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BANKS IN TRANSITION COUNTRIES AS ONE OF MOST ATTRACTIVE INVESTMENTS

Silvije Orsag[1]
Lidija Dedi
Emil Mihalina

Abstract:
The primary goal of this paper is to analyze the banking sector in transition countries in Central and Eastern Europe, and identify bank's potential as an investment in the globalized environment. The primary hypothesis is that banking sector is one of the most attractive investment areas in transition countries. In the comparison with financial systems of G7 and other growth countries, the financial industry in transition countries shows significant potential for future growth and development. Operating as universal bank with acquired position in financial supervisory bodies banks can easy control and slows down growth and development of nonbanking financial institutions. They are not overly involved in risky operations of securitization and were not so much exposed to the recent crisis.
Analysis of the banking sector in transition countries has been made on available sources of secondary data and comparable quantities. Comparable quantities are analyzed with descriptive statistics, starting from the general characteristics of the region and individual countries, through macroeconomic indicator analysis to analysis of assorted indicators of banking sector which have dominant influence on prospective cash flows and risk, i.e key components of bank's value as an investment.

Key words: banking sector, investments, transition countries, growing potential, crisis.

1. INTRODUCTION

The Central and Eastern Europe is dynamic region with strong development potential. The economic development of Central and Eastern Europe had a significant influence on the bank loan market and on banking sector development. Furthermore, measured with the saturation of total loans of the citizenry in Central and Eastern European countries, according to the region shows great potential (*Renaissance Capital* 2008). In spite of rapid growth, at the end of 2007 the banking sector of CIS countries comprised total assets of $650 billion. The banking sector of Central and Eastern Europe is the

[1] **Silvije Orsag**, Ph.D., Full Professor; **Lidija Dedi**, Ph.D., Assistant Professor, Faculty of Economics and Business, Zagreb, University of Zagreb, Croatia; **Emil Mihalina,** M.Sc., Agram invest, Chairman, Zagreb, Croatia

largest of the transition countries group with total assets of 1,417 billion euro (RZB, *Banking Sector Report*, 2008:2).

The banking groups in observed countries have great opportunities for new services that are still missing. The goal of this paper is to detect the current position, perspectives and possibilities of further development of banking sector in Central and Eastern Europe and through that prism to observe banks as an investment. Namely, if we take into consideration the expected quantities of the key gross domestic product components in observed countries in which business banks in Central and Eastern Europe operate, we can test the hypothesis that the market portfolio of bank as an investment is the optimum on the utility curve between expected return and the risk for the portfolio investor in equity in the emerging markets.

Almost all the observed economies have contained growth of gross domestic product in the segment of personal spending and investments and we can assume with high significance that this will continue in the future. If we apply statistical analysis to time series of variables that shows growth founded on spending and investment, we can conclude that the trend will continue in the next three to five years.

Furthermore, if the above hypothesis is true, then the banking sector as a generator of development of observed macroeconomics variables is the sector which expected development can be analyzed with high data reliability and lead to the expected indicators of business for individual bank, now observed as an investment. Using the investors' approach, the rational expectation about the market capitalization evolution of individual bank can be made, and observe the bank as an investment.

The more developed banking sectors of Central and Eastern Europe demonstrate observable progress in efficiency achievement in reference to the banking sectors of developing capital markets. Bank privatization in the majority state ownership, "push" forward market oriented reforms and additional privatization processes. The privatization of banks in state majority ownership was shown as a process, which in the majority increase efficiency in scarce resource allocation in observed Central and Eastern Europe economies, thereby promoting more efficient resources usage in emerging economies. In this way the major benefits of strong foreign ownership presence in the Central and Eastern Europe banking sector are efficiency, enlargement, and stability of domestic banking sector. Today, the position in Eastern and South-eastern Europe looks like the Central Europe region ten years ago, if we observe the whole sector efficiency and stability. The banking sector of CIS countries is distinguished primarily because of different privatization processes is pursued. We can expect that the foreign bank groups' ownership share will not increase by size and dynamics as it was the case in Central, South and South-eastern Europe.

In the region of Central and Eastern Europe the level of total loans and other placement in banking sector in 2006 and 2007 shows very high growth rates in growth economies. Independent of the strong assets growth in banking sector in CIS countries, we can see significant gaps between the countries of CIS and Central Europe. In the region of Central and Eastern Europe the additional space for further placement expansion can be found. In spite of recent loans and placement expansion in corporate sector of CIS region, further placements are expected in the segment of home loans, because of the growing building construction. According to Renaissance Capital, Russia's leading western-standard investment bank, growth rate of banking sector total assets in 2007 in Russia was 55%, Kazakhstan 40%, Ukraine 70% and Grudziadz more than 80% (*Banking sector update*, May 2008).

Banks with most of their business operations in the region of Central and Eastern Europe are faced with growing competition in sector of SME enterprises. The fastest spending growth can be found in the region of Central and Eastern Europe and CIS countries. The activities of mergers and acquisitions of banks are mostly placed in CIS countries, where Kazakhstan and Ukraine show the most dynamic activity in banking acquisitions. The fact is that only the banks with great exposure to the region of Central and Eastern Europe and CIS countries can achieve significant shares in total market share. The main reason total market share development can be found in total assets growth rates for banks in region of South and South-eastern Europe and the CIS countries. Targeted size of those markets is comparable with region of Central Europe where the banking services saturation is quite high, while the total assets growth rates, ownership consolidation and positioning in the observed countries still have potential.

2. THE BANKING SECTOR OF THE CENTRAL AND EASTERN EUROPE

The Central and Eastern European countries analyzed in this paper are: Poland, Czech Republic, Hungary, Romania, Slovakia, Croatia, Slovenia, Latvia, Bulgaria, Lithuania, Estonia, Serbia, Bosnia and Herzegovina, Montenegro, Macedonia, Albania and Malta.

2.1. Review of the key macroeconomic variables and the banking sector indicators

With the top down analysis of macroeconomic data of observed countries we can demonstrate the position and perspectives of banking sector in Central and Eastern Europe. Table 1 shows the key macroeconomic variables of Central and Eastern European countries. Central and Eastern Europe: Poland, Czech, Hungary, Croatia, Slovenia, Bosnia and Herzegovina, Serbia, Macedonia, Bulgaria, Romania, Estonia, Lithuania and Latvia. We observe total population, nominal GDP, GDP per capita, real GDP growth, inflation, average interest rate, compounded annual growth of net interest income, compounded annual growth of banking loans and other placement, total bank’s placement, placements per capita, and the quality of bank’s assets measured by the bad placement shares in total bank’s placement.

Table 1. Review of the key variables in Central and Eastern European banking sector

Country CEE	Population mln 2005	Nominal GDP € bln 2005	GDP per capita €	GDP growth	Inflation 2006-08	Ave int rate 2008	Net inter income CAGR € 2008	Net int inc growth CAGR € 2008	Placement growth CAGR € 2008	Placement 2008 mln €	Placement per capita 2008	Placement % bad
Poland	39	241	6.241	4,30%	2,40%	4,00%	7,90%	10,80%	11,10%	105.805	2.741	10,60%
Czech	10	98	9.618	4,20%	2,70%	2,75%	9,50%	10,30%	13,50%	61.280	6.008	4,50%
Hungary	10	87	8.710	4,00%	2,80%	5,50%	8,00%	7,40%	12,60%	65.046	6.505	2,80%
Slovakia	5	37	6.907	5,90%	2,70%	3,50%	9,80%	11,50%	16,10%	23.032	4.265	4,80%
Croatia	5	30	6.689	4,00%	2,60%	4,00%	5,50%	9,80%	10,40%	26.995	5.999	4,20%
Slovenia	2	28	13.750	3,90%	2,50%	3,50%	-	-	-	-	-	-
B&H	5	7	1.600	5,80%	2,80%	-	-	-	-	-	-	-
Serbia	8	19	2.560	5,20%	9,40%	15,00%	-	-	-	-	-	-
Macedonia	2	5	2.143	4,20%	1,30%	6,00%	-	-	-	-	-	-
Bulgaria	8	21	2.853	5,70%	4,50%	2,70%	12,40%	12,90%	17,00%	14.904	1.987	4,50%
Romania	22	75	3.345	5,40%	6,40%	7,50%	14,70%	12,50%	21,70%	29.743	1.334	7,86%
Estonia	1	11	8.077	6,90%	2,50%	2,50%	-	-	-	-	-	-
Latvia	2	12	5.349	7,50%	4,30%	3,50%	-	-	-	-	-	-
Lithuania	4	20	5.639	5,70%	2,50%	2,83%	-	-	-	-	-	-
CEE average	**123**	**691**	**5.963**	**5,19%**	**3,53%**	**4,87%**	**9,69%**	**10,74%**	**14,63%**	**46.686**	**4.120**	**5,61%**

Source: Bloomberg, Eurostat, CEE Banking sector report, RBA, October 2007. CEE Banking forecast 2007-2009, Unicredit group, March 2007. Data structured by authors.

2.2. House-holding financial asset in Central and Eastern Europe through 2005 and 2006

The structure and development of financial industry in major part is determined by the structure of house-holding financial asset. This is also true for Central and Eastern Europe region. The strong growth of banking sector Central and Eastern Europe is based on the population dynamic and intensity of consumption and borrowing. Approximation of total financial asset structure of house-holdings is made to determine the future development direction in banking and financial sector in whole.

In Table 2 we can see dominant position of bank's deposits in the total financial assets of house-holdings in Central and Eastern Europe. We can find a higher investment in shares and investment funds during the 2006 and 2007 because of the capital markets development and stock price growth.

In 2008 and 2009 negative trends in financial markets lead to further growth of total level of deposits, relative and absolute, because the population search for safer investments. These trends lead to capitalization growth in banking sector of Central and Eastern Europe. At the same time, the Central banks make an effort to preserve financial stability.

Table 2. Structure and dynamics of total household financial assets CEE

2005	Poland bln PLN	Poland % share	Hungary bln HUF	Hungary % share	Czech Republic mln CZK	Czech Republic % share	Slovakia bln SKK	Slovakia % share	Croatia mln HRK	Croatia % share	Bulgaria mln BGN	Bulgaria % share	Romania mln RON	Romania % share	Turkey mln YTL	Turkey % share	Russia mln RUR	Russia % share	Average
Total household financial assets	551	-	13.161	-	1.867.290	-	720	-	169.762	-	17.297	-	54.215	-	253.518	-	3.086.284	-	-
Currency	57	10,38%	1.450	11,02%	211.123	11,31%	120	16,67%	24.913	14,68%	2.698	15,60%	8.881	16,38%	17.134	6,76%	-		12,85%
Bank deposits	221	40,05%	5.716	43,43%	773.958	41,45%	324	45,00%	105.371	62,07%	11.735	67,84%	31.129	57,42%	147.845	58,32%	2.721.693	88,19%	55,97%
Home savings	-	-	-	-	328.159	-	41	2,69%	5.515	3,25%	-	-	-	-	-	-	-	-	4,47%
Securities other than shares	17	3,12%	1.170	8,89%	40.402	2,16%	-	-	165	0,10%	418	2,42%	2.493	4,60%	28.274	11,15%	-	-	4,63%
Listed shares	57	10,25%	239	1,82%	22.398	1,20%	-	-	9.800	5,77%	571	3,30%	9.320	17,19%	15.793	6,23%	-	-	6,54%
Mutual funds	58	10,56%	1.360	10,33%	191.250	10,24%	125	17,36%	6.222	3,67%	116	0,67%	204	38,00%	29.518	11,64%	234.191	7,69%	8,05%
Insurance	55	10,03%	1.263	9,60%	188.000	10,07%	83	11,53%	5.834	3,44%	608	3,52%	2.189	4,04%	6.804	2,68%	-	-	6,86%
Pension funds	86	15,62%	1.963	14,92%	112.000	6,00%	27	3,75%	11.942	7,03%	1.151	6,65%		-	8.151	3,22%	130.400	4,23%	7,68%
2006	**Poland bln PLN**	**Poland % share**	**Hungary bln HUF**	**Hungary % share**	**Czech Republic mln CZK**	**Czech Republic % share**	**Slovakia bln SKK**	**Slovakia % share**	**Croatia mln HRK**	**Croatia % share**	**Bulgaria mln BGN**	**Bulgaria % share**	**Romania mln RON**	**Romania % share**	**Turkey mln YTL**	**Turkey % share**	**Russia mln RUR**	**Russia % share**	**Average**
Total household financial assets	606	-	14.725	-	2.007.868	-	804	-	197.547	-	20.849	-	65.257	-	289.218	-	4.382.265	-	-
Currency	60	9,90%	1.483	10,07%	226.487	11,28%	130	16,17%	26.171	13,25%	3.021	14,49%	10.834	16,60%	19.704	6,81%	-	-	12,32%
Bank deposits	238	39,27%	6.265	42,55%	795.000	39,59%	327	40,67%	112.245	56,82%	14.024	67,26%	37.354	57,24%	171.419	59,27%	3.808.886	86,92%	54,40%
Home savings	-	-	-	-	360.000	-	41	5,10%	6.000	3,04%	-	-	-	-	-	-	-	-	4,07%
Securities other than shares	18	2,97%	1.280	8,69%	44.105	2,20%	-	-	220	0,11%	404	1,94%	2.662	4,08%	26.238	9,07%	-	-	4,15%
Listed shares	59	9,74%	271	1,84%	22.526	1,12%	-	-	12.250	6,20%	742	3,56%	11.370	17,42%	18.872	6,53%	-	-	6,63%
Mutual funds	64	10,56%	1.568	10,65%	216.750	10,80%	161	20,02%	16.591	8,40%	238	1,14%	298	0,46%	34.601	11,96%	400.032	9,13%	9,24%
Insurance	67	11,06%	1.433	9,73%	208.000	10,36%	94	11,69%	7.170	3,63%	819	3,93%	2.738	4,20%	7.654	2,65%	-	-	7,15%
Pension funds	100	16,50%	2.425	16,47%	135.000	6,72%	51	6,34%	16.900	8,55%	1.600	7,67%	-	-	10.730	3,71%	173.347	3,96%	8,74%

Source: Bloomberg, Eurostat, CEE Banking sector report, RBA, October 2007. CEE Banking forecast 2007-2009, Unicredit group, March 2007. Data structured by authors.

3. CENTRAL AND EASTERN EUROPE BANKING SECTOR COMPARISON

The observed countries of Central and Eastern Europe had a total assets managed by banks of 651 billion Euro at the end of 2006, according to European Central Bank. Banking sector saturation, measured by total bank assets to GDP of individual country was 81%. In comparison with Euro zone, the area of Central and Eastern Europe has a great potential to the sector saturation, measured by total shares placement in GDP. At the end of 2005 total assets of banking groups in Eurozone were 22,000 billion Euros, and the ratio of total assets to GDP of 283% (CEE Banking sector report, 2007).

3.1. Ratio of asset size managed by banking sector to banking sector saturation on the level of individual country

Table 3 shows relatively high saturation of Croatian banking sector compared to other Eastern European countries, but still relatively low level of GDP per capita. However, if the saturation remains the same, we can find significant growth potential of banking sector.

On the other side, countries on the area of former Yugoslavia have low saturation of banking sector, relatively, and at the same time the low GDP per capita and of course, because of that there is a significant growth potential of banking sector. The Poland has the biggest asset (166.4 billion Euros).

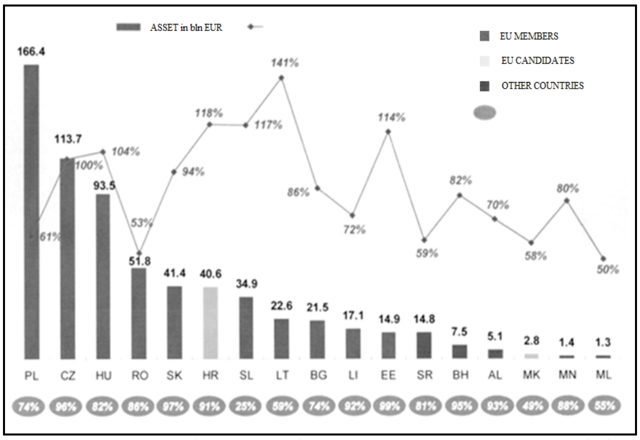
In general, we can conclude that countries of European Union have a higher ratio of total bank's asset to GDP than the EU candidate countries and other Central and Eastern European countries. The picture is symmetric on the level of GDP per capita, so the Central and Eastern European countries, which are in the process of joining to European Union can expect the GDP growth and at the same time faster growth of total bank's asset because they can expect relatively higher ratio of banking sector total asset to GDP.

Table 3. Banking sector development in Central and Eastern Europe

Country	MARK	ASSETS € bln	SATURATION (assets/GDP)
POLAND	PL	166,4	61%
CZECH	CZ	113,7	100%
HUNARY	HU	93,5	104%
ROMANIA	RO	51,8	53%
SLOVAKIA	SK	41,4	94%
CROATIA	HR	40,6	118%
SLOVENIA	SL	34,9	117%
LATVIA	LT	22,6	141%
BULARIA	BG	21,5	86%
LITHUANIA	LI	17,1	72%
ESTONIA	EE	14,9	114%
SERBIA	SR	14,8	559%
B&H	BH	7,5	82%
ALBANIA	AL	5,1	70%
MACEDONIA	MK	2,8	58%
MONTENEGRO	MN	1,4	80%
MALTA	ML	1,3	50%

Source: Overview of the CEE banking sector, Nomura International plc, Investment Banking Financial Institutions Group 2008.

Figure 1. Asset size managed by banking sector and saturation on the level of individual country



Source: Overview of the CEE Banking sector, Nomura International plc, May 2008.

3.2. The ratio of the economies size, GDP per capita and banking sector saturation in Central and Eastern European countries (CEE)

The average saturation of banking sector in Central and Eastern Europe is on the level of 80% (Nomura International, 2008:4). The average GDP is around 11,000 euro (Eurostat, 2009). Above the average saturation are Slovakia, Hungary, Czech, Latvia, Croatia and Slovenia, while Albania, Serbia, Macedonia, Romania and Montenegro are below the average saturation. The average saturation on the level of Central and Eastern Europe region can be found only in Bosnia and Herzegovina. On the following graph we can see positive correlation between GDP per capita in individual country and size of banking sector saturation.

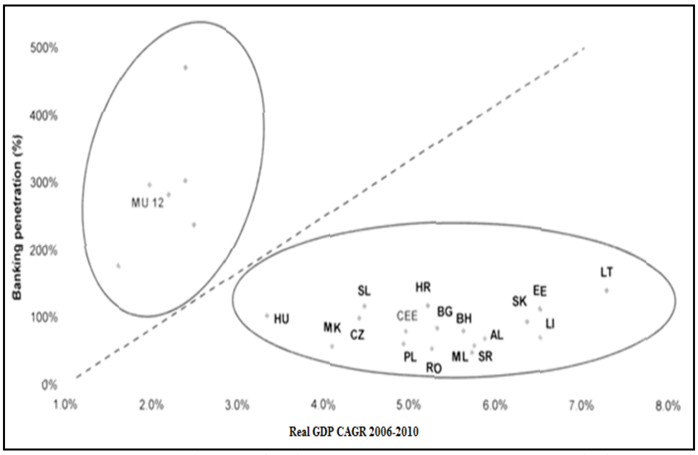
Figure 2. Comparison of economy size, GDP per capita and banking sector saturation for CEE countries

Source: Overview of the CEE banking sector, Nomura International plc, 2008.

3.3. The ratio of economy growth rate to banking sector saturation in Central and Eastern European countries

If we look the ratio of growth velocity of individual observed economies and the size of banking sector saturation, it can be concluded that developed banking sectors in Western Europe are characterized by low GDP growth rates and very high level of banking sector saturation. On the other side, the banking sector in Central and Eastern Europe is characterized by high growth potential, but relatively low level of saturation. In the same manner, the countries with lower GDP growth rate have higher saturation rate of banking sector, while the countries with higher GDP growth rate have lower saturation rate of banking sector. This conclusion can be observed in following chart.

Figure 3. Ratio of economy growth rate to banking sector saturation



Source: Overview of the CEE banking sector, Nomura International plc, 2008.

The chart above shows that developed EU countries, that are part of the most developed countries G7, realized the annual GDP growth of 1.5%-2.5% and have the banking sector saturation of more than 150% of GDP (Italy), to 500% of GDP (Great Britain). These actually confirm the thesis that developed countries with lower GDP growth rate have higher banking sector saturation. The higher GDP is marked with lower growth rate, so the banking sector saturation is positively related to GDP level and negatively related to GDP growth rate.

3.4. The concentration of banking sector total asset of Central and Eastern Europe by individual banking groups

We can afirm that there is a significant bank asset concentration in the area of Central and Eastern Europe. For example, the biggest five banking groups control 21% of total banking sector assets. The thirtieth banking group by size is Hansabank (Svedbank) with assets of 5.4 billion euro according to consolidated financial statements for 2006, while the biggest bank in Central and Eastern Europe is New Pekao Bank (Unicredit Group) with business operations concentrated in Poland. It is interesting that among 30 top banking groups in Central and Eastern Europe, there are 9 Polish groups, while Zagrebacka Bank d.d. is in the 11th place, and Privredna Bank Zagreb d.d. in 20th place measured with total assets of individual bank (Unicredit group, 2007). The summary is shown in Table below.

Table 1. Top 30 Banks in CEE region

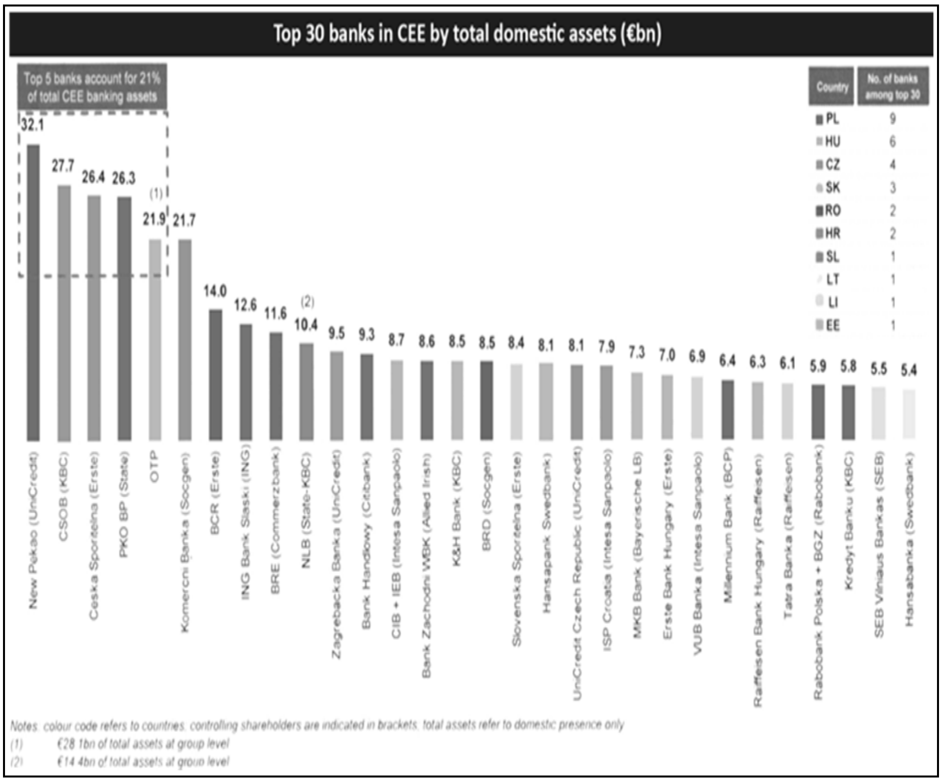
Rank	Banking Group	Contry	Assets € bln
1	New Pekao	PL	32,14
2	CSOB	CZ	27,7
3	Ceska sporitelna	CZ	26,4
4	PKO BP	PL	26,3
5	OTP	HU	21,9
6	Komercni Banka	CZ	21,7
7	BCR	RO	14
8	ING Bank Slaski	PL	12,6
9	BRE	PL	11,6
10	NLB	SLO	10,4
11	Zagrebačka Banka	RH	9,5
12	Bank Hendlovy	PL	9,3
13	CIB PLUS IEB	HU	8,7
14	Bank Zachodni WBK	PL	8,6
15	K&H Bank	HU	8,5
16	BRD	RO	8,5
17	Slovenska Sporitelna	SK	8,4
18	Hansa Bank	EE	8,1
19	Unicredit Czech Republic	CZ	8,1
20	PBZ Croatia	RH	7,9
21	MKB Bank	HU	7,3
22	Erste Bank	HU	7
23	VUB Bank	SK	6,9
24	Milenium Bank	PL	6,4
25	Raiffeisen Bank	HU	6,3
26	Tatra Bank	SK	6,1
27	Rabobank Polska BGZ	PL	5,9
28	Credyt Banku	PL	5,8
29	SEBvilniausBankas	LI	5,5
30	Hansa Bank	LI	5,4

Source: Statistical Office of the European Communities http://epp.eurostat.ec.europa.eu/portal

According to the Statistical Office of the European Communities the total assets of thirty biggest banking groups in Central and Eastern Europe was more than 385 billion euro at the end of 2007. The biggest thirty banking groups control over 25% total assets of 1,417 billion euro total bank's assets in observed region. In top 10 banking groups Polish and Czech banking groups dominate; that is, 4 of 10 biggest banks have headquarters in Poland and 3 in Czech.

This is logical because of the population and economy size of these countries, and it is indicative that the banking sector saturation in Poland is still on the level of 75% of average saturation in Central and Eastern European countries. Poland has a ratio of banking sector total assets to GDP around 60%, while the CEE countries average around 80%. That gives the 33% of static potential for the whole sector (Nomura International, 2008). The dynamics will depend on GDP growth rates, but in the next 3 years we can expect saturation over 100%, so the annual compounded sector growth will be around 20%.

Figure 4. Bank's asset concentration for individual group in CEE



Source: Overview of the CEE banking sector, Nomura International plc, 2008, 7.

3.5. Interest spreads

Price spreads and interest spreads are useful for estimation of observed banking sector development. Thus, the developed banking sector countries mark smaller interest spreads while countries with emerging banking sector have wider interest margins. The conclusions about banking sector development in observed countries based on the ratio of total assets to GDP for individual country can be proved implicitly through the width of price spreads and interest spreads, which are given below.

Table 5. Price and interest spreads

Poland	5,37	4,12	3,95	4,11	4,11	4,03
Croatia	6,04	5,46	4,86	4,51	4,54	4,45
Bulgaria	8,69	7,47	6,72	6,08	5,78	5,64
Czech Republic	4,76	4,61	4,41	4,42	4,45	4,45
Hungary	6,71	6,34	5,32	4,92	4,71	4,53
Romania	6,63	7,99	6,83	6,20	5,72	5,15
Slovakia	4,21	4,00	4,27	4,58	4,58	4,48

Source: CEE Banking forecast 2007- 2009, Unicredit group, March 2007.

Table 5 shows the significant correlation between GDP per capita and interest spread width. The higher level of GDP per capita suggest smaller interest margins, so we can see that Bulgaria has the wider interest spread (8.69%) with the lowest GDP per capita (9,465 EUR). On the other side, Slovakia has the smallest interest spread (4.21%) and relatively the highest GDP per capita (16,999).

4. FINANCIAL CRISIS AND BANKING SECTOR CRISIS

Since the Great depression in 1930, the World's economy didn't experience a crisis as severe as in last two and a half years. The recent crisis was induced in the American mortgage loans market, moved to loan markets, and finally to financial markets on the whole. The effects of crisis are transferred from western developed countries to the banking markets and economies of Central and Eastern European countries. Neo-liberal capitalism is in crisis and the current financial paradigms are in question. All of this is followed by the extensive power and wealth redistribution.

The anatomy of crisis is well known, as well as resulting financial balloons and panics magnitude. Impact of financial crisis on real sector is also well known. Insufficient are researches on vulnerability of real sector on financial distress resulting from structural problems in world real economy and degree of real sector problems which are behind government aspiration that action in finance sector can continuously stimulate desirable growth.

The Central and Eastern European countries analyzed in this paper are still in transition process. It is absolutely clear that national economies of these countries can`t be structurally adapting according the needs of worlds markets and international production allocation. Thus, economies of these countries are more vulnerable on global crises caused by international finance crush than G7 and other developed countries with much more respectable financial systems. Evidence for degree of economic crises in transition countries can be found in many macroeconomic figures, for example GDP, unemployment rate, etc.

Regardless difficult stage of national economies of analyzing countries, the fact is that these financial and banking systems are in much better condition than other industries. That can be proved by the fact that none of the Central European bank's did not file for bankruptcy. Reason for that can be find from foreign ownership and standard banking practices according to growing potential for traditional banking products. That fore, banks in region were not overly involved in risky operations of securitization and were not so much exposed to the recent crisis. Thus, less banks contamination from risky international investments, and much more rigorous supervision's requests, in analyzing countries are another proof for banks attractiveness as investments hypothesis, for example Capital Adequacy Requirements frequently 8% in Western Europe vs. 12% in Central and Eastern Europe.

5. CRISIS COMMENT AND FOREIGN CURRENCY LENDING

Attractiveness in prisms of investment opportunities of CEE Banking sector although challenged in aftermath of recent financial crisis in comparison to Central Europe and other developed countries has not changed significantly. Three to four main objectives for this conclusion are:

1. CEE banking sector remains well capitalized relative to Central Europe and other developed countries as it is shown in following table.
2. Saturation of banking sector relative to BDP remains low for chosen G10 countries in following table.
3. Securitization process is at nucleus level or does not exist at all so there was no risk of transfer to other financial entities and destabilization of other sectors, as was seen in developed countries.
4. Government intervention was not needed or was at minor level.

Bank centric financial systems of CEE Region imply that:

1. Banking system is backbone of economy in total
   a. Meaning that majority of funding aggregate investments and consumption is via Banks rather than capital markets
   b. Banks play leading role in transfer mechanism from financial to real sector
2. Banks obtain leading role in economy and preserve high profit margins
   a. Dominant position in aggregate savings of households
3. Banks are leading indicator for economy direction in whole, as to
   a. First sign of economy slowing is growth in reservations for expected risks
   b. First sign of economy expanding is growing demand for credit, usually first from leading companies that have privilege to access pool of capital.

Table 6. CEE banking sector remains well capitalized

Chosen CEE Bank (from top 30 CEE Banks by Assets)	Country	Bloomberg ticker	Tier 1 Risk-Based Capital Ratio	Total Risk-Based Capital Ratio
New Pekao	PL	PEO PW EQUITY	N/A	16,2
CSOB	CZ	CSOB CP EQUITY	N/A	15
Ceska sporitelna	CZ	CESP CP EQUITY	N/A	12,3
PKO BP	PL	PKO PW EQUITY	15,02	14,66
OTP	HU	OTP HB EQUITY	13,8	N/A
Komercni Banka	CZ	KOMB CP EQUITY	12,72	14,08
BCR	RO	229570Z RO EQUITY	N/A	15,81
ING Bank Slaski	PL	BSK PW EQUITY	N/A	12,01
BRE	PL	BRE PW EQUITY	N/A	11,5
Zagrebačka Banka	RH	ZABARA ZA EQUITY	N/A	N/A
Bank Hendlovy	PL	BHW PW EQUITY	N/A	16,7
Bank Zachodni WBK	PL	BZW PW EQUITY	N/A	12,97
K&H Bank	HU	KHBK HB EQUITY	N/A	N/A
BRD	RO	BRD RO EQUITY	N/A	N/A
Slovenska Sporitelna	SK	SPO SK EQUITY	N/A	N/A
Hansa Bank	EE	HP ET EQUITY	11,8	11,8
Unicredit Czech Republic	CZ	ZVBK CP EQUITY	8	12,25
PBZ Croatia	RH	PBZRA ZA EQUITY	N/A	18,06
MKB Bank	HU	MKB HB EQUITY	N/A	N/A
VUB Bank	SK	VUB SK EQUITY	11,82	N/A
Tatra Bank	SK	TATRA CP EQUITY	N/A	N/A
Hansa Bank	LI	10062 LH EQUITY	N/A	12,55
MEDIAN			**12,27**	**13,53**

Source: Bloomberg data

Table 7. Median value of Tier 1 Capital Ratio and Total Risk-Based Capital Ratio of top 30 Central Europe Banks by MCap is lower than in CEE

Ticker	Short Name	Tier 1 Capital Ratio LF	Total Risk-Based Capital Ratio LF	Market Cap (EUR)
HSBA LN Equity	HSBC HLDGS PLC	11,5	14,4	1,33503E+11
SAN SM Equity	BANCO SANTANDER	9,7	13	74713882624
BNP FP Equity	BNP PARIBAS	10,6	14,5	62521229312
RBS LN Equity	ROYAL BK SCOTLAN	12,8	13,9	57224355840
LLOY LN Equity	LLOYDS BANKING	10,3	13,4	54651936768
UBSN VX Equity	UBS AG-REG	16,700001	20,200001	46133526528
STAN LN Equity	STANDARD CHARTER	11,2	15,5	44581093376
BARC LN Equity	BARCLAYS PLC	13,2	16,5	38387896320
DBK GR Equity	DEUTSCHE BANK-RG	11,5	12,2	37909639168
CSGN VX Equity	CREDIT SUISS-REG	16,700001	21,9	35125710848
UCG IM Equity	UNICREDIT SPA	9,38	12,74	34842259456
BBVA SM Equity	BBVA	9,2	12,8	34144000000
GLE FP Equity	SOC GENERALE	10,7	12,6	31793829888
NDA SS Equity	NORDEA BANK AB	10,1	11,9	31788605440
ISP IM Equity	INTESA SANPAOLO	8,9	12,2	31327860736
ACA FP Equity	CREDIT AGRICOLE	9,7	10,1	28207499264
DNBNOR NO Equity	DNB NOR ASA	9,2	11,7	16164103168
SHBA SS Equity	SVENSKA HAN-A	15,7	20,700001	14539506688
FBAVP BB Equity	FORTIS BANQUE	10,9	19	14386089984
DANSKE DC Equity	DANSKE BANK A/S	13,7	17,200001	13203633152
KN FP Equity	NATIXIS			12708559872
EBS AV Equity	ERSTE GROUP BANK	11,4	13	12264269824
SEBA SS Equity	SEB AB-A	12,65	12,73	12246739968
KBC BB Equity	KBC GROEP	11,4	14,9	11075779584
SWEDA SS Equity	SWEDBANK AB-A	10,8	18,1	9497875456
RBI AV Equity	RAIFFEISEN BANK	13,9	13	7917958144
CBK GR Equity	COMMERZBANK	10,8	14,4	7589010944
ETE GA Equity	NATL BANK GREECE	10,5	10,5	7180239872
BMPS IM Equity	BANCA MONTE DEI	7,76	12,16	6676605952
median		**10,85**	**13,2**	

Source: Bloomberg data

Saturation as total assets to GDP remains substantially higher in developed countries in comparison to CEE Banking sector so growth potential remains high:

Table 8. G10 Saturation (Bank Assets to GDP) and chosen CE Countries

International comparison	Assets/GDP	two largest Banks Assets to GDP
Belgium	5,20	3,10
Canada	2,40	0,80
France	5,60	2,00
Germany	4,60	1,00
Italy	2,20	1,10
Japan	3,00	0,80
Netherlands	4,80	3,20
Sweden	4,40	2,60
Switzerland	8,20	6,20
Switzerland	6,70	4,40
United	6,30	2,30
United	1,70	0,30
median	**4,70**	**2,15**

Source: Financial Stability Report 2010, SNB

Table 9. Saturation of banking sector according to assets and assets to GDP

Country		Assets in bln EUR	Assets/GDP
Poland	PL	166,4	61%
Czech republic	CZ	113,7	100%
Hungary	HU	93,5	104%
Romania	RO	51,8	53%
Slovakia	SK	41,4	94%
Croatia	HR	40,6	118%
Slovenia	SL	34,9	117%
Latvia	LT	22,6	141%
Bulgaria	BG	21,5	86%
Latvia	LI	17,1	72%
Estonia	EE	14,9	114%
Serbia	SR	14,8	59%
Bosnia	BH	7,5	82%
Albania	AL	5,1	70%
Macedonia	MK	2,8	58%
Montenegro	MN	1,4	80%
Malta	ML	1,3	50%
median			**0,82**

Source: Finma, Bankscope, IMF, Bloomberg

Saturation of CEE banking sector relative to GDP remains low relative to developed countries: According to data presented, CEE Region obtains app. 5.5 times Asset growth potential relative to Central Europe countries and other G10 developed countries.

CONCLUSION

The paper covers analysis of bank's stock as investments, interpretation of bank's stocks as investment portfolios, purchase of significant portion in bank equity, and bank takeovers. The outline of investment in bank's stocks is observed in more details for Central and Eastern Europe.

Investment in stocks is an investment in residual claim, so investment in bank's stocks in Central and Eastern Europe is quite attractive because of the residual claims growth caused by strong bank's growth. Based on the valuation techniques and estimation approach to bank as an investment it is necessary to set down the analysis to targeted individual investments. Thus the decision making process can go in two major directions regarding bank as an investment, growing bank as an investment and undervaluated bank as investment. The importance of financial analysis of targeted investment is essential to determine expected return. A good information base is necessary for thorough financial analysis.

The sources are securities issuers, regulatory institutions, rating agencies, statistic office, and other specialists. Investing in Central and Eastern Europe banking sector observed through this prism enable the investor efficient risk management because of the availability of information. The good statistics of Central Bank, regular periodical reporting, auditor's report, general macro and microeconomic indicators are all good bases for thorough analysis that needs to be performed before investment decisions are made.

The basic hypothesis of the paper is confirmed with review of countries in Central and Eastern Europe. It is verified that in all countries which are candidates for EU the growth of GDP to PPP was higher than 7%, foreign direct investment more than 28%, the level of interest rates decreased more than 20% in last 4 years, and the growth of banking sector total assets was more than 24%, for period from 2003 to 2007.

For the same period the interest rate trend is opposite in European Union countries, which follows interest rates average growth of 22% in last four years. It is quite interesting that in the group of observed countries, the ones that entered EU in 2004 had a faster GDP growth, faster growth of bank's assets and foreign direct investments. See for details in the following table. This statistical support is a probable reason why the foreign owners took positions in banking groups in Central and Eastern European countries which are candidates for EU through the activities in the market of corporate control. On the other side, high prices realized in mergers and acquisitions in Central and Eastern Europe may be provoked by positive learning curves. Because of the higher and higher market capitalization required, the bank owners from domestic markets sought higher earnings or asset proportions in process of gaining the banking market by foreign bank groups from developed capital markets. For example, OTP Bank bought majority interest in ordinary equity of Vojvođanska Bank in 2007 with price to book ratio 5. We can presume that bank acquisitions activities would have been much slower in candidate countries if historical records didn't show fast growth in total assets, saturation and profitability of banking sector after joining EU. These conclusions can apply to bank as strategic investment and bank as investment for portfolio investor.

Table 10. The growth of saturation, GDP, FDI, concentration, foreign ownership and total assets in CEE

Country CEE	Saturation in % (A:GDP)	CAGR FDI 2003-2007	CAGR GDP 2003-2007 PPP	INTREST RATES 2003-2007	CAGR ASSETS 2003-2007	CONCEN TRATION TOP 5	FOREIGN OWNERS %A
Poland	61%	35,10%	7,48%	-13,64%	17%	55%	74%
Czech Rep.	100%	27,98%	7,82%	126,09%	13%	75%	96%
Hungary	104%	11,72%	5,97%	-8,33%	19%	56%	82%
Romania	53%	48,31%	8,65%	-54,97%	51%	62%	86%
Slovakia	94%	32,54%	9,30%	-27,87%	19%	71%	97%
Slovenia	117%	26,97%	7,20%	-28,57%	18%	69%	25%
Latvia	141%	55,46%	13,20%	193,10%	39%	69%	59%
Bulgaria	86%	25,60%	8,76%	90,00%	34%	50%	74%
Lithuania	72%	76,52%	10,74%	194,44%	39%	83%	92%
Estonia	114%	18,57%	11,50%	51,72%	33%	98%	99%
Serbia	59%	n/a	n/a	n/a	40%	47%	81%
B&H	82%	40,44%	7,45%	n/a	24%	63%	95%
Albania	70%	17,67%	7,24%	-5,08%	22%	74%	93%
Macedonia	58%	32,60%	3,83%	-31,25%	19%	69%	49%
Montenegro	80%	n/a	n/a	n/a	60%	80%	88%
Moldova	50%	27,73%	10,21%	-9,48%	29%	65%	55%
Croatia	118%	18,26%	6,55%	36,36%	17%	74%	91%
EU members since 2004							
Median	97%	30%	9%	22%	26%	69%	84%
Simple average	94%	36%	9%	52%	28%	69%	78%
MIN	53%	12%	6%	-55%	13%	50%	25%
MAX	141%	77%	13%	194%	51%	98%	99%
Standard deviation	27%	19%	2%	94%	13%	14%	23%
EU membership candidates							
Median	70%	28,00%	7,00%	-20,00%	24%	69%	88%
Simple average	74%	27,00%	7,00%	-21,00%	30%	67%	79%
MIN	50%	18,00%	4,00%	-36,00%	17%	47%	49%
MAX	118%	40,00%	10,00%	-5,00%	60%	80%	95%
Standard deviation	23%	10,00%	2,00%	16,00%	15%	11%	19%

Source: Overview of the CEE banking sector, Nomura international PLC, Authors interpretation

Although from the end of 2007 until today Central and Eastern European banks had bigger market capitalization correction than Western European banks, market capitalization compounded growth rate from 2000 to 2008 was higher for Eastern European banks. Furthermore, Eastern European banks are still cheaper than Western European according to price/earnings ratio.

Table 11. Compounded annual growth of market capitalization for CEE banks from 2000 to 2008 and P/E ratio

Area	Average	Market Cap CAGR (2000-2008) (%)	P/E
WESTERN	Median	-0,45	6,94
Europe	Average	0,37%	10,59
EASTERN	Median	7,93	6,15
Europe	Average	10,56%	17,79

Source: Bloomberg, www.bloomberg.com

So, in long term, Eastern European banks seem to be better investments, according to market capitalization of listed banks. In addition, there was more equity issue in Western European banks than Eastern European banks and the only investor in new issues was the State, so the picture is not quite accurate.

Without the effect of new capital provided by local government, Eastern European banks would have been even better investment opportunities. This conclusion confirms the annual compounded growth rate of total market capitalization of listed banks in Central and Eastern Europe from 2000 to 2008 of 10.5%, while for the Western European banks growth was 0.37%, and that is less than annual inflation.

From the previous conclusions it is possible to point out the expected direction and development dynamics of banking sector in EU candidate countries in Central and Eastern Europe region. If the observed trends continue we can conclude that bank is good investment opportunity in Central and Eastern Europe. However, given conclusions, processed statistics and expected quantities in following years can’t be observed out of the world’s financial crisis context. The indicators of banks capital adequacy are in some part disturbed, but profitability is still quite high. Problems are, in major part, related to liquidity, and the further development of banking sector in Central and Eastern Europe depends on economy recovery in observed countries. The bank’s asset is invested in long term placements, and with deposits withdrawal the balance of assets and liabilities is disturbed. But, bank comparisons for CEE still shows better valuation and faster growth rates than for banks in Western Europe and developed capital markets. Bank’s market capitalization in CEE experienced bigger correction so the relative comparison is more confirmed in time of crisis.

The specialized financial institutions don’t exist in banking sector of CEE. That conclusion is made from the house holdings total asset allocation in CEE. We can conclude that the CEE financial sector is in the initial phase of development. Banks control the majority of savings and there is a high concentration of financial industry in banking sector. These circumstances lead to high profit margins for CEE banks if compared to average profit margins of banks in developed markets. In long term, we can expect that development of financial markets, financial intermediaries and in

general, specialized financial institution (brokerage houses, investment banks, investment funds etc.) will normalize banking sector profit margins in CEE and will keep them on average level as it is in developed capital markets.
We did not take into analysis the country risk, which is higher in CEE countries then in Western European countries. There are several reasons for that: higher risk can be reduced through international diversification, banking sector in this countries is much less risky than country risk, and there are no material difference in country risk for CEE countries. Risk analysis is primary the key investment factor in financial analysis of particular bank's stock.

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