denotes the time series of effective interest rates on consumer loans for a definite member state for the period January, 2003 – September, 2006 and L_{eu_cons} are the average weighted effective interest rates on consumer loans for the rest of the member states for the same period.

The cointegration analysis is performed in three stages. First, we test the time series for the existence of non stationarity, which is a necessary condition for the existence of a long run relationship between the time series. The tests for

nonstationarity are performed by the ADF Unit Root Test in EViews 3.1. and the results of the ADF test are presented in the Annex. After testing the dependant variables for the existence of cointegration, we analyze the speed of adjustment of the interest rates to the long-run equilibrium level, by using the Vector Error Correction Model (VEC), which is a type of the VAR models. VEC gives possibility for estimating the short-run adjustment of interest rates to the long-run equilibrium level, which is performed by a number of partial adjustments of the short term interest rates¹⁰². In this case we estimate the regression

$$\Delta L_{nat,t} = \varphi_0 + \varphi_1 * \hat{u}_{t-1} + \sum_{i=1}^4 \varphi_{nat,i} * \Delta L_{nat,t-i} + \sum_{i=1}^4 \varphi_{EU,i} * \Delta L_{EU,t-i} + \varepsilon_t, \text{ where}$$

$\Delta L_{nat,t}$ indicates the difference of the effective interest rates for a definite member state, $\Delta L_{EU,t-i}$ indicates the difference of the effective interest rates for the rest of the member states, \hat{u}_{t-1} denotes the residuals, and φ_1 is the VEC coefficient which measures the speed of adjustment for the cointegrated interest rates.

$\Delta L_{nat,t}$ and $\Delta L_{EU,t}$ are included as endogenous variables and the results for φ_{EU} are presented in the Annex. Summarizing the results in the tables we can conclude that integrated consumer loan market in the EU still not exist and despite the efforts in this field the integration of the consumer loan market happens in a very low pace.

III. Analysis of the integration of credit market interest rates in Croatia, Albania, Macedonia and Serbia resulting from the penetration of foreign banks on the local market.

Despite the fact that the legal framework in the field of consumer credit in Croatia, Albania, Macedonia and Serbia is not harmonized with the EU requirements we are trying to prove the thesis that the penetration of foreign banks on the local market may lead to integration of the local interest rates on consumer loans with the rest of the EU countries. This conclusion is based on the fact that when entering the local market foreign banks are going to implement the specific know-how as well as the retail products and services which are typical for the market where the headquarters of the credit institution are. It is considered that this will encourage the development of the consumer credit market by bringing

¹⁰² For more information see Sorensen, C., T. Werner, Bank Interest Rate Pass-Through in the Euro Area: A Cross Country Comparison, ECB Working Paper, 2006, pp. 16-19.

new products and increasing bank competition which is expected to decrease the amount of the interest and non interest rate component on loans.

The arguments supporting the entry of foreign banks in Croatia, Macedonia, Albania and Serbia can be summarized as products and services innovation, economies of scale (e.g. foreign banks offer new technology which is very necessary for the main domestic banks to generate profit from the economy of scale), increase of competition, financial market development due to the expansion of interbanking market, introduction of appropriate banking practices and expertise through the staff and the implementation of banking practices that are typical for the bank of origin and attraction of foreign investment. When discussing the benefits of penetration of foreign banks in these countries, we should take into consideration the existence of regulatory differences, differences in banking culture and the level of development of the banking industry, and that banks are subject to special protection from the government.

The levels of interest rates on consumer loans in Macedonia are comparatively high, which is due to the same factor that determine the high level of nominal interest rates on all type of loans in Macedonia, e.g. high level of inflation, exchange rate risk, poor quality of bank placements and lack of financial discipline, inefficient judicial procedure and high operational costs for the Macedonian banks in the period of 1996-1997 and during the political crisis in 1999 and 2000. After the political stabilization after 2001 and the intensive penetration of foreign banks in the country, the levels on interest rates on consumer loans started to decrease slowly. After the severe banking crisis in 1998-2000 in Croatia written lending policies were implemented by the banks and they included the requirement for the loan contracts the inclusion of explanation of interest charges and additional fees relevant to all categories of loans offered. After political stabilization in 2001 consumer credit tend to increase rapidly in these countries, which is accompanied with a decrease in the level of interest rates. The decrease in the interest rates is rather due to the international tendencies for decrease in the levels of interest rates that the penetration of foreign banks on the market and the implementation of new banking products and practices.

Conclusions

The issue of the penetration of foreign banks deserves special attention as well as their influence on the effectiveness of loans and non interest expenses on consumer loans and in a broader aspect both countries Bulgaria and Romania, after January, 2007 when they became full members of the EU. This issue is not developed in the current investigation, as up to now there is not enough empirical data to be analysed. Nevertheless, some general conclusions can be drawn and some forecasts for a development in this field can be made.

In the first days of 2007 a number of banking and non banking institutions stated their desire to work in both countries by taking the advantage of the simple procedure of the single pass. At the end of the first quarter of 2007 many banking and non banking financial institutions from the EU member states notified the Bulgarian banking and financial supervision on the basis of direct providing of services on the Bulgarian market. The EU regulation allows one member state financial institution to work in the host country by opening a branch or when it directly provides financial services in the host country without opening a branch. Currently, all member states financial institutions have declared their desire to work in Bulgaria without opening a branch.

We should specify that the banks that have declared their desire to work in Bulgaria are mainly one the biggest investment banks on a world wide level. That's why they will compete the local investment intermediaries in Bulgaria. But as investment intermediaries work all commercial banks in Bulgaria and that's why they will be also influenced by this competition. Except for this there is also declared desire for work in the field of commercial banking.

The above mentioned objectives create an entirely different situation in Bulgaria compared to that before the beginning of 2007. Currently, the foreign competition is still latent but it can be expected that some of the foreign institutions will start work, attentively at the beginning, trying to feel the market, but their aims may be modified and they can start creating branches and offices instead direct providing of services. The influence of the competition of foreign banks will be evident in the future. Regarding the issues analysed in this paper it can be expected that the conditions for consumers on products and services provided on the local

market will be better in the aspect of their diversity and smaller expenses. However, similar forecasts should be carefully done taking into consideration the period after which the effect of competition will appear as we have already pointed out that the amount of cross border financial services in the EU member states is still small. Regarding the new member states, esp. Bulgaria and Romania it should be taken into consideration the high levels of interest rate margins, e.g. the return on banking operations in Bulgaria, calculated as a return on assets to the capital still remains higher than the average EU return.

As a result of the investigations in the paper the following conclusions can be done regarding the penetration of foreign banks on the market in Bulgaria, Romania, Serbia, Albania, Croatia and Macedonia and the implementation of the Consumer Credit Directive and information of the real price of consumer loan granted to the consumers:

First, Bulgaria and Romania implemented the Consumer Credit Directive before their membership in the EU, but the majority of credit institutions in these countries do not calculate and announce APR on consumer loans which is their legal obligation. In Croatia, Albania, Macedonia and Serbia there initiatives from the central banks an effective interest rate on loan to be calculated and the debtors to be acquainted when signing the credit agreement with the additional fees and commissions which should be paid;

Second, the component of other charges included in the APR calculations varies significantly when comparing Bulgaria and Romania and it depends on the type and size of the consumer loans. It was proved that the amount of the non interest component is significant, esp. for Romania, which points out the importance of the correct calculation of APR as well as the amount of other charges when making a decision to take consumer loan from a definite credit institution;

Third, different types of charges are applied on consumer loans by the credit institutions in Bulgaria and Romania, e.g. analysis fees, valuation fees, granting fees, arrangement fees, management fees, charges for loan administration, documentation fees, etc. These fees are applied by the banks when the credit is granted or during the loan maturity, which is reflected on the APR level.

Forth, despite the aims of the Directive to encourage the trans border consumer lending and integration of the credit market in the EU, such integration is still lacking and the adjustment of interest rates on consumer loans is very slow. This refers also for Bulgaria as a new member state where correlation coefficients of the time series of effective interest rates on consumer loan with the rest of the EU countries are close to 0 and despite the evidence of cointegration the adjustment of interest rates is very sluggish;

Fifth, there is necessity for expanding the analysis further by using harmonized data on APR on consumer loans for Bulgaria and Romania which still do not exist in order to estimate the influence of the implementation of the Consumer Credit Directive on loan supply.

References

- Baleta, T., S. Xhepa*, Foreign Banks in the Balkan Region. Comparative Analysis, National Bank of Albania WP, 2000;
- Council Directive* of 22 December 1986 for the approximation of the laws, regulations and administrative provisions of the member states concerning consumer credit;
- Decision* on Calculating and Publishing the Effective Interest Rate on Credits and Deposits pursuant to Article 31 of the Law on National Bank of the Republic of Macedonia published in the Official Gazette of the Republic of Macedonia, №3/2002, 51/2003, 85/2003, 40/2004, 61/2004;
- Decision* on the Uniform Manner of Calculating and Disclosing the Effective Interest Rate on Loans and Deposits, RS Official Gazette, №11/2005 and 108/2005;
- Dell'Ariccia, G.*, Competition among Regulators, Working paper №01/73, 2001;
- Devine, M.*, The Cointegration of International Interest Rates: A Review, technical paper, Central Bank of Ireland, 1997;
- Directive 2000/12/EC* of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions;
- European Agreement* on a Voluntary Code of Conduct on Pre-contractual Information for Home Loans, 5 March 2001;

- European Directive 83/349/EEC* as of 13 June 1983 on consolidated accounts;
- European Directive 94/19/EC* of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes;
- Kleimeier, S., H.Sander*, Consumer Credit Rates in the Eurozone: Evidence of Emergence of Single Retail Banking Market, 2004;
- Law on Consumer Credit* entering into force on the 1st of October 2006, State Gazette №53 as of June, 30th 2006;
- Law № 289 of June 24th, 2004 concerning legal arrangements with respect to consumer credit agreements for natural persons*, Official Gazette № 611 of July 6th, 2004.
- Luci, E.*, Developing a Theory of Financial Intermediation in Transition Countries, Bank of Albania working paper, 2004;
- Obstfeld, M.*, Capital Mobility in the World Economy: Theory and Measurement, NBER Working paper, 1986;
- Pigott, C.*, International Interest Rate Convergence: A Survey for the Issues and Evidences, Federal Reserve Bank of New York, Quarterly Review, 1994;
- Schüler, M., F. Heinemann*, How Integrated are the European Retail Financial Market? A Cointegration Analysis, Center for European Economic Research, Mannheim University, 2002;
- Sorensen, C., T. Werner*, Bank Interest Rate Pass-Through in the Euro Area: A Cross Country Comparison, ECB Working Paper, 2006.
- Stavrevski, Z.*, Interest Policy in the Republic of Macedonia, WP №3, National Bank of the Republic of Macedonia, 1998;

Annex I

APR on the web site of credit institutions in Bulgaria

No	Bank	Consumer loans	Is APR announced?	Remarks
1	Alpha Bank - Sofia Branch"	YES	NO	-
2	DSK Bank" EAD	YES	NO	-
3	Piraeus Bank Bulgaria" AD	YES	NO	-
4	BNP-Paribas S. A. - Sofia Branch"	NO	NO	-
5	Bulbank" AD	YES	NO	-
6	Bulgarian Post Bank" AD	YES	YES	APR is calculated on consumer loans and loans for house purchases. On the bank's website there is definition of APR and there is a calculator where the clients by entering the loan parameters, e.g. nominal interest rate, maturity and amount, he can calculate the level of APR.
7	DZI Bank" AD	YES	YES	APR is calculated only for consumer loans. The consumer may use a calculator where by entering the loan parameters, he can calculate the level of APR. A definition of APR is not given, as well as the fees and commissions that are included at its calculation.
8	HVB Bank Biochim" AD	YES	YES	APR is calculated on consumer loans and an example of APR calculation is developed for definite parameters of the loan. There is no definition of APR as well as the fees and commission that are included at its calculation.
9	Emporiki Bank – Bugaria" EAD	YES	NO	-
10	CB "Investbank" AD	YES	NO	-
11	International Asset Bank" AD	YES	NO	-
12	ING Bank - Sofia brnch	YES	NO	-
13	Corporate Commercial Bank" AD	YES	NO	-
14	Encouragement Bank" AD	YES	NO	-
15	NLB West-East Bank" AD	YES	NO	-
16	United Bulgarian Bank" AD	YES	YES	APR on consumer loans is calculated. A calculator is developed by which the consumer can automatically calculate the level of APR. A definition of APR is not given as well as the fees and commissions that are included at its calculation.
17	Municipal Bank" AD, Sofia	YES	YES	The bank has developed an example of APR calculation with a loan with definite parameters. A definition of APR is not given as well as the fees and commissions that are included at its calculation.

18	ProCredit Bank (Bulgaria)" AD	YES	YES	The bank has developed an example of APR calculation with a loan with definite parameters. There is a definition of APR as well as the fees and commissions that are included at its calculation.
19	First Investment Bank" AD	YES	YES	The bank has developed an example of APR calculation with a loan with definite parameters. A definition of APR is not given as well as the fees and commissions that are included at its calculation.
20	Raiffeisenbank (Bulgaria)" EAD	YES	NO	-
21	Societe Generale Expressbank" AD	YES	YES	APR on consumer loans and loans for house purchases is calculated. A calculator is developed by which the consumer can automatically calculate the level of APR. A definition of APR is not given as well as the fees and commissions that are included at its calculation.
22	Economic and Investment Bank" AD (EIBANK)	YES	NO	-
23	Commercial Bank Allianz Bulgaria" AD	YES	NO	-
24	CB "MKB Unionbank" AD	YES	YES	The bank has developed an example of APR calculation with a loan with definite parameters. There is a definition of APR as well as the fees and commissions that are included at its calculation.
25	Hebrosbank" AD	YES	YES	The bank has developed an example of APR calculation with a loan with definite parameters. There is a definition of APR as well as the fees and commissions that are included at its calculation.
26	Teximbank	YES	NO	-
27	Tokuda Bank" AD	YES	NO	-
28	D Commerce Bank" AD	YES	YES	The bank has developed an example of APR calculation with a loan with definite parameters. There is a definition of APR as well as the fees and commissions that are included at its calculation.

Annex Ia

APR calculated on consumer loans for the credit institutions in Bulgaria

No	Bank	APR	Annual Effective Interest Rate ¹⁰³	Difference
1	Bulbank" AD	14.57%	13.58%	1.00%
2	DSK Bank" EAD	14.68%	13.80%	0.88%
3	United Bulgarian Bank" AD	14.57%	13.52%	1.05%
4	HVB Bank Biochim" AD	15.24%	13.92%	1.32%
5	First Investment Bank" AD	16.31%	15.23%	1.08%
6	Raiffeisenbank (Bulgaria)" EAD	13.81%	13.24%	0.57%
7	Bulgarian Post Bank" AD	14.27%	12.98%	1.29%
8	Societe Generale Expressbank" AD	15.27%	14.65%	0.62%
9	Economic and Investment Bank" AD (EIBANK)	14.62%	13.80%	0.82%
10	DZI Bank" AD	14.64%	13.52%	1.12%
11	Hebrosbank" AD	11.64%	10.43%	1.21%
12	Municipal Bank" AD, Sofia	13.29%	12.97%	0.31%
13	Central Cooperative Bank	14.81%	13.24%	1.56%
14	Commercial Bank Allianz Bulgaria" AD	11.99%	11.02%	0.97%
15	Piraeus Bank Bulgaria" AD	16.18%	14.88%	1.30%
16	CB "MKB Unionbank" AD	13.63%	12.63%	1.00%
17	ProCredit Bank (Bulgaria)" AD	17.13%	16.08%	1.06%
18	International Asset Bank" AD	15.18%	14.32%	0.85%
19	CB "Investbank" AD	14.05%	13.24%	0.80%
20	Emporiki Bank – Bugaria" EAD	16.16%	15.23%	0.93%
21	D Commerce Bank" AD	13.91%	12.57%	1.34%
22	Tokuda Bank" AD	12.77%	11.02%	1.75%
23	NLB West-East Bank" AD	9.87%	8.30%	1.57%
24	Teximbank	16.15%	14.93%	1.22%

¹⁰³ The annual interest rate is calculated by the formula $P = \sum_{n=1}^N \frac{CF_n}{(1+i)^{365 \cdot D_n}}$, where P indicates the principal of the loan, CF – the

loan repayments, n is the sequence of loan repayment, i is the effective annual interest rate, Dn is the time for loan repayments.

Annex Ib

APR on the web site of credit institutions in Romania

No	Bank	Consumer loans	Is APR announced?	Remarks
1	Alpha Bank	YES	NO	-
2	Banca Transilvania	YES	NO	-
3	Egnatia Bank	YES	NO	-
4	Banca Romaneska	YES	YES	APR on typical consumer loans is announced. It is calculated as definite parameters on the loan, e.g. maturity, amount and nominal interest rate are accepted.
5	Credit Europe Bank	YES	YES	APR on typical consumer loans is announced. It is calculated as definite parameters on the loan, e.g. maturity, amount and nominal interest rate are accepted.
6	HVB Tiriac Bank	YES	YES	APR on typical consumer loans is announced. It is calculated as definite parameters on the loan, e.g. maturity, amount and nominal interest rate are accepted.
7	Postbank	YES	YES	APR on typical consumer loans is announced. It is calculated as definite parameters on the loan, e.g. maturity, amount and nominal interest rate are accepted.
8	Bancpost	YES	NO	-
9	BRD Cruppe Societe Generale	YES	NO	-
10	Credit Europe Bank	YES	YES	APR on typical consumer loans is announced. It is calculated as definite parameters on the loan, e.g. maturity, amount and nominal interest rate are accepted.
11	Mindbank S.A.	YES	NO	-
12	Procredit Bank	YES	NO	-
13	Reiffeisen Bank	YES	NO	-
14	Top of Form UniCredit Romania Bottom of Form	YES	YES	APR on typical consumer loans is announced. It is calculated as definite parameters on the loan, e.g. maturity, amount and nominal interest rate are accepted.

Annex Ic

APR calculated on consumer loans for the credit institutions in Romania

No	Bank	APR	Annual Effective Interest Rate ¹⁰⁴	Difference
1	Banca Transilvania	13.12%	12.12%	0.99%
2	Egnatia Bank	10.08%	8.19%	1.89%
3	Banca Romaneska	17.79%	12.12%	5.67%
4	Credit Europe Bank	12.82%	9.90%	2.92%
5	HVB Tiriac Bank	9.52%	5.59%	3.93%
6	Bancpost	11.49%	7.66%	3.84%
7	Credit Europe Bank	12.82%	9.90%	2.92%
8	Postbank	17.25%	8.50%	8.75%
9	UniCredit Romania	9.52%	5.45%	4.07%

¹⁰⁴ The annual interest rate is calculated by the formula $P = \sum_{n=1}^N \frac{CF_n}{(1+i)^{365n}}$, where P indicates the principal of the loan, CF – the loan repayments, n is the sequence of loan repayment, i is the effective annual interest rate, Dn is the time for loan repayments.

Annex II

Non interest expenses on consumer loans granted by the banks from the first group

Bank	Fees and commissions included in the APR calculation	Calculated as a part of the total cost of credit
Bulbank ^{AD}	• Commissions charged for loan management-1% for the first year and 0.25% for the next years.	0,79%
	• Fees for a review of loan application-min. 60 лв.	0,21%
DSK Bank ^{EAD}	• Fees for a review of loan application - 30 BGN (for loans up to 1 000 BGN), 40 BGN (for loans up to 5 000 BGN) и 60 BGN (for loans up to 25 000 BGN)	0,20%
	• Commissions charged for loan management -40 BGN per year.	0,68%
United Bulgarian Bank ^{AD}	• Commissions charged for loan management - 2%	1,01%
	• Fees for loan application - 10 лв.	0,03%
HVB Bank Biochim ^{AD}	• Fees for loan valuation-2.5% on the total amount of loan. It is in the form of a single payment and it is paid by the debtor when the loan is granted.	1,28%
	• Fees for administration - 10 BGN.	0,04%
First Investment Bank ^{AD}	• Fees for analysis and investigation of the applicants - 10 BGN.	0,04%
	• Single commission for loan management - 2% of the amount of the granted loan.	1,04%
Raiffeisenbank (Bulgaria) ^{EAD}	• Administration fee - 20 BGN.	0,07%
	• Single commission for loan management - 1% of the amount of the granted loan.	0,50%
Bulgarian Post Bank ^{AD}	• Commission for loan management - 2.5% a single payment on the amount of the loan granted.	1,26%
	• Administration fee – 10 BGN. It is due when the consumer applies for a loan.	0,03%
Societe Generale Express-bank ^{AD}	• Single commission for granting a loan - 182 BGN (for consumer loans up to 20 000 BGN)	0,62%
	• Charges for documents – 2 BGN.	0,008%
Economic and Investment Bank ^{AD} (EIBANK)	• Fees for a review of loan applications – 15 BGN.	0,05%
	• Single fee for loan management - 1,5 % on the total amount of the loan granted.	0,76%
DZI Bank ^{AD}	• Fees for a review of loan applications - 30 BGN.	0,10%
	• Single fee for loan management - 2 % on the total amount of the loan granted.	1,01%

Annex IIa

Non interest expenses on consumer loans granted by the banks from the second and third group

Bank	Fees and commissions included in the APR calculation	Calculated as a part of the total cost of credit
Hebrosbank" AD	• Fees for analysis and investigation of the financial state of the debtor - 30 BGN.	0,09%
	• Single fee for loan management – 2.3 % on the total amount of the loan granted.	1,11%
Municipal Bank" AD, Sofia	• Fees for loan management -0.5% per year, but not less than 20 BGN (10 EUR) but not more than 500 BGN (250 EUR)	0,25%
	• Fees for analysis and investigation of the financial state of the debtor - 0.1% on the total amount of loan but not less than 20 BGN (10 EUR) и не and not more than 150 BGN (75 EUR).	0,07%
Central Cooperative Bank	• Fees for a review of loan applications – 10 BGN.	0,03%
	• Fees for managing loans with a maturity of 3 years (2%) and for loans with a maturity over 3 years (3%).	1,53%
Commercial Bank Allianz Bulgaria" AD	• Administrative fee - 2% of the amount of the loan granted.	0,97%
Piraeus Bank Bulgaria" AD	• Single fee for loan management - 2.5% on the amount of the loan granted.	1,17%
CB "MKB Unionbank" AD	• Fees for a review of loan application - 30 BGN for loans up to 5 000 BGN; 50 BGN for loans over 5 001 BGN.	0,16%
	• Fees for loan management - 20 BGN per year for loans up to 3 000 BGN, 35 BGN per year for loan up to 5 000 BGN and 50 per year BGN for loans over 5 001 BGN.	0,84%
ProCredit Bank (Bulgaria)" AD	• Single fee for loan management - 2%.	1,06%
International Asset Bank" AD	• Fees for a review of loan application – 25 BGN.	0,09%
	• Single fee for loan management – 1,5%.	0,77%
CB "Investbank" AD	• Fees for analysis and investigation of the financial state of the debtor - 0,1% of the amount of the loan granted.	0,05%
	• Single fee for loan management - 1,5%.	0,75%
Emporiki Bank – Bugaria" EAD	• Fees for loan management-1% for the first year and 0,2% for each next year.	0,76%
	• Fees for loan application for loans up to 50 000 евро-50 BGN.	0,18%
D Commerce Bank" AD	• Fees for analysis and investigation of the financial state of the debtor - 0.05% (min.100 EUR and max. 300 EUR).	0,35%
	• Fees for granting a loan - 1%.	0,49%
	• Management fee - 1%.	0,49%
Tokuda Bank" AD	• Fees for a review of loan application - 50 BGN, paid at the time when the loan is granted.	0,17%
	• Management fee – 1,0% per year;	1,58%
NLB West-East Bank" AD	• Fees for granting a loan - 1% - 1.5% on the amount of the agreed loan.	0,60%
	• Management fee - 0.2% paid each quarter.	0,98%
Teximbank	• Fees for documentation - 10 BGN.	0,05%
	• Fees for negotiating the parameters of the loan - 55 BGN for loans from 5 001 to 50 000 BGN.	0,23%
	• Management fees - 1,5% on the loan granted.	0,94%

Annex III

Year ¹⁰⁵	Austria	Belgium	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Portugal	Spain	Czech	Litva	Bulgaria	Estonia	Hungary	Luxembourg	Poland	Slovakia	Slovenia
I. 2003-9.2006	-0.1117	-0.0828	0.0384	0.0076	0.0892	0.2779	0.0024	0.0512	0.0128	0.0774	0.1664	0.01	0.3464	0.0724	-0.1711	-0.0765	-0.0532	-0.0664	0.5073	-0.21042
Durbin-Watson stat ¹⁰⁶	1.8332	2.0172	1.9714	1.9420	2.0565	1.9863	1.9118	1.8890	2.0050	1.9283	1.9601	2.02	1.9789	2.1052	2.0050	2.0184	2.0732	1.9634	1.9427	2.0045
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		

Correlation coefficients for the time series on effective interest rates on consumer loans

¹⁰⁵ The time series for the Czech Republic start from January, 2004, for Lithuania from 2004, for Slovakia – from January, 2004 and from Poland – from January, 2004.

¹⁰⁶ By an empty cell we denote Durbin-Watson stat calculation at zero differences, by * - at first differences, and by ** - at second differences.

Annex IIIa

Unit root test – time series on effective interest rates on consumer loans

Country ¹⁰⁷	Austria	Belgium	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Portugal	Spain	Czech Rep.	Lithuania	Bulgaria	Estonia	Hungary	Luxembourg	Poland	Slovakia	Slovenia
Critical value	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.6661	-3.7856	-3.5930	-3.5889	-3.593	-3.5930	-3.666	-3.6661	-3.588
ADF Test	-6.46834	-5.89434	-5.19135	-4.73027	-6.72888	-5.78963	-6.02355	-6.14478	-5.42516	-4.9096	-6.93074	-5.07986	-5.64539	-6.70885	-5.92293	-3.895	-6.35539	-6.520	-5.38419	-6.067
	*	*	*	*	*	*	*	*	*	*	*	Average weighted without	Average weighted without	Average weighted without	*	*	*	*	*	*
Country	Average weighted without Austria	Average weighted without Belgium	Average weighted without Finland	Average weighted without France	Average weighted without Germany	Average weighted without Greece	Average weighted without Ireland	Average weighted without Italy	Average weighted without Netherlands	Average weighted without Portugal	Average weighted without Spain	Average weighted without the Czech Rep.	Average weighted without Lithuania	Average weighted without Bulgaria	Average weighted without Estonia	Average weighted without Estonia	Average weighted without Luxembourg	Average weighted without Poland	Average weighted without Slovakia	Average weighted without Slovenia
Critical value	-3.5930	-3.5930	-3.5973	-3.5930	-3.5973	-3.5930	-3.5973	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.5930	-3.593	-3.5930	-3.593	-3.5930	-3.593
ADF Test	-4.00211	-3.62023	-6.95864	-5.32382	-8.20351	-3.78124	-9.36797	-4.10345	-3.64118	-3.8557	-4.58393	-3.70096	-3.60961	-3.60961	-3.62342	-3.782	-3.61381	-3.620	-5.87477	-3.620
Statistic	*	*	**	*	**	*	**	*	*	*	*	*	*	*	*	*	*	*	*	*

¹⁰⁷ By an empty cell we denote Durbin-Watson stat calculation at zero differences, by * - at first differences, and by ** - at second differences. The time series for the Czech Republic start from January, 2004, for Lithuania from 2004, for Slovakia from January, 2004 and from Poland – from January, 2004.

Annex IIIb

Cointegration equations – times series on annual effective interest rates on consumer loans

Country	Cointegration equation	Error Correction Term ¹⁰⁸
Austria	D(AUS(-1)) 1.000000 D(BEZ_AUS(-1)) -1.367590 C -4.67E-05 (0.29862)	-1.634361 (-5.16658)
Belgium	D(BELG(-1)) 1.000000 D(BEZ_BELG(-1)) -0.165667 C -0.000167 (-0.54116)	-1.724394 (-4.99738)
Finland	No evidence of cointegration.	-
France	D(FRANCE(-1)) 1.000000 D(BEZ_FR(-1)) -1.898047 C 7.24E-05 (-4.52964)	-0.244669 (-0.76098)
Germany	D(GER(-1)) 1.000000 D(BEZ_GER(-1),2) -105.2056 C 0.009973 (-0.08061)	-0.001014 (-0.25625)
Greece	D(GR(-1)) 1.000000 D(BEZ_GR(-1)) -0.405768 C 0.000224 (-0.87842)	-1.421655 (-4.28639)
Ireland	No evidence of cointegration.	-
Italy	D(ITA(-1)) 1.000000 D(BEZ_ITA(-1)) -0.635170 C -0.000183 (-3.12818)	-1.972489 (-5.32449)
Netherlands	D(HOL(-1)) 1.000000 D(BEZ_HOL(-1)) -0.569202 C -2.61E-05 (-0.89527)	-1.244985 (-3.98393)
Portugal	D(PORT(-1)) 1.000000 D(BEZ_PORT(-1)) -3.387234 C -0.000544 (-3.53796)	-1.361601 (-4.67294)
Spain	D(SPAIN(-1)) 1.000000 D(BEZ_SPAIN(-1)) -0.796876 C -0.000362 (-3.37722)	-2.391090 (-6.20466)
Czech Rep.	D(CZ(-1)) 1.000000 D(BEZ_CZ(-1)) 0.900774 C 0.000956 (0.61002)	-1.444201 (-4.18700)
Lithuania	D(LITVA(-1)) 1.000000 D(BEZ_LITVA(-1)) -0.207216 C 0.000210 (-0.24972)	-1.844822 (-3.24259)
Bulgaria	D(BG(-1)) 1.000000 D(BEZ_BG(-1)) -0.245781 C 0.001360 (-0.33836)	-2.190595 (-5.55693)
Estonia	D(EST(-1)) 1.000000 D(BEZ_EST(-1)) 1.675251 C -0.000644 (0.97801)	-0.978905 (-3.19452)
Hungary	D(HUN(-1)) 1.000000 D(BEZ_HUN(-1)) -10.53172 C 0.000813 (-1.76106)	-0.693238 (-2.81059)
Luxembourg	D(LUX(-1)) 1.000000 D(BEZ_LUX(-1)) -0.137390 C -2.86E-05 (-0.42473)	-1.403702 (-4.47932)
Poland	D(POL(-1)) 1.000000 D(BEZ_POL(-1)) -1.016216 C -0.000102 (-1.15063)	-2.825890 (-4.61093)
Slovakia	D(SK(-1)) 1.000000 D(BEZ_SK(-1)) -3.806290 C -0.000644 (-3.37376)	-2.104996 (-5.34471)
Slovenia	D(SL(-1)) 1.000000 D(BEZ_SL(-1)) -0.837476 C 0.000719 (-1.58116)	-1.406618 (-4.10274)

¹⁰⁸ Figures in the brackets are t-statistics of cointegration equations.

CHAPTER V MANAGEMENT

Management Practices Generated by Foreign Banks Entry

*Irina Kazandjieva*¹⁰⁹

Introduction

The strong competition on the international financial markets makes the contemporary banking very dynamic. In order to widen their market positions banks have to use every advantage of the computer technologies, information systems and model. In every country exists strict legal framework regarding the banking system aiming at limiting the risks, which decreases banks' profitability. After years of discussions on the existing Basel I based on applying identical risk weights without considering the particularities of each debtor which distorts the adequate risk evaluation. BASEL II gives possibility for the banks to apply well developed information systems and methodology in order to measure and control the clients' risk and to report the supervisory authorities the actual existing risk and to keep adequate capital adequacy ratio.

The main principle on which BASEL II is based on the internal clients' rating which a bank should apply after considering the possibility not to collect its claims. The implementation of BASEL II requires when developing the data warehouse to be clear what kind of data, how and where they are stored and in case the bank does not have the necessary information for its clients to collect additional data in order to create a good working rating system. It means that the bank should have at its disposal elaborate data for the client's financial state as well as data about the market on which the client is acting. For that reason the data should be centralized and this confronts the banks in front of the necessity to develop their existing IT systems or to develop entirely new ones.

¹⁰⁹ The author thanks Desislava Sergejewa for his dedicated research assistance

This paper analyses the existing banking system in six countries on the Balkans – Albania, Macedonia, Serbia, Croatia, Romania and Bulgaria, the influence of the penetration of foreign capital in the banking system as well as the changes in their structure, activities and bank products as a result of this, banks' preparedness for the implementation of BASEL II, the development of the IT system, application of different management techniques and development of new products. It should be noted that Croatia, Romania and Bulgaria are acceding for their future membership in the European Union which means that they have to apply the European Directives regarding the payment system, preparation for the implementation of BASEL II and they have to develop banking products and services in line with those applied in the European Union. The other three countries – Albania, Macedonia and Serbia – have not applied for the EU membership yet and they still bear the stigma of the war in 1999. Although, Albania is going through economic boom (it is the only country on the Balkans that reached the levels of GDP of 1989) we should bear in mind the lower levels from which this country started the economic reforms and that for years it was considered as being the poorest country in Europe.

The paper is structured as presentations of the development of the banking system country by country for the period of 1995-2005. The focus is put on the penetration of foreign bank capital, development of the IT system and bank products and services, application of different management techniques and the implementation of BASEL II. All this points are developed in the light of the economic development of the country as the dynamics of basic macroeconomic indicators (GDP, inflation, unemployment, current account and money supply) are presented in tables. As for some countries the data are lacking for backward periods the time series includes years after 1995. At the end of the paper conclusions are summarized as the stress is put on the differences and similarities existing among the six countries.

Albania

During the period of 1995-1996 the structure of the Albanian banking system was entirely changed by the appearance of private and branches of foreign banks. The expansion of the banking system led to increase in the number and diversity

of products and services provided by the banks to their clients. In 1997 the privatization of state-owned banks in Albania started which was a natural result from the number of failures in the previous years. In 1999, the Governors of the Bank of Albania and the Bank of Greece signed an agreement for Cooperative Banking Supervision. Similar agreement was discussed with the Central bank of Bulgaria and there are draft agreements with the Bank of Poland and the Bank of Turkey.

Table 1. Basic Indicators for Albania

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDR per capita (in USD)	*	1092,00	772,00	906,00	1143,00	1212,00	1338,00	1456,00	1884,00	2414,00	*
Real GDP Growth Rate	*	0,10	-0,10	0,13	0,10	0,08	0,07	0,03	0,06	0,06	*
Unemployment rate	*	0,12	0,15	0,18	0,18	0,17	0,16	0,16	0,15	0,14	*
Inflation rate	*	*	*	*	*	4,20	3,50	2,10	3,30	2,20	*
Current account balance (in million USD)	*	*	*	-193,00	-270,00	-274,00	-263,00	-435,00	-469,00	-528,00	-625,00
Banks assets as a share of GDP	*	0,37	0,47	0,49	0,52	0,51	0,54	0,54	0,52	0,55	*
Loans (inmillion Leke)	*	*	*	17745	19890	23242	27941	38652	50683	69973	*
Deposits as a share of GDP	28.52	37.98	36.82	37.12	40.42	43.73	*	*	*	*	*
Broad money lek bn	*	*	*	239.5	292.9	328.1	394.3	416.7	450	506,70	553,80
Number of ATM	*	*	*	*	*	1	*	*	74	222	*

Source: National Bank of Albania, International Monetary Fund, Eurostat.

Since 2000 the Albanian banking system has been implementing the quantitative assessments of banks' financial conditions based on CAMELS rating and banks' classification matrices which were associated with the development of on-site and off-site manuals. The assessment of bank financial conditions according to CAMELS rating, includes the capital and capital adequacy assessment, asset quality, management, earnings, liquidity and sensibility to market risk.

In 2004, the Albanian banking system experienced a boom which was seen in the larger amount of assets acquired, the increased lending, diversity of banking products offered and in the spreading out of the banks' network. In 2004, total assets for the entire banking system were increased to 52.8 billion Leke, or 14.1% more than in 2003. This boom was apparent in the increased lending activities,

the larger amount of total assets and the expansion of banks' network beyond the locations in 2003. Another important development was in the customer service area with the presence of electronic terminals and increased number of cash cards. This progress in the banking system and the increased number of branches and agencies caused a considerable increase in the number of employees. In the end of 2004 the number of employees reached 2,816, compared to 2,236 in the previous year (26% increase) which demonstrates that banks are actively participating in the development of personnel capacities, as a needed requirement for the future growth.

In 1999 the Bank of Albania was aware of the necessity that the implementation of the regulator function of the banking system, the transparency in the financial operations and the informing of the public on the banking system played an important role in the bank-customer relations and for the stability of the banking system. In 1999, the Supervision Department accomplished a significant amount of work to improve existing regulations and to introduce new ones. These regulations were totally in line with Basle Committee's principles for an effective banking supervision.

The year of 2001 was marked by significant asset increase in some banks, which showed an elevated attractiveness to the clients and a more aggressive policy adopted by the banks. This increase resulted of the banks' expansion with new branches or agencies due to enhanced minimum paid capital to the amount of 700 million. Like by all the banks which guaranteed the soundness of the banking system at periods of banks expansion. Another reason for the banks' increase was the change in asset structure of some banks because of the increased loan portfolio.

This step showed that the banks were moving from their observer and passive role to a more active role on the economic growth which was possible due to the good situation of liquidity, mainly resulting from highly liquid investments such as placements in other banks and treasury bills. The banks succeeded in keeping interest rate risk under control relevant to their operations, size and services, as well as foreign exchange risk and also kept the spread to the optimum level and the gap to the lowest level possible. Albanian banks have made significant improvements in asset-liability management compared to the previous year which

led in general to a positive income and an increased profit compared to the previous year. This comes as the result of their expansion, the amortization of opening expenses and the improvement of asset structure with investments in more profitable activities. At that period of time senior managers of the banks should pay attention to the improve of the policies and procedures of bank's activity, completion of the regulative framework of banks' activities as well as keeping to the banks' business plans.

The capital adequacy ratio is a reliable indicator of the ability of banks to withstand losses. The minimum ratio in Albania of capital to risk-adjusted assets is 12% and it is applied for each bank of the system. This ratio, calculated in an aggregate manner for the system, was 35.3% at year-end 2001, compared to 42% calculated at the end of 2000. The reduction was due to the increase of risk-adjusted assets (17.2%), and of the decrease of regulatory capital (1.5%). Even though the system is extended more in risky assets, the movements toward this direction are very limited. This fact is confirmed by the very high levels of capital adequacy ratios for some banks of the system. At the end of 2001 the capital adequacy ratio of the banking system in Albania was 35.3% and it was significantly high compared to Romania and Croatia where it was respectively 23.7% and 21.3%. So, it can be concluded that the Albanian banking system is well capitalized, because of its very limited extension in risky assets, which means an adequate capital level to cope with risks that the banking system could be faced with.

In 2002 the changes in the Albanian economy structure were significant due to the decrease of the agriculture and animal farming weight in the economy and the increase of those to trade and service sector. The Albanian economy was growing for the fifth consecutive year, which influenced the increase of per capita incomes, calculated as a proportion of GDP. At that period of time banks expanded their activity network by means of new branches, some of which presented new products, such as ATM services, credit cards, deposit certificates, consumer credit, forward contracts, and so on. The analysis of banking system sensitivity to market risks it can face up, considers credit loss and market risks. A significant element of this analysis, known as *stress tests*, is used for evaluating risk gravity, preventing the deterioration of banking system macro-prudent indicators. This considers macro-prudent sensibility to considerable macro-economic shocks. *Stress tests* objective is to make risks more disclosed, by assessing possible losses in the worst situation ever imagined. In this

way, a considerable economic decline is supposed as a shock for credit risking which has to do with debtors and liabilities risk in meeting their contracting demands.

In 2003 the Albanian banks made a positive development in enhancing banking services and introducing new products. Banking system earnings were growing up as their sources were quite stable at that period. Banking system assets were increasing and this was an indicator of the public approach and banks' ability to find new financial sources. This growth was underpinned also by an aggressive marketing policy from banks, by expansion with new branches and agencies, and by technical, regulative and human infrastructure. The capital adequacy ratio was above the minimum level required by the Bank of Albania. However, in some banks this indicator was very high, indicating a conservatory policy and lack of efficiency in banking activity. The bank management provided a deeper insight to shareholders on the respective regulative framework and the importance of its comprehensive enforcement.

Despite the positive measures that were implemented in the Albanian banking system in 2003 there were still some problems encountered and they were related to implementation of the Law on banks regarding audit committee and its well-functioning, classification of bad loans in conformation with the regulation as well as providing the appropriate provisions, improvement of bank policies and procedures, effective functioning of internal control and strengthening its independence, enhancement of security elements in the technology information systems, increasing security measures to prevent outside interventions, application of encryption on information not only during transmission, but also back-ups at adequate frequency, design and implementation of a recovery plan in emergency situations and sometimes inadequate reactions and weakness in diligent fulfilling the recommendations of the banking supervision by the banks' employees.

The year of 2004 was characterized by the expansion of banking loans (up to 34%) and increase in their maturity which was a signal for macroeconomic stability and credibility in the banking system in Albania. During this year there was improvement in the information and communication technology utilized by the banking system. Banks advanced some of their existing programs or acquired new ones. These programs enabled a more efficient use of the banking accounting methods and initiate new services, such as e-banking. Special attention was

also dedicated to the communication technology. With the extension of the banks' network, consideration has been given to the on-line connection of new branches, their quality, speed and security. Banks are paying more attention to the confident information of their clients, by adding new security features and by applying new policies. By this way banks are inclined to protect their clients' information, and to continue functioning even in the extraordinary situations.

But there were still some weak points related to the securization of the programs by some banks as well as providing the existing programs with other modules required for the normal operation of banks. Another weak point was related to the operation of the SWIFT system. It was necessary a better administration for the users by respecting the three main steps, creation, verification, and authorization. In addition, there was a necessity for the separation of duties of the security officers (left and right officer) from the operational duties in the SWIFT. It was also necessary the internal auditor of the banks to fully inspect the information technology as well as the auditing was only limited to the profiles of the users and their rights of access to the system in relation to their job titles.

ATM started to become popular in Albania in 2003-2004 when banks started to install ATMs in Tirana and other main cities. In 2004, the number of ATMs increased from 74 to 222, while the number of debit and credit cards increased from 7,260 to 34,090. ATMs utilized debit cards, but credit cards were in circulations as well. Both, "Visa" and "MasterCard" are present in Albania, and most of the banks are members of one or the other group. However, the use of electronic cards is still limited due to the lack of acceptance of electronic payments from different services, due to the mentality which still favors the use of cash, and due to the greater necessity for higher income for a specific group of users. It is foreseen that debit and credit cards will continue to be used more for withdrawing cash from ATMs rather than for electronic payments. However, cards played an important role in the consolidation of relationships between banks and clients, and they might serve as an incentive for future introductions of other sophisticated products.

In 2004 the amount of outstanding loans for the whole banking system increased by 19.3 billion Leke, which is about 38%, compared to the year of 2003. The weight of short-term loans to total outstanding loans decreased to 26.7% compared to

40.3% by the end of 2003, while medium-term loans and long-term loans increased, respectively by 5.7% and 6.1% to the total amount of outstanding loans of the banking system. Loans in foreign currency-USD and EUR were much more preferred due to lower interest rates for loans in foreign currency and the appreciation of the domestic currency exchange rate toward foreign currency exchange rate.

The increased amount of foreign currency loans could lead to the increase of the currency risk in the Albanian banking system. The foreign exchange rate risk is one of the market risk types toward which the banks in the Albanian banking system are exposed. This is due to the fact that a huge amount of the banking transactions are conducted in foreign currency. However, the presence of items denominated in foreign currency on both sides of the balance-sheet of the banking system, and the regulative limitations in such direction, offer the banks the opportunity to limit their exposure to foreign exchange rate risk and to manage it. Despite of this, for some of the banks it was implemented regulatory limits for a single currency or for all other currencies, potentially increasing their exposure in case of unfavorable movements of foreign exchange rate to domestic exchange rate.

The problems that were confronted by the Albanian banking system at that time were related to the high management, e.g. board of directors, audit committee, executive management. It was considered by the Albanian banking supervision that the high managers should raise their responsibilities and to emphasize the crucial problems that affect the safety and soundness of the banking activities. Regarding the audit committees, it was required a closer cooperation with the internal audit structures, increased responsibilities for the problems put forward, increased independence and reporting as well as performance of verifications within the banks.

Another main problem is related to the high costs that accompany necessary changes in the information systems of the banks, which makes them resist to changes or they make the necessary changes very slowly. The evidenced problems are related to the automatic generation of the information needed, the modules used for different fields of activity, the separation of rights for the data downloading and authorization of operations. The bank examiners in charge have paid special attention to this element during the establishment of the supervisory strategies.

Macedonia

The Banking system in the Republic of Macedonia confronted with the problems of capital increase and banking system modernization in 1997. After the devaluation of the denar against the Deutsche mark, in the second half of 1997 the monetary growth was normalized, global liquidity was improved and the money demand from the enterprises was revived, which led to the evolution of the reproduction process, that enabled a moderate real gross domestic product growth rate of 1.4%. Despite of this the level of investment in Macedonia at that period of time was pretty low which was due to insufficient accumulation determined by the poor financial results of the enterprises, discouraging influence of banks' high interest rates, emerging from the extremely low domestic savings in the banking sector, inefficient operation of the judicial system, lack of financial discipline, high operational costs of the banks. The regulative framework for functioning of the banking system in the Republic of Macedonia promotes the universal character of banking, which means performing the traditional banking activities, such as deposit collection from legal entities and individuals, lending and borrowing credits, as well as the possibility for participation on the capital market through issuing own securities or acting as an intermediary in the trade with securities of other entities.

Table 2. Basic Indicators for Macedonia

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDR per capita (in EUR)	*	*	*	*	1709	1921	1887	1981	2025	2130	2280
Real GDP Growth Rate	-1,10%	1,20%	1,40%	3,40%	4,30%	4,50%	-4,50%	0,90%	2,80%	2,90%	3,60%
Unemployment rate	*	*	*	*	32,4%	32,3%	30,5%	31,9%	36,7%	37,2%	37,5%
Inflation rate	15.9%	3.0%	4.4%	0.8%	-1.1%	5.8%	5.5%	1.8%	1.2%	-0.4%	*
Current account balance (in billion USD)	-0.30	-0.34	-0.29	-0.27	-0.03	-0.07	-0.24	-0.36	-0.15	-0.41	*
Banks assets as a share of GDP	*	*	*	*	37%	38,20%	44,50%	39%	41,40%	44,60%	*
Loans as a shae of GDP	*	*	*	*	10,3%	12,10%	12,20%	13%	17,80%	21,70%	*
Deposits as a share of GDP	*	*	*	*	19,9%	21,80%	30,10%	25%	27,70%	31,10%	*
Number of foreign banks	*	*	*	*		7 (21)	8 (21)	7 (20)	8 (21)	9 (21)	*
Broad money (percentage change)	*	*	15.8	14.9	29,7	25,6	56,7	-8,6	14,7	9,4	*

Source: National Bank of the Republic of Macedonia, International Monetary Fund, Eurostat.

In 1997 banks in Macedonia could be divided into several groups according to their ownership structure, e.g. banks with dispersed equity structure, where the highest influence in managing of the bank comes from a large number of shareholders; banks with oligopolistic ownership structure, where there are several founders who have the managing control and banks formed by foreign capital. The banking system of the Republic of Macedonia disposes with a relatively poor quality of assets. The problem concerning the quality of assets is the high credit concentrations to single clients, which exceeds the prescribed legal limits of 30.0%, and 10.0% in relation to the guarantee capital.

The capital adequacy ratio at that period was 28.3% and was much higher than the minimum prescribed limit of 8.0%. It is considered that this size of the capital adequacy ration was not the real one as it should be decreased by the loss loan provisions in several banks, but despite of this its size for the whole banking system would be higher than the prescribed limit.

The process of banks' privatization in Macedonia continued also in 1998. At that year the saving house accounted only for 1.9% of the total own potential of the banking system. The quality of the assets can be determined as being considerably poor. As of December 31, 1998, banks' and savings houses' own assets were 15.1 billion Denar equal to 487.4 million DEM. If banks' and savings houses' own assets are compared to the total amount of assets of the banking sector, the average level of capitalization of the banking sector on December 31, 1998, was 25.2% which means that more than one quarter of total activities of banks and savings houses are financed by their own assets.

In 1999 the Macedonian economy was faced with a strong external shock caused by the escalation of the crisis and the consequent was in Yugoslavia. The regulatory framework of banking supervision in Macedonia is based on the International Supervisory Standards and Basic principles for efficient banking supervision established by the Basel Committee for Banking Supervision. In October 1999, upon the request of National Bank of the Republic of Macedonia, experts from the IMF and the World Bank made an assessment of the harmonization of the banking supervision in Macedonia in accordance with the Basel principles. After a close examination the experts gave a very high assessment

on the harmonization of the banking supervision in the Republic of Macedonia with the main principles of efficient banking supervision. The character and state of the banking system in the Republic of Macedonia is based on regulatory framework established by the National Bank of the Republic of Macedonia Act and the Banks and Savings Houses Act. In accordance with the existing legislative framework, the banking system can be defined as having a universal character. Besides the classical function of collecting deposits and granting credits, the banks can also participate in the capital market by issuing their own securities and intermediating in trading with securities between other entities.

The assets quality of the banks at that period of time was previously one of the main problems of the banking system in the Republic of Macedonia. The high share of risky placements in the total credit exposure, the low level of collection, high interest rate margins, problems in the realization of mortgages that cover banking placements were the main problems that influenced on the performances of the operations of the Macedonian banks. In 1999, asset quality ratios registered a significant deterioration due to the strong external shock that hit the Macedonian economy in the first half of 1999. It resulted in loss of foreign markets, increase in the transportation costs for exporting Macedonian goods, decline in output, deterioration in the liquidity of the economy. Such conditions in the real sector of Macedonian economy were transmitted to the banking sector with negative implications both on the quality of the placements and on the banks and savings houses profitability indicators. The economic agents reduced their ability to service their own liabilities toward the banks, their risk ratings increased and banks were forced to have high levels of reservations for potential losses, which increased their expenses. At that period of time the annual statement of the banks showed that their net profit was 502.9 million Denars which compared to the net profit realized in 1998 declined with 597.1 million Denars or 54.3%.

The year of 2000 was characterized with accelerated economic growth, initiated by the maintained relative price exchange rate stability, as well as in the increased liquidity in the banking sector, which enabled intensified credit activity of the banks. In 2000, the reforms of banking sector in Macedonia continued in direction of establishing sound, stable and effective banking system, as a precondition for stable and sustainable development of the Macedonian economy. In this context, of special importance was put on the enforcement of Banking

Law, which represents further approximation of regulatory framework with the European Directives on banking. At the end of 2000 the banking system in Macedonia consisted of 22 banks and 19 saving houses. Seventeen banks were the so-called full licensed for conducting foreign payment operations, credit and guarantee operations abroad, while the other 5 banks have only a domestic operations license. The entrance of foreign strategic investors in some Macedonian banks was very important as the total amount of the foreign capital invested at that time was 44.9% from all investments.

The basic factors, which increased the banks' assets in the Republic of Macedonia in 2000, are the growth of deposits and capital, primarily due to several significant foreign investments. The increase in deposits contributed to the increase of lending in 2000 as short-term loans continued to have the highest share (39.6% of the total amount of loans). Overdue loans and non-performing loans increased their share and they accounted for 7.6% and 20.42% respectively, in the structure of gross credits. The base of banks' stability and safety at that period of time was the appropriate capitalization which could be used for absorbing potential losses in case of eventual materialization of risks of operation. This is very important from the aspect of debtors' protection or the depositors in banks and increased the public confidence in banking system. The upward trend of the total capital in 2000 resulted in increase in the level of capitalization and capital adequacy ratio of the banking institutions. Namely, the bank capitalization ratio in December 31, 2000 amounted 23.3%, which is by 2.6 percentage points higher compared to December 31, 1999. According to Basel Standards, the ratio of capital adequacy is the most relevant indicator for the level of capitalization of banking institutions, as it reflects the capital position of the bank in the best manner, taking into consideration the level of risk undertaken in operations.

In that light of the macroeconomic stabilization in 2000, special attention was paid to the adoption of the new Banking Law which led to further compliance of the Macedonian legislation with the European Directives in the area of banking and so-called 25 Core Principles for Effective Banking Supervision. The implementation of this law resulted in increased attractiveness of the banking system of Macedonia for foreign investments, stronger prudent standards and practices in the banks operations, stronger corporate governance in banks and improved efficiency in the banking operations, more effective banking supervision, espe-

cially in the area of corrective actions undertaken against banks with identified problems in their operations. In the second half of 2000, based on the adopted Banking Law, intensive activities were undertaken to revise the laws with the Basel supervisory standards. Additionally, in the area of the legal framework of overall banking and financial system, attention should be paid to the adoption of several laws. The new Banking Law together with the other laws in this area created a solid basis for improvement of the banking and overall financial system of Macedonia due to increased confidence in the domestic savings.

The increase in the GDP that started in 2000 was terminated in 2001 due to the deteriorated security in the country and worsened working conditions which caused a decline in the total economic activity and macroeconomic performances. In 2001 the number of banks that consisted the dominant segment of the banking system was reduced because of the process of concentration and consolidation of the banking system that started at that time. This trend was due to the increased competition in the banking system which resulted from the entrance of foreign direct investments in part of larger banks in the Republic of Macedonia in 2000, as well as the reforms in the payment system and its transfer to commercial banks.

The credit risk has the most important role in the definition of risk profile of banks in Macedonia due to the domination of the classical banking intermediary functions and the low level of development of financial markets and instruments. In 2001 the credit risk of banks increased as a consequence of the political security crises in Macedonia. In 2001 the banking system faced with serious challenges regarding the liquidity risk management. As a result of this during the first three quarters, the trend of strengthening the deposit potential was stopped.

Besides the credit risk, other risks as liquidity and operational risk significantly affect the performances of the banks and the savings houses, and there is one special problem regarding the insufficient transparency of the shareholder structures in some banks in Macedonia. These risks occur as a result of the weak corporate governance systems in some banks, inadequate internal control systems, inappropriate functioning of the internal audit departments, unsuitable written policies and procedures for managing the risks involved in the operations of the banks and the savings houses, as well as their improper implementation. Alongside

the supervision of the banks and the savings houses, the National Bank of the Republic of Macedonia conducts inspection of the application of the regulations in the area of foreign exchange and Denar operations. Most frequently, the enforcement of the regulations setting forth the manner of conducting the payment operations and the international credit operations, the daily foreign exchange position, fulfillment of the terms and the manner of conducting exchange operations, were subject to partial inspections in the banks. The analysis of the placements from the aspect of the maturity, the sector structure and the currency structure in 2003 indicated certain qualitative movements towards further intensification of the long-term credit activity, which is especially evident in the sector households in comparison with the sector enterprises, as well as towards a moderate increase in the foreign exchange credit operations of the enterprises.

In 2003 the Law on the National Bank of the Republic of Macedonia was amended and it provided a legal ground for cooperation and exchange of information between the National Bank and the domestic supervisory bodies. All legal impediments for achieving full compliance with the Principle 1 (6) of the Basle Principles for Effective Banking Supervision, were eliminated. At this time the National banks signed Memorandum of Understanding with the Bank of Slovenia and with the Central Bank of the Russian Federation as well as with the Bulgarian National Bank. A Decision on identifying, assessing and managing the banks' liquidity risk was adopted, which defined the liquidity risk management method, by prescribing an obligation for the banks to prepare and adopt written policy and procedures for liquidity risk management, for establishing an adequate organizational structure for liquidity risk management which includes the definition of the responsibilities of the respective management bodies (board of directors, risk management board, executive body). According to this Decision banks were also obliged to create adequate IT system which has to generate on a daily, 10-day and monthly basis reports on liquidity risk monitoring and management, to identify a stable level of deposits, and to calculate various liquidity indicators. Banks were also obliged to prepare a Liquidity Risk Management Plan in the event of emergency as well as monthly reports on the maturity structure of the bank's assets and liabilities and a report of the concentration of the sources of funds.

An integral component of the banking supervision is the supervision of the banks' IT systems, which became increasingly relevant from the aspect of the

application of the New Capital Accord and the operation risk identification and monitoring, as well as from the aspect of the reputation risk management the bank might be exposed to in the case of insufficient protection of the data. For that reason the National Bank of Macedonia adopted a Decision on defining the standards for ensuring the banks' information security. It was arranged in this Decision the establishment and implementation of the information security policy, risk management and control from the aspect of information security, definition of the role of the management bodies, establishment of a reporting system to provide timely risk identification and undertaking adequate measures. Considering the fact that the aforementioned regulation stipulates introduction of new and complex standards, it was fixed a deadline for complying with the provisions of this Decision, within which the banks have to undertake all necessary activities for implementation of the stipulated information security standards.

In regard to the analyses and the assessment of banks' IT system, the National Bank of Macedonia submitted questionnaires. These questionnaires aimed to assess how the banks' IT system was implementing the requirements for ISO/IEC 17799 and the Basle standards for operational risk management. The results of the questionnaire showed that most of the banks were in the stage of implementing sophisticated solutions for detection and prevention of unauthorized activities by the users but the accent was placed on the ability of the IT systems to operate, rather than on their security. The process of introduction of new systems mainly lacks high-quality analysis and efficient organization, as well as larger involvement of the banks' management bodies with respect to risk management. The process of developing, testing and verifying the quality of the banks' programs was not satisfactory as the internal audit of the IT systems security in most of the banks was unsuitable and needed to be improved, particularly by employing experts and experienced staff.

Liquidity risk occurs when the bank is not able to provide sufficient amount of funds to repay its short-term liabilities at the moment of their maturity or provides the necessary funds at extremely high costs. The stability of the banking system primarily depends on the liquidity risk management quality, from both the aspect of providing favorable structure of the sources of funds, as well as from the aspect of maintaining certain level of liquid assets as a protection from the liquidity risk. Therefore the favorable trend of the general situation in Macedonia in 2003 meant

more efficient liquidity forecasting and management for the banks by maintaining a satisfactory liquidity position. Within the overall social and economic environment in the country, the credibility of the banking system has been strengthened which was proved by the trend of continuous increment in the deposit base in this period. The permanent enhancing of the propensity to save in the banks, at the end of 2003 resulted in a volume of the banks' deposit base over the level registered at the end of 2001 when the euro was implemented in the European Union. On the other hand, the unfavorable maturity structure of deposits and the trends, primarily in the households' deposits (which were a dominant category representing an average monthly share of 59% in 2003 and 56.8% in 2002), indicate a high degree of sensitiveness depending on the level of political and economic stability in both the country and the near surrounding, which, for the banks, means a need of further maintenance of prudential approach towards the liquidity risk management. One of the most important aspects in the liquidity management is matching of the maturity between the funds and the sources of funds. In 2003, the national bank established the terms and conditions and the elements necessary for the banks' liquidity risk identification, assessment and management with a Decision. The Decision requires minimum necessary standards for prudential liquidity management. In the process of liquidity risk management, the Decision stipulates an establishment and maintenance of an adequate maturity structure of the assets and the liabilities from the aspect of harmonization of the assets and liabilities items according to their residual maturity, as well as planning and managing the inflows and the outflows of funds in line with the expectations based on historical data. The banks are required to prepare monthly reports on the maturity structure of the assets and the liabilities (agreed and expected) in Denars, foreign exchange and at an aggregate level and to submit them to the National Bank of Macedonia. The analysis of the financial result for 2003 by individual groups of banks indicated that it was primarily due to the group of large banks, accounting for 51.4% of the total income at a level of overall banking system. At that period of time the national bank also started with prescribing a methodology for determining the banks' capital.

The most distinguished differences between the banking regulations of the European Union and Macedonia primarily arise from the absence of regulation for incorporating the market risk in the methodology for determining the banks' capital adequacy ratio. The incorporation of the market risk in the capital adequacy regulation is rather required for achieving compliance with the European direc-

tives and the Basel Capital Accord than it is actually imposed by the current situation in the banking system of the country. Although the banks are not exposed to the market risk as the involvement of the banks in market transactions in securities and other financial instruments is low, it is recommended to start with the preparatory activities for establishing a legal framework for regulation of the market risk. - the performance of a financial activity of international payment operations and providing custodian services, and the settlement of financial activities such as trade in securities for its account and for the account of customers, trade in foreign assets and execution of foreign exchange transactions and trade in financial derivatives, requires connection to S.W.I.F.T. The National Bank of Macedonia defined the following as a priority for the development of the banking sector, namely - definition of the basic elements of the liquidity risk management policy; definition of the role of the bank's management bodies, particularly the Board of Directors, the Risk Management Board, the body in charge of liquidity risk management, as well as the competencies of the Internal Audit Department, establishment of an adequate information system which will provide timely and permanent liquidity risk measurement, monitoring and control, as well as reporting to the bodies in charge of the liquidity risk management. It is also foreseen to be implemented planning and managing the inflows and outflows of funds by determining the degree of probability for execution of each individual transaction of the bank, development and monitoring of an adequate maturity structure of the banks' balance sheets, determination and monitoring of the concentration of the sources of funds, especially from the aspect of determining the degree of stability, liquidity testing - stress scenarios for the purpose of determining the effect of the different circumstances on the bank's liquidity position, as well as on the possibility for adhering to the set limits.

The Banking Supervision Department directed its efforts to ongoing monitoring of the banks, particularly from the aspect of the degree of implementation of the information security policy. During the examinations the focus was put on the degree of support and involvement of the banks' management bodies in the application of the IT system security standards, the level of managing the activities in the process of switching from the old to the new information system, the control and measurement of the operational risk which might arise from inadequate information systems.

In 2004 the banking system of the Republic of Macedonia consists of banks and savings houses. At the end of the year there were 21 banks and 15 savings houses operated on the territory of the Republic of Macedonia. Private capital dominated the ownership structure of the banking system. As of December, 2004 the degree of privatization of the banking system in the country equaled 91.0%. At the end of the year the foreign capital was present in 15 banks and comprised 47.5% of the total capital of the banking system. There was also an increase in the total deposits being the most significant source of funds of the banks. During 2004, banks' lending activity intensified, which was primarily generated by the expanded deposit potential, improved creditworthiness of clients, broadened range of loans and their reduced price as well as the liberalization of the foreign exchange operations. According to the systemic and the institutional design specified by the Banking Law, the banking system in the Republic of Macedonia could be defined as a banking system of a universal nature. The Central Bank concentrated on improving the regulatory package in the field of the IT supplement of the banking system. After the adoption of the Decision on defining the standards for ensuring the banks' information systems security, the Central Bank started developing detailed methodology for identification, assessment and management of the risk of insecure and inadequate information systems and establishing the fundamentals for managing this type of operational risk. At the end of 2004 the bank developed a Draft Supervisory Circular for information systems security, which aimed at providing guidelines for effective implementation of the risk management process which might result from inadequate and insecure information systems and to provide an integrated review of all aspects related to this process.

Serbia

The year of 2000 was crucial for the Serb economy because of the change in the government, which stopped the country isolation and gave a start to the reforms in the banking sector. Actually, the revitalization of the banking sector was initiated with the implementation of two laws – "Law Governing the Relation between the Federal Republic of Yugoslavia within the Territory of the Federal

Republic of Yugoslavia” and “Law on the Settlement of the Public Debt of the Federal Republic of Yugoslavia from the Citizens’ Foreign Exchange Savings”, which provided the legal basis for solving the problem of non-performing loans and providing compensation for private individuals whose foreign currency deposits were confiscated.

Table 3. Basic Indicators for Serbia

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDR per capita (in USD)	*	*	*	*	*	882	1540	2016	2236	2400	2600
Real GDP Growth Rate	6,10%	7,80%	10,10%	1,90%	-21%	5,20%	5,10%	4,50%	2,40%	9,30%	5,90%
Unemployment rate	24,20%	25,40%	24,10%	24,60%	25,50%	25,60%	26,80%	29%	31,70%	31,70%	*
Inflation rate	*	*	10%	51,80%	64,60%	112,90%	20,50%	4,40%	6,10%	11%	14,50%
Current account balance (in million USD)	*	*	*	*	*	-167	-354	-1348	-1362	-2233	-1800
Loans as a share of GDP	*	*	*	*	29,6%	56,6%	31,7%	17,2%	16,0%	21,5%	*
Deposits as a share of GDP	*	*	*	*	9,7%	14,7%	13,4%	15,5%	17,7%	20,7%	*
Number of foreign banks	*	*	*	*	3 (75)	3 (81)	8 (54)	12 (50)	16 (47)	13 (43)	*
Broad money (as a percentage of GDP)	*	*	*	*	*	*	104,90%	52,70%	27,50%	30,30%	22,40%

Source: National Bank of Serbia, International Monetary Fund, Eurostat.

The years of 2001 and 2002 were characterized with changes in the banking sector related to the closure of insolvent banks – 19 small banks in 2000 and 4 largest banks in 2002. The Serbian government also took the obligations of the ailing Serbian banks to Paris and London Club creditors and in return got involved in these banks. These restructuring measures were also followed by the initiation of the privatization process. The restructuring of the banks was supported by well developed legal framework giving priority to higher capital adequacy which was a challenge for the small banks. As a result it is expected that the Serbian banking system will follow a process of mergers and acquisitions due to the stronger competition among the banks in the recent years. In that period the level of financial intermediation dropped significantly (38.8%) due to the restructuring measures and the total assets of the banking system amounted up to 6.5 billion EUR.

In late July, 2002 qualitative and quantitative criteria for classification of assets

were tightened, the items deductible from the accounting base for specific provisions were established, and the rates for allocation of specific provisions were changed. Nearly one third of the total income reported by banks in this period resulted from reversed provisions, mostly based on indirectly written-off loans and long-term risk provisions, as well as specific provisions. One bank alone reported 9,606 million Dinars of income generated in this manner, or 61.8% of the aggregate income of the banking sector resulting from unused reversed provisions. The amount accounted for 83.9% of the total income reported by this bank.

The lending provided by foreign owned banks in Serbia is comparatively low due to the lack of collateral and problems at reinforcement of claims. For that reason foreign banks concentrate on granting short term loans which account for 90% of the total amount of loans for the year of 2004. The growing presence of foreign banks in Serbia increases the households' marginal propensity to save but still there is much work to be done in order to regain the confidence of depositors and to mobilize their savings. The majority of the Serbian population still holds much of their savings under the mattresses, in short-term deposits or in foreign currency deposits, which are placed by the banks in the Central Bank in order to provide enough liquidity. The credit boom that started in the 2004 was accompanied by a number of measures taken by the national bank, e.g. the borrower's monthly repayment should be not more than 30% of his net income as well as the obligation that when paying goods with a loan the borrower should provide at least 20% of the price.

In the years of 2003-2005 the focus was put on the improvement of banks' capitalization and due to restructuring-related debt equity swaps and higher capital requirements which resulted in the significant increase in the capital adequacy ratio from 0.7% in 2000 to 31.3% in 2003. The interest rate spreads started to narrow in 2003 because of the increased price stability and banks' efficiency, reduced provisioning of claims and growing competition among the banks. The Banking Supervision implemented new requirements for banking capital of 10 mln. EUR which should be fulfilled by the banks up to the end of 2003 and a new capital adequacy ratio of 10% from 2005. The regulations for loan classifications and provisioning tightened in 2002 in terms of quality and quantity. The main criterion for provisioning loans is based on their default probability measured by the duration of time the loans are overdue. Five categories of provisioning are implemented – A,

B, C, D and E with a loss provisioning of 2%, 5%, 25%, 50% and 100%. Similar to Croatia the banking sector in Serbia is over banked but under serviced and there is necessity of optimizing not only the quantity but also the quality of banking services by going from mainly basic banking products to more complex ones.

In 2005 there were 41 operating in Serbia and in this year there was no merging of banks or revoking of bank's license compared to 2004. The greatest part of bank assets about 72.1% were claims on approved credits and loans to banks and clients, followed by cash and cash equivalents, deposits with the Central Bank and refinancing by securities. Household, corporate and bank deposits had the greatest share in external sources - 62.2% out of total liabilities. Banks. Regarding the liquidity risk in the 2005 the liquidity indicator ranged between 0.96 and 11.07 and no bank used daily liquidity loans. The foreign exchange risk indicator was prescribed as a control measure of banks foreign exchange risk. It was defined that a bank's total daily net risk foreign exchange position should not exceed 30% of the bank's capital.

The adoption of the Decision on Amendments and Supplements to the Decision on Criteria for Classification of On-balance Sheet Assets and Off-balance Sheet Items the National Bank of Serbia aims at monitoring of banks exposure to the potential credit risk which stems from the calculation of loans in foreign currency or loans indexed by the currency clause. In line with the amendments and supplements to the abovementioned regulations, banks are obliged to adopt methodology which keeps record of the exposure of an individual debtor to the risk of change in the dinar exchange rate. The banks are obliged to analyze continuously the credit risk arising from the influence of the change in the dinar exchange rate on the debtor's financial standing, given that the possibilities of loan repayment depend on the debtor's dinar cash flows. The adoption of new legal framework pertaining to the performance of exchange transactions aims to modify the provisions which represented a hindrance to the performance of exchange transactions in practice, as well as the improvement of the existing regulations with a view to raising the quality of rendered services. In the second quarter of 2005, the National Bank of Serbia embarked on the preparation on a new Law on Banks aiming for further development of the regulatory framework for banks' operations and strengthening of the banking services market, in accordance with the needs of economic development.

In the first half of 2001 the new management of the National Bank of Serbia carried out a comprehensive assessment of the banking sector and drew up a bank restructuring strategy. The Central Bank assessment focused on the following deficiencies of the banking system - high level of bad assets and low level of real interest-bearing assets, resulting in low level of real reserve for potential loss provisions, real undercapitalisation and inability of capital and reserves to absorb undertaken risks insolvency of the largest banks accounting for the majority of total bank assets, non-existence of adequate internal control and audit, as well as inadequate risk management system.

The process of bank restructuring itself was carried out in several phases since 2003 included the classification of the credit rating of banks into four categories, liquidation of insolvent banks, regulations governing credit rating of banks adjusted to the international standards, formulation of privatisation strategies for of state-owned banks, stronger capital requirements for commercial banks, measures for encouraging new foreign exchange savings, establishment of the Central Credit Registry that enables the banks to obtain higher-quality information on potential borrowers, replacement of the old payment system by a bank based settlement system.

In 2003 two major breakthroughs were made – the implementation of international accounting standards by amendments in the Law on Accounting and the development of possibility for the banks to start operating local payments for their corporate clients after implementation of the Law on payment systems. The Law on banks and other financial organizations has implemented the Basel Accord on Capital principles (Basel I) as well as the Capital Adequacy Directive and Own Funds Directive. In that respect Serbian banks are obliged to have on ongoing basis the risk assets covered by minimum capital of 10%. Preparations for the implementation of Basel II are under way already with the National Bank of Serbia and the Association of Serbian Banks. It seems also important to be pointed out that banks in Serbia organize their activities through the business lines and offer banking products to their clients, making their approach to the market competition based.

Banking sector in Serbia started a new phase in its development in 2004. The continuation of positive trends from 2003 created an environment characterized

by monetary stability, successful transfer of payments operations into the banks as well as the gradual restoring of confidence in banking system evidenced by the growth of households savings. The whole process received strong impulse from the intensive privatization that entered its final stage in 2004.

Serbian banks are traditionally engaged in banking operations such as deposit operations, lending, foreign currency operations and foreign exchange, issuing of payment cards, custody operations, purchase and sale of securities, guarantees, broker's operations and others. In March 2005, the Payment System Department of the National Bank of Serbia held a meeting with the representatives of commercial banks, Public Payments Administration and Central Securities Registry, Depository and Clearing, in which they discussed the characteristics of the payment system operations in 2004, experience with MT 102 messages in the RTGS system, as well as ideas and suggestions regarding the functioning of the payment system and mutual cooperation. In 2005, the Central Banks also provided a new service within the RTGS system, enabling commercial banks and Public Payment Administration at the Ministry of Finance of the Republic of Serbia to effect small-value payments in real time. This is an option enabling high-quality and high-liquidity banks to offer their clients a significantly upgraded level of service quality and velocity.

Croatia

Foreign banks started to enter relatively late in Croatia, only after the Dayton peace agreement in 1995 by which was put the end of the hostilities between Croatia and Bosnia-Herzegovina. In 1996 three commercial banks were granted loans by the Croatian national bank and the bad loans in their balance sheets were removed. This led to a decrease in interbank interest rates below the rates on the retail and wholesale lending which made the commercial banks to give priority to lending which was at that period of time a main source to make profit. The credit expansion that resulted from this process was accompanied by poor risk management and in some cases banks didn't have lending policies. Insider lending was prospering and it was a very common case newly established private banks to give loans to the corporate groups that had founded them. The bank crisis that occurred in 1998-2000 was resolved by a number of bankruptcy

procedures, lending of last resort to six commercial banks in order to survive liquidity problems and the government decision to sell the rehabilitated banks to strategic foreign investor in order to stop further banking instability and to promote knowledge and expertise transfer.

Table 4. Basic Indicators for Croatia

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDR per capita (in EUR)	*	*	*	4284	4102	4560	4998	5507	5906	6397	6972
Real GDP Growth Rate	6,80%	5,90%	6,80%	2,50%	-0,90%	2,90%	4,40%	5,20%	4,30%	3,80%	4,30%
Unemployment rate	*	10,00%	9,90%	11,40%	13,60%	16,10%	15,80%	14,80%	14,30%	13,80%	13,10%
Inflation rate	*	3,40%	3,80%	6,00%	3,90%	5,50%	2,40%	1,80%	1,66%	2,70%	3,60%
Current account balance (in million EUR)	-1012	-755	-2192	-1305	-1313	-490	-818	-2097	-1866	-1458	-1964
Bank assets (in bln.kuna)	*	*	88,87	96,78	93,52	111,84	148,43	174,14	204,12	229,31	245,88
Loans (in million kuna)	27 231,33	29 699,62	44 107,01	54 388,28	50 589,30	54 910,40	68 462,90	90 089	104 428,20	118 648,70	140 635,13
Deposits (in million kuna)	20 143,59	30 600,73	43 683,85	49 614,19	47 997,26	63 476,25	92 723,20	100 341,70	111 854,60	122 195,80	130 943,67
Money supply (in bln.kuna)	8,23	11,37	13,73	13,53	13,86	18,03	23,70	30,87	33,89	34,56	38,82
Number of foreign banks	1 (54)	5 (58)	7 (60)	10 (60)	13 (53)	20 (43)	24 (43)	23 (46)	19 (41)	15 (37)	13 (34)
Number of ATM	*	*	*	*	*	*	*	1330	1611	1913	2043

Source: National Bank of Croatia, Ministry of Finance, Statistical Institute of Croatia, Eurostat.

A research done by Igor Jemric and Boris Vujcic¹¹⁰ investigates the efficiency and the managerial performance of the banking system in Croatia for the period of 1995-2000 by the help of CCR and BCC models¹¹¹. The authors came to the conclusion that the Croatian financial system in 1995 was characterized by large asymmetry between banks regarding their technical efficiency. In 1995 only 4 of 39 commercial banks were efficient and they were small, newly established private banks. In the coming years, and esp. in the period of 1999-2000 the number of efficient banks rose which was due to the increasing competition and the exit of a number of bad banks from the market after 1998. The authors show that up to 1999 the most efficient banks were the smallest ones. At that period

¹¹⁰ "Efficiency of Banks in Croatia: A DEA Approach", Jemric, I., B. Vujcic, Croatian National Bank Discussion Papers, 2001.

¹¹¹ The CCR-model (after Charnes, Cooper, Rhodes, 1978) and the BCC-model (after Banker, Charnes and Cooper, 1984) are non-parametric models that aim at determining the relatively efficient production frontier, based on empirical data on chosen inputs and outputs of a number of entities called Decision Making Units. The main difference between the two models is the treatment of returns to scale.

the largest banks were overstaffed and burdened with non-performing loans inherited from the socialist system. However, the main reason for successful growth of smaller banks was the high interest rate spread which combined with the lack of burden of old debts for the new private banks brought exceptional profit to these banks. The main reasons for the high spreads were the risky lending owing to lack of financial discipline and effective supervision as well as substantial structural problems in the banks related to operating and staff efficiency. When the spreads started to come down and after the rehabilitation of the three largest banks and their subsequent sell to foreign institutions, the situations changed a lot.

Jemric and Vujcic proved in their research that the most efficient in their specification are both the smallest and the largest banks contrary to the middle sized banks which inefficiency in most cases is due to the fact that most of them are regional banks and the inefficiency problems arise mainly from the environment in which they are working. The analysis also suggests that the most significant cause for inefficiency among state-owned and old banks (those that are established before 1989-1990) compared to foreign-owned and new banks is the number of employees and fixed assets. This leads to the conclusion that the decision to privatize and to sell Croatian banks to foreign institutions was the right one as the new owners introduce new working methods, technology, knowledge and experience which resulted in increased competition and narrower interest rate spreads.

The expansion of foreign banks on the Croatian market can be estimated as a positive in terms of risk diversification having in mind that the foreign market's business cycle is not highly positively correlated with the domestic market's business cycle. . The Croatian economy in 2001 and 2002 continued to grow steadily, providing risk diversification for those EU banks operating

in Croatia while the European Union countries were experiencing a slowdown. The motives of the foreign banks to enter the Croatian market were the high interest rate margins, the search for new clients and the unused credit potential of the Croatian households and non-financial corporations. Most foreign banks in Croatia tend to have native Croatians as their managers who know very well the local conditions. During the period of 2000-2002 the technology transfer from the foreign banks seem to grow in importance. The largest number of banks report

that they have adopted marketing knowledge and techniques, but also new products and services, wholesale knowledge and techniques, risk management processes, internal control processes as well as management skills and methods.

Some of the privatized foreign banks spent a great deal of time and effort on inward focused activities such as upgrading information systems, changing internal procedures and reclassifying their credit portfolios. Actually, foreign banks in Croatia contributed to the increase of quality of the products and services but regarding their diversity they didn't do much work. The foreign banks concentrated on expending loans to the household sector which was due to the fact that default on consumer loans in Croatia was much lower compared to default rates on loans to non-financial corporations. Another reason was the successful usage of co-debtors, guarantors and collateral in consumer loans as well as the fact the consumer market in Croatia was very undeveloped and it left space for the development of new products. Compared to the EU market where lending to consumers in 1995 totaled to 50% of GDP in Croatia the consumer lending in 1995 was only 6% of GDP, which showed the depth of that market.

After the second banking crisis¹¹² (1998-2000) there were a number of obstacles and challenges which had to be faced by banks that survived the second banking crisis. The main obstacle to safety and price efficiency of lending, as the basic bank activity, the bankers themselves saw in the slowness of the courts in large communities, "loopholes" in laws that enable endless delays in legal proceedings and the debtor orientated culture in smaller communities. Researcher working for the Croatian National Bank defined as main problems unavailability of historical data on potential debtors' quality, the non-existence and out-of-dated of credit scoring systems in many banks after the period of the banking crisis. The issues indicated as main strategic challenges confronted by the banking system in Croatia are related to size, specialization and competitiveness as the main strategic challenges facing banks in the forthcoming period.

In 2000-2002 the banking system is characterized by a fall in the total number of

¹¹² This definition is given by Kraft in 1999.

The crisis occurred in a year of significantly increased fiscal revenues owing to the introduction of a value-added tax. The increased fiscal revenues drastically increased the consumption appetites of the government and led to a revision

Of the budget, by which the fiscal expenditures were increased. In late 1998, the government announced a small budget deficit which was due to not including many unsettled expenditures. The bank crisis occurred simultaneously with narrowing foreign borrowing opportunities as a result of the Asian and Russian crises. The reduced borrowing opportunities led to a reduction in the deficit of the current account.

banks, disappearance of savings banks, strong decrease in the number of domestic banks, increase in the number of banks owned by foreign institutions and gradual decrease in banking sector concentration due to growth of medium-sized banks. At the same time looking at the data the number of non-performing loans decreased significantly in the year of 2002 compared to 1999 when they are estimated to 45% while in 1999 they were 160%. These figures resulted from the over optimistic estimations of the banks that reclassified most of their loans in less riskier groups and because of the banking crisis and severe economic conditions in 1999 when the bankers were quite pessimistic about their asset portfolio.

The major changes in credit risk management that occurred in the Croatian banking system that started in 2002 and that continue to develop is that almost all the banks are introducing automated credit scoring for physical persons. At the same time some banks are also

introducing automated credit scoring for legal persons as well which makes them really advanced part of the banking sector in Croatia. Larger banks started to introduce limits on all exposures on the lending side, including also the limits on exposure to the Croatian National Bank. Regarding the protection against fraud in foreign exchange and securities trading, the separation of the front, middle and back office operations within the treasury department are implemented in all large banks. Complete automation of treasury operations via the IT system exists in only a few banks. Bankers in Croatia consider that a complete separation of the treasury department and its partial computerization provide sufficient protection against events similar to those in Riječka banka¹¹³.

The uneasiness about the future implementation of the new Basel Accord on risk management in banking comes from the procedures for operational risks monitoring. These risks increase strongly because of exceptional growth in debit and credit card and electronic products and services in recent years. Bankers also believe that these risks do not receive enough attention, which is proved by the fact that rumors spread in the banking community, when domestic hackers cause losses in card operations to the bank. Regarding measurement and control of credit risk according to Basel II most large Croatian banks opt to implement

¹¹³ Riječka banka was saddled with hidden losses of around 100 mln. euro by a rogue trader in March 2002. In order to provide enough liquidity on the market the government bought purchased a 60% of the bank from its owner Bayerische Landesbank. Finally, the majority of the shares of Riječka banka were sold to Erste Bank (Austria).

internal ratings-based approach, whereas banks with an international ownership develop systems for measurement and control of credit risk at the bank group level. The deadline for the implementation of the Basel Accord in Croatia is the end of 2006 and currently the banks are at different stage of implementation. The new internal ratings-based approach is based on the IAS 39, which prescribes that the expected future collections of receivables to be valued by taking account of the time dimension of money. In 2003 when the final version of the Basel Accord was completed the banks were not satisfied with the short-time limit, which the CNB imposed to them for the adjustment of their existing internal ratings-based approaches to IAS 39 without taking into account its complexity and the consequent delays in its implementation, even in the Western countries. The application of IAS 39 at the individual loan level, instead of at the portfolio level, considerably increases the price of this standard's application for banks with huge portfolios of small household loans.

The legal framework of Croatian banking law does not support the existence of universal banking. In July 2002, the Croatian Parliament adopted a new Banking Act that specifically allows banks to add additional non-banking products to their offer. The Securities Market Act, which was enacted in July 2002, specifically allows banks to be engaged in securities trading, which is subject to strict and precise provisions of the Croatian Securities and Exchange Commission.

The new products and services that Croatian banks offer are related to card and electronic operations. Banks also focus on their own technological development to improve existing or acquire new information systems. In this sense Croatian banks can be classified into three groups, namely - banks where IT upgrading or renovation is in progress, banks that view their IT upgrading as a continuous process, and banks that plan IT upgrading. Currently, the process of banks concentration in Croatia is already finished and banks direct their policy to the spread of branch network and more intensive advertising.

According to a research done by experts from Bank Austria Creditanstalt¹¹⁴ Croatian banking market can be seen as “over-banked” but “under-served”. The large number of branches and increasing staff of the banks show that the banking sector in Croatia has a potential for development. The credit boom in

¹¹⁴ Banking in CEE, April 2004, extra report.

the years of 2002 and 2003 was the reason for credit institutions to reduce their liquid assets. The public growing confidence in the banking system in the last years resulted in the improvement of the banks' ability to concentrate household savings which increased from 20.5% of GDP in 1995 to 60% of GDP in 2003. The progress in restructuring the banking system in Croatia, the improvement in banks' efficiency in accessing loans as well as the more developed regulatory framework contributed to the decrease of the number of non performing loans.

According to the Banking Act active since 25 of July 2002 the minimum capital base for establishing a bank in Croatia is 40 mln. kuna which equals to approximately 5.4 mln. euro. This requirement for the capital bases should be performed by the banks till the end of 2006. Large exposures of banks are limited to 25% of the bank's capital in order to be provided suitable diversification of the risks with a total amount of all large exposures limited to 600% of the bank's capital. Loans granted to connected parties are limited to 10% of the bank's own funds and to 20% of the total amount. The bank's open currency position should not exceed more than 10% of the bank's own funds. The loan classification and provisioning that has been entered into force since 2004 take into account the borrower's rating, the duration of default on payment and the security on loans. The provisions are divided into A (enforceable claims) amounting to 1.2%, B-B1, B2 and B3 amounting respectively to 10%, 30% and 70% (partially enforceable claims) and C (unenforceable claims) amounting to 100%.

After the banking reform in 2000 Croatian banks' managers consider that they put much effort in terms of technical and technological changes than in terms of staff adjustments. The banks had to develop new technological solutions and invest in information technology, while staff adjustments in the majority of banks mainly involved new organizational solutions rather than new recruitments. The necessary development of IT infrastructure prompted by changes in the payment system led to a development of a range of new services for clients, such as for instance e-banking, standing orders, ATM networks etc.

According to a research "Review of the Results of the National Payment System Survey", performed by the Croatian National Bank in 2004 a high percentage of banks (75%) offer Internet payments to their customers. The beginning of business entities' account management by banks contributed to the boost in the devel-

opment of this type of payments. Internet payments contribute to lower payment transaction costs as fees for electronic payment orders are much lower than those for classical payment orders in paper form. Around 60% of the commercial banks in Croatia have their ATMs where clients can withdraw cash and thus reduce the need for the provision of this type of service through bank counters. Most banks' clients may also use ATMs of other banks and around 50% of banks have their own POS devices installed. Internet banking is not popular among small companies in Croatia which can be explained by the fact small companies perform a smaller number of payments as well as the lack of technological preconditions.

The usage of credit cards prevails that of debit cards in Croatia. Regarding the usage of ATMs by large and medium companies it can be concluded that it is quite limited contrary to their usage by small companies and sole entrepreneurs. The use of ATMs is proportionate to their distribution and the banks, in their efforts to reduce the costs in payments by achieving a higher level of banking services automation, will increase the use of ATMs in their activities in the near future. The increase in the number of ATMs owned by the banks was significant and it was typical for all bank groups¹¹⁵. In 2001 the total number of ATMs was 999, in 2002 – 1330, in 2003 – 1611 and in 2004 it totaled to 1787. Banks in Group I held 81.1% of all the ATMs in Croatia. At the end of June 2004 sixteen banks in Croatia still do not have any ATMs while ten banks did not change their numbers.

Romania

Romania survived a recession and financial crisis in the period of 1997-1999, during which the Romanian National Bank passed the Law No. 83/1997 on the privatisation of banks and the major state-owned Romanian banks were privatized in 1998. At the same time the Central Bank implemented a rapid bank purging program that continued for three years starting from 1999 to 2002. As a result tough measures were taken, including the merger of the largest state-owned bank Bancorex through absorption with another large bank Banca Comerciala Româna, and the initiation of bankruptcy proceedings for other smaller privately-owned banks.

The Romanian banking system is currently developing and the number of spe-

¹¹⁵ According to the Banking Supervision in Croatia banks are classified into four groups. Group I consists of banks with assets exceeding 5 billion kuna, Group II of banks with assets between 1 billion and 5 billion kuna, Group III of banks with assets between 500 million and 1 billion kuna, and Group IV of banks with assets below 500 million kuna.

cialized financial institutions such as Raiffeisen Banca pentru Locuinte, HVB Banca pentru Locuinte specialized in saving and loans for households and Porche Bank Romania specialized for motorcar purchases appeared. At the end of July 2005 there are 33 domestic commercial banks in Romania and six branches of foreign banks. The banks with fully or majority privately-owned capital constitute 94.1% of the total amount of bank assets and 95.5% of the share capital of all commercial banks in Romania. Foreign owned banks held 64% of total assets and 72.6% of the share capital of the banks.

Table 5. Basic Indicators for Romania

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDR per capita (in thousand ROL)	3 180,40	4 817,80	11 218,20	16 611,20	24 300	35 826,40	52 109,40	69 500,60	87 576,70	110 179,20	*
Real GDP Growth Rate	7,10%	3,90%	-6,10%	4,80%	-1,20%	2,10%	5,70%	5,10%	5,20%	8,40%	4,10%
Unemployment rate	9,50%	6,60%	8,90%	10,40%	11,8%	10,50%	8,80%	8,40%	7,40%	6,20%	*
Inflation rate	32,30%	38,80%	154,80%	59,10%	45,80%	45,70%	34,50%	0,23	15,30%	11,90%	9,10%
Current account balance (in million EUR)	-1368	-2051	-1858	-2575	-1355	-1494	-2488	-1623	-3060	-4460	*
Non-government credit (in billion ROL)	16 435,40	26 841,40	35 900,70	59 086,50	57 719,50	75 007,10	118 254,50	178 728,50	302 879,40	417 623,50	*
Deposits (in million ROL)	14 514 925	24 933 269	52 950 348	81 004 864	*	159 318 296	234 876 529	328 134 185	402 762 836	569 971 158	*
Money supply (in billion ROL)	18 278,10	30 334,60	62 150,40	92 529,90	134 122,50	185 060,00	270 512,00	373 712,50	460 741,30	644 617,30	*

Source: National Bank of Romania, Eurostat.

At the end of 2003 the amount of loans granted to the non-government sector was 14.5% which compared to other Central European countries is pretty low. This can be attributed to the fact that banks are very cautious in granting loans because of the difficulties that creditors have when they have to reinforce their rights, uncertainties in obtaining information and hesitant reforms in the corporate sector. Having in mind these peculiarities low risk operations as interbank transactions, foreign exchange and the repurchase of government bonds are preferred which not only leads to crowding out effect for the private sector but makes the banks much more susceptible to the unexpected exchange rate changes. The capital adequacy improves in the last years due to privatization of the state-owned banks and the continuous increase in the minimum capital

requirements. The Romanian banking regulations comply mostly with the EU standards and the BASEL II requirements, even Romanian regulatory framework can be estimated as being more strict. The minimum capital to establish a bank in Romania is 320 billion ROL which equals to 8.5 million EUR and up to May, 2004 there was a gradual increase and the required capital to start a credit institution in Romania became 320 billion ROL which is equal to 9.2 million EUR compared to the European requirements that stipulate a norm of 5 million EUR. The capital adequacy ratio in Romania is set to 12% compared to the BASEL II requirements where the capital adequacy ratio is set to 8%. The ceiling for large exposures in Romania comes to 20% of banks' own funds and the same rule is in force for the lending to connected parties. In 2001 a liquidity indicator equal to the ratio of actual liquidity and prescribed liquidity was introduced as well as a regulation limiting open foreign exchange position to 10%. The new loan classification regulation was put into force in January 2003 and it was implemented a provision of 5% for special provisions, 20% for substandard provisions, 50% for doubtful provisions and 100% for bad claims.

Regarding the implementation of BASEL II two departments were created within the National Bank of Romania – Banking Supervision and Department for Regulation and Licensing of Banks with clearly defined functions. In 2005 the International Accounting Standards were fully implemented and the national bank is currently working on the implementation of the standardized rating and early warning system CAMEL and its adjustment to the peculiarities of the Romanian banking sector.

The Romanian banks demonstrate their ambition to enlarge the distribution of their products and to enlarge the number of their branches. The recent sale of BCR, one of the Romanian banks with the most developed branch system, biggest client portfolio and highest share in lending, to Erste Bank heighten the competition in the Romanian banking sector.

During the period of 2003-2005 the Romanian economic environment is characterized by stability, decreasing inflation, increasing average salaries, increased business opportunities as well as decrease of official interest rates which was a signal for the banks that they should turn to operations aiming at providing finance to the real economy. Although, most of the banks work as universal banks, there can be distinguished some specialization, e.g. Raiffeisen Bank

developed an aggressive corporate and retail acquisition strategy, Tiriac Bank managed a successful shift from the SMEs focus to a strong retailer, OTP and CEC are mostly oriented towards the retail segment while ABN-AMRO Bank's traditional focus is on the corporate segment. Porsche Bank, Raiffeisen Banca pentru Locuinte and ProCredit focus mainly on specialized products distributed via different channels. Regarding the banking products the changes in the banking system also put their reflection. Romanian banks started to have more realistic approach to their customers and they started to offer products and services that approaching those on international level with a high degree of diversity. Currently, the Romanian banks open accounts in national and foreign currency, receive demand and time deposits as well as deposits redeemable at notice, grant short-term, medium and long-term loans and credit lines, collect receipts and make payments for commercial and non-commercial transactions, receive and sell travelers' cheques and payment documents in foreign currency, perform foreign exchange transactions on foreign money markets, discount commercial papers, buy and sell securities and bonds, issue and operate debit and credit cards, carry out any domestic and foreign banking operations, offer electronic banking services and grant technical assistance for its customers.

In 2002-2003 the number of Internet users in Romania was pretty low, but despite of this a series of services started to be implemented. The introduction by some banks in Romania of virtual cards were used for payments on the Internet to foreign on-line stores as Taifun card issued by BancPost which has an associated virtual card– Taifun. Five months since its creation 5,400 cards were issued. Banca Romaneasca started to issue VISA Virtual which was used mainly for Internet payments. But due to multiple frauds originated in Romania, at the very beginning these cards were sometimes not accepted by the foreign traders. The major concern related to these type of payments at their creation was the high costs for making transfers as well as the accounting problems.

Considering the development of e-commerce in Romania we should take into account several issues. Since January, 2003 Romania has fully completely liberalized electronic communication market which contributes to the wider usage of Internet and which is crucial for the development of e-commerce in the country. The second step for the development of e-commerce in Romania was the acceptance of Electronic Signature Law in 2001 and Electronic Com-

merce Law in 2002 that allow the creation of legal framework for recognition of electronic contracts, the allowance of electronic proof and the acceptance of sending electronic documents. The Law of Distance Contracts adopted in 2000 and the the Electronic Commerce Law provide for the right of withdrawal for consumers, the performance of the distance contract within 30 days and the protection against fraudulent charges.

The challenges in establishing an operational electronic commerce regime is to identify a payment mechanism that can safely be used on the Internet. The development of on-line payment system implies a series of complex problems related to security, liability and taxation. The most extended on-line payment in Romania are those executed by debit/credit card but even in this area the figures impressing although on the market there are about 4 million cards. Debit cards prevail in on-line transactions covering 85 % of them, but most of their owners use them only to withdraw money from ATMs. Also a large number of cards is primarily an effect of the government decision obliging the public institutions to pay wages on debit cards. The number of shops accepting payments with debit and credit cards is not significant. An Ordinance from 2002 obliges the companies providing public utility services as well as the public institutions collecting taxes, charges, fines, penalties and other payment obligations to accept payment also done by means of debit or credit cards.

Romanian banks invest much in the development of the branch network. Aiming at making the customers' service more effective banks also invest much money in developing the ATM network. There was an increase of 17% in ATM network in 2005 compared to 2004 which total number came to 3 737. The main challenge that is confronted by the Romanian banks is that they have to reach different geographical regions adequately, which means that they have to develop channels such as i-banking, m-banking, e-banking. These alternatives will make the expansion and operational costs of the banks lower. In last two years the Romanian banks started to develop different strategies for distribution of their products. ING Bank started the "self-banking" concept in 2004, ABN-AMRO Bank pioneered the practice of mobile banking agents, Citybank started the implementation of CityFinacial by developing a network of retail agencies. Cross-selling is currently practiced mainly by banks that are part of financial groups where scale and synergies is much important.

The total number of card transactions grew in 2005 by 140% in Romania, although the card transactions are mostly linked to salary cash withdrawals and less to payments via Internet or ATMs for utility bills. The card penetration ratio shows considerable potential for growth in Romania where it is achieved the modest 217 cards per 1,000 inhabitants in 2004, which was far from 493, the average CEE 3 (Czech Republic, Poland and Hungary), and a very long distance from 1,280 for the EU average. In 2005, it increased to 315 cards/1,000 inhabitants, fuelled partly by a rise in the demand for EUR and USD-denominated cards¹¹⁶. Credit cards less used compared to debit cards and generally, the usage of cards for international transactions is quite limited. Co-branded cards have been issued by banks in partnership with retailers as telecom companies and oil companies.

In the year of 2004-2005 the greatest growth in the Romanian banking sector was related to retail credit lending but in absolute terms the majority of loans were to the corporate sector although the higher possibilities for getting profit from the retail sector. Out of the forty Romanian banks in 2005 23 offer 31 direct banking products – 15 banks have Internet banking systems, 14 phone banking systems and only 2 GSM banking systems. The Romanian market of on-line commerce recorded a significant increase after the introduction of a security payment system through payment cards. This system is called 3D Secure and it is used by the Visa and Master card branded cards. Mobile phone owners and Internet users can obtain direct information about their banks accounts, execute bank transfers and pay phone or utility bills through their mobile phones, Internet or ATM. The volume of loans for house purposes and mortgage loans experience a high increase in the last years. The most important players on the housing and mortgage credit market are Romanian Commercial Bank and Romanian Bank for Development-Societe Generale.

Up to the year of 2005 the Romanian interbanks clearing system was not working quite efficiently as the clearing took five working days to be performed. The lack of real time system makes the interbank payments rather difficult, large commissions were implied and the banks were rather disadvantaged in accepting cards from other banks in their ATM or POS terminals. The same was valid even for the use of Internet payments where additional security and authentica-

¹¹⁶ Romanian Banking Overview, Berger, R. Strategy Consultant.

tion problems could occur. For the administration of the national payment system, starting in 2000, the Romanian Central Bank created the National Society for Fund and Clearing Transfer - TransFond where the central bank owns 33% of the its shares, and 28 commercial banks own 67% of the shares. The new system allows the clearing of amounts below 500 million lei in real time and for the rest in maximum 1 working day, thus eliminating the current delays and the excessive transaction costs.

The management of the credit risk reflects the policy of reducing credit risk as concentration and big exposures, classification of assets and provisions. Banks should have efficient systems of revision and accounting policy that enables the Board of Directors to be informed about the implementation of the credit policy by observation of credit portfolio which reflects the demand of credit on the market, business and risk strategy as well as the capacity of banks to grant loans. The management of the interest rate risk should be concentrated on obtaining as high as possible margin and keeping the profitability and the value of bank capital as less modified as possible in cases of unexpected variations of the interest rates. The management of liquidity risk in Romania is associated with the estimation of the necessary amount of liquid assets that does not disturb bank's profitability for a definite period of time.

In the early months of 2005 it was implemented the Electronic Payment System in Romania, which consists of three main components - real time gross settlement system (RTGS), automated clearing house (ACH), and government securities registration and settlement system (GSRS). By the implementation of the new payments system it was achieved reduction in the transaction and settlement costs and favorable conditions for connection to the Trans-European automated real-time gross settlement express transfer system after the Romanian accession to the EU was created.

Bulgaria

After the banking crisis in Bulgaria 1996-1997, the Bulgarian banking system started to recover very quickly. In 1997 the number of commercial banks fell down drastically to 35 compared to 81 in 1992 which was mainly a result of bank failures and consolidation. Currently, the number of the banks in Bulgaria comes

34 of which 28 fully-licensed commercial banks¹¹⁷ and six branches of foreign institutions. As a result of the decrease of the number of the banks there was a drop in the number of bank employees and branch network. According to a research done in 2001¹¹⁸ there is one branch for 10 850 people compared to the EU countries where one branch services 2 150 inhabitants on average which means that is a necessity for developing the banks' branch network in Bulgaria.

Table 6. Basic Indicators for Bulgaria

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDR per capita (in USD)	1553	1240	1227	1542	1577	1542	1705	1978	2538	3101	3396
Real GDP Growth Rate	37,65%	-20,58%	-1,64%	24,88%	1,66%	-2,70%	7,62%	14,80%	27,60%	21,52%	9,36%
Unemployment rate	11,08%	12,52%	13,69%	12,16%	15,96%	17,96%	17,88%	16,27%	13,52%	12,16%	10,73%
Inflation rate	32,66%	311,57%	547,68%	1,63%	6,96%	11,26%	4,82%	3,81%	5,64%	3,98%	6,45%
Current account balance (in million EUR)	-198,00	163,70	1 046,30	-28,50	-586,90	-761,40	-855,20	-402,50	-972,30	-1 131,30	-2 530,60
Banks assets (in thousands BGN)	*	*	*	*	8 223 428	9 773 520	12 220 529	14 557 124	16 362 925	23 901 461	28 626 797
Loans (in thousands BGN)	176 790	449 647	1 125 165	1 690 862	2 160 519	2 586 639	3 580 356	5 246 122	7 893 393	11 623 964	15 283 076
Deposits (in thousands BGN)	511 309	1 154 756	4 271 493	4 494 295	5 067 771	5 996 326	8 025 180	9 180 562	10 688 648	13 669 706	17 893 518
Number of ATM	*	*	*	*	279	420	642	829	1 222	1 753	2 279
Broad money (in thousand BGN)	588 429	1 317 429	5 947 515	6 646 713	7 535 621	9 856 616	12 400 512	13 857 326	16 566 457	20 394 366	25 259 580

Source: Bulgarian National Bank, National Statistical Institute, Agency of Employment, BORICA

The Bulgarian banking system is comparatively concentrated. The four main banks operating on the Bulgarian market are Bulbank Unicredit Group which holds 15,07% of the total assets of the banking system, DSK Bank OTP Group which holds 13,62%, United Bulgarian Bank with 9,21% and HVB Bank Biochim with 8,18%¹¹⁹. The branches of foreign banks started to appear in Bulgaria in 1994-1995 but their functions were very limited. After the economic and banking crisis the negative attitude towards the foreign banks changed as they were recognized as institutions transferring human capital and resources

¹¹⁷ In 2005 the BNB revoked the license of International Bank for Commerce and Development, a small Bulgarian bank operating on the market since 1990.

¹¹⁸ Banking in CEE, April 2004, extra report.

¹¹⁹ The data are calculated based on banks balance sheets published up to December, 2004 in the Quarterly Bulletin of Commercial Banks.

as well as IT technology which were crucial for the process of reconstructing and consolidation of the banking system. As a result of the privatization of the state-owned Bulgarian banks, the current Bulgarian banking market is prevailed by foreign banks. There are only two small state banks – Encouragement Bank and Municipal Bank which assets account to the end of 2005 to 2,37% of the total number of assets.

Currently, the Bulgarian banking products are orientated to the retail segment which offers a high potential for growth and wider interest rate margins compared to the corporate sector products. The regulations regarding the electronic signature and on-line payments are implemented in Bulgaria for several years. However, comparatively low usage of Internet and unsatisfactory quality of communication infrastructure hinder the wide penetration of e-Banking and e-Commerce as a whole. In the year of 2003 the number of banks that have implemented e-Banking increased. At present there are about 25 commercial banks that are offering at least one form of direct banking e.g. e-Banking, phone banking, GSM banking and ATM banking services. ATM banking services are the most popular direct banking services in Bulgaria. In 2003 there were 120 000 transactions made via ATM and the total amount of money was about 3,7 million BGN. Telephone banking via the electronic system eVoice is less developed. The main concerns confronted by the wide spread of e-Banking in Bulgaria are related to the high initial costs and security concerns.

In the period of 1995-1996 Bulgarian state-owned banks were orientated to granting loans to loss-making state owned enterprises, urged by the government which led to extreme increase in the percentage of non-performing loans in the banks loan portfolio. Private banks were also lacking knowledge and experience to develop new products and their managers and shareholders used them as a possibility to take money for themselves. Household sector was mainly seen as provider for deposits but not as a target for being granted consumer loans. After the banking crisis started intensive process for privatization and restructuring of the banks, which left apart the development of the household credit, debit and credit cards. At that time banks orientated their policy to holding foreign deposits and to corporate loans. The banks' affiliation to corporate loans can be explained by the fact that new foreign owners of the banks were much more willing to lend to foreign companies that invested in Bulgaria at that period of time. Foreign banks

and the appearance of foreign companies on the Bulgarian market was the reason for the quick development of banking products in Bulgaria as the managers and employees of these companies expected to get the same range of services and products that were offered by the mother banks in their own countries. The development of retail products after bank privatization can be also explained by the know-how that was gained from the foreign banks, more funds and already done distribution of corporate clients on the credit market. As a result of this new policy in banks' marketing corporate lending decreased from 42,71% to 36,98% in the period of 2001-2005 and the amount of consumer loans and loans for house purchases increased respectively from 10,71% and 2,45% to 15,2% and 8,06%. Decrease of interest rates and alleviated conditions for getting consumer loans and loans for house purchases brought to the significant increase in the loans for house purchases. Currently, the main products offered by commercial banks in Bulgaria are working capital financing with revolving credit lines and overdrafts, mid-term and long-term investment financing, subsidized credit lines under contracts with EBRD, EIB, KfW, State Agricultural Fund and others, deposits and current accounts, letters of credit and guarantees, electronic banking, treasury products focusing on hedging interest rate and currency risks, Visa and Master cards and ATM and POS services.

By March 1997 the overall size of the banking system had shrunk dramatically both in number and in terms of deposits. The adoption of the Law on Banks after the introduction of Currency Board Arrangement imposed much stricter requirement for the initial capital, capital adequacy, liquidity, accounting, auditing and reporting activity as well as the supervision by the BNB.

During the period of 2000 – 2005 Bulgaria recorded average economic growth of 4.9% despite the weak global economy, with growth even accelerating to a real 5.6% in 2004. Inflation was reduced to single-digit figures by 2001 with price stability prevailing since that period. The main current problems are the large current account deficit and still high unemployment rate. The credit boom that started in 2003 led to increase of staff levels and upgrade of the branch network in commercial banks. At year-end of 2004 the number of bank employees and branches had climbed to some 22 500 and 727 respectively, thus reaching the levels of 2001. In 2004 and 2005 there was an increase in bank concentration that was due to the acquisition of Hebrus Bank by HVB Bank Biochim at the end

of 2004 and the purchase of Eurobank by the Greek Pireus Bank. There was also a merger of the operations of the United Bulgarian Bank with those of the branch of National Bank of Greece in the second half of 2005.

Looking at the banking market in 2004-2005 it is obvious the increased risk appetites of the banks as well as the improvement of their risk assessment capabilities which are reflected in the loans portfolio maturity structure. In 2004 only 25% of total loans to the private sector were short-term compared to 52.5 % ten years ago, which reflects the increasing confidence of both creditors and borrowers. The share of foreign currency loans for the private sector climbed to 47.8 % in 2004 because of the lower interest rates, as well as the banks' strategies to take debt from abroad in order to refinance credit growth. This tendency however implies a currency risk, which if it is unhedged, raises the possibility of an increase in the level of non-performing loans.

The capital adequacy ratio in 2004 was 16.1 % and it reflects the adequate capitalization on the sectoral level. As a consequence of the expansive lending policy individual banks are already rapidly approaching the official 12 % minimum requirement. This fact should not cast doubt on the general soundness of the banking market, as the BNB has already responded by tightening capital adequacy requirements. In compliance with EU law banks in Bulgaria must also adhere to a number of regulations to ensure adequate risk diversification. Limits on large exposures and loans are put to 10 % of a bank's own funds, exposures to connected parties should not exceed 25 % of the own funds and there is a limit 800 % on total large exposures. An open foreign exchange position in a single currency (excluding euro) is limited to 15 % of a bank's own funds, with the aggregate position not to surpass 30 %. According to the loan classification and provisioning scheme, which was tightened in April 2004 by decreasing the number of risk categories from five to four and raising provisioning requirements in order to prevent a deterioration in loan portfolio quality as a result of the credit boom, banks now are required to make provisions, based on the duration of default, namely - watch exposures by 10 %, substandard by 50 % and non-performing loans by 100 %.

Financial intermediation in Bulgaria currently is still considerably low, despite the deepening in recent years, indicating significant upward potential. A cautious approach and a preference for low-risk investments eventually gave way to

brisk lending activity in the corporate and households segments, driven by sharp competition on the banking market, strong economic growth, buoyant investment activity and robust private consumption. At the same time, the upturn in lending resolved the issues of excess liquidity and overcapitalization. Currently, the Bulgarian banking system should concentrate on enhancing creditors' rights, improving the legal framework related to insolvency, fully harmonizing the country's banking regulations with EU standards with an eye to EU accession in 2007 and the preparations for Basel II.

A full system for e-payments using Internet banking cards was launched in Bulgaria. The system ePay.bg allows credit and debit cards owners to pay for services and purchases on the Internet. With the launch of the provision of digital certificates by the Bulgarian Industrial Association and the entry into force of the Law on electronic document and electronic signature 2001, e-commerce is growing in Bulgaria but not with the highest speed by which it was expected when the law was adopted.

E-banking services in Bulgaria are adapted to different technological tools for communication with clients like GSM, phone banking, Internet banking. The e-signature may be saved and used on various technical carriers as diskettes, smart cards, and CDs . Bulgarian banks need to invest in order to apply these eservices. The main applications of e-services in banking are related to information for the balance and movements on account, status of bank operations, rate of exchange, codes of Bulgarian banks, currency transfer, budget transfer, and encashment processing. A big percentage of e-payments for Bulgarian citizen are payments of public services as central heating, electricity, telephone, GSM. In 2001 11 Bulgarian banks uses the system ePay for payments with debit cards via Internet and 18 Bulgarian banks offered smart card payments using system Borika. Bulgarian citizens use debit cards mainly for cash. In January 2001 they used e-banking services via 434 ATM terminals in 81 towns and 1119 POS terminals. Currently, the usage of credit cards is considerably limited.

The main problems that are confronted by e-services in Bulgaria are related to the lack of punitive measures for computer crimes like discovering personal data and use them for different purposes, comparatively low computer literacy to the average Bulgarian, low quality of Internet access and comparatively high costs related to this services.

The issue of real credit cards in Bulgaria happened relatively late – in 2001-2002 and up to that period of time banks didn't have any strategies for issuing and developing credit cards as they were considered as being a part of the whole package that was offered to the corporate clients and their managers. The main reasons for a less developed credit card market in Bulgaria in the early years of transition were related to the political and economic instability, lack adequate legislation, unstable banking system, restructuring of banks after the crisis and their preference to hold less riskier assets as foreign deposits and corporate loans. The growing economy and income as well as the prospective for the future joining in the European Union in 2001 were a prerequisite of the credit card market in Bulgaria. The lack of information and relatively low volume of credit cards in Bulgaria explains the fact that currently only one bank in Bulgaria uses credit scoring for credit cards.

The increase of retail products in Bulgaria is to high extent due to the fact that certain companies were working with certain banks. The possibility for banks to estimate the work and the development of the company decreased significantly the uncertainty related to the creditworthiness of their retail clients who were working in this company. First banks were issuing credit cards to the managers of these companies and then overdrafts and debit cards to the employees who after proving their ability to repay their overdrafts were offered credit cards. Also in the process of restructuring public finance, the salaries of employees were transferred via their debit cards which at first did not have a positive attitude because of the commissions that were applied on the cards and the employees often withdrew their salaries at full amount.

Regarding the development of credit and debit cards in Bulgaria a unified system called Borica Ltd. was implemented in 1995 and it was owned 100% by the BNB at that period of time and it had a monopole position in cards' payments. For a certain period of time the advantages to have one operator, one clearing house and one system of POS and ATM was notable. In 1996-1998 Borica gradually joined the networks of Mastercard, Visa and American Express and foreign cards became compatible with the POS and ATM. Despite, these efforts the usage of credit and debit cards had a slow development. In 1999 there 300 ATM and 500 POS terminals, mostly concentrated in Sofia and less than 300 000 users.

The Banking Supervision in Bulgaria defines the risk profile of the banking system and that of the individual banks by using the CAMELS and CAEL valuation system. Complex CAMELS ratings are assigned as part of full supervisory inspections¹²⁰ and ratings on four of the components - capital, asset quality, earnings and liquidity. CAEL ratings indicate current fluctuations in the financial position and risk profile of individual banks. Early full supervisory inspections are initiated where serious indications of negative trends emerge. Major risks forming the system's profile underwent no significant changes in 2005. The system retained its financial indicators involving good asset quality, good current profitability, capital position adequate to the risk in operations and stable liquidity levels. With a few exceptions, these indicators are typical for most Bulgarian banks. Even in the cases of increased risk appetite, good capital position and liquidity levels are retained. At the same time, negative trends in credit risk of individual loans intensified further in the second semester of 2005. This reflected the direct correlation between the risk and the aggressive behaviour of several systematically important banks aimed at preserving and expanding market positions in particular market niches as household loans and bank cards.

In terms of harmonizing the Bulgarian banking legislation with the EU legislation, the implementation of the future directives and adoption of the New Capital Accord of the Basel Committee is a medium-term objective confronted by the Bulgarian National bank and commercial banks in Bulgaria. In 2005 the BNB continued training bank supervision experts in the content of the New Capital Accord, carried out current analyses on the results of implementation of the new standards, started to prepare legal and regulatory texts regarding the legal framework for the implementation of the New Capital Accord, continued adjusting the supervisory reporting systems and prepared commercial banks to design programs for staff, technical and procedural support for the implementation of the New Basel Accord.

Another important task confronted by the Banking supervision in Bulgaria is the maintenance of a high degree of banking system stability adequate to the increasing bank intermediation and free competition with EU credit institutions. The efforts are concentrated in accomplishing several major tasks, e.g. effective supervision over commercial bank lending activities and improvement of the meth-

¹²⁰ Supervisory inspections are done at every 12 to 18 months.

odology and techniques of the Early Warning System. The Bulgarian legislation was brought fully in line with the EU Directives on the capital adequacy of banks. In December 2004 the Governing Council of the BNB approved a new Regulation N 8 on the capital adequacy of banks, which was put into effect in July 2005. The changes in measuring and reporting banks' capital adequacy with regard to market risks are orientated towards banks which form considerable trading portfolios of financial instruments intended for trade. The new Regulation N 8 on the capital adequacy of banks will make possible the more accurate measurement and reporting of the risks arising from bank activities and the need of capital charges for these risks, while keeping the current credit risk capital requirements. As regards credit risk, the current risk weights remain valid, and an additional restriction is introduced for mortgage loans which are treated with 50% risk weight, i.e. the loan amount must not exceed 70% of the value of mortgage.

Conclusions

Generally, the banking sector in Albania, Macedonia, Serbia, Croatia, Romania and Bulgaria is characterized by a high share of foreign owned banks, but their contribution in the total growth of output is considerably modest. The banks tend more to finance consumption rather than investments. Regarding the bank sector the above mentioned countries can be separated into two groups – acceding countries (Croatia, Romania and Bulgaria) and countries that are not going to join the European Union in the near future.

The banking sector in Albania, Macedonia and Serbia started to be privatized considerably late, there is necessity for further development of banking services and products, the information systems of the banks need to be modernized (but much efforts are directed in this field) and the Basel II requirements are on their way of being implemented. Privatization of the state-owned banks in Albania started in the late 1997 and as a consequence of it a number of new products and services, e.g. ATMs, credit cards, deposits certificates, consumer credit and forward contracts were implemented. After 1997 there was a quick increase in the branch network of banks and improvement of information and communication technology. Despite, the high level of capital adequacy of the banking system in Albania there exist a possibility for currency risk due to the huge amount

of bank transactions that are performed in foreign currency and for that reason some measures should be taken in this direction. Similar to Albania the year of 1997 was also crucial for Macedonia when the banking system confronted the problems of capital increase and system modernization. The challenges for the banking system were related to the bad quality of assets, high credit concentration to one client and inadequate loan provisions. A negative effect for the business climate of the country had the strong external shocks that the country survived in 1999 due to the crisis in Serbia and the deteriorated security in the country in 2001 which increased the credit and liquidity risks and stopped the deposit growth. Although, Serbia started the transition from much more market orientated economy, the conflicts which she went through had a very negative effect on its financial system. With the government change of 2000 the reforms in the banking system started. The country made some positive changes to strengthening the criteria for classification of assets, increasing the capital adequacy of the banking system which was very low in 2000 as well as decrease the amount of bad assets in the banks' portfolios and low interest bearing deposits.

The group of acceding countries also showed some similarities in the development of the banking sector but also a number of differences were evident. In the period of 1998-2000 Croatia survived a bank crisis which was accompanied by a number of bankruptcy procedures, lending of last resort and rehabilitation of several banks. The crisis urged the privatization and the penetration of foreign banks in the country. The foreign banks brought new working methods, technology, knowledge and experience but this caused large technical efficiency asymmetry among the banks. The problems that the Croatian banking system confronts are related to the implementation of Basel II, internal rating of the clients and operational risk monitoring and the related changes in the IT systems. Romania survived financial crisis a bit earlier than Croatia (1997-1999) and after the crisis the major state owned Romanian banks were privatized and strict regulatory framework in compliance with EU Directives and Basel II started to be implemented. This led to strengthening the macroeconomic stability of the country and development of new bank services and products. Bulgarian banking crisis happened earlier than the crisis in Croatia and Romania but its consequences were much more severe and led to the implementation of the Currency Board Arrangements. As a result state owned banks were privatized, despite the low pace of the process and new products and services and IT improvements were

made. After the year of 2003 the risk appetites by the banks increased but the risk assessment that was applied by them was improved.

Despite, the differences in the stage of development of the banking sector in Albania, Macedonia, Serbia, Croatia, Romania and Bulgaria there are some similarities related to the banking concentration and consolidation resulting from the stronger bank competition and credit expansion in the period of 2003-2005 especially in the retail business. The credit expansion in these countries should not cause anxiety as this market is underdeveloped but as much as the credit boom is accompanied by careful risk assessment. The major problems that banks in these countries confront are related to the future implementation of Basel II, improvement of the IT systems and their level of security, diversity of banks products and services compared to the EU countries and improvement of the applied management techniques. Although, much in this field was done after the banks' privatization by the foreign banks, there is still much to be done in order to achieve banking sector comparable to that existing in the EU countries.

References:

- Banking in South and Eastern Europe. On the Move., Extra Report, Bank Austria Creditanstalt AG, 2005;
- Annual Report 2004, HVB BankBiochim;
- Bulgarian Banking Sector, A Restrictive Banking Policy and Lack of Liquidity Slow Bank's Upside, special report published by the National Bank of Greece, 2005;
- Electronic Payment System-Observatory Newsletter, 2002;
- From Transition to Accession, Developing Stable and Competitive Financial Markets in Bulgaria, Ulgenerk, E., Zlaoui, L., 2000;
- Banks Bulletin, Croatian National Bank, 2004;
- National Report, National Bank of Romania, 2004;
- Annual Report, National Bank of Romania, 2001;
- Implementation of Basel II: Practical Consideration, Bank for International Settlement, 2004;
- Financial Intermediation in Southeast Europe: Banking on the Balkans, Bonin, J., 2001;
- Commercial Banks in Bulgaria, Quarterly report, June-September 2005, Bulgarian National Bank;

Overview of the Main Economic, Financial, Monetary and Foreign Exchange Developments in 2003, Annual Report 2003, National Bank of Romania;

Retail Banking Trends, Europe, Asia Pacific, Latin America, Decision Strategies International, 2005;

Innovation Policies in Seven Candidate Countries: the Challenges, Final Report, Enterprise Directorate General, 2003

Banking in CEE, Extra Report, Bank Austria Creditanstalt AG, 2004;

The New Basel Accord and Developing Countries: Problems and Alternatives, Ward, J. Working Paper №4, 2002;

Banking in Central and Eastern Europe since the Turn of the Millennium: An Overview of Structural Modernization in Ten Countries, ONB, 2005;

Survey on the Developments in Electronic Money and Internet and Mobile Payments, Committee on Payment and Settlement Systems, Bank for International Settlement, 2004;

Romanian Banking Overview, Berger, R. Strategy Consultant, 2005;

Efficiency of Banks in Croatia: A DEA Approach, Jemric, I., B. Vujcic, Croatian National Bank Discussion Papers, 2001;

Banking Supervision Annual Report, National Bank of Albania, 2005;

Annual Report 2004, National Bank of Albania;

Foreign Banks in the Balkan Region: Comparative Analyses, Baleta, T., Xhepa, S., National Bank of Albania working paper, 2000;

Is There a Case for a Further Increase of Minimal Capital in Albania, Luci, E., National Bank of Albania working paper, 2003;

How Competitive is Croatian Banking System, Kraft, E., National Bank of Croatia working Paper, 2006;

Foreign Banks in Croatia: Another Look, Kraft, E., National Bank of Croatia working Paper, 2002;

Interest Rate Policy in the Republic of Macedonia, Stavreski, Z., National Bank of the Republic of Macedonia Working Paper №3, 1998;

Banks Soundness and Economic Growth, Bishev, G., National Bank of the Republic of Macedonia Working Paper №7, 1999;

Competitiveness of the Serbian Economy, Jefferson Institute, 2003;

Annual Report 2004, National Bank of Serbia;

Annual Report 2002, National Bank of Serbia, Banking Supervision Department;

Credit Portfolio Management: The Case of Albania, FYR Macedonia and Serbia

*Kalin Marinov*¹²¹

Introduction

Countries in South Eastern Europe¹²² became major recipients of financial sector foreign direct investment (FSFDI), when the privatization of their banking systems and preparations for EU membership took place in the second half of the 1990s. In some instances the unsatisfactory results of early domestic privatization schemes led the authorities to rely on foreign resources to recapitalize their banking sector and permit foreign ownership. While the benefits of heightened financial sector efficiency and better risk management are widely acknowledged, foreign ownership poses challenges for host countries due to the migration of decision-making and the incongruence of the organizational structures of foreign-owned banks as well as the pulling the trigger of massive credit expansion. Such circumstances may lead to a particular instability in the local banking systems. Foreign-owned banks in Albania and Macedonia are already the major players in the financial sectors of the two states. On the other hand, in Serbia the government is still an owner of around 50% of the commercial banks' assets.

Credit Expansion – Current Trends

Credit risk is the most important type of risk for banks. Although the type of products banks offer change continuously, they generally include a credit risk component. Tools and techniques used for measuring and managing credit risk have also been improved by the entering of FSFDI. Because of its importance, credit risk is the first type of risk that is subject to strict regulatory oversight. Backed by extensive policy debate, the approach for regulation and supervision of credit risk has also evolved. Especially, after the issuance of Basel II on 2004 (BCBS 2004) the debate on credit risk has accelerated. The second pillar of Basel II requires performing stress tests

¹²¹ Author thanks Ms. Monika Panayotova for her dedicated research assistance.

¹²² In this paper as SEE states will be included: Bulgaria, Serbia, Croatia, Romania, Albania, and FYR Macedonia

for different risk types. Therefore, after the issuance of Basel II, one of the main areas that regulators focus is stress testing. Additionally, the initiation of the Financial Sector Assessment Programs (FSAP) by the IMF and World Bank to identify the vulnerabilities in the financial systems of their member countries.

The factors leading to the appearance of fundamentally unjustified credit booms can be divided according to whether they facilitate the “excessive” growth of banks’ supply of loans or the demand for loans by the private sector. On the supply side, deregulation accompanied by reduction in banks’ reserve requirements and poorly regulated capital account liberalisation as well as the sharp increase of capital inflows due to external factors (e.g. low international interest rates) could lead to excessive credit expansion.

From the perspective of banks’ behaviour increasing competition among banks could also contribute to a credit boom. Intense competition causes the narrowing of margins and banks try to counterbalance this negative impact on profitability by increasing the volume of loans. This could lead to excessive credit expansion if sharper competition is coupled with a significant increase in banks’ willingness to take risks. An excessive growth in the private sector’s credit demand can be caused by positive shocks (related to technology, etc.) if the output elasticity of credit demand is strongly pro-cyclical. Excessively optimistic expectations relating to economic prospects could strengthen both credit demand and supply.

Empirical studies of credit growth focus more on the identification of the boom component: trying to distinguish between equilibrium movements in credit (trend deepening and normal cyclical pattern) and a potentially risky credit boom (excessive growth of credit demand and/or supply). It is especially challenging in the case of transition economies, where credit ratios have grown from very low levels. The main problem is that relying solely on past observations of credit stock in catching-up countries can lead to misleading results as in these cases a low level of equilibrium is estimated and credit boom at the end of the sample is detected. Some methods cannot take into consideration the adjustment process through which a faster-than-average credit growth may be justified.

One of the important variables to consider for the estimation is the credit aggregate resulting in credit growth rate. Domestic private sector credit in an open

economy can be grouped both by the origin of the loan (foreign vs. domestic banks) and by currency. In the economy-wide aggregate estimation, thus excluding direct borrowing from foreign banks. In case of the sectoral estimations, we use national accounts, where foreign loans are also included. It is important to emphasize that both domestic-and foreign-currency loans are included in the credit aggregate.

In theory the potential for credit risk diversification for banks can be considerable. Insofar as different industries or sectors are more or less pro-cyclical, banks can alter their lending policy and capital allocation across those sectors. Similarly, internationally active banks are able to apply analogous changes across countries. In addition to such passive credit portfolio management, financial engineering, using instruments such as credit derivatives, enables banks (and other financial institutions) to engage in active credit portfolio management by buying and selling credit risk (or credit protection) across sectors and countries. It is also widely considered that global market for credit exposures can export or import credit risk.

Key Risks Associated with Credit Growth

The speed and depth of foreign bank entry has potentially important implications for financial and macroeconomic stability in recipient countries, and arguments have been made in both directions. On the one hand, it has been argued that foreign banks could play a stabilizing role on the supply of credit and deposits through upstream financing from their mother companies and reputation effects, particularly during periods of financial distress. On the other, foreign banks might be quick to pull out from emerging markets and could transmit external shocks into host countries.

The results indicate that domestic and foreign banks behave roughly similarly along the dimensions considered, providing only weak support to the existence of supply-side effects in credit markets. In particular, loan and deposit growth are highly sensitive to economic activity, in a manner that does not differ significantly across domestic and foreign banks. At the same time, periods of tighter monetary conditions are associated with lower loan and deposit growth, with foreign banks displaying a somewhat lower sensitivity. This finding is driven by banks with relatively less liquid assets and/or lower capitalization, suggesting that it is not entirely attributable to potential differences in the characteristics of the borrowers and depositors of foreign banks. The results also show slight differences in the cross-sectional behavior

of interest rates. Lending and deposit rates of foreign banks tend to react less during periods of financial distress. Taken together, these results indicate that foreign bank participation in emerging economies has not led to increased instability in credit markets, and may have even played a beneficial effect.

There are two aspects of credit growth worth mentioning. The first one is the **speed of credit growth**. This aspect may contain two major types of risk:

- Credit (from inappropriate loan assessments, strain on ability to monitor and assess risks)
- Macro risks

The second one concerns the **main providers of credit** (foreign versus domestic banks, etc.)

- Credit risk (from aggressive lending strategies)
- Macro risks

The third one concentrates on the **main borrowers** (households, corporate sector, etc.)

- Credit risk (greater sensitivity of repayment capacity of corporate loans to the economic situation, that of consumer loans to collateral values)
- Macro risks (likely impact of loans on the current account)
- Market risks (sensitivity to economic activity and price changes)

The fourth aspect envisages the **sectoral loan concentration/composition of credit** (mortgages, durable consumer goods, investments, etc.)

- Credit risk (from concentration, collateral values for mortgages, etc.)
- Macro risks (impact on the current account in the case of consumer/investment loans, etc.)
- Market risks (e.g., sensitivity to real estate prices)

The fifth covers the **currency composition of loans**: direct (through banks' net open positions) and indirect (via borrowers') exposure to foreign exchange risk.

The **maturity of loans** can be viewed as the sixth aspect: maturity/liquidity risks (longer-term loans financed through shorter-term borrowing by banks).

The seventh aspect can be considered the **sources of credit**:

Foreign exchange risk (loans funded by bank borrowing)

- Maturity risks (when liabilities short-term, assets longer term)
- Macro risks (from exposure to market sentiment)

Characteristic of the Banking Sector's Credit Activity (Serbia)¹²³

The national defense and maintaining the country's economic stability were the main targets of the monetary policy in the wartime (1999). Therefore, banks were obliged to channel their credits primarily into these purposes. The recovery and reconstruction of the state were the main priority in the post-war period, so that the adopted supplements to the Law on the National Bank of Yugoslavia (NBS) and the amendments and supplements to the Law on Banks and Other Financial Organizations, authorized the NBY (NBS), exceptionally in 1999, to limit the volume and growth rate of bank lending, to prescribe the obligation of channeling bank credits, as well as to prescribe the highest and lowest interest rates of bank. Banks were obliged to collect on the due date at least 50% of the Dinar credits granted and disbursed before March 30, 1999, for the purposes other than those specified in the Decision on the Obligatory Channeling of Dinar Bank Credits in 1999 and to channel these funds to the purposes prescribed by the Decision.¹²⁴

The changes that took place in October, 2000, affected both the banking system and the credit activity of banks. The credit activity of the NBY (NBS) was stopped, primarily lending to the government, and banks were recommended to do the same¹²⁵. This policy defines more clearly the two level banking system in the state which fully separates the NBY from the commercial banks. It also strengthened the regulatory and supervision function of the NBY.

In the course of 2001, with the consent of the governor, the activities of the Supervision Division in the Central Bank were oriented at setting-up of a Central Credit

¹²³ See Annex Table 1

¹²⁴ National Bank of Yugoslavia – Annual Report 1999 – currently National Bank of Serbia

¹²⁵ National Bank of Yugoslavia – Annual Report 2000 – currently National Bank of Serbia

Registry, and/or preparation of regulations (Decision and Instruction), as well as to the organizational and technical equipment for the performance of these tasks. Namely, the basic function of a central credit registry is to offer to banks and other financial organizations additional information about the indebtedness of certain economic entities, which they would use on the occasion of deciding about a credit to such entities, and which could have an impact on the lowering of credit and market risks in their operation, and/or on the quality of assets and the level of capital.

In the recent years the fragile financial stability in the state is seriously threatened by the credit growth. There is clear tendency for the foreign-owned banks to have a predominant share in their credit portfolio in euro. However, the earnings of most borrowers are in Dinar. This combination leaves borrowers, and indirectly the banks, vulnerable to an unexpected depreciation. Further, the NPLs of the foreign banks seem to be on an upward trend. A decline in the profitability of foreign banks striving to gain market share, coupled with an adverse shock—especially a depreciation, could ultimately result in a credit crunch. Separately, the weak balance sheets and poor governance of the remaining large state-controlled banks leaves them vulnerable in the run up to their privatization. Credit growth is being driven by high demand from a low base and by the foreign banks' quest to gain market share. Credit demand is driven by strong real growth and the still low level of bank intermediation. Banks are financing credit from steady increases in euro-denominated deposits, reflecting improved confidence in the banking system, as well as borrowings from headquarters of foreign banks. Foreign banks with relatively easy access to capital and experience in the region have ambitious plans for expansion in the context of high interest rate margins and the potential for further growth. Rapid credit growth from a low base is in line with that of other Central and Eastern European (CEE) countries. Overall, banks have a healthy amount of capital but NPLs seem to have been on the rise during 2003-2005 period.

Table 1: NPLs to Total Loans

	2003	2004	2005
State-controlled banks	32.1	39.9	32.9
Domestic banks	17.8	25.2	48.5
Foreign-owned banks	3.9	5.9	10.7
Total	24.1	22.3	19.8

Source: National Bank of Serbia

Tendencies

The following tendencies can be discovered:

- The state-controlled banks are operating on non-market principle. Most of them are already or will be soon in a procedure of privatization or merger. This is a prerequisite for low financial results and poor level of control of credit lending.
- The competition for market share with foreign-owned banks forces the domestic commercial banks to be more aggressive in the providing of loans to their clients. The rising of NPLs' share in this group is the most significant since the domestic banks usually do not have such a strong financial background as the foreign-owned.
- The rapacious approach of foreign-owned banks also provides growing share of NPLs. But in contrast with domestic commercial banks this almost certainly will not be dangerous for their survival since their headquarters are their backbones.

Implementing Regression Model

The Regression Model is used to estimate Credit Growth (CG) using data over the period 2000 – 2006.

Table 1.1 Basic banking system indexes and economic indicators in Serbia (1999-2006)

Year	Asset share of foreign-owned banks	Credit growth (%)	ROA	ROE	GDP growth (%)
1999	0.4	N.a.	N.a.	N.a.	-23.2
2000	0.5	15.5	-6.2	-2.7	5.2
2001	13.2	18.26	-3.6	2.2	5.1
2002	27	-65.19	-8.7	-60.6	4.5
2003	38.4	32.90	-0.3	-1.2	2.4
2004	34.7	46.58	-1	-5.3	9.3
2005	49.6	52.12	1	-3.2	6.8
2006	60.1	16.67	1.3	1.1 ¹²⁶	5.8

Source: National Bank of Serbia, International Monetary Fund, EBRD

¹²⁶ Provisional data

	Asset Share of foreign-owned banks (%)	ROE	ROA	GDP growth (%)	Credit growth (%)
Mean	32.35714	-9.957143	-2.500000	5.585714	14.49143
Median	37.70000	-2.700000	-1.000000	5.200000	18.26000
Maximum	60.10000	2.200000	1.300000	9.300000	52.12000
Minimum	0.500000	-60.60000	-8.700000	2.400000	-65.19000
Std. Dev.	20.58566	22.47761	3.810512	2.122442	39.49610
Skewness	-0.261314	-1.985752	-0.580915	0.362624	-1.216273
Kurtosis	2.001410	5.046912	1.893972	2.845524	3.478656
Jarque-Bera	0.370510	5.822453	0.750501	0.160372	1.792699
Probability	0.830892	0.054409	0.687117	0.922944	0.408057
Observations	7	7	7	7	7

Author's calculations

Correlation Matrix

	Asset share of foreign-owned banks (%)	ROE	ROA	GDP growth (%)	Credit growth (%)
Asset share of foreign-owned banks (%)	1.000000	0.111041	0.763282	0.209367	0.370022
ROE	0.111041	1.000000	0.711568	0.161590	0.857134
ROA	0.763282	0.711568	1.000000	0.253887	0.854636
GDP growth (%)	0.209367	0.161590	0.253887	1.000000	0.391539
Credit growth (%)	0.370022	0.857134	0.854636	0.391539	1.000000

Author's calculations

$$\log(CG_t) = ROA_t + ROE_t + GDPgr_t + d\log(ASH_t),$$

where CG – Credit Growth; GDPgr – growth; ASH – Asset Share of foreign-owned banks (%)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE	-0.390741	0.765900	-0.510172	0.6997
ROA	0.775507	1.305268	0.594136	0.6587
DLOG(Asset share of foreign-owned banks)	1.599425	2.395071	0.667799	0.6252
GDP growth	0.295032	0.400597	0.736482	0.5959

Author's calculations

Foreign banks are providing important benefits to the Serbian banking sector by:

- Attracting funds from households who may be reluctant to deposit with domestic banks after the foreign exchange deposit freeze and pyramid schemes of the 1990s;
- Providing new sources of funding for domestic credit growth via capital and financing from headquarters;
- Introducing new financial products and credit instruments;
- Reducing the influence of vested interests;
- Enhancing competition by buying state banks and increasing the number of players (bank interest margins are declining in Serbia).

Foreign banks also change the profile of shocks to which the banking system is vulnerable.

The foreign banks in principle have easy access to capital because they account for a small share of the assets of their entire group. Still, the following adverse shocks could lead to lower profitability, less willingness on the part of the banking group to provide capital, and, ultimately, generate a credit crunch:

External shocks

- A rise in funding costs from higher eurozone interest rates.
- An adverse shock to one or more of the countries of origin of the foreign banks.
- Contagion from an adverse shock elsewhere in the CEE region, which could lead to a deterioration of investor perceptions regarding Serbia.

Domestic shocks

- Declining margins from foreign banks fighting to gain market share.
- A flight to quality induced by a weakening economy or an unexpected domestic political event.

Measures to Slow Credit Growth

A package of measures are applied to slow the credit growth:

- Tightening of monetary policy by raising the required reserve ratio on all dinar and enterprise FX deposits by 3 percentage points to 21% and stepping up open market operations (August 2004) as a result of a strong growth in bank credit to non-government sector (25.8% real growth year on year in July 2004).
- Introduced new guidelines on commercial bank consumer lending (maximum 30 percent monthly payment to net income ratio and a minimum 20 percent down payment to loan ratio) (December 2004).
- Increasing the capital adequacy ratio to 10 percent (effective March 2005) and broadened the reservable base to include commercial banks' foreign borrowing (effective January 2005). Specifically, the reservable base now includes the stock of all foreign borrowing with a maturity of up to 4 years and all new foreign borrowing independent if the maturity. In addition, they are currently preparing a regulation on monitoring and managing credit risk resulting from borrowers' exposure to exchange rate risk.
- Eliminated remuneration on required reserves on enterprises' foreign currency deposits (June 2005).
- Unified SRRs on enterprises and household foreign currency deposits in banks and commercial banks' foreign borrowing at 38 percent¹²⁷. This unification at the level of 38 percent implies some overall tightening compared to the previous SRRs.
- Broadened the reservable base to include commercial banks' foreign

¹²⁷ Previously, the effective SRR on households' foreign currency deposits had been 47 percent, the SRR on enterprise deposits had been 14 percent and commercial bank foreign borrowing was not subject to SRRs.

borrowing. This measure was effective on January 1, 2005 for all new borrowing, while the entire stock of banks' foreign borrowing was included in three steps during the period September 2005–November 2005.

- Taken over the authority for regulating and supervising the leasing industry (September 2005) and subjected leasing companies to a 10 per cent reserve requirement on foreign borrowing (February 2006).
- Obligated banks to make clear in their advertising the denomination of loan payments (December 2005).

Characteristic of the Banking Sector¹²⁸

Albania

While the Albanian banking sector has demonstrated relatively good performance in recent years, with high levels of earnings and capitalization and a low level of classified or non-performing assets, accelerating credit growth may become a drag on performance in the future. With the removal of bad loans from state banks, aggregate NPL ratios have declined substantially over the years from over 33 percent in 2000 to less than 5 percent, with about half of bad loans concentrated in one lender. The three largest lending banks, which account for about half of the loan market, have sustained good loan quality.

Most banks in Albania were expecting that the entrance of Raiffeisen Bank¹²⁹ will put downward pressure on lending spreads as banks attempt to compete for borrowers. Admittedly, from the customers' view, increased competition will mean lower fees and borrowing costs and, in principle, a more efficient banking sector. However, if a spurt in credit growth were associated with lower lending standards it could lead to higher non-performing loans and a consequent effect on profitability. Following the privatization of Savings Bank, financial deepening in Albania began to take hold. The degree of competition increased, and credit to the private sector accelerated markedly—growing by 67 percent in the year to April 2006, an increase of 6.1 percent of GDP. Growth of lending to both the corporate sector and households was high during this period, with growth of

¹²⁸ See Annex Table 2

¹²⁹ Raiffeisen Zentralbank Österreich AG (RZB) and the Albanian Government signed the first closing regarding the purchase of Banka e Kursimeve e Shqipërisë (BK), the Savings Bank of Albania, on 15 April 2004 in Tirana. RZB won a tender and then received all necessary approvals from the Austrian and Albanian authorities. The purchase price is USD 126 million for a 100 per cent share in BK.

domestic currency lending—historically less important in Albania —particularly rapid at 109 percent. The stock of credit reached almost 17 percent of GDP at end-April 2006, up from 9 percent at the beginning of 2005.

The structure of lending is changing. Credit to individuals is gaining market share over credit to firms, while the share of lek-denominated lending and the average maturity of loans are both increasing. Corporate lending still accounts for the bulk of private sector credit, but loans to households are growing at a faster pace. As the corporate sector has been actively approached by commercial banks in the past, new creditworthy borrowers are expected to emerge more gradually. Many banks are therefore now marketing more aggressively toward the retail market. Households have access to salary overdrafts (equivalent to a multiple of monthly salary if the salary is deposited in the bank), consumer loans (up to around Euro 5,000), and mortgages.

The traditional preference for foreign exchange denominated credit is diminishing. The degree of dollarization/euroization of the banking system has traditionally been moderately high, but asset dollarization is now on a downward trend. Sustained macroeconomic stability over the last years, combined with low Euro and dollar interest rates, have resulted in relatively low and stable inflation, which brought down domestic interest rates as risk premiums declined. At the same time, banks are flush with lek deposits, and are eager to seek appropriate hedges for their clients, matching lek income to lek loans. As a consequence, loans that were historically predominantly in foreign currency, are now increasingly. At end-March 2006, foreign exchange denominated loans constituted 73 percent of total loans, down from 79 percent at end-2004.

Implementing Regression Model

The Regression Model is used to estimate Credit Growth (CG) using data over the period 2000 – 2006.

Table 2.1 Basic banking system indexes and economic indicators in Albania (1998-2005)

Year	Asset share of foreign-owned banks(%)	Credit growth (%)	ROA	GDP growth (%)	ROE
1998	5.6	-10.9	-1.7	7.9	-77.6
1999	18.9	11.3	0.6	8.9	15.7
2000	35.2	33.9	2.1	7.7	20.6
2001	40.8	38.9	1.5	6.5	21.6
2002	45.9	25.6	1.2	4.7	19.2
2003	47.1	23	1.24	6.0	19.5
2004	52.1	28.5	1.28	6.0	21.1
2005	58.3	30.1	1.4	5.5	22.5

Source: National Bank of Albania, International Monetary Fund, EBRD

	Asset share of foreign-owned banks (%)	ROE	ROA	GDP growth (%)	Credit growth (%)
Mean	37.98750	7.825000	0.952500	6.650000	22.55000
Median	43.35000	20.05000	1.260000	6.250000	27.05000
Maximum	58.30000	22.50000	2.100000	8.900000	38.90000
Minimum	5.600000	-77.60000	-1.700000	4.700000	-10.90000
Std. Dev.	17.67310	34.57843	1.148163	1.400000	15.78209
Skewness	-0.788031	-2.251908	-1.701903	0.279005	-1.256789
Kurtosis	2.433158	6.101998	4.829138	1.948650	3.580706
Jarque-Bera	0.935094	9.968915	4.977215	0.472237	2.218433
Probability	0.626537	0.006843	0.083025	0.789687	0.329817
Observations	8	8	8	8	8

Author's calculations

Correlation Matrix

	Asset share of foreign-owned banks (%)	ROE	ROA	GDP growth (%)	Credit growth (%)
Asset share of foreign-owned banks (%)	1.000000	0.771746	0.769264	-0.812171	0.808227
ROE	0.771746	1.000000	0.946709	-0.392453	0.881881
ROA	0.769264	0.946709	1.000000	-0.389531	0.952982
GDP growth (%)	-0.812171	-0.392453	-0.389531	1.000000	-0.494296
Credit growth (%)	0.808227	0.881881	0.952982	-0.494296	1.000000

Author's calculations

$$\log(CG_t) = ROA_t + ROE_t + GDPgr_t + d\log(ASH_t),$$

where CG – Credit Growth; GDPgr – growth; ASH – Asset Share of foreign-owned banks (%)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE	0.131190	0.034148	3.841833	0.0311
ROA	0.289005	0.197042	1.466715	0.2387
GDP growth	0.044936	0.121480	0.369907	0.7360
DLOG(Asset share of foreign-owned banks)	-0.171570	0.502286	-0.341579	0.7552

Author's calculations

Characteristic of the Banking Sector's Credit Activity¹³⁰

(FYR Macedonia)

In 2000, the credit activity of the banks in the Macedonia registered trend of stability. Due to the political and security crisis in the country, in 2001 the banks refrained from extending credits. Although the political and security and economic situation in the country in the last quarter of the year gradually normalized, the banks, however, continued to restrain from making new loans, up until the end of 2001.

In 2003, the degree of rigidity of the banks' interest rate policy gradually mitigated. It was a result of the effect of several factors:

¹³⁰ See Annex Table 3

- Lower risk – lower credit risk;
- High level of liquidity in the banking system;
- Further increase in the banks' deposit potential;
- Change in the monetary policy design;
- Larger competition among banks;
- Developments on the Money Market.

The comparison of the position as of December 31, 2004 and that as of December 31, 2003 shows that the increase in the lending activity of banks implies certain movements in the structure of the total assets of the banks in the Macedonia. Such movements primarily pertain to the fact that the loans to the non-financial entities became dominant category, instead of the placements to other banks, which was registered as early as in the first half of 2004.

During 2004, banks' lending activity intensified, which was primarily generated by the expanded deposit potential, improved creditworthiness of clients, broadened range loans, reduces price of loans, as well as the liberalization of the foreign exchange operations.

In 2005, the lending activity of banks shows substantial growth rates. The amount of gross-credits increased in 2005 by 19.9% compared to 2004. The share of bank loans to non- financial institutions in total loans reached 84.3% in 2005, mainly due to the increase of bank loans granted by the large banks group, taking 25.4% of total loans. The group of medium-size banks is presented with the smallest share (11.6%) in total loans, but shows a faster growth rate of credits (40.5%) and thus contributing to the increase of total loans by 20.0%. Considerably low is the contribution of the group of small-size banks to the increase of total loans (3.1%) in 2005, to some extent because of changes in the content of the group of these banks.

Implementing Regression Model

The Regression Model is used to estimate Credit Growth (CG) using data over the period 2000 – 2006.

Table 1.1 Basic banking system indexes and economic indicators in Macedonia (1998-2005)

Year	Asset share of foreign-owned banks	Credit growth (%)	ROA	GDP growth (%)	ROE
1998	4.3	-15.3	2	3.6	-3.5
1999	11.5	-9.8	0.8	4.1	-1.2
2000	53.4	-9	0.8	4.5	3.8
2001	51.1	-7.3	-0.66	-4.5	-3.24
2002	44	2.3	0.4	0.7	2.06
2003	47	14	0.5	2.0	2.3
2004	47.3	24	1.1	4.1	6.2
2005	51.3	18.1	1.3	4.0	8.1

Source: National Bank of Albania, International Monetary Fund, EBRD

	SH	ROE	ROA	GDP	CG
Mean	38.73750	1.815000	0.655000	2.312500	2.750000
Median	47.15000	2.180000	0.800000	3.800000	-2.500000
Maximum	53.40000	8.100000	1.300000	4.500000	24.00000
Minimum	4.300000	-3.500000	-0.660000	-4.500000	-10.30000
Std. Dev.	19.35657	4.240239	0.608675	3.042291	14.04493
Skewness	-1.109451	0.067726	-1.280397	-1.581348	0.429957
Kurtosis	2.398260	1.757194	3.832886	4.221184	1.504271
Jarque-Bera	1.761872	0.520971	2.417120	3.831311	0.992218
Probability	0.414395	0.770677	0.298627	0.147245	0.608895
Observations	8	8	8	8	8

Author's calculations

Correlation Matrix

	Asset share of foreign-owned banks (%)	ROE	ROA	GDP growth (%)	Credit growth (%)
Asset share of foreign-owned banks (%)	1.000000	0.615397	-0.250633	-0.290462	0.504503
ROE	0.615397	1.000000	0.582946	0.492186	0.790833
ROA	-0.250633	0.582946	1.000000	0.950636	0.382978
GDP growth (%)	-0.290462	0.492186	0.950636	1.000000	0.216064
Credit growth (%)	0.504503	0.790833	0.382978	0.216064	1.000000

Author's calculations

$$\log(CG_t) = ROA_t + ROE_t + GDPgr_t + d\log(ASH_t),$$

where CG – Credit Growth; GDPgr – growth; ASH – Asset Share of foreign-owned banks (%)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE	-1.654883	0.080357	-20.59425	0.0309
GDP growth	2.145321	0.532498	15.12597	0.0675
ROA	12.23704	0.468033	26.14570	0.0243
DLOG(Asset share of foreign-owned banks)	4.524039	0.399258	11.33111	0.0560

Author's calculations

Conclusions

Rapid growth in credit to the private sector continues to be a key challenge for most of the SEE (especially for Serbia, Albania and Macedonia) countries. The rapid pace of credit expansion in these countries, generally from a low base, is driven by a “catching up” process. It is supported by an upward revision in income expectations due to improving economic prospects, often related to the prospect of EU accession. On the supply side, foreign financial institutions entering these markets with the objective of rapidly gaining market share have often facilitated funding the rapid expansion of credit.

For these foreign institutions, the exposure to any particular country is often still limited. All this, however, does not mean that the process is without danger, and in fact the pattern shows similarities to experiences of other countries where (over)optimism about future earnings led to a boost in asset valuations and a surge in capital inflows that allowed firms and households to borrow and spend. Key macroeconomic implications of rapid credit growth include inflation and a weakening of the current account; in the SEE countries, the latter has been more prominent. Continued deterioration in external balances of the targeted SEE countries may increase the risk of speculation against the currencies under the prevailing fixed exchange rate regimes. The low savings rates in most of the countries imply that they are highly dependent on the willingness of foreign investors to fund these deficits.

Using differences in bank ownership as a proxy for financial constraints on banks, the paper finds weak evidence that foreign banks have a lower sensitivity of credit to monetary conditions relative to their domestic competitors, with the differences driven by banks with lower asset liquidity and/or capitalization. At the same time, the lending and deposit rates of foreign banks tend to be smoother during periods of financial distress, albeit the differences with domestic banks do not appear to be strong. These results provide weak support to the existence of supply-side effects in credit markets and suggest that foreign bank entry in emerging economies may have contributed somewhat to stability in credit markets.

From a microeconomic perspective, it is not clear whether the credit risk systems of banks in the targeted SEE markets will be able to cope with a potential lending boom. In most of the SEE countries, the prudential indicators do not signal a significant vulnerability of the banking system, but many of these are lagging and not leading indicators. Moreover, there have been some indications of a decline in capital adequacy and some increase in credit risks in many of the countries in the group. In these countries rapid credit growth—in particular in cases where the number of credit applications grows rapidly—has started to put a strain on banks' and bank supervisors' capacity to assess risks. Furthermore, a sharper-than-expected decline in interest margins, due to increased competition, may decrease the profitability of the banking system and increase its vulnerability.

References:

- Global Business Cycles and Credit Risk, M. Hashem Pesaran, Til Schuermann and Björn-Jakob Treutler
- Foreign Direct Investment in the Financial Sector of Emerging Market Economies, A report of Committee on the Global Financial System (CGFS), March 2004
- Credit Ratings of the Banking Sector, N. Jonker, January 2002
- Credit Risk Modeling: Current Practices and Applications, Basle Committee on Banking Supervision, April 1999
- A Macroeconometric Model for Stress Testing Credit Portfolio, C. Coşkun Küçüközmen and Ayhan Yüksel, June 2006
- Serbia - Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Monetary and Financial Policy Transparency, Banking Supervision, and Payment Systems - International Monetary Fund, March 2006
- Credit Growth in Central and Eastern Europe New (Over) Shooting Stars?, European Central Bank, working paper series, No. 687, October 2006
- Albania - Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision and Payment Systems - International Monetary Fund, August 2006
- Former Yugoslav Republic of Macedonia: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision, Payment Systems, Monetary and Financial Policy Transparency, and Anti-Money Laundering and Combating the Financing of Terrorism, IMF Country Report, No. 03/374, November 2003
- Credit Growth in Central and Eastern Europe: Convergence or Boom?, GERGELY KISS, MÁRTON NAGY and BALÁZS VONNÁK, Magyar Nemzeti Bank Working Paper, November 2006
- Assessing and Managing Rapid Credit Growth and the Role of Supervisory and Prudential Policies, Paul Hilbers, Inci Otter-Robe, Ceyla Pazarbasioglu, and Gudrun Johnsen, July 2005
- Early Birds, Late Risers, and Sleeping Beauties: Bank Credit Growth to the Private Sector in Central and Eastern Europe and the Balkans, Carlo Cottarelli, Giovanni Dell'Araccia and Ivanna Vladkova-Hollar, November 2003

Default, Credit Growth, and Asset Prices, Miguel A. Segoviano Basurto, Charles Goodhart and Boris Hofmann, September 2006

The Lending Channel in Emerging Economies: Are Foreign Banks Different?, Marco Arena, Carment Reinhart and Francisco Vázquez, June 2006

Credit Market and Macroeconomic Volatility, Caterina Mendicino, March 2007

Annex Table 1

Groups of Banks in Serbia¹³¹

(Based on their asset size, as of September 30, 2006)

Group	Amount of Assets	Number of Banks 31.12.2004	Number of Banks 31.12.2005	Number of Banks 30.09.2006
Group I	Assets < CSD 5 billion	19	10	7
Kosovsko Metohijska banka a.d. Zvečan				
Niška banka a.d. Niš				
"A banka" a.d. Beograd				
Privredna banka a.d. Pančevo				
JUBMES banka a.d. Beograd				
Čačanska banka a.d. Čačak				
Credy banka a.d. Kragujevac				
Group II	CSD 5 billion < Assets < CSD 10 billion	10	9	8
Findomestic banka a.d. Beograd				
Privredna banka Beograd a.d. Beograd				
Akcionarsko društvo "Zepter banka" Beograd				
"Jugobanka Jugbanka" a.d. Kosovska Mitrovica				
"Srpska banka" a.d. Beograd				
Laiki Bank A.D. Beograd				
"Metals-banka" a.d. Novi Sad				
Univerzal banka a.d. Beograd				

¹³¹ In the table banks are separated in different groups according to the last available year

Group III	CSD 10 billion <Assets< CSD 20 billion	8	11	9
NLB LHB banka a.d. Beograd				
Panonska banka a.d. Novi Sad				
"Banka Poštanska štedionica a.d. Beograd"				
Nacionalna štedionica-banka a.d. Beograd				
Poljoprivredna banka Agrobanka a.d. Beograd				
Piraeus Bank a.d. Beograd				
ERSTE Bank A.D. Novi Sad				
Meridian banka Credit Agricole group a.d. Novi Sad				
"Kulska banka" A.D. Novi Sad				
Group IV	CSD 20 billion <Assets< CSD 45 billion	3	5	8
NLB Continental banka a.d. Novi Sad				
National Bank of Greece S.A. - Filijala Beograd				
"Volksbank" a.d. Beograd				
Agroindustrijska komercijalna banka "AIK banka" a.d. Niš				
Eurobank EFG štedionica a.d. Beograd				
ProCredit Bank a.d. Beograd				
Alpha Bank Srbija a.d. Beograd				
Vojvođanska banka a.d. Novi Sad				
Group V	CSD 45 billion <Assets	3	5	6
Societe Generale Yugoslav Bank a.d. Beograd				
HVB banka Srbija i Crna Gora a.d. Beograd				
Komercijalna banka a.d. Beograd				
Hypo Alpe-Adria-Bank a.d. Beograd				
Banca Intesa a.d. Beograd				
Raiffeisen banka a.d. Beograd				
TOTAL		43	40	38

Source: National Bank of Serbia

Annex Table 2

Groups of Banks in Albania¹³²

(Based on their asset size, as of December 31, 2005)

Group	Amount of Assets	Number of banks	
		31.12.2004	31.12.2005
Group I	Volume of Assets < 2 % of Total Assets	8	7
Emporiki Bank (EB)			
United Bank of Albania (UBA)			
First Investment Bank (Tirana Branch) (FIB)			
International Commercial Bank (ICB)			
Credit Bank of Albania (CBA)			
Popular Bank (PB)			
Italian Development Bank (IDB) ¹³³			
Group II	2% of Total Assets < Volume of Assets > 7% of Total Assets	5	5
ALPHA Bank (Tirana Branch) (AB)			
Italian-Albania Bank (IAB)			
Procredit Bank (PB)			
National Bank of Greece (Tirana Branch) (NBG)			
Credins Bank (CB)			
Group III	7% of Total Assets > Volume of Assets	4	4
Raiffeisen Bank (RZB)			
Tirana Bank (TB)			
American Bank of Albania (ABA)			
National Commercial Bank (NCB)			
Total		17	16

Source: National bank of Albania

¹³² In the table banks are separated in different groups according to the last available year

¹³³ In June 2005 100% of Dardania Bank was sold to Italian investors (currently)

Annex Table 3

Groups of Banks in FYR Macedonia¹³⁴

(Based on their asset size, as of December 31, 2005)

Group	Amount of Assets	Number of banks 31.12.2004	Number of banks 31.12.2005
I Group	Assets > Denar 15 billion	3	3
Komercijalna banka AD Skopje			
Stopanska banka AD Skopje			
Tutunska banka AD Skopje			
II Group¹³⁵	4,5 billion < Assets > 15 billion	2	3
Ohridska banka AD Ohrid			
ProCredit banka AD Skopje			
Stopanska banka AD Bitola			
III group	Assets < Denar 4.5 billion	16	14
Alpha banka AD Skopje			
Eurostandard banka AD Skopje			
Investbanka AD Skopje			
Internacionalna Privatna banka AD Skopje			
Export and Credit Bank AD Skopje			
Komercijalno Investiciona banka AD Kumanovo			
Makedonska banka AD Skopje ¹³⁶			
Macedonian Bank for Development Promotion AD Skopje			
Post Bank AD Skopje			
Silex Bank AD Skopje			
T.X. Ziraat Bankasi AD Skopje			
Teteks Kreditna Banka AD Skopje			
Tetovska banka AD Tetovo			
UNI banka AD Skopje			
Total		21	20

Source: National bank of FYR Macedonia

¹³⁴ In the table banks are separated in different groups according to the last available year

¹³⁵ The minimum required amount of assets for the medium-size group has been changed from Denar 2.5 billion to Denar 4.5 billion.

¹³⁶ The Macedonian Bank for Development Promotion, A.D, Skopje performs specific financial activities in accordance with a separate law.

Credit Risk Management Practices in Bulgaria and Romania

Georgi Georgiev

Introduction

The aim of the presented paper is to analyze the effects of the foreign banks' entering into the management practices in six SEE countries - Albania, Bulgaria, Croatia, FYR Macedonia, Romania and Serbia. The entering of foreign capitals into the banking sector and the rapid private credit growth has faced risk management with serious challenges in the region. This gives the opportunity for the researchers to explore the developments in the credit risk management practices in different countries in transition. The bank management approaches and practices are related directly to the profitability of the institution and the bank competition. For that reason any information concerning the bank management in details is confidential and usually there is a lack of relevant statistical information. To overcome this obstacle and to gather actual information directly from the bank managers, questionnaires were prepared, which have been sent to all Bulgarian and Romanian banks. The focus of our inquiry was concentrated mainly on the applied credit risk management practices and the readiness for the implementation of Basel II standards.

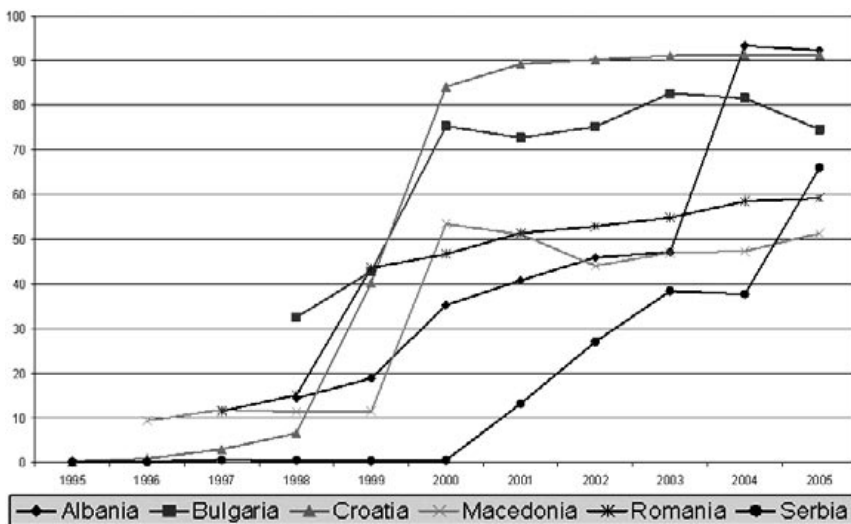
Section 1 makes cross-country comparisons and analyzes some indicators related to credit performance in the six SEE countries. *Section 2* concentrates on the applied systems for credit risk management in Bulgaria and Romania. *Section 3* analyzes the existing database of bank management in Bulgaria and Romania. In *Section 4* based on data submitted by an anonymous Bulgarian bank a scoring model was constructed and comparisons were made on a bank level.

1. Bank management cross countries comparisons

During the last 10 years the bank reform in all of the six transition countries underwent dramatic changes – from bank failures through financial stabilization,

privatization to merger and acquisitions. The process of mergers and acquisitions resulted in financial transformation of the bigger part of the domestic banking sector to foreign shareholders. In some countries the process of ownership transformation has almost finished (Croatia, Albania, and Bulgaria), but in others it is still continuing (Serbia, Macedonia and Romania. The last decade has been characterized by high levels of foreign bank penetration in the Balkan region. At the end of 2005 the average asset share of foreign-owned banks in the bank systems of Albania, Bulgaria, Croatia, Macedonia, Romania and Serbia was over 72%. The leading countries in this respect were Albania and Croatia where the asset share of foreign-owned banks reached respectively 92,3% and 91,2%.

Figure 1.1: The asset share of foreign-owned banks (in per cent) in SEE



The entering of foreign banks has been accompanied by high levels of credit growth, which have forced the national banks to take a number of restrictive measures to slow down the process. It is representative for the region that over 68% of the commercial banks use mainly loan officers' human judgment for credit risk estimation. The lack of precise, quantitative measure forced banks to require additional collaterals and warrantors, which make the credits inaccessible to the part of population.

This section analyzes the impact of foreign bank entering on the credit performance during 1995-2005 in six SEE countries - Albania, Bulgaria, Croatia, Macedonia, Romania and Serbia.

During the last decade the banking system of Albania has gone through critical changes aimed at financial stabilization and management quality improvement. Despite the fact that as early as 1998 approximately 80 % of the banks were foreign-owned, the share of foreign-owned banks did not exceed 50 % as of 2003, and the portion of non-performing loans was inadmissibly high /35.4 %/

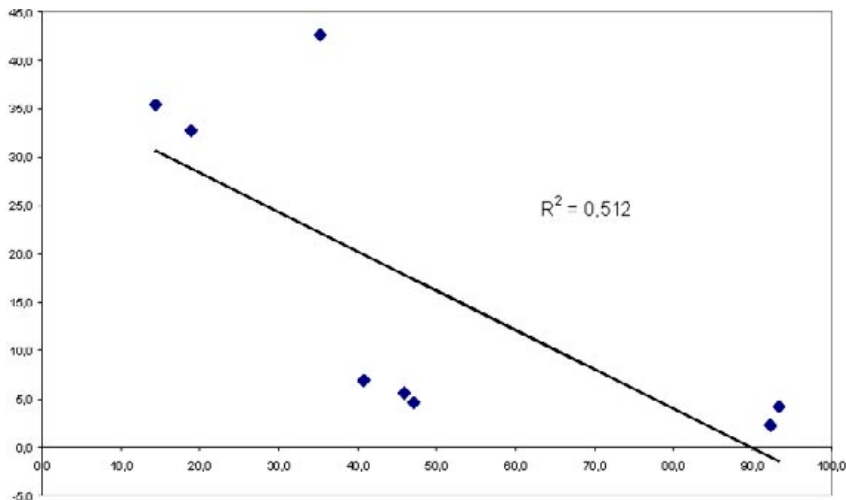
Table 1.1: Foreign banks penetration and credit performance in Albania

Albania	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks (foreign-owned)	6 (3)	8 (3)	9 (3)	10 (8)	13 (11)	13 (12)	13 (12)	13 (12)	15 (13)	16 (14)	16 (14)
Asset share of state-owned banks (in per cent)	94,5	93,7	89,9	85,6	81,1	64,8	59,2	54,1	51,9	6,7	7,7
Asset share of foreign-owned banks (in per cent)	na	na	na	14,4	18,9	35,2	40,8	45,9	47,1	93,3	92,3
Non-performing loans (in per cent of total loans)	34,9	40,1	91,2	35,4	32,7	42,6	6,9	5,6	4,6	4,2	2,3
Domestic credit to private sector (in per cent of GDP)	3,6	3,5	4,0	0,6	2,2	3,0	4,0	5,0	5,4	6,2	10,3
Domestic credit to households (in per cent of GDP)	na	na	na	na	na	na	na	na	na	2,8	4,6

Source: EBRD, Transition report 2006: Finance in transition, November 2006

The year 2004 was crucial for the incursion of foreign financial capital into the banking system of Albania. During this year the asset share of foreign-owned banks doubled and by the turn of 2005 Albania already had the highest share among the other SEE countries. This led to an abrupt increase of the amount of credits for the private sector and the households, but notwithstanding, their respective share in view of GDP remained the lowest in Europe.

Figure 1.2: Asset share of foreign-owned banks versus non-performing loans in Albania



During the period 1995 – 2000 Albania featured inadequate credit management and a bad credit performance, correspondingly. The envisaged six-year span was marked by an average amount of non-performing loans (in per cent of total loans) of 46,15% reaching its highest point in 1997 r. with the absurd 91,2%. During the last five years though, the banking sector has been marked by qualitative improvement of its credit management practices and there is a tendency towards decreasing the amount of non-performing loans in the credit portfolios of commercial banks.

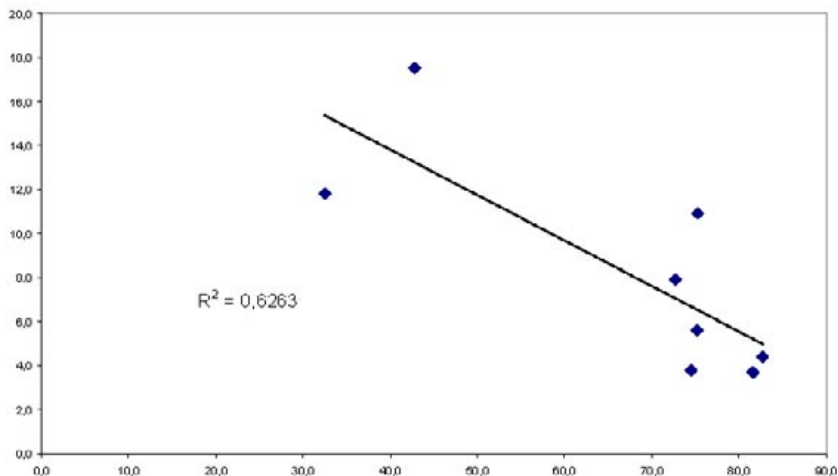
Table 1.2: Foreign banks penetration and credit performance in Bulgaria

Bulgaria	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks (foreign-owned)	41 (3)	42 (3)	28 (7)	34 (17)	34 (22)	35 (25)	35 (26)	34 (26)	35 (25)	35 (24)	34 (23)
Asset share of state-owned banks (in %)	na	82,2	66,0	56,4	50,5	19,8	19,9	14,1	2,5	2,3	1,7
Asset share of foreign-owned banks (in %t)	na	na	na	32,5	42,8	75,3	72,7	75,2	82,7	81,6	74,5
Non-performing loans (in % of total loans)	12,5	15,2	13,0	11,8	17,5	10,9	7,9	5,6	4,4	3,7	3,8
Domestic credit to private sector (in % of GDP)	21,1	35,3	12,3	12,2	14,0	11,7	14,5	18,0	18,4	23,2	26,0
Domestic credit to households (in % of GDP)	na	na	na	2,0	2,1	2,1	2,8	3,7	7,1	10,0	14,7

Source: EBRD, Transition report 2006: Finance in transition, November 2006

In 1989 in Bulgaria, following the fall of the “developed socialist society”, political instability and economic chaos established themselves. The foreign debts made in the last decade of socialism amounted to 140 % of the Gross Domestic Product. The Central Bank did not gain political independence and readily turned into an instrument of political and economic interests.

Figure 1.3: Asset share of foreign-owned banks versus non-performing loans in Bulgaria



The monetary policy, which was being carried out was not aimed at providing stability in the banking system and in the national currency, but at indirect funding of private interests and political parties through certain commercial banks. The uncontrolled making of insecure loans and the lack of a feasible bank supervision led to a number of bank and currency crises. By the end of 1996 almost one-third of the Bulgarian banking sector declared bankruptcy though the official statistics for 1996 reported only just 15,2% non-performing loans (in % of total loans), which raises strong doubts on the authenticity of the data provided by the statistical department of the Bulgarian National Bank.

Unlike Albania, the changes in the Bulgarian banking sector were smoothly accomplished and there are no typical clear-cut lines with regard to the penetration of foreign capital in the banking sector and credit performance. During the investigated 11-year period the average percentage of non-performing loans was 9,66%, and during 2005 it fell to 3,8%. In this regard the commercial banks

performing on the territory of Bulgaria took a leading position with credit portfolio management. As concerns private sector crediting and households Bulgaria ranked second after Croatia.

Table 1.3: Foreign banks penetration and credit performance in Croatia

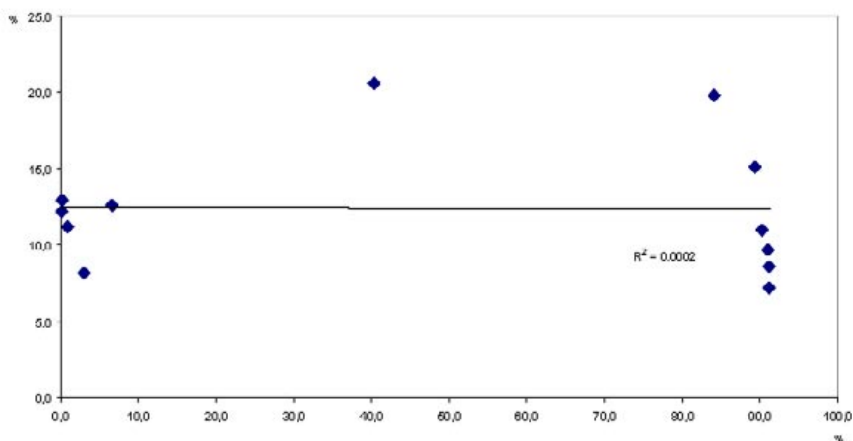
Croatia	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks (foreign-owned)	54 (1)	58 (4)	61 (7)	60 (10)	53 (13)	43 (21)	43 (24)	46 (23)	41 (19)	37 (15)	34 (13)
Asset share of state-owned banks (in per cent)	51,9	36,2	32,6	37,5	39,8	5,7	5,0	4,0	3,4	3,3	3,4
Asset share of foreign-owned banks (in per cent)	0,2	0,9	3,0	6,6	40,3	84,1	89,3	90,2	91,0	91,2	91,2
Non-performing loans (in per cent of total loans)	12,9	11,2	8,2	12,6	20,6	19,8	15,1	11,0	9,7	8,6	7,2
Domestic credit to private sector (in per cent of GDP)	22,9	21,4	25,3	26,6	22,1	36,0	41,3	49,7	52,6	55,8	55,6
Domestic credit to households (in per cent of GDP)	4,8	6,1	10,3	12,9	13,6	15,3	18,2	23,8	27,7	30,7	34,3

Source: EBRD, Transition report 2006: Finance in transition, November 2006

Croatia undoubtedly surpasses the other 5 countries based on a comprehensive estimate as per the criteria selected. Like Bulgaria, the development of its banking sector is not characterized by abrupt changes and it is a smooth and sustainable process of development. The average percentage of non-performing loans for the above period was 12,44%, while in 2005 it fell to 7,2%. With regard to the crediting of private sector and households Croatia exceeds in times the other 5 countries SEE. The domestic credit to private sector (in per cent of GDP) in 2005 reached 55,6% with 115% for EU. During the same year the domestic credit to households in per cent of GDP amounted to 34,3% with a 7,16% average rate for the other 5 countries and an average level of 53% for EU.

Figure 1.4: Asset share of foreign-owned banks versus non-performing loans in Croatia

ASSET SHARE OF FOREIGN OWNED BANKS VERSUS NON PERFORMING LOANS IN CROATIA
1994-2004



The banking sector reform process in Macedonia has not concluded yet and at present it is characterized by a lower degree of foreign banks' incursion into this country. By the end of 2005 foreign banks represented barely one-third of all banks in Macedonia, and the asset share of state-owned banks amounted to 51.3% by the end of 2005.

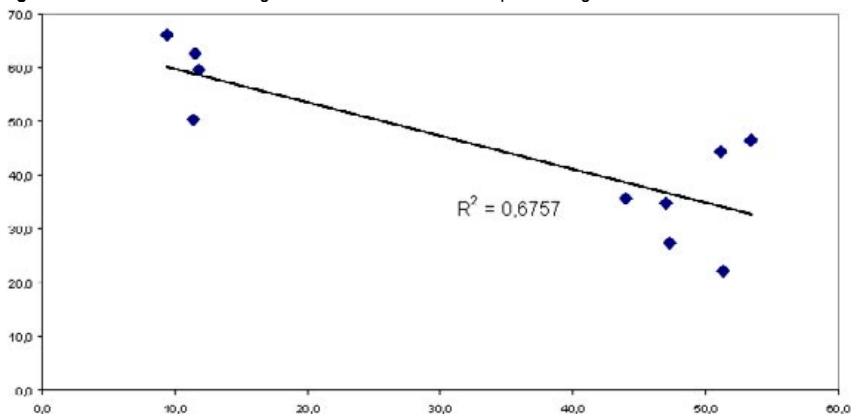
Table 1.4: Foreign banks penetration and credit performance in Macedonia

Macedonia	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks (foreign-owned)	6 (3)	22 (5)	22 (5)	24 (6)	23 (5)	22 (7)	21 (8)	20 (7)	21 (8)	21 (8)	20 (8)
Asset share of state-owned banks (in per cent)	na	0,0	0,0	1,4	2,5	1,1	1,3	2,0	1,8	1,9	1,6
Asset share of foreign-owned banks (in per cent)	na	9,4	11,8	11,4	11,5	53,4	51,1	44,0	47,0	47,3	51,3
Non-performing loans (in per cent of total loans)	na	66,1	59,5	50,3	62,6	46,5	44,4	35,7	34,9	27,5	22,2
Domestic credit to private sector (in per cent of GDP)	23,1	26,5	27,3	17,7	10,4	10,5	12,7	14,6	16,0	19,4	21,7
Domestic credit to households (in per cent of GDP)	1,1	1,0	1,3	1,2	1,2	1,6	1,7	2,4	4,0	6,3	8,8

Source: EBRD, Transition report 2006: Finance in transition, November 2006

The average amount of non-performing loans for the 11-year period under examination amounts to 44,97%, while for the last 5 years there has been a trend of decrease, but notwithstanding, at present the banks performing in Macedonia have one of the worst credit managements commensurable with that of Serbia only.

Figure 1.5: Asset share of foreign-owned banks versus non-performing loans in Macedonia



The Romanian banking sector is characterized by relatively low levels of foreign banks' penetration. By the end of 2005 foreign banks represented 72,72% of all banks in Romania and the asset share of foreign-owned banks amounted to 59,2%. With regard to the examined period the Romanian banks' credit management showed a qualitative change following the year 1999, when the percentage of non-performing loans diminished repeatedly. For the period 1995-1999 the average amount of non-performing loans was 47,26%, while for the last 6 years it has amounted to 5,3%, which indicates good credit management performance. However, during the above period the funding of the private sector and the households remains very low and almost without any change.

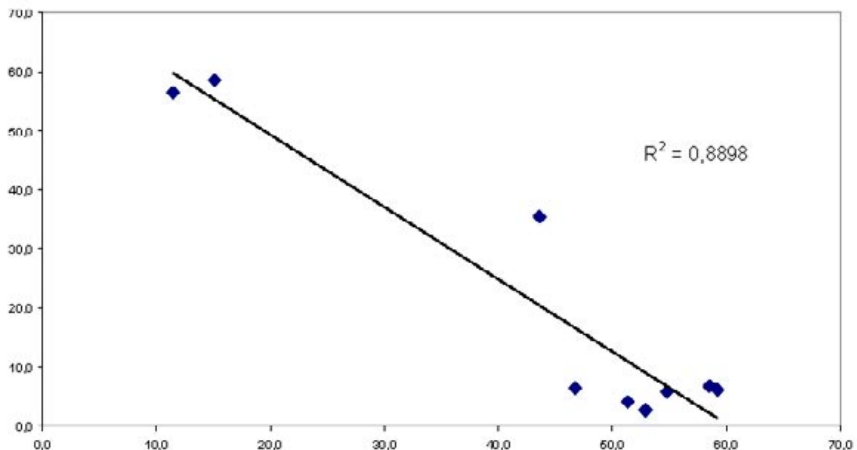
Table 1.5: Foreign banks penetration and credit performance in Romania

Romania	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks (foreign-owned)	24 (8)	31 (10)	33 (13)	36 (16)	34 (19)	33 (21)	33 (24)	31 (24)	30 (21)	32 (23)	33 (24)
Asset share of state-owned banks (in per cent)	84,3	80,9	80,0	75,3	50,3	50,0	45,4	43,6	40,6	7,5	6,5
Asset share of foreign-owned banks (in per cent)	na	na	11,5	15,1	43,6	46,7	51,4	52,9	54,8	58,5	59,2
Non-performing loans (in per cent of total loans)	37,9	48,0	56,5	58,5	35,4	6,4	4,1	2,7	5,7	6,8	6,1
Domestic credit to private sector (in per cent of GDP)	7,8	11,5	8,4	11,6	8,1	7,2	7,7	8,3	9,1	9,7	10,2
Domestic credit to households (in per cent of GDP)	na	na	na	na	na	na	na	na	3,8	4,8	7,3

Source: EBRD, Transition report 2006: Finance in transition, November 2006

The average amount of domestic credit to private sector (in per cent of GDP) for the 11-year period amounts to 9,05%, and the amount of Domestic credit to households (in per cent of GDP) for 2005 amounted to 7,3% with 53% for EU. The examined period 1995-2005 shows an interesting strong negative linear dependency between the asset share of foreign-owned banks and non-performing loans in Romania.

Figure 1.6: Asset share of foreign-owned banks versus non-performing loans in Romania



The value coefficient of determination is 0,8898 and the coefficient of correlation is 0,94. It denotes that during the scrutinized period, when there is an increase of the asset share of foreign-owned banks, there is a decrease of the non-performing loans in Romania, i.e. one can make the conclusion that the penetration of foreign capital in the banking sector of the country had a substantial positive impact on credit management.

In Serbia, similarly to Macedonia, the banking sector reform process has not concluded yet and at present it features a lower degree of penetration of foreign banks into the country. By the end of 2005 foreign banks represented 42,5% of all the banks in Serbia and the asset share of state-owned banks amounted to 66%. Unlike the other 5 analyzed SEE countries, the Serbian banking system does not show any signs of improvement with regard to its credit management performance and the percentage of non-performing loans in the credit portfolios of commercial banks continues to be high. The average amount of non-performing loans for the last 6 years has been 24,63%.

In view of the indicators of the domestic credit to private sector и domestic credit to households Serbia has one of the lowest percentages in Europe and it is positioned lowest along with Albania

Table 1.6: Foreign banks penetration and credit performance in Serbia

Serbia	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks (foreign-owned)	112 (3)	103 (3)	106 (3)	104 (3)	75 (3)	81 (3)	54 (8)	50 (12)	47 (16)	43 (11)	40 (17)
Asset share of state-owned banks (in per cent)	94,7	92,0	89,8	90,0	89,0	90,9	68,0	35,6	34,1	23,4	23,9
Asset share of foreign-owned banks (in per cent)	0,2	0,2	0,6	0,5	0,4	0,5	13,2	27,0	38,4	37,7	66,0
Non-performing loans (in per cent of total loans)	na	na	na	na	na	24,9	24,4	28,5	23,8	22,4	23,8
Domestic credit to private sector (in per cent of GDP)	na	9,2	10,8	11,2	9,8	8,2	6,1	na	na	na	na
Domestic credit to households (in per cent of GDP)	na	na	na	na	na	na	na	na	2,6	4,9	7,6

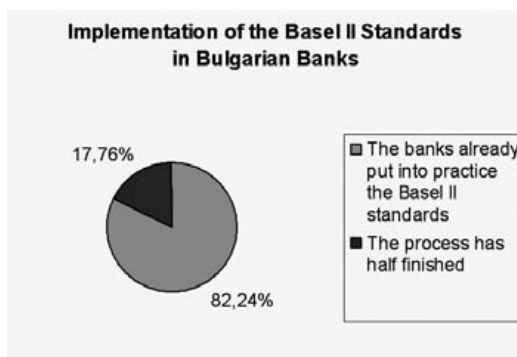
Source: EBRD, *Transition report 2006: Finance in transition*, November 2006

2. Systems for credit risk management in Bulgaria and Romania

Risk management strengthens its position as one of the dominant field of financial management. It comes from the modern reality where the integration of financial markets and the high level of competition require precise measures of losses. It concerns to a great extent such important bank activity as the credit portfolio management.

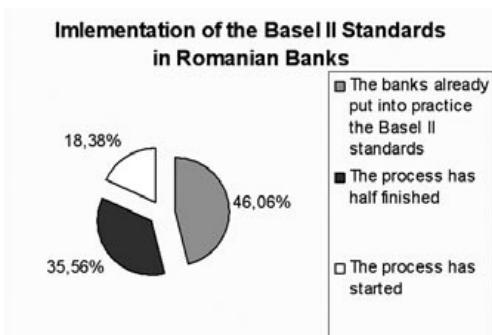
The rapid credit growth in Bulgaria and Romania during the past years forces banks to use quantitative, cheap and unbiased methods for estimating and forecasting the credit risk. The credit scoring methodology satisfies the above-stated requirements. It achieves increasing popularity among the financial institutions in the leading countries. The foreign banks have a long practice in the implementing of such advanced systems. The using of credit scoring gives banks certain advantages as reducing expenditures for lending, administrating and credit control. It makes the loans cheaper and more accessible to individuals and companies. So under equal other conditions the scoring systems encourage the solvent demand and raise the living standard of the population (Weisman 2003). Credit scoring gains importance to the bank management practice in view of implementing the New Basel Capital Accord (Basle Committee on Banking Supervision 2001; Komorad 2002). The Basel II focuses on approaches that allow banks and supervisors to evaluate properly the various risks that banks face. The Basle Committee on Banking Supervision recommends that banks use the Internal Ratings-Based Approach (IRB) in the credit risk evaluation. Thus in the retail banking credit scoring becomes a basic methodology of the internal assessment process of the credit institution.

Figure 2.1: Implementation of the Basle II Standards in Bulgarian banks



In this paragraph an attempt is made to estimate the current status of the risk management practices and readiness for implementation of Basel II standards in the banking systems of Bulgaria and Romania based on expert judgment. To this end questionnaires were sent to the corresponding departments of all 68 commercial banks in both countries. Filled in questionnaires were sent back by 23 Bulgarian (out of a total of 31) and 26 Romanian (out of a total of 37) commercial banks, correspondingly. Respectively the share of foreign-owned banks is 82,6% of a total responded banks in Bulgaria and 76,9% out of total responded banks in Romania. We must lay stress on the fact that the results of the study are based on the self-evaluation of the relevant commercial banks regarding specified criteria related to credit management practices.

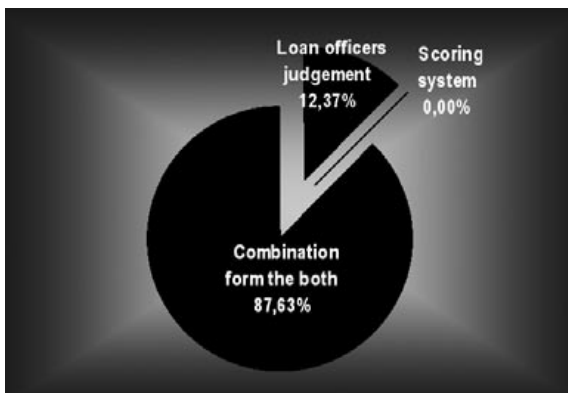
Figure 2.2: Implementation of the Basle II Standards in Romanian banks



According to the risk managers' answers from both countries Bulgarian banks seem to be more advanced in the implementation process than the Romanian ones. 82,24% of the Bulgarian banks against 46,06% of the Romanian ones claim to be already applying in their practices the Basle II Standards. With 18,38% of the Romanian banks the process is still at an early stage, which indicates a certain delay.

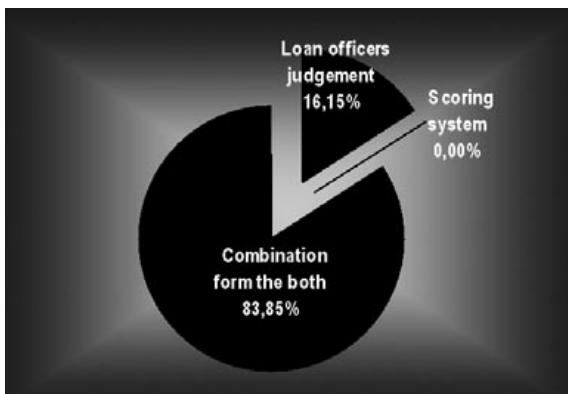
The banking sector in Bulgaria and Romania shows much similarity in the methods used in the process of credit decision making. The prevailing portion of the banks in both countries uses as the main credit analysis and decision-making method a combination of loan officers' judgment and scoring system.

Figure 2.3: Methods used in credit granting process in Bulgarian banks



The lack of an independent utilization of scoring systems shows the fact that the banks are now not capable of creating reliable models having an acceptable prognostic accuracy. The amount of commercial banks' credit losses and the credit portfolio quality are directly dependent on the accuracy of the scoring system implementation.

Figure 2.4: Methods used in credit granting process in Romanian banks



Typically, with the European bank institutions the scoring systems are most successfully and independently used in the credit card industry. They are most widely used in managing existing accounts, particularly with revolving credits to determine: credit limits, renewals, authorizations, collections, fraud potential,

cross-selling, etc. (Liu 2001). In this case scoring systems demonstrate an excellent suitability and allow for an almost complete automation of the process. But obviously in both neighboring SEE countries the designers of banking scoring systems have yet to overcome serious technical problems and there is not yet an automated system created in either of them.

Figure 2.5: Credit scoring applications in the Bulgarian banks

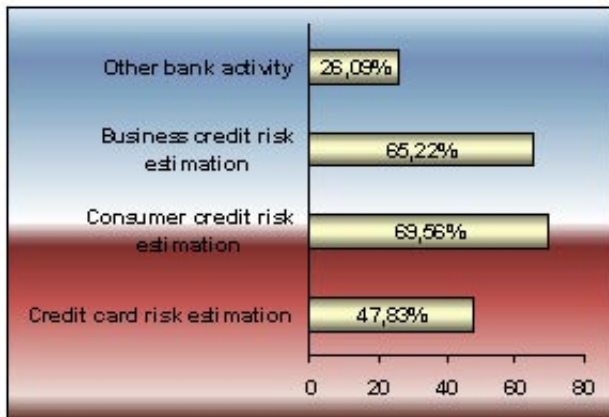
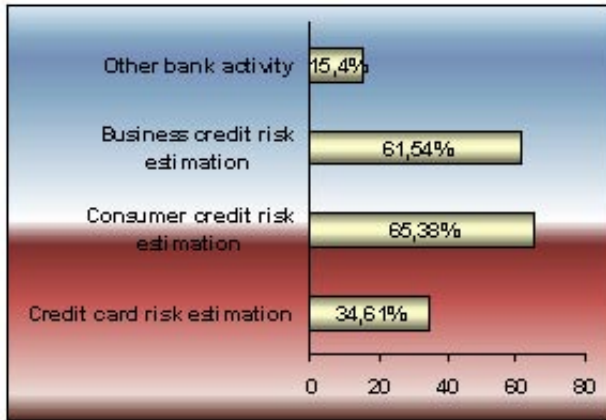


Figure 2.5 and Figure 2.6 show the degree of utilization of credit scoring technologies in the banking industry of both countries. Here one can also perceive a strong similarity with regard to the field of application as well as to the percentage of banks using the relevant credit scoring method. Business credit risk, consumer industry and credit card management are the key application lines of scoring technology in the banking practices of Bulgaria and Romania.

At present credit scoring technology is implemented mostly in consumer credit industry. 69,56% of the Bulgarian banks and 65,38% of the Romanian ones, correspondingly utilize scoring systems when managing their consumer credit portfolio. When crediting physical bodies credit scoring is most often used for evaluating new applicants, post-evaluating risk and forecasting.

Figure 2.6: Credit scoring applications in the Romanian banks



Business credit management is the second field of application frequency, where the banks in the two neighboring Balkan countries apply the quantitative evaluation of the scoring technology. At the present stage even in countries having traditions in the utilization of scoring systems there are technical problems and the scoring evaluation accuracy is behind what is aimed for owing to the substantial heterogeneity of firms' empirical data (Jalal Akhavein, W. Scott Frame, and Lawrence J. White 2001).

In countries with developed banking systems credit cards are the dominant field of scoring technology application (Dunn Lucia F., Tae Hyung Kim 1999; Komorad 2002). However, owing to the still underdeveloped credit card market in Bulgaria and Romania the scoring systems in this realm are far from their potetial capacity.

Figure 2.7: Importance of the risk management for the Bulgarian and Romanian banks prosperity

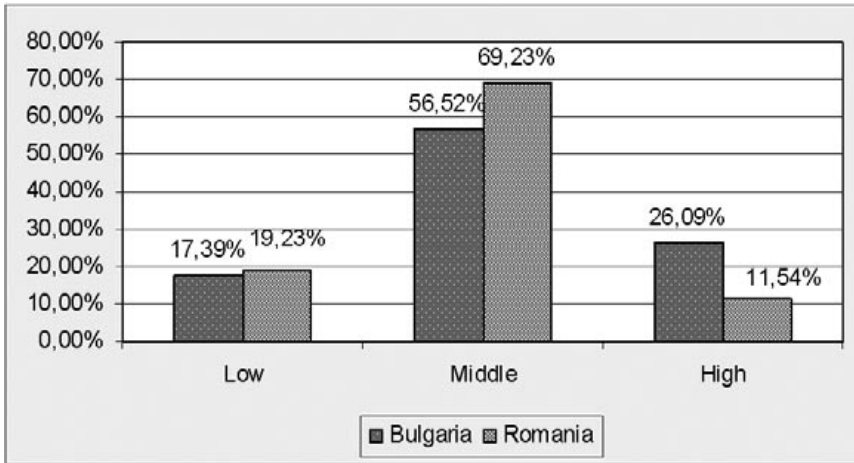


Figure 2.7 shows the significance of risk management for banks' prosperity in Bulgaria and Romania. Personnel appointed by the banks themselves had to point out the significance of the risk management department. At present risk management is a leading segment of the banking systems' financial management of developed countries. The considerable similarity found in the answers of the bank personnel in both countries indicates that risk management and forecast is not yet as significant for the banking practices in the above countries as it is with the leading banks worldwide.

3. Analysis of the bank information database in the Bulgarian and Romanian banks

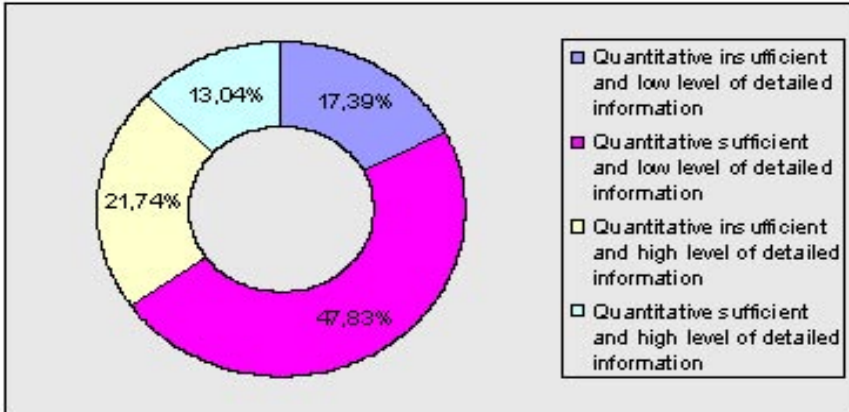
The majority of banks are making substantial investments in improving their customer information files and creating databases. The business of financial data and information is changing drastically in the latest years. New competitors and customer-orientated products are making it more important than ever. The bank management takes advantages of data mining techniques to make effective business decisions (Mays 2000).

Information database quality of the Bulgarian and Rumanian banks is still far from the standards in the leading countries. Most of the banks are operating in an environment where there is shortage or no information for the economical

agents. Such an environment is suitable only for a high risk capital. Business information has a huge power capable to change the economical environment. Availability of a reliable, objective and accessible to all information about the customer payment history is extremely valuable for the banks.

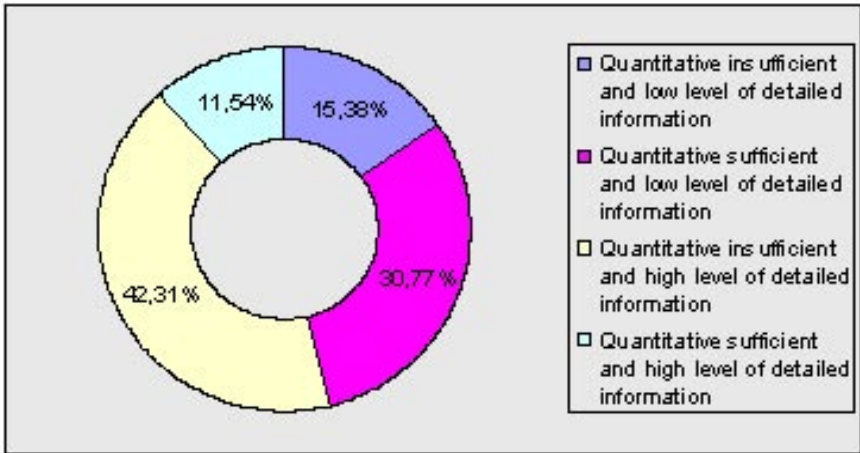
In this section we will analyze the existing databases of the Bulgarian and Romanian banks in the beginning of EU accession. Currently, both the Bulgarian and Romanian banks maintain some kind of internal information database. The common ground between them is the fact, that only for a small percentage of the banks, the database available is in line with the new banking challenges and allows for the conducting of a quality risk management. As per risk managers' estimates barely 13,04 % of the Bulgarian banks against 11,54% of the Romanian ones have at their disposal quantitative sufficient bases with high level of detailed information. The support of this type of base is the + condition for the creation of models for qualitative risk evaluation. As of now the commercial banks in both countries face difficulties creating such models owing to the lack of relevant empirical data.

Figure 3.1: Quality of the exiting data base in Bulgarian banks



The provision of an internal banking database with all the necessary information requires a technological period of a minimum of 2-3 years. In Bulgaria nearly half of the banks (47,83%) now possess a qualitatively sufficient database at a low level of specificity. This means that the greater part of the Bulgarian commercial banks have not adjusted their databases to the new conditions and are still using obsolete databases, irrelevant to data mining.

Figure 3.2: Quality of the exiting data base in Romanian banks



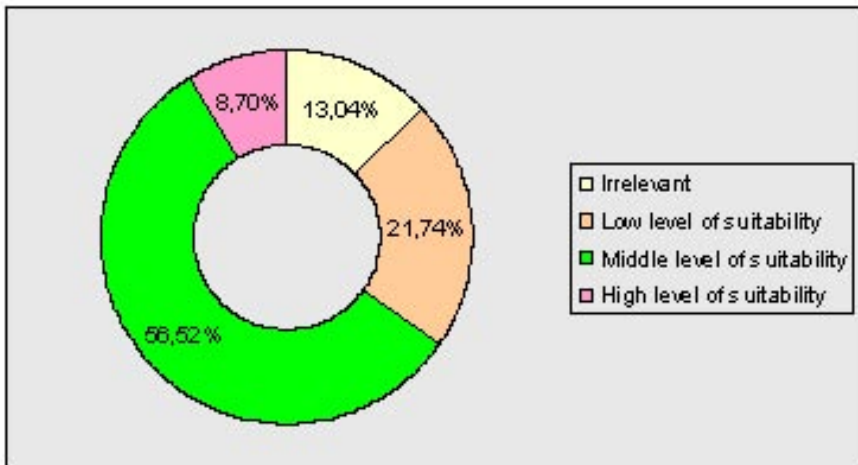
The greater part of the Romanian banks is more advanced in the way of reform. About 42,31% of the Romanian banks against 21,74% of the Bulgarian ones have a database, which is at a higher level of information particularity, but not yet sufficient from a quality perspective. This means that approximately half of the Romanian banks have initiated the creation of a qualitatively new type of data capacity, which is suited to credit risk qualitative evaluations, marketing goals, etc.

When developing new databases it is necessary for one to overcome certain lapses and flaws of the hitherto existing bank organization. The main problems facing the major part of the banking sector in both neighboring countries could be summarized in several directions.

The first significant defect is related to **the particularity and informational value of data**. In comparison with the developed countries' banks with a significant percentage of Bulgarian and Romanian banks there is a lack of detailed information on the customers regarding the various types of transactions. The lapses

are with regard to data characterizing the behavior of the physical person as a bank customer /mainly their payment history/ as well as regarding socio-demographic, ethnic, criminal record, etc. For example, as of now a vast percentage of the banks in both countries do not collect information on important predictors such as: number of former loans; months since the first credit; duration of the longest arrear; number of arrears; number of months on the last job position; function in the office hierarchy /promotions, punishments, appointments, inferiors/; education /type, years, degree/; location of residence /village, small, medium or big town, living in the center of town, in the industrial area or in the suburbs/, living in a house of their own, renting a house, living with parents or on their own; number of years at the last residential address; average balance /remainder/ on savings, deposit and other accounts; average balance on credit/debit card; average percentage of using a revolving credit, etc. The database degree of detailed contents with certain European banks reaches very high informational values /Komorad 2003/¹³⁷

Figure 3.3: Operating effectiveness of the existing database in Bulgarian banks



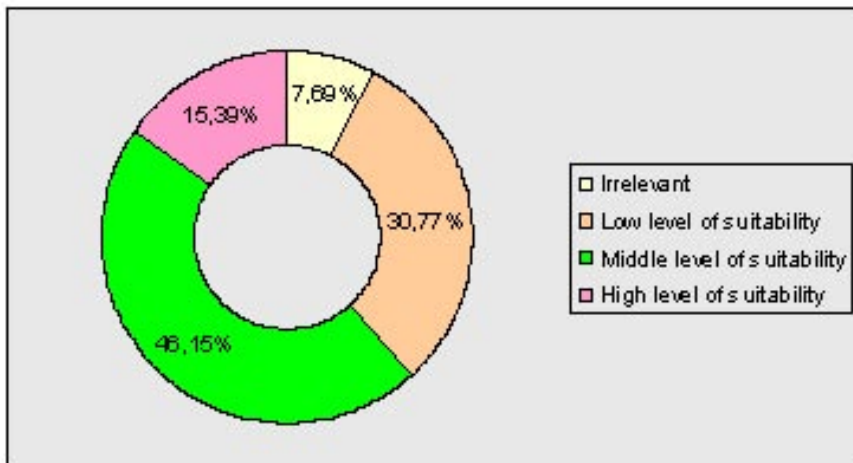
The second critical flaw concerns **the completeness and comprehensiveness of information**. A key issue with developing scoring models for evaluating new customers is the lack of data on refused credit applicants. Banks are not normally interested in credit applicants, who were refused credit and, correspondingly, for such type of customers no data is collected. At the same

¹³⁷ For example, Bundesbank includes approximately 325 000 information units in the initial framework of its scoring models.

time those physical persons though unwelcome by the credit institutions represent a portion of the population residing in the market region, where creditors perform. Owing to the above reason ignoring them has an impact on the representative nature of the sample making it non-representative (Reichert&Cho 1983; Joanes 1993; Hand& Henley 1993; Thomas 2000) The disrupting of its representative character implies that the model would be constructed by using only a part of the empirical data. This results in deviations and deformities of its final parameters and diminishes its forecasting capacity. The lack of data on the credit applicants, who were turned down makes it impossible for the creation of a model for evaluating new applicants.

The third problem is related to **the precision and authenticity** of the collected data. Owing to the lack of institutions analogous to the credit bureaus the capacities of Bulgarian banks to verify the authenticity of the information provided by their customers are gravely restricted. Provided it is eventually possible the verification is quite expensive, labor-consuming and taking time. Often potential credit recipients in view of acquiring the requested credit tend to overstate, diminish or hide certain data of the information required from them.

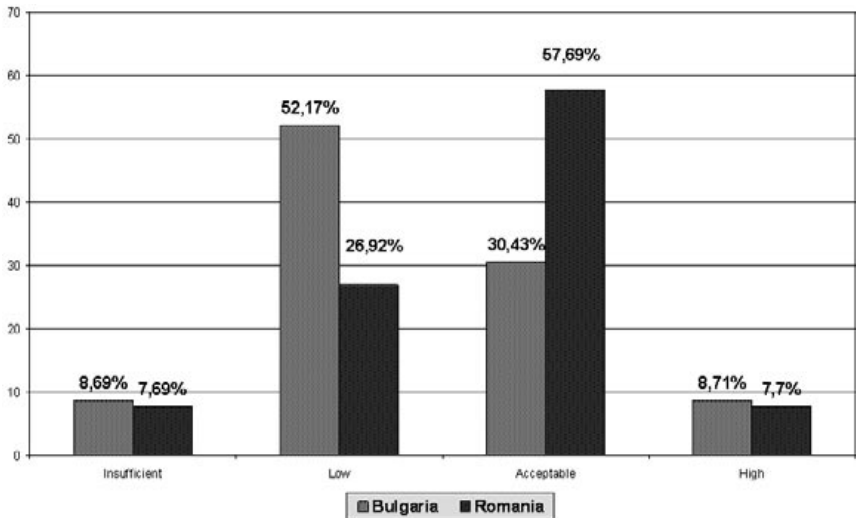
Figure 3.4: Operating effectiveness of the existing database in Rumanian banks



The fourth flaw is of a temporary nature and presupposes its being overcome in the near future. At present it originates from the conservative system of part of the banks performing on the Bulgarian and Romanian financial markets with regard to the **introduction, classification and storage of information**. A considerable portion of the available data is still stored in the form of hard copies and not electronically, which is a crucial lapse of modern banking practices. Electronic information has undoubted leverage in view of extensive capacities for processing, classifying and applying various methods for analyses and evaluations within short time limits. Furthermore, electronic data allow for selecting and processing particular data massifs based on relevant criteria, etc...

The internal database is not always sufficient for the purposes of banking management. Credit bureaus are of the great significance for the information support of the crediting process. The aim of their establishment is to collect, store and provide information regarding the payment and credit history of physical and legal bodies located in a definite geographical region.

Figure 3.5: IT investments in Bulgarian and Romanian



The existence of credit bureaus in SEE was underestimated for a long time basically owing to restricted competition among creditors in the segment of consumer crediting, and concentration of credit resources on the big corporate customers. In the last years the issue of establishing credit offices has gained topicality due to increased crediting and high degree of competition in this sector. Furthermore, with the funding of private consumption banking monopoly was shattered and a great number of leasing companies started to provide products and services by installments.

Table 3.1 The credit bureaus performance in six SEE countries (January 2007)

Country	Operational from	Data sources and users
Albania	Letter of intend, IMF December 2007	-
Bulgaria	in construction	-
Croatia	May 2006	all banks
Macedonia	-	-
Romania	March 2004	95% of banks
Serbia	November 2004	all banks all leasing companies all government agencies and funds a number of traders.

At present credit bureaus are in the process of being set up in Albania and Bulgaria, and in Croatia, Serbia and Romania the process has been completed. In Macedonia things are at their “embryonic” stage. Unfortunately in Bulgaria the initiative being in the hands NGOs, which can only give ideas and make suggestions.¹³⁸

The data collected by the credit bureaus have proven to be very powerful predictors with regard to consumer behavior, arrear probability, insolvency, remainders on the various types of accounts, potential return of the provided financial-credit services, etc... The credit bureaus' information has a powerful prognostic capacity due to the lack of subjectivity; it is based on the actual payment behavior of economic agents, and it is continually updated. It is also extremely diversified owing to the fact that it embraces the available socio-demographic and payment-credit activity of all of the population groups throughout the country. This allows for exploring and modeling customers' behavior on almost all types of credit lines.

¹³⁸ At the turn of 2003 the Market Economy Institute and the Bulgarian-American Investment Fund organized a round table on the topic of “Opportunities for Establishing a Private Credit Office” with the participation of all commercial banks, where representatives of one of the biggest credit offices in USA, Experian, were invited.

The establishing and operating of the credit bureaus is very useful not only for creditors but also for economic development of the whole region. The main advantages of a credit bureau operating **for the creditors** can be summarize in:

- gather empirical information from credit and collector's activity of all types of creditors: commercial banks, leasing companies, telecommunication companies, electro-distribution companies and etc.;
- enable quantitative evaluation of credit risk (lower interest rates due to lower risk)
- the time of request processing significantly reduced and, consequently, the request processing costs;
- enable forecasting debtor's and customer's behavior in different aspects;
- more precise control on installment payments and collections;
- citizens' over-indebtedness prevented;
- enable banks to introduce new products;
- settled obligations from the past;
- improve bank liquidity by precise cash flow forecasting.

From the point of view of borrowers and clients the advantages are: lower rates and charges in crediting; falling of the major part of collaterals; the time of credit processing significantly reduced; the operating of a credit bureau is in interest to clients with good credit history.

From the point of view of the fisc and the business: transparent financial and legal identity for the business; preventing the financial fraud and tax avoidance; coming out the grey sector of the economics; restricting the illegal business of criminal groups.

4. Creating a scoring model using data sample of a Bulgarian bank

The aim of the section 4 is to create a specialized scoring model for credit risk post-evaluation risk. The created model was built by using real data derived from the credit practice of a branch of the Bulgarian Commercial Bank. The sample includes

1200 loans repaid in January 2001- December 2002. The lender does not have data on the rejected applicants, so it is not possible to model pre-evaluation risk.

Table 4.1: Loan distribution in the samples

	Good		Bad	
Construction sample	807	89,67%	93	10,33%
Validation sample	263	87,67%	37	12,33%

For the purpose of building and validating the scoring model the General sample is randomly divided in two parts - Construction sample and Validation sample. The Construction sample amounts to 900 credits or 75% of General sample and Validation sample -300 credits or 25% of all (Table 4.1).

Table 4.2 - Independent variables included in the Logit model:

<i>Numeric variables</i>	<i>Categorical variables</i>
sumc – credit amount	propst – property status
termc – term of credit	sex - borrower's sex
anuity - annuity (instalment)	torv – resident status
maxan – maximum annuity	riskp – risk profile of the firm
netinc – net income	prop – real estate owner
nwarn – number of warrantors	ethnic – ethnical
memfam – members of family	wpay – way of payment
age – borrower's age	storp – economical sector
othc – other credits	ocup - occupation
	famtat – marital status

Depended variable is defined as a dichotomous in the Logit model framework because the purpose is the borrowers to be separated in two groups – “good” and “bad”. The Binary logistic regression has chosen to construct the scoring model because usually the Logit models show best results in predicting credit risk (Thomas 2000). The logistic regression uses the maximum likelihood estimation (MLE), which is an iterative process with 14 iterations in this case.

Table 4.3 - Omnibus Tests of Model Coefficients

Iteration		χ^2	D.f.	Sign.
1	Step	480,8891	30	0,000000
	Model	480,8891	30	0,000000
2	Step	-0,12611	3	0,988529
	Model	480,763	27	0,000000
3	Step	-0,00552	1	0,940757
	Model	480,7575	26	0,000000
4	Step	-0,21124	2	0,899765
	Model	480,5463	24	0,000000
5	Step	-0,02321	1	0,878925
	Model	480,5231	23	0,000000
6	Step	-0,05651	1	0,812100
	Model	480,4665	22	0,000000
7	Step	-0,05407	1	0,816128
	Model	480,4125	21	0,000000
8	Step	-0,15175	1	0,696864
	Model	480,2607	20	0,000000
9	Step	-0,33298	1	0,563909
	Model	479,9277	19	0,000000
10	Step	-0,54717	1	0,459476
	Model	479,3806	18	0,000000
11	Step	-1,30278	2	0,521320
	Model	478,0778	16	0,000000
12	Step	-1,25642	1	0,262330
	Model	476,8214	15	0,000000
13	Step	-5,03778	4	0,283443
	Model	471,7836	11	0,000000
14	Step	-1,67633	1	0,195412
	Model	470,1073	10	0,000000

Backward stepwise logistic regression method utilizes chi-square difference to determine automatically which variables to drop from the model. The χ^2 test represents the analog of the F test in multiple regression (Menard 2002). Significance value of 470, 1073 at the last iteration means the null hypothesis can be rejected and one or more of analyzing factors is differ from null.

Table 4.4 - Model Summary

Iteration	-2 Log likelihood	Cox & Snell R square	Nagelkerke R square
1	117,3335	0,413933	0,852472
2	117,4596	0,413851	0,852303
3	117,4652	0,413847	0,852295
4	117,6764	0,413710	0,852012
5	117,6996	0,413695	0,851981
6	117,7561	0,413658	0,851905
7	117,8102	0,413623	0,851833
8	117,9619	0,413524	0,851629
9	118,2949	0,413307	0,851182
10	118,8421	0,412950	0,850447
11	120,1449	0,412099	0,848696
12	121,4013	0,411278	0,847004
13	126,4391	0,407974	0,840199
14	128,1154	0,406870	0,837926

The Model Summary table shows three measures of how well the logistic regression model fits the data. The - 2LL statistic also called “deviation chi-square” is used for assessing the significance of logistic regression, analogous to the use of the sum of squared errors in OLS regression. The value of 128, 1154 reflects the error associated with the model i.e. unexplained variance in the dependent.

Nagelkerke’s R-Square is a further modification of the Cox and Snell coefficient to assure that it can vary from 0 to 1 (Nagelkerke 1991). The value of 0,8389 for the Nagelkerke R square represents that the Logit model detects about 84% of the factors causing arrears of consumer credits.

Table 4.5. - Classification table of the validation sample

Observed frequency	Predicted frequency		Misclassification in percent	Overall misclassification	
	0	1		in absolute value	in percent
0	256	7	2,6616%	13	
1	6	31	16,2162%	4,33%	

The classification table shows which cases are classified correctly and incorrectly by their predicted values. In a perfect model, all cases will be on the diagonal and the overall percent correct will be 100%. In our case the Logit model classified correctly 256 out of total 263 “good” borrowers and only 7 incorrectly. About “bad” borrowers 31 of 37 are classified correctly and 6 incorrectly.

Table 4.6: Independent variables remaining in the model framework following the 14th iteration

Variable	Logit coefficient (B)	S.E>	Wald	D.F.	Significance	Exp (B)
RISKP			101,7098	4	0,000000	
RISKP(1)	2,820674	0,739935	14,53178	1	0,000138	16,78816
RISKP(2)	3,386351	0,786519	18,53724	1	0,000017	29,55789
RISKP(3)	6,234752	0,852215	53,52293	1	0,000000	510,1741
RISKP(4)	9,29588	0,974609	90,97459	1	0,000000	10893,05
PROP(1)	1,460258	0,615577	5,627221	1	0,017684	4,30707
ETNIC(1)	1,552393	0,886504	3,066494	1	0,079922	4,72276
STORP			4,894481	2	0,086532	
STORP(1)	1,031803	0,59556	3,001534	1	0,083186	2,806122
STORP(2)	-1,00808	1,130967	0,794497	1	0,372744	0,364918
TERMC1	0,191285	0,072782	6,907444	1	0,008584	1,210805
AGE1	-1,0185	0,330183	9,515063	1	0,002038	0,361137
Constant	-3,49372	2,461094	2,015212	1	0,155729	0,030387

The following independent variables remain in the final model framework: “enterprise’s risk profile”, “ownership of real estate”, “ethnic affiliation”, “economic sector”, “credit time limit”, and “credit recipient’s age”. Those variables represent the risk factors contributing to about 84% of the dependant variable’s variance. In other words, the alluded to six factors in 84 per cent of the cases account for the causes of arrears over 10 days on consumer credits. The tow last bars provide an opportunity for analyzing the risk factors, and for laying down conclusions regarding their impact on arrear probability.

The final results of the constructed Logit model represent the very good performance in forecasting consumer credit risk. The overall misclassification is only 4,33% which means the constructed model is able to discriminate correctly between two groups (bad and good borrowers), 95,67% of all consumer credits.

Conclusion

In the last decades, bank markets in Albania, Bulgaria, Croatia, Macedonia, Romania and Serbia influenced by political changes in the region have undergone a dynamic development. Notwithstanding, they are still far from the indicators of the developing bank markets of the countries from the previous wave of accession and they have a long way to go in order to reach the degree of penetration, typical of the Euro zone countries. The six countries analyzed show an impressive potential for development, which is basically related to the increased demand of consumer and mortgage credits. The low degree of penetration of the total amount of loans in the region lays out the foundations for a vigorous growth of crediting. The main driving forces of this credit growth are the incremental levels of income at hand with a greater number of people in the region due to the continuing economic growth in SEE.

The foreign banks entering was accompanied by high levels of credit growth, which forced the national banks to take a number of restrictive measures to slow down the process. So far, banks in Bulgaria and Romania make decisions for granting credits based on several comparatively simple rules, the stress being laid mainly on the expert judgment of credit specialists. Such judgments normally do not imply a precise quantitative evaluation of credit risk. The banking sector in Bulgaria and Romania indicates much similarity in the methods used in the process of making credit decisions. The prevailing part of the banks in both countries uses as a primary credit analysis and decision-making method a combination of loan officers' judgment and a scoring system.

According to the risk managers' answers from both countries Bulgarian banks seem to be more advanced in the implementation process than Romanian ones.

At present the credit scoring technology finds its widest application in the consumer credit industry. 69,56% of the Bulgarian banks and 65,38% of the

Romanian ones, correspondingly, are using scoring systems with consumer credit portfolio management.

The quality of the Bulgarian and Rumanian banks is still far from the standards in the leading countries. Most of the banks are operating in an environment where there is shortage or no information on the economical agents. The internal database records are not always sufficient for the purposes of scoring modeling. When developing new banking databases the overcoming of certain lapses and flaws in the existing banking organization of both countries is a must.

In section 4 a specialized scoring model was created for credit risk post-evaluation risk. The created model was built by using real data derived from the credit practice of a branch of the Bulgarian Commercial Bank. The final results of the constructed Logit model represent very high level of performance in forecasting consumer credit risk. The overall misclassification is only 4,33%, which means the constructed model is able to discriminate correctly between two groups (bad and good borrowers), i.e. 95,67% of all consumer credits.

References

- Aldrich, J. and Forrest Nelson.** Linear probability, logit and probit models, the Sage series on Quantative Applications in the Social Sciences, paper 45, 1999
- Baesens Bart,** Developing Intelligent Credit-Risk Solution using Neural Network Rules. Extraction and Survival Analysis. Benelux, 2002.
- Barbo B., Teja Laitinen, Kaisa Sere, Michiel van Vezel.** Choosing bankruptcy predictors Using Discriminant Analysis, Logit Analysis, and Genetic Algorithms. Turku Centre for Computer Science, Technical rept N 40, 1996
- Basle Committee on Banking Supervision.** Consultative Document, The Internal Ratings-Based Approach, Bank for International Settlement, Basel, 2001
- Basle Committee on Banking Supervision.** Quantitative Impact Study 3, Technical Guidance, Bank for International Settlement, Basel, October, 2000
- Bridges, S. and R. Disney.** Modelling Consumer Credit and Default: The Research Agenda, Experian Centre for Economic Modelling, University of Nottingham, 2001
- Camoës, F. and Manuela Magalhaes Hill.** Consumer credit scoring models: Does the underlying probability distribution really matters? UNIDE-I.S.C.T.E.-Portugal. 2000

- Camoes F. and Manuela Magalhaes Hill.** Prediction of loan defaults using a credit card scoring model incorporating worthiness. UNIDE-I.S.C.T.E.-Portugal, 2001
- Cook, D., P. Dixon, W. M. Duckworth, M. S. Kaiser, K. Koehler, W. Q. Meeker and W.R. Stephenson.** Binary Response and Logistic Regression Analysis. Part of the Iowa State University NSF/ILI project Beyond Traditional Statistical Methods Copyright, 2000.
- Cramer, J. S.** Scoring bank loans that may go wrong: a case study. Tinbergen Institute Discussion Paper 'H 2000-090/4, Amsterdam, 2000.
- Dickens, M. and Bob Keppler.** Summary on credit application scoring, working paper, The PA Consulting Group, USA, 2000
- Dunn Lucia F., Tae Hyung Kim.** An empirical investigation of credit card default, Working paper, Department of Economics, The Ohio State University, USA, 1999
- Federal Trade Commission.** Prepared statement on credit scoring before the House banking and financial Services Committee, Subcommittee on Financial Institutions and Consumer Credit, Washington D.C, 2000
- Feelders, A. J.** An Overview of Model Based Reject Inference for Credit Scoring. Utrecht University. Institute for Information and Computing Sciences. The Netherlands, 2002
- Friedman, C. and R. Canegemi.** Selecting and evaluating credit risk models, ERisk conference, Standart&Poor's, 2001
- Gentry, J.A., Shaw M.J. & Whitford D.T.** Predicting loan risk with systems that use either probit or an inductive learning approach, Working paper, University of Illinois, 1991
- Gross, D. B. and Nicholas S. Souleles.** An empirical Analysis of personal bankruptcy and delinquency, Financial Institutions Center, The Wharton School, University of Pennsylvania, USA, 1999
- Hand, David J. and Veronica Vinciotti.** Scorecard construction with unbalanced class sizes, Working paper of Department of Mathematics, Imperial College, London, 2002
- Hand David J.,** Measurement and prediction models in consumer Credit, Working paper presented at: Credit Risk Modelling and Decisioning The Wharton School, 2002
- Hand D. J., Henley W. E.,** Can reject inference ever work?, IMA J. Mathematics applied in Business and Industry 5, 1993
- Hosmer, D. W. and Lemeshow S.** Applied logistic regression (2-nd Edition). New York: Wiley, 2000
- International Monetary Fund,** Albania: Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding, January 2007
- Jalal Akhavein, W. Scott Frame, and Lawrence J. White,** The Diffusion of Financial Innova-

- tions: An Examination of the Adoption of Small Business Credit Scoring by Large Banking Organizations, Federal Reserve Bank of Atlanta, Working Paper 2001-9, April 2001
- Joanes, D. N.** Reject inference applied to logistic regression for credit scoring, *IMA J. of Mathematics applied in Business and Industry* 5, 1993
- Johnson, R. W.** Legal, social and economic issues implementing scoring in the US, in *Credit Scoring and Credit Control*, Oxford University Press, Oxford, 1992
- Kang, S. and Kyung-shik Shin.** Customer credit scoring model using analytic hierarchy process, College of Business Administration, Ewha Womans University, Seoul, 2000
- Komorad, K.** Master's Thesis presented to obtain the Master of Science degree: On Credit Scoring Estimation, Institute for Statistics and Econometrics, Humboldt University, Berlin, 2002
- Kraft, H., G. Kroisandt, M. Muller.** Assessing the Discriminatory Power of Credit Scores under Censoring, Fraunhofer Institut für Techno-und Wirtschaftsmathematik, Germany, 2003
- Liu, Y.** New Issues in Credit Scoring Application, Institut für Wirtschaftsinformatik, Abteilung Wirtschaftsinformatik II, Georg-August-Universität Göttingen, 2001
- Liu, Yang.** The evaluation of classification models for credit scoring, Institut für Wirtschaftsinformatik, Abteilung Wirtschaftsinformatik II, Georg-August-Universität Göttingen, Arbeitsbericht Nr. 02/2002
- Mays, E.** Handbook of credit scoring, American Management Association, Glenlake Publishing Company Ltd. 2000.
- Menard, Scott.** Applied logistic regression analysis, 2nd Edition, 2002
- Mingo, J. and Eric Falkenstein.** Internal Credit Risk Rating Systems Must Evolve to Stay Relevant, *Journal of Lending and Credit Risk Management*, April 2000
- Nagelkerke, N. J. D.** A note on a general definition of the coefficient of determination. *Biometrika*, Vol. 78, No. 3: 691-692, 1991
- Oyen, R. Z.** Principles of knowledge discovery in databases, University of Alberta, 1999
- Reichert, A. K., Cho C. Wagner G. M.,** An examination of the conceptual issues involved in developing credit scoring models, *J. Business and Economic Statistics* 1, 1983
- Schreiner, Mark.** A Scoring Model of the Risk of Arrears at a Microfinance Lender in Bolivia, manuscript, Center for Social Development, Washington University in St. Louis, 1999
- Schreiner, Mark.** Benefits and Pitfalls of Statistical Credit Scoring for Microfinance, working paper of Center for Social Development, Washington University in St. Louis, 2000.
- Silva J. M. C. Santos and J. M. R. Murteira.** Estimation of Default Probabilities Using Incomplete Contracts Data, working paper, Universidade de Coimbra, Portugal, 2000

- Srinivasan, V., Y. H. Kim.** Credit granting: a comparative analysis of classification procedures, *Journal of Finance* 42, 1987
- Stanghellini, E.** The use of graphical models in consumer credit scoring, Working paper, Dipartimento di Scienze Statistiche, Università di Perugia, Italy, 1999
- Thomas, L. C., J. Ho, W. T. Scherer.** Time will tell: Behavioural scoring and the dynamics of consumer credit assessment. Department of Business Studies, University of Edinburgh, Edinburgh, 2002.
- Thomas L. C.** A Survey of Credit and Behavioural Scoring: Forecasting financial risk of landing to consumers, working paper series, University of Edinburgh, 2000
- Weisman J.** Credit scoring: Added boost of productivity in small ticket business, *Monitor Leasing&Financial services*, May 2003

<http://artax.karlin.mff.cuni.cz/~komorad/html/onCShtmlframe30.html>

<http://jgap.sourceforge.net/docs/gaintro.html>

www.smalltalkchronicles.net/Tech1-2/tech1-2.html

www.cs.qub.ac.uk/~M.Sullivan/ga/ga3.html

<http://www.pmsi.fr/neurin2a.htm>

<http://stats.ma.ic.ac.uk/creditgroup/Financelist.html>

<http://www.statsoftinc.com/textbook/stcart.html>

<http://www2.chass.ncsu.edu/garson/pa765/discrim.htm>

[http://www.experian-scorex.com/global/products/managing/Documents/Modelling expected default for Basel II.pdf](http://www.experian-scorex.com/global/products/managing/Documents/Modelling_expected_default_for_Basel_II.pdf)

<http://www.gusplc.com/gus/news/experianarchive/experian2003/2003-12-01/>

[http://neibecker.wiwi.uni-karlsruhe.de/breiter/fertig/California/Riverside/index\(444\).htm](http://neibecker.wiwi.uni-karlsruhe.de/breiter/fertig/California/Riverside/index(444).htm)

<http://franklin-grant.ru>

www.tbb.org.tr/turkce/balkan/bukres/Romanian%20Credit%20Bureau.doc

<http://www.imf.org/external/np/ms/2006/110806.htm>

Growth of Banks and Diversification of Bank Services

*Stanislav Valkov*¹³⁹

Introduction

The goal of this paper is to analyze the dynamics of the entry of foreign banks¹⁴⁰ on the banking markets in Bulgaria, Albania, Romania, Serbia, Croatia and Macedonia as well as the increases in the number of ATMs, bank branches and banks offering internet-banking. It is also the goal of this work to assess the link between the process of foreign banks entering the market in each of the above mentioned countries and the improved access of clients to banking services. The entry of foreign banks in the banking business gives consumers better opportunities to use banking products developed by foreign banks. It results from the efforts of foreign banks to enlarge their market shares by offering consumers new services thus satisfying their demand for faster and better access to the services offered. This goal is achieved by both traditional measures like widening the branch network as well as providing access to ATM, banking via the Internet or phone, SMS services etc. Different external and internal factors influence directly and indirectly the entry of new services in each of the six countries. These factors reflect the macroeconomic situation of the country and facilitate or restrict the creation of new services and further development of existing ones through which banks give access to the products they offer. Every bank starting business in a foreign market brings to it its own specific products and innovations and adapts them to the local market depending on the specific economic, political and religious factors that determine its specific features. A conclusion can be made that every bank entering a foreign market aims at to strengthen its influence on a certain group of clients by providing and facilitating the access to its range of products and services.

Foreign banks entering the markets in the above mentioned countries have an already developed management strategy for improving the access to their

¹³⁹ The author thanks Vladimir Spassov for assisting him in collecting information needed for the research.

¹⁴⁰ A bank is classified as a foreign bank if it is in majority foreign ownership (over 50%).

services due to previous experience in other markets. This paper is mainly aimed at showing the changes leading to better access of clients to banking services in Bulgaria, Romania, Albania, Serbia, Macedonia and Croatia in the period 1995-2005, measuring the relation between the number of foreign banks that have entered the banking market and the development of the means of accessing banking services in each country. The correlation method is used to assess the impact of foreign banks entering the market in the above mentioned countries on: 1. The bank branch network expansion in the respective country. 2. The growth of the number of ATM. 3. The growth of the number of banks offering e-banking.

The present paper compares the evaluated characteristics of each of the six countries through the correlation coefficient derived for each of the six countries in order to determine in which of them the entry of foreign banks has influenced most significantly the access of clients to banking services. Upon entering a foreign market the bank management evaluates the potential for economic development of the country. The high correlation between the number of foreign banks and the growth of the number of ATM, branch network and e-banking expansion would show that the foreign banks have contributed to the development of the banking services market.

Albania

At the beginning of the period covering the study, the bank system changed its composition. New private banks incorporated in Albania were introduced. The expansion of the bank system with private banks brought several changes on the bank operation and services.

In 1996 the number of banks reached 8 – 2 more than in 1995 (33.33%) while the number of foreign banks remained unchanged. In 1997 the number of banks in the Republic of Albania continued to grow. The number of banks reached 9 or one more compared to 1996 (12.50%). 6 banks established branches during that period.

During 1998 the Albanian bank system is characterized by the following. The number of foreign banks increased by 5 (166.67%) in comparison with 1997

reaching 8. The number of bank branches reached 39, the increase on the previous year being 33 branches (550.00%). As a result of the increase in the number of foreign banks and bank branches these start opening not only in the capital but in other cities as well.

In 1999, the Supervision Department accomplished a significant amount of work to improve existing regulations and to introduce new ones. All such regulations are totally in line with Basle Committee's principles for an effective bank supervision. They influenced the process of increasing of the number of banks which continued to grow in 1999 and reached 13. At the end of 1999 the number of foreign banks reached 11 thus increasing by 2 (5.13%) on the preceding year.

The number of banks and branches of foreign banks in Albania continued to be 13 during 2000. There were no new banks opened; however, existing banks increased their number of branches, expanding their branch network all over the country. In 2000 the one bank was privatized and became a foreign bank. The same year the first ATM was installed following the implementation of a SWIFT system.

In 2001 the Albanian bank system remains the largest and the most developed segment of the Albanian financial market. In spite of little market share compared with that of other financial services regulated by law, it grew during the year 2001. In the future this market share will move in favor of bank system and as a result its impact on the general stability of financial markets will be increased.

In 2001, there were no structural changes in the bank system. The banks have concentrated their activity mainly in the capital city, 3 private banks however extended their network via branches and agencies in other cities. The number of branches increased by 21 (46.67%) compared to 2000 year to reach 66. Even by the end of 2002, the banking market consists of 13 banks. In 2002 banks expand their activity network by means of new branches, some of which presented new products, such as: ATM, credit cards, deposit certificates, consumer credit, forward contracts, etc. During 2002, 8 branches of banks were introduced. The number of ATM increased by 23 and reached 26 at the end of the year (766.67%).

The banking market presented significant developments during 2003, well-supported by a good macroeconomic environment. The entry of two new banks and the one bank was privatized from a investor.. In 2003 there were already 74 ATMs, an increase of 184.62% on 2002. The number of bank branches almost doubled compared to 2002 to reach 161. The year 2003 has been characterized by improved information and communication technology utilized by the bank system. Banks have advanced some of their existing programs or have acquired new ones. These programs enable a more efficient use of the banking accounting methods and initiate new services, such as e-banking.

End of 2004, the Albanian bank system was composed of 16 banks, compared to 15 banks in 2003. One of the characteristics of the Albanian bank system in 2004 was the expansion of banks' network throughout the Republic of Albania. The new branches were located not only in the main cities, but also in smaller cities and towns. Automated teller machines (ATM-s) were introduced in the market as a new banking product 4 years ago. Banks have installed ATM-s in capital city and other main cities. Only in 2004, the number of ATM-s increased from 74 to 222, while the number of debit and even credit cards increased from 7,260 to 34,090.

In 2005 the number of banks remained the same as in 2004, but the bank system underwent a network extension within the territory of the country. A considerable number of branches were opened in small towns, indicating that an ever increasing part of the population is being covered by banking services.

Automated teller machines (ATMs) underwent further development over 2005. Most of banks installed ATM-s in the capital city and in other main cities. Both the number of ATMs and of their users increased from about 34,090 to about 225,900 users. ATMs utilize debit cards, but credit cards are being largely used as well. Both, "Visa" and "MasterCard" are present in Albania, and most of the banks are members of one or the other. The service of e-banking transactions as a banking product appeared in 2003, but it has not recorded the required level of acknowledgement and use by the public. Until the end of 2005, two banks have offered this service for clients (mainly businesses) for carrying out transfers, various payments, etc. Some other banks have planned to provide this service during 2006.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks	6	8	9	10	13	13	13	13	15	16	16
Number of foreign banks	3	3	3	8	11	12	12	12	13	14	14
Number of ATMs	*	*	*	*	*	1	3	26	74	222	266
Number of branches	*	*	6	39	41	45	66	74	161	188	242
Number of the bank with e-banking	*	*	*	*	*	*	*	*	1	1	2

Source: Bank of Albania

On the basis of this data a regression model describing the increase of the number of foreign banks as a function of the number of bank branches can be derived.

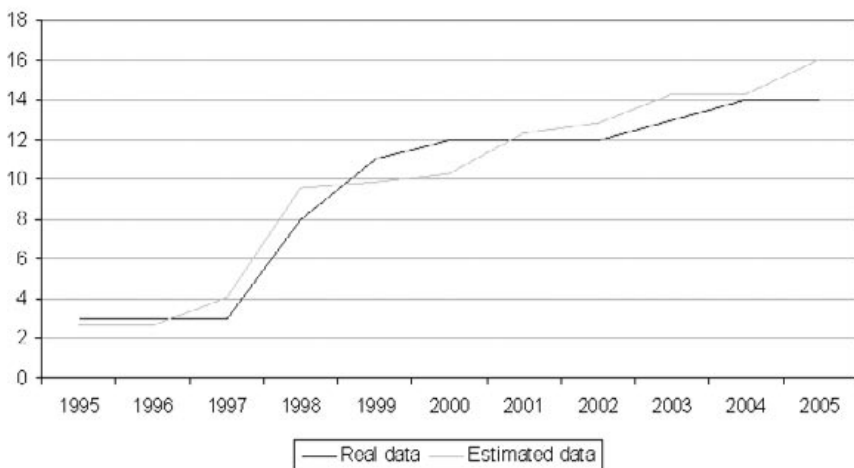
$$Y_t = 2.6981 + 0.2307br_t - 0.0015br_t^2 + (3.2E - 06)br_t^3$$

Where:

Y_t - number of foreign banks in year t;

br_t - number of bank branches in year t;

The number of foreign banks in Albania



The link between the variables:

- Number of ATM;
- Number of bank branches;
- Number of banks offering internet-banking;
- Number of foreign banks in the country.

can be described in a correlation model that measures the interaction between them.

$$r = \frac{\sum_1^t (\theta_t - \bar{\theta})(y_t - \bar{y})}{\sqrt{\sum_1^t (\theta_t - \bar{\theta})^2 \sum_1^t (y_t - \bar{y})^2}}$$

where:

r - correlation coefficient;

θ_t - variable of bank branches, number of ATMs, number of banks offering internet banking during year t ;

$\bar{\theta}$ - average number of bank branches, average number of ATMs, average number of banks offering internet-banking;

y_t - number of foreign banks in year t ;

\bar{y} - average number of foreign banks;

The entry of foreign banks had least impact on internet-banking services while it most strongly influenced the expansion of the network of bank branches. The impact of foreign banks on the number of bank branches is obvious from the correlation coefficient – 0.781. Influence on the development of the internet-banking services and the number of ATM was substantial as well. The two respective correlation coefficients were 0.554 and 0.572.

Bulgaria

At the beginning of the observed period a tendency towards worsening of the situation in the Bulgarian bank system have already been present for several years the main expression of which was the growing share of bad loans. Despite that Law on Concerning Non-performing Loans was enacted in 1994, the expected outcome was not achieved. That is why the CAMEL was tested and the bank licensing procedure was modified towards more restrictions. At that moment the bank system in Bulgaria consisted of 45 banks.

In 1996 due to the worsening of the economic climate in the country a bank crisis took place. The central bank started refinancing 14 of already 49 banks. Despite the unfavourable conditions bank branches increased by 168 (133.33%). The hyperinflation of end-1996 and the beginning of 1997 led to a massive bank crisis and decapitalization of the bank system which became a transmission mechanism through which the losses of the real sector were transferred to the households. Because of the low effectiveness of the bank supervision in Bulgaria bad loans were accumulated even in the newly created private banks. A decision was found in the introduction of the currency board arrangement. The results of this arrangement started being visible at the end of 1997. The bank system consisted of 34 banks or 15 less than in the previous year. However the number of foreign banks increased by 28.57% on the previous year reaching 9 banks. Despite the crisis bank branches increased by 15.56%. There were 118 ATMs.

In 1998 the bank system was influenced by two events – the implementation of the International Accounting Standards and the tightening of the supervision and capital requirements. The privatization of the state-owned banks led to an 88.89% growth of the number of foreign banks. In absolute terms this represented an increase by 8 foreign banks (of 17 as whole). ATMs grew to 162 and bank branches increased to 586.

The speeding of the privatization process led to a substantial increase in foreign investments on the banking market. The positive effect of the currency board was more and more evident through the increasing number of bank branches and ATMs. At the end of 1999 the bank system consisted of 35

banks or one more than in the previous year. Foreign banks reached the number of 22, which represented a 22.41% growth in comparison to 1998. As of end-1999 there were 279 ATMs or 117 (72.22%) more than in 1998. Households tended still to refrain from using bank services because of the lack of confidence in the stability of banks.

The year 2000 brought a change in the ownership structure of the bank system. Three banks were privatized bringing the number of foreign banks to 25. additional 141 ATMs (50.54%) became operational, with their total number growing rapidly to 420. Bank branches increased to 640 though still under the numbers of 1997. One bank offered access to internet-banking, however restricted to a few of its corporate clients. In 2001 the number of banks in Bulgaria increased to 36 because of the entry of one foreign bank (a 4.00% increase). ATMs grew by almost 52.85% (to 642) in comparison to the previous year. Bank branches increased by 30 to 670 (by 4.69%) in comparison to the previous year. Four banks were offering internet-banking targeted towards corporate clients.

In 2002 the number of foreign banks remained unchanged and the number of branches grew by just 11 reaching 681 (an increase by 1.64%). The number of ATMs continued to grow, reaching 187 (an increase by 29.12% to the previous year) reaching 829 at the end of the year. Some banks started for the first time offering internet-banking as a part of their retail business. At the end of the year 7 banks in total, 3 more (or an increase by 75.00% than the previous year) had internet-banking services.

In 2003 there were no changes in the total number of banks. ATMs grew steadily on 2002 and at the end of the year reached 1222 or 47.41% more. Bank branches reached their peak since 1998 – 692. Banks offering internet-banking doubled to 14. In 2004 there were still 35 banks – the same number as in the previous year. The growth of ATMs kept its pace and at the end of the year it reached 2007 which represented a 64.24% increase or 785 more ATMs than in 2003. The number of bank branches decreased by 40. Banks offering internet-banking increased by 50% to 21. During 2005 a foreign banks and a branches of a foreign bank merged thus bringing the number of banks to 34. Bank branches decreased as well by 7 to 645. ATMs

however continued to increase their numbers and as of end-2005 there were 2279 (13.55%) ATMs. There were already 26 banks offering internet-banking or 5 (23.81%) more than in 2004.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks	45	49	34	34	35	35	36	35	35	35	34
Number of foreign banks	3	7	9	17	22	25	26	26	25	24	23
Number of ATMs	*	*	118	162	279	420	642	829	1222	2007	2279
Number of branches	507	675	780	586	593	640	670	681	692	652	645
Number of the bank with e-banking	*	*	*	*	*	1	4	7	14	21	26

Source: BNB, ECB

On the basis of this data a regression model describing the increase of the number of foreign banks as a function of the number of bank branches can be derived.

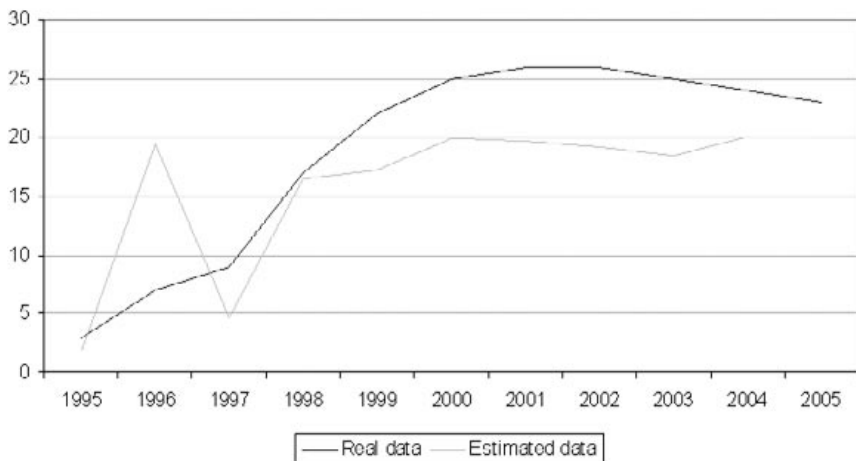
$$Y_t = 359.5 + 1.1689br_t - 0.0009br_t^2$$

Where:

Y_t - number of foreign banks in year t;

br_t - number of bank branches in year t;

The number of foreign banks in Bulgaria



The link between the variables:

- Number of ATM;
- Number of bank branches;
- Number of banks offering internet-banking;
- Number of foreign banks in the country.

can be described in a correlation model that measures the interaction between them.

$$r = \frac{\sum_1^t (\theta_t - \bar{\theta})(y_t - \bar{y})}{\sqrt{\sum_1^t (\theta_t - \bar{\theta})^2 \sum_1^t (y_t - \bar{y})^2}}$$

r - correlation coefficient;

θ_t - variable of bank branches, number of ATMs, number of banks offering internet banking during year t ;

$\bar{\theta}$ - average number of bank branches, average number of ATMs, average number of banks offering internet-banking;

y_t - number of foreign banks in year t ;

\bar{y} - average number of foreign banks;

The entry of foreign banks in Bulgaria had least influence on the number of branches while it had the strongest impact on the increase of the ATMs. The correlation coefficient showed a weak link between the number of foreign banks and the number of bank branches – 0.199. Moderate correlation with the number of banks offering internet-banking was measured – 0.484. The correlation with the number of ATMs was high – 0.591.

Croatia

At the end of 1995 the Croatian bank system consisted of 54 banks of which only one was property of non-residents. There were 512 bank branches. In 1996 the number of banks in Croatia grew by 4 to 58. All four banks were property of foreign entities. The branch network expanded significantly and the total number of branches increased by 170 (33.20%) to 682. In 1997 the first statistics on the number of ATMs was collected in Croatia. At the end of the year there were 221 ATMs. Two foreign banks stepped on the Croatian market bringing the total number of banks up to 60 and leading to increase in the number of bank branches. However the growth rate of the branch network slowed down (14.96% compared to 1997) despite the increasing number of banks.

In 1998 there the total number of banks remained 60. However 3 banks were privatized by foreign investors thus bringing the number of foreign banks up. The tendency towards slowing of the growth rate of the branch network persisted and at the end of the year the number of branches was 813 or 29 (3.70%) more compared to end 1997. In contrast to this the number of ATMs grew by 42.86%.

At the end of 1999 banks in Croatia were reduced to 53 which represented a decrease of 7 banks on 1998. However the number of foreign banks continued to grow despite that and as of end 1999 there were 3 (30.00%) more foreign banks than at end 1998. In 1999 the number of ATMs almost doubled on the previous year (83.51%) to reach 523. The tendency towards slowing the relative growth of the branch network on the previous year was retained and there were only 9 branches (1.11%). For the first time in 1999 one bank began to offer access to its services via internet-banking. By the end of 2000, the banking system of the Republic of Croatia consisted of 44 commercial banks – 9 less than in the previous year. The number of banks was reduced because some banks were bankrupted. However the number of banks in foreign ownership increased from 13 to 20. In 2000 the number of branches was reduced by 66 (8.03 percent). This was the result of the reduction in the number of banks. As regards the ATM network, high growth rates continued. The number of installed ATMs increased by 213 units, or 40.73 % in all counties.

At end of 2001, 43 commercial banks were operating in the Republic of Croatia, one less than the end of 2000. One bank exited the banking system in 2001 because it failed to increase its share capital in accordance with the Banking Law. The number of banks owned predominantly by foreigners increased from 20 to 24. At end of 2001, the number of branches was higher by 67 (8.86%) compared to 2000. During this period, 8 banks closed down 26 branches, and 19 banks established 93 branches. The number of installed ATMs increased by 263 units, or 35.73% compared with 2000, which was a lower growth rate than in the previous years. In 2001, 18 banks increased the number of their ATMs, of which 2 banks installed ATMs for the first time. One bank reduced the number of its ATMs, 6 banks retained the same number of ATMs, and 18 banks had no ATMs.

The number of banks operating in Croatia at end of 2002 increased by 3, compared with end-2001 so the total number of banks operating in the country at the end of the year was 46. This was the result of the entry of 6 newly licensed banks into the banking system in 2002 and two mergers. Three banks transferred its operations onto another new bank in 2002. Two banks merged with in a bank that has been operating since under a new name. At end of 2002, the number of banks owned predominantly by foreigners fell from 24 to 23, and the number of banks in majority domestic ownership rose from 19 to 23, compared to the end of -2001. The number of bank branches increased by 16.16% in 2002. The banking system comprised 956 branches, an increase by 133 branches. ATM network increased by 33.13% (by 331 ATMs) end-2002. Newly installed ATMs in 2002 totaled 334, while only three ATMs were permanently put out of use. Of 46 banks, 25 banks did not have ATMs. The remaining 20 banks increased the number of their ATMs in the observed period, while only one bank reduced the number of its ATMs.

At the end of 2003, there were 41 banking institutions operating in Croatia. The reduction was caused mainly by foreign banks. ATMs grew by 281 (21.13%) on the previous year. Over that period, 295 ATMs were newly-installed, while 14 were put out of use. 78 new branches were opened, while 12 branches closed down. At the end of 2003 bank branches reached a total of 1022. The share of banks offering internet-banking continued to grow and end-2003 it reached 59%, which represented an increase of 6 banks (60.00%).

Compared to the end of 2004, the number of banks was reduced by 4. Two banks merged with other banks. Two banks initiated voluntary winding up proceedings. As two banks that participated in the merger were in foreign ownership and the bank that initiated voluntary winding-up proceedings in domestic ownership, the number of banks in foreign ownership fell to 15, and the number of banks in domestic ownership to 22. The number of ATMs grew in all banks. There were 1037 branches operating in the country end of 2004, an increase by 15 compared with end of 2003. 75 new branches were opened, while 60 branches closed down during the observed year. E-banking services were extremely well-accepted and its use 111 steadily increasing. Over 90% of banks offered Internet banking services. It can be concluded that business entities were very quick in recognizing the obvious advantages of this type of payment and that their use of Internet banking will increase in the future.

The number of banks continued to decline in 2005. Compared to the end of 2004, there were three banks less operating in the banking sector. Two banks merged with other banks. One bank initiated voluntary winding-up proceedings. The number of banks in foreign ownership went down only by one bank because one bank in foreign ownership became the majority owner of a domestic private bank in 2005, which thus indirectly became a bank in foreign ownership. Following these changes and the initiation of voluntary winding-up proceedings, the number of banks in domestic ownership fell by two. The number of branches rose to 1134 or by 97 at end the end of 2005 compared with the end of 2004. End of 2005, there were eleven banks that did not have any ATMs. The number of ATMs remained unchanged in 3 banks, while 18 banks with ATMs increased their number by 1 to 31 units. In addition, one bank introduced ATM service and one bank reduced the number of ATMs by one. Banks owned 2307 ATMs at the end of 2005, which were 394 or 20.6% more than at the end of the previous year. In the reference period, 21 banks installed new ATMs, including three banks that offered ATM services for the first time in 2005. Nine banks did not have any ATMs, while four banks chose to leave the number of ATMs the same as in 2004.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks	54	58	60	60	53	44	43	46	41	37	34
Number of foreign banks	1	5	7	10	13	20	24	23	19	15	14
Number of ATMs	*	*	221	285	523	736	999	1330	1611	1913	2307
Number of branches	512	682	784	813	822	756	823	956	1022	1037	1134
Number of the bank with e-banking	*	*	*	*	1	3	7	15	24	33	35

Source: National Bank of Croatia

On the basis of this data a regression model describing the increase of the number of foreign banks in Croatia as a function of the number of bank branches can be derived.

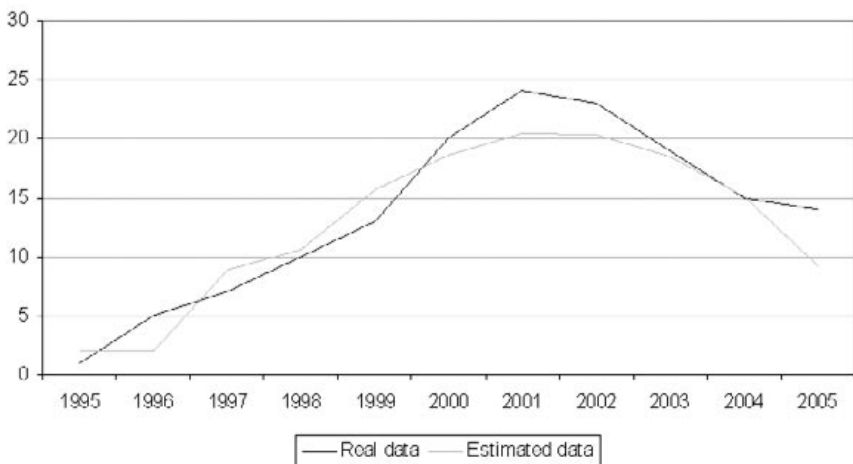
$$Y_t = 1.8960 + 0.0360atm_t - (2E - 05)atm_t^2 + (2.5E - 09) * atm_t^3$$

Where:

Y_t - number of foreign banks in year t;

br_t - number of bank branches in year t;

The number of foreign banks in Croatia



The link between the variables:

- Number of ATM;
- Number of bank branches;

$$r = \frac{\sum_1^t (\theta_t - \bar{\theta})(y_t - \bar{y})}{\sqrt{\sum_1^t (\theta_t - \bar{\theta})^2 \sum_1^t (y_t - \bar{y})^2}}$$

ernet-banking;
he country.
model that measures the interaction be-

where:

r - correlation coefficient;

θ_t - variable of bank branches, number of ATMs, number of banks offering internet banking during year t ;

$\bar{\theta}$ - average number of bank branches, average number of ATMs, average number of banks offering internet-banking;

y_t - number of foreign banks in year t ;

\bar{y} - average number of foreign banks;

The entry of foreign banks in Croatia had least strong influence on the increase of the number of banks offering internet-banking, while it affected the growth of the number of ATMs the most. The influence of foreign banks on the number of bank branches was substantial with a correlation coefficient of 0.581. At the same time the impact on the number of banks offering internet-banking was moderate with a correlation coefficient of 0.395. The number of foreign banks and the number of ATMs were strongly correlated – 0.603.

FYR Macedonia

In mid 90-ies international bank supervision standards were introduced for the first time in Macedonia. The US CAMEL model was implemented and higher capital requirements were set for acquiring a bank license. As a consequence of these measures at the end of 1995 the Macedonian bank systems consisted of 21 banks.

The number of banks changed to 22 in 1997 when one new bank (4.76%) entered the market. During the period there were 5 foreign banks in Macedonia. At the end of 1998, the banking system of Macedonia was comprised of 22 banks, their numbers remaining unchanged compared to the previous year. At the end of 1998, banks had a total of 20 branches on the whole territory of the country. In 1999, the banking system of Macedonia consisted of 22 banks. The number of branches remained unchanged as well. As of December 31, 1999, the level of privatization of the banking capital in the Republic of Macedonia was 76.8%. From a regional aspect, the structure of the banking system in Macedonia confirmed its asymmetry, with a tendency of further strengthening. At the end of 1999, only 4 banks were located out of the capital. However, the disproportion in the supply of financial services was partly being alleviated by the relatively extended network of branches. At the end of 1999, Macedonian banks had 20 branches.

At the end of 2000, the banking system of Macedonia consisted of 22 banks. The on-going process of bank privatization in Macedonia, continued in 2000. The level of privatization of the banks in Macedonia at the end of December 2000, equaled 83,5%, which was an increase of 6,7 percentage points compared to 31.12.1999. At the end of 2000, seven banks were owned by foreign shareholders, by 2 banks more compared to the end of 1999. (40,00%). The analysis of the regional aspects of the banking system structure of Macedonia confirms its asymmetry and concentration of supply of financial services in the capital of the Republic of Macedonia. Out of the total number of banking institutions in Macedonia, only 6 banks were located outside the capital city. The existing regional structure was to a certain extent mitigated with the relatively wide network of branches. Thus, at the end of the 2000, the banks in Macedonia had 20 branches. ATMs came into

exploitation for the first time in 2000 when 3 machines were located in the capital. They were the property of 2 banks.

At the end of 2001, the bank system of the Republic of Macedonia consisted of 21 banks. The level of privatization of the banking capital in the Republic of Macedonia as of December 31, 2001 equaled 84.3%. On December 31, 2001, the number of banks owned by domestic shareholders equaled 13, which compared to the end of the previous year was a decrease of two banks. On the other hand, the number of banks owned by foreign shareholders equaled 8 at the end of 2001 and compared to the December 31, 2000, it increased by 1 bank. The number of ATMs reached 16 which was an increase of 433.33% or 13 ATMs. Out of the total number of banking institutions in the Republic of Macedonia, only 4 banks were located outside of the capital of Macedonia. The existing regional structure was to a certain extent mitigated with the relatively wide network of branches. Thus, as of December 31, 2001, the banks in the Republic of Macedonia had 28 branches, 8 more than in the previous year (40.00%).

In 2002, there were no changes in the number of banks. As of December 2002, the degree of privatization of the banking capital in Macedonia equaled 85.9%. The structural features of the banking system from a regional aspect affirmed the already ascertained asymmetry and concentration of the supply of financial services in the capital city. As of December 31, 2002, only 4 of the total number of banks were located outside the capital city. There was a relatively wide network of branches: 34 branches, which 6 more (an increase by 21,43%). In 2002 one bank introduced internet-banking targeted to the corporate sector.

At the end of 2003, the banking system consisted of 21 banks. The degree of privatization of the banking capital equaled 87.00%. Four banks out of the total number of banks in Macedonia were located outside the capital city. On the other hand, there was still a relatively wide network of branches: 34 branches. Compared to December 31, 2002, the number of ATMs increased by 50 (102.04%), but the relative increase was almost twice smaller than in the previous year. The rate of growth of ATMs formed a downward tendency.

End of 2004, 21 banks operated in Macedonia. The degree of privatization of the banking system equaled 91.00%. The effect of high concentration of the banks on one location was mitigated by the wide branch network, which consisted of 43 branches. It contributed to the improvement of the quality of Macedonian banking by strengthening competition, bringing services closer to clients, and especially expanding the banks' operations with clients. The number of banks offering internet-banking services (3) remained unchanged. The number of ATMs continued to grow though at an almost three times slower rate (32.32% or 32 ATMs) than in 2003.

End of 2005, the banking system of Macedonia comprised of 20 banks, which was one bank less relative to the end of 2004. The degree of privatization equaled 91.9%. The analysis of the geographic distribution of banks revealed that most of them were concentrated in the capital city. Thus, the head offices of sixteen banks were located in Skopje, while only 4 banks were located outside the capital. This concentration pattern was mitigated to a certain extent by the wide branch network, which consisted of 72 branches. Internet-banking became especially attractive with 4 banks offering such services. The access to a part of banking services was enhanced by using a variety of payment cards. End of 2005 there were a hundred and fifty-seven ATMs.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks	21	21	22	22	22	22	21	21	21	21	20
Number of foreign banks	*	*	5	6	5	7	8	7	8	8	8
Number of ATMs	*	*	*	*	*	3	16	49	99	131	157
Number of branches	*	*	*	20	20	20	28	34	34	43	72
Number of the bank with e-banking	*	*	*	*	*	*	*	1	3	3	4

Source: National Bank of the Republic of Macedonia

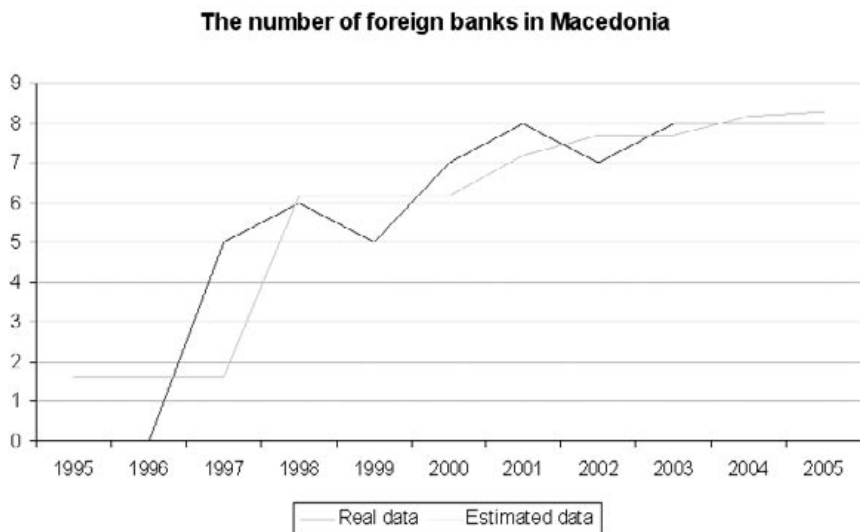
On the basis of this data a regression model describing the increase of the number of foreign banks as a function of the number of bank branches can be derived.

$$Y_t = 1.6508 + 0.3113br_t - 0.0047br_t^2 + (2.3E - 06)br_t^3$$

Where:

Y_t - number of foreign banks in year t;

b_t - number of bank branches in year t;



The link between the variables:

- Number of ATM;
- Number of bank branches;
- Number of banks offering internet-banking;
- Number of foreign banks in the country.

can be described in a correlation model that measures the interaction between them.

$$r = \frac{\sum_1^t (\theta_t - \bar{\theta})(y_t - \bar{y})}{\sqrt{\sum_1^t (\theta_t - \bar{\theta})^2 \sum_1^t (y_t - \bar{y})^2}}$$

where:

r - correlation coefficient;

θ_t - variable of bank branches, number of ATMs, number of banks offering internet banking during year t ;

$\bar{\theta}$ - average number of bank branches, average number of ATMs, average number of banks offering internet-banking;

y_t - number of foreign banks in year t ;

\bar{y} - average number of foreign banks;

The biggest impact of the entry of foreign banks in Macedonia is on the increase of bank branches and the weakest one on the number of banks offering internet-banking. High correlation was observed between the number of foreign banks and the expansion of the branch network – 0.7509. Correlations between the number of foreign banks and banks offering internet banking as well as correlation with the number of ATMs were substantial. The correlation coefficients were 0.536 and 0.571, respectively.

Romania

End of 1995 the Romanian bank system comprised of 31 banks. In 15 of them ownership was predominantly of foreign shareholders and the rest owned by domestic investors. The average number of branches per bank was 37, the total being 1159 branches. In 1996, the number of banks increased significantly to 40. This makes a 29.03% rise of the total number of banks. Foreign banks increased by 4 or by 26.67%. The number of branches doubled reaching 2526 or an average of 63 branches per bank. The tendency of the increase in the number of banks persisted in 1997 as well. At the end of 1997, there were 43 banks as a result of new foreign banks entering the market. There were 23 foreign banks, which is by 4 more (an increase by 21.05%) than in 1996. In 1997, in the capital and several big cities 79 ATMs were located.. The network of branches continued to broaden though at a lesser pace than the previous year. At the end of 1997 there were already 2913 branches. This represented a growth by 15.32% .

The trend towards increasing of the number of banks continued in 1998. The bank system expanded and at the end of the year consisted of 45 banks, 2 more than in the previous year (an increase by 4.65%). Foreign banks contributed to 100% of the growth thus reaching the total number of 25 banks. As of December 1998 there were 186 ATMs which represented a 135.44% growth. The number of bank branches reached 3055 (142 more than in 1997). In 1999 the number of banks decreased by 4 to 41, thus breaking the upward trend. However foreign banks increased by 1 (4.00%). In December 1999 the number of ATMs was 472 more than in 1998 (an increase by 153.76%). As a result of the decreased number of banks' branches went down by 46.

In 2000 there were no changes in the number of banks in Romania. Four banks were privatized thus bringing the number of foreign banks up by 11.54%. At the end of the year the average number of ATMs per bank was 18, the total being 747. The number of branches continued to fall and a decrease of 115 branches on the previous year was registered. In qualitative terms, the modernization of electronic payments was illustrated by the diversification of financial products supplied to companies. In 2000 one bank started offering internet-banking services.

In 2001, the great progress made in cleaning up and strengthening the Romanian bank system as well as in enhancing its soundness indicated an advance towards international standards. The process was initiated by the National Bank of Romania (NBR) through a program in correlation with the government's activity and based on the parameters agreed upon with the international institutions. The introduction of international standards stimulated foreign banks to search for opportunities to strengthen their presence. As a consequence, the number of foreign banks went up to 32 or increased by 10.34%. The number of ATMs continued to grow and reached a total number of 1290. At the end of 2001, the average number of branches per bank was 67 due to the decrease by 163 of the total number of branches. Two banks were offering internet-banking.

Several changes marked the composition of the Romanian banking system in 2002. The licenses of three banks were revoked. A newly-established bank made its way into the system whereas several others had changed their names following the alteration of the majority shareholder. As a result, 39 banks were operating in Romania end 2002 (against 41 at the end of 2001) and the weight of foreign capital stood at 64.8 percent (from 60.6 percent in the year before). The number of ATMs kept on growing. The relative increase was 58.68%. In 2002 the downward trend in the number of branches was reversed and they grew by 1161 to 3892. Five banks were offering internet-banking.

The year 2003 saw good progress in the strengthening of the Romanian bank system, as further steps were taken with a view to winding up insolvent banks, pushing privatization forward and bringing the banking regulatory framework into line with the EU legislation in the field. In keeping on with the trend of developing cashless payment media in 2003, electronic payment instruments increased as well, in both absolute and relative terms. The volume of transactions was supported by an infrastructure that was permanently upgraded in line with the latest envelopments in the field; at the end of 2003, there were 2593 ATMs. The efforts made by banks to diversify the array of products met users' quick response, which was translated into accounts from which payments via internet banking can be performed, and the number of which increased about 12 times. At the end of 2003, such accounts exceeded the number of 19,000. The number of branches decreased by 34 down to 3858.

In 2004, the Romanian bank system witnessed major structural changes with the biggest Romanian bank, entering the group of banks with majority private capital. The new entrants and the mergers of foreign bank branches, along with changes in some banks' shareholding reshaped the Romanian bank system. At the end of 2004, the bank system was made up of 39 banks (38 end of 2003). Majority private capital accounted for 94.6 percent, compared with 74.3 percent at the end of 2003 while foreign capital represented 68% of the bank system (1.7 percentage points higher than end of 2003). In 2004 the number of ATMs grew by 697 while bank branches decreased by 91. Banks offering internet-banking jumped from 4 to 12.

End of 2005, thirty nine banks were operating , of which 31 were majority or fully privately owned, two were state-owned and six were branches of foreign banks. Out of 39 banks in Romania 30 were in foreign ownership. Banks offering internet-banking grew by 4, to 16. The number of branches increased by 527 and reached 4294, the number of ATMs grew by 1064 to 4354.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks	31	40	43	45	41	41	41	39	38	39	39
Number of foreing banks	15	19	23	25	26	29	32	32	29	30	30
Number of ATMs	*	*	79	186	472	747	1290	2047	2593	3290	4354
Number of branches	1159	2526	2913	3055	3009	2894	2731	3892	3858	3767	4294
Number of the bank with e-banking	*	*	*	*	*	1	2	5	8	12	16

Source: NBR, ECB

On the basis of this data a regression model describing the increase of the number of foreign banks as a function of the number of bank branches can be derived.

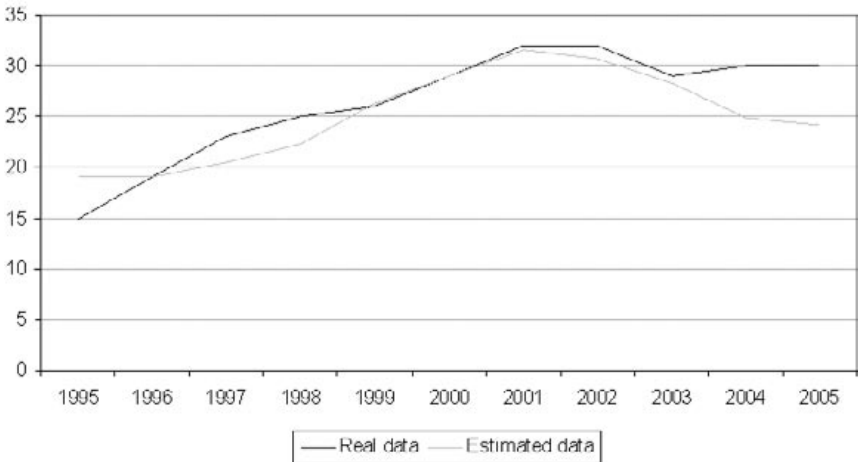
$$Y_t = 19.0513 + 0.0195atm_t - (9E - 06)atm_t^2 + (1.1E - 09) * atm_t^3$$

Where:

Y_t - number of foreign banks in year t;

br_t - number of bank branches in year t;

The number of foreign banks in Romania



The link between the variables:

- Number of ATM;
- Number of bank branches;
- Number of banks offering internet-banking;
- Number of foreign banks in the country.

can be described in a correlation model that measures the interaction between them.

$$r = \frac{\sum_1^t (\theta_t - \bar{\theta})(y_t - \bar{y})}{\sqrt{\sum_1^t (\theta_t - \bar{\theta})^2 \sum_1^t (y_t - \bar{y})^2}}$$

where:

r - correlation coefficient;

θ_t - variable of bank branches, number of ATMs, number of banks offering internet banking during year t ;

$\bar{\theta}$ - average number of bank branches, average number of ATMs, average number of banks offering internet-banking;

y_t - number of foreign banks in year t ;
 \bar{y} - average number of foreign banks;

In Romania the entry of foreign banks influenced most significantly the number of bank branches while the effect on banks offering internet-banking was the weakest. The increased number of foreign banks had serious influence on the number of bank branches which is evident from the correlation coefficient – 0.798. The impact on the number of banks offering internet banking and on the number of ATMs was substantial. The respective correlation coefficients were 0.534 and 0.664.

Serbia

At the end of 1995 there were 112 banks in Serbia. During this period there were 3 foreign banks in the country. In 1996 the number of banks decreased by 9 to 103. In 1997 the number of banks the bank system of Serbia increased by 3 to 106. In 1998 the number of banks decreased by 2 to 104.

In 1999 the war had a serious impact on the economy as a whole and the bank system in particular. At the end of 1999, the number of banks was reduced to 75 with 29 banks closed. During this period there were 3 foreign banks in the country. At the end of 2000, the banking system comprised of 81 banks. The increase resulted from opening of domestic banks. At the end of 2001, there were 54 banks in the country, which represented a decrease by 27. Foreign banks almost tripled their numbers to 8. There were 75 ATMs. In 2002 there were 50 banks, among which 12 foreign banks, 4 (50%) more than in 2001. The number of ATMs climbed up to 166 with an increase of 121.33%. There were 89 bank branches.

In 2003 the number of banks in Serbia was reduced to 47 of which 16 were considered as foreign, their number continuing to grow. In Serbia there were 346 ATMs which represented a growth by 180. Branches across the country increased to 292, each bank having an average of 6 branches. Two banks began offering internet-banking services. In 2004 there were already 43 banks in Serbia due to a reduction in the number of foreign banks from 16 to 11. In contrast with the decreasing number of banks the branch network expanded

by 2.74% up to 300 making the average number of branches per bank 7. The number of ATMs grew by 104 to 450. Six banks were offering internet-banking services (an increase by 200%).

In 2005 the downward trend in the number of banks persisted with 40 banks at the end of the year (3 less than in 2004). The number of foreign banks however grew by 54.55% (by 17 banks). The trend towards an easier access to banking services continued. It was represented by: an increase of the number of ATM by 86,00% or 837 ATM; by a growth rate of the bank branches of 9% (to 327 branches); by an increase in the number of banks offering access to internet banking by 66.67% (10 banks).

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of banks	112	103	106	104	75	81	54	50	47	43	40
Number of foreign banks	3	3	3	3	3	3	8	12	16	11	17
Number of ATMs	*	*	*	*	*	*	75	166	346	450	837
Number of branches	*	*	*	*	*	*	*	89	292	300	327
Number of the bank with e-banking	*	*	*	*	*	*	*	*	2	6	10

Source: National Bank of Serbia, EBRD

On the basis of these data an auto regression model describing the increase of the number of foreign banks as a function of the number of bank branches can be derived.

$$Y_t = e^{(1.3151+0.0047b_t)}$$

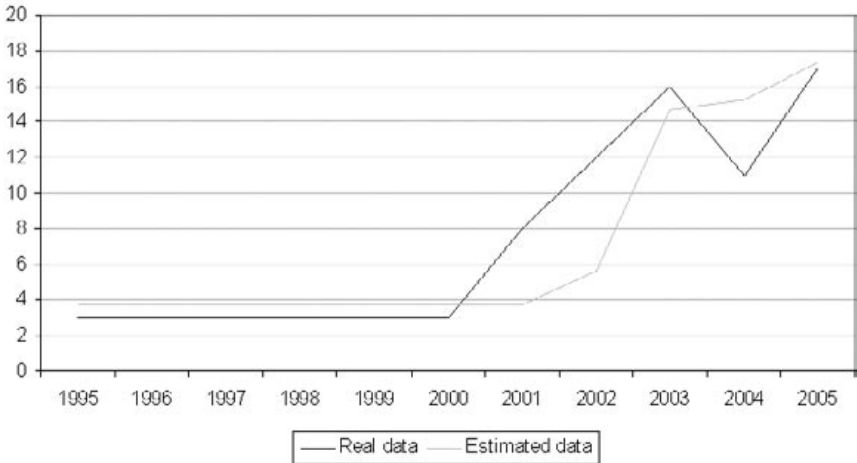
Where:

Y_t - number of foreign banks in year t;

b_t - number of bank branches in year t;

e - 2.71828182845904;

The number of foreign banks in Serbia



The link between the variables:

- Number of ATM;
- Number of bank branches;
- Number of banks offering internet-banking;
- Number of foreign banks in the country.

can be described in a correlation model that measures the interaction between them.

$$r = \frac{\sum_1^t (\theta_t - \bar{\theta})(y_t - \bar{y})}{\sqrt{\sum_1^t (\theta_t - \bar{\theta})^2 \sum_1^t (y_t - \bar{y})^2}}$$

where:

r - correlation coefficient;

θ_t - variable of bank branches, number of ATMs, number of banks offering internet banking during year t ;

$\bar{\theta}$ - average number of bank branches, average number of ATMs, average number of banks offering internet-banking;

y_t - number of foreign banks in year t ;
 \bar{y} - average number of foreign banks;

The strongest effect of the entry of foreign banks was experienced by the branch network. The weakest was the impact on the number of banks offering internet-banking. Foreign banks had a strong influence on the number of branches for which the correlation coefficient amounted to 0.895. Correlation between the number of foreign banks and banks offering internet-banking was high as well – 0.715. The correlation coefficient between the number of foreign banks and the number of ATMs suggested high dependence – 0.873.

Conclusion

During the observed period the developments in the bank sector i.e. the entry of foreign banks on the local market, the dynamics of the number of ATMs, bank branches and the internet-banking are quite diverse due to the specific economic and social characteristics of each of the countries.

The financial crisis in 1996/1997, led to the insolvency of large part of Bulgarian banks and the introduction of the currency board together with a new banking act to stabilize the bank system. After 1998 a growing number of foreign banks entered the market through the process of privatization and direct acquisition of banking licenses. At the end of 2005 the country had a well functioning bank system working in accordance with the requirements of the Basel Committee.

The bank system of Albania developed at a steady pace. Even at the beginning of the period the Basel requirements were already implemented. 1997 was a milestone moment for the privatization of banks. This was also the year with the biggest increase in the number of foreign banks.

The bank system of Croatia went through two stages in its development. At the beginning it was characterised by a fast growing number of banks reaching its peak in 1998. The second stage up to 2005 was dominated by a tendency of a decrease in the number of banks. However this reduction didn't

have a negative impact on customers' access to banking services, because of the compensating effect of the increasing number of branches and ATMs.

At the beginning of mid 90-ies, banks in Macedonia had already been experiencing a massive financial crisis over which the government managed to take control in 1995. The first positive results became evident in 1996. Following the government measures and the bank act of 1998 the economic climate became more attractive for foreign investors interested in the local banking market. In 1999-2000 higher requirements were introduced for Macedonian banks which led to fast rise in foreign investments in the banking sector and in 2001-2002 the country had an already well functioning bank system.

The number of foreign banks in Romania peaked in 2001-2002. Despite the diverse dynamics of the entry of foreign banks there was a steady upward trend in the number of ATMs during the observed period. After 2000, bank branches reached their lowest number. After 2001, all indicators characterizing banks' activity improved, thus attracting an increasing number of banks' clients.

Banks in Serbia decreased their number through the whole period both because of the territorial changes and the war in 1999. Despite the unstable political situation during the war and the economic difficulties resulting from the embargo, the number of foreign banks increased in 2000. All variable indicating the access to banking services showed a positive development during the observed period. Because of the conflicts Serbia had the worst starting values for all indicators. Despite the bad start of opening the bank system towards foreign investments and the ease of access to banking services Serbia managed to a great extend to catch up with the rest of the countries.

The same foreign owners have a big share of foreign banks on domestic markets in all of the observed countries. These are banks with have strategies for entering the markets in the region. In each of the countries the dynamics of foreign banks entering, the increase in the number of ATMs, bank branches and banks offering internet-banking showed a different trend. The estimated correlation coefficient shows the link between these tendencies. Despite the short period covered by the research and the various economic and social

turmoil in some of them, the targeted countries did go through the estimated correlation and can be used to compare development across the region..

The increase of the number of ATMs was influenced most substantially by the entry of foreign banks in Serbia, while Macedonia experienced the least impact. Again Serbia was the country in which increases in the numbers of foreign banks and bank branches were most strongly correlated. Bulgaria showed the weakest correlation.

Assessing the correlation between the proliferation of foreign banks and the number of banks offering internet-banking showed that it was strongest in Serbia and weakest in Croatia. As the results show that as a whole foreign banks influenced the bank sector most heavily in Serbia. The strong correlation can be explained by the process of restructuring undergoing in the Serbian bank system after the war which together with the increasing number of foreign banks began offering a better access to various services via internet-banking, ATMs and the network of branches. Results for Macedonia and Albania are similar due to the similar characteristics and developments of the indicators. Foreign banks had a similar impact on the growth of ATMs and banks offering internet-banking in Bulgaria and Croatia. The two countries differ only by the correlation with the number of bank branches. This difference is explained by the already developed network of branches of the Bulgarian bank system as of the start of the observed period, while the branch network in Croatia has just started its development just a few years earlier.

The values of the correlation coefficients for Romania can not be compared to the results of any of the other five countries. However the data shows a stronger impact of foreign banks on the number of ATMs than in Croatia while the influence on internet banking services was comparable to that in the Republic of Macedonia. Romania had the second strongest correlation between the number of foreign banks and the number of bank branches after that of Serbia.

Reference

NBS: Annual Reports, www.nbs.yu

NBR: Annual Reports, www.bnro.ro

ECB: Blue book, www.ecb.int

BNB: BNB Annual Reports, www.bnb.bg

BoA: Annual Reports of Banking Supervision, www.bankofalbania.org

CNB: Review of the Results of the National Payment System Survey, www.hnb.hr

CNB: Annual Reports, www.hnb.hr

NBRM: Reports on Banking Supervision and Banking System in the Republic of Macedonia, www.hnb.hr

NBRM: Reports on the usage of payment cards and the devices at which they are used in the country, www.hnb.hr

EBRD: Transition report 2006, www.ebrd.com

Bonin, J. P. (2004): "Banking in the Balkans: the structure of banking sectors in southeast Europe." *Economic System*, Vol. 28, p. 141-158.

James, T., Benson P. G., Sincich T. (2004): "Statistics for Business and Economics (9th Edition)"

Annex I

Coefficients of correlation

	Number of ATMs	Number of branches	Number of banks with e-banking
Albania	0.572	0.781	0.554
Bulgaria	0.591	0.199	0.484
Croatia	0.603	0.581	0.395
Macedonia	0.571	0.750	0.536
Romania	0.664	0.798	0.534
Serbia	0.873	0.895	0.715

Annex II

Coefficients of determination

	Number of ATMs	Number of branches	Number of banks with e-banking
Albania	0.327	0.610	0.307
Bulgaria	0.349	0.040	0.234
Croatia	0.364	0.338	0.156
Macedonia	0.326	0.563	0.287
Romania	0.441	0.637	0.285
Serbia	0.762	0.801	0.511

Annex III

Durbin-Watson stat

	Number of ATMs	Number of branches	Number of banks with e-banking
Albania	0.333	0.453	0.307
Bulgaria	0.349	0.040	0.289
Croatia	0.418	0.469	0.359
Macedonia	0.598	1.133	0.596
Romania	0.424	0.877	0.363
Serbia	0.900	1.425	0.916

