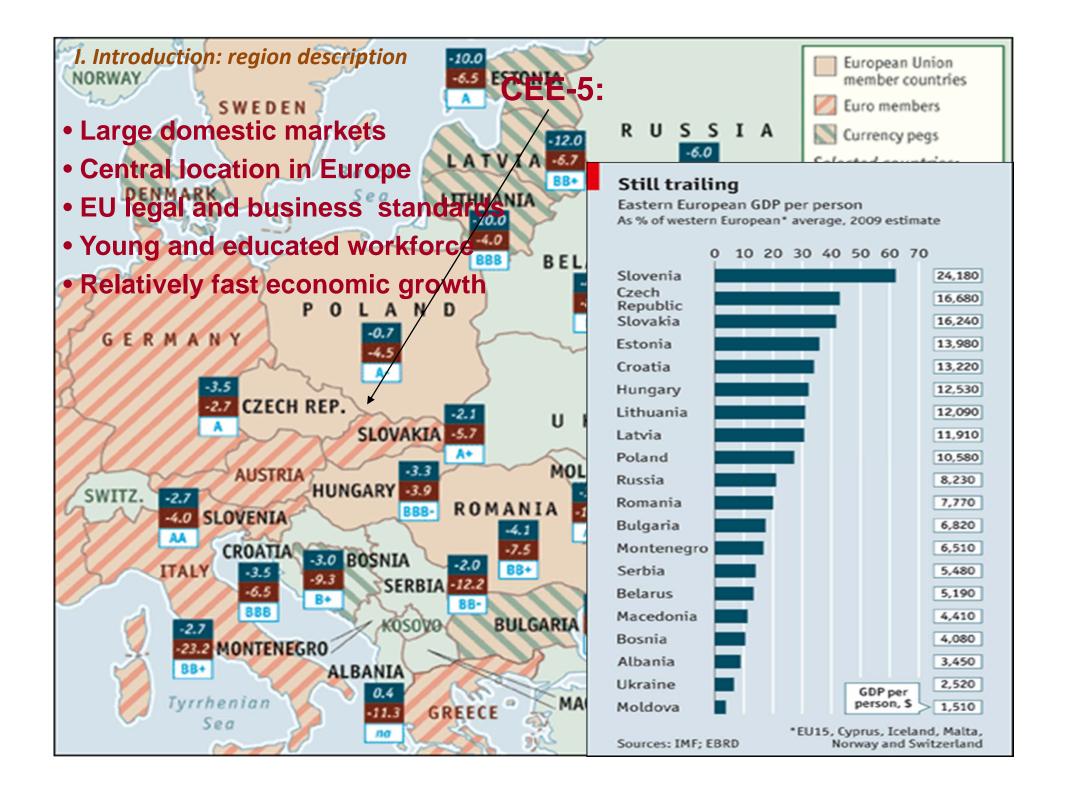
**European Financial System: In and out of the crisis Siena, 29.03.2011** 

# **Ewa Miklaszewska**

**Cracow University of Economics** 

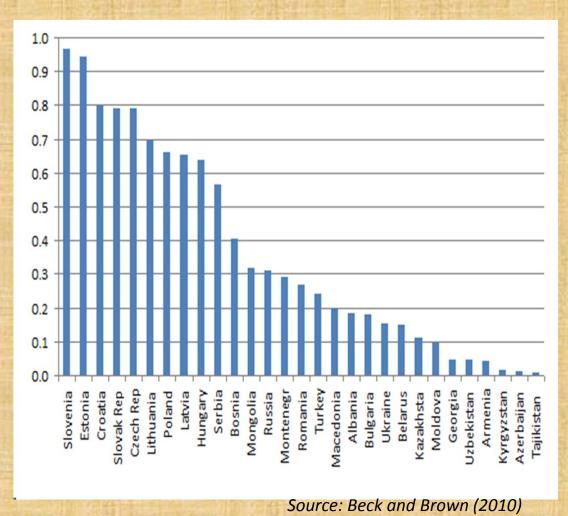
The consequences of the post-crisis global financial architecture for banking markets in CEE-5



### I. Introduction: region description

**Eastern Europe: a very broad and largely heterogeneous group of countries:** 

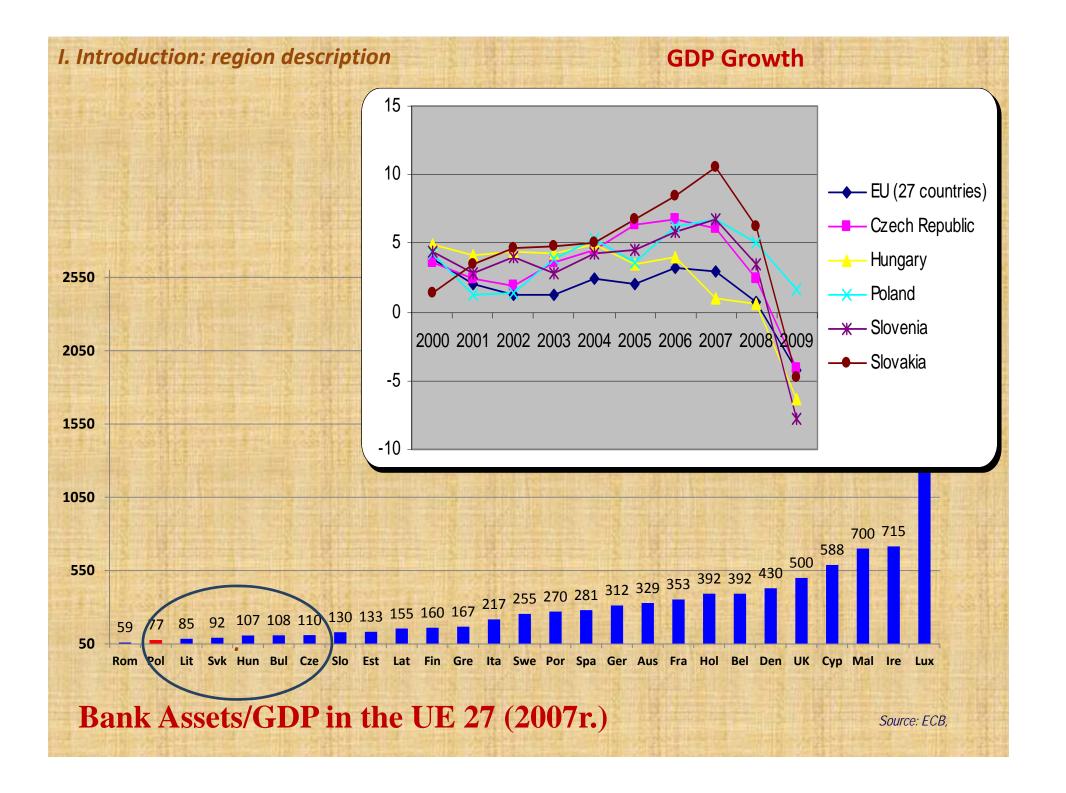
### **EE: Households with bank account**



•Central Eastern Europe (CEE):

Poland, Hungary, Czech Republic, Slovakia and Slovenia (in the EU since 2004, in Eurozone Slovenia 2007 and Slovakia 2009);

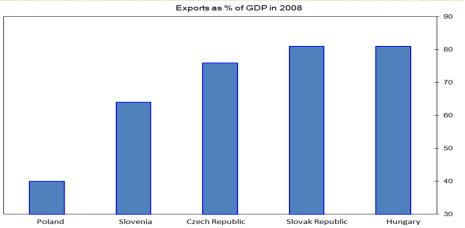
- •Baltic Cs: Lithuania, Latvia, Estonia (EU 2004, Estonia in Eurozone 2010);
- •South Eastern Europe (SEE):
  Romania and Bulgaria (EU in 2007)
  Croatia, Serbia, Bosnia and
  Herzegovina, Albania and Kosovo;
- •Commonwealth of Independent States (CIS): Russia, Ukraine and Belarus.

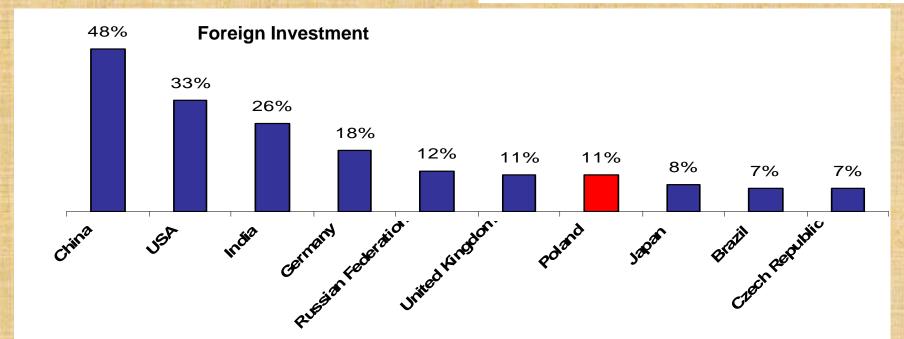


### I. Introduction: region description

### **CEE** among top most attractive regions for foreign investment







Source: Ernst & Young European Attractiveness Survey 2007, Mc Kinsey Quarterly.

### **CEE: Top 10 banks by total assets (2009)**

	#1	#2	#3	# 4	#5	#6	#7	#8	#9	# 10
Poland	PKO BP (state)	Pekao (UCG)	BRE (Commerzbank)	ING BSK (ING)	BZ WBK (AIB)	Millenium (BancoComPort)	Citibank (Citi)	Kredyt Bank (KBC)	BGK (state)	Raiffeisen (RZB)
Czech R.	Ceska Sporitelna (ERSTE)	CSOB (KBC)	Komercni Banka (SocGen)	UniCredit (UCG)	Raiffeisen (RZB)	ING Bank	Citibank (Citi)	GE Money (GE Capital)	Commerzbank (Commerzbank)	Volksbank (Volksbank Intl)
Slovakia	Slov Sporitelna (ERSTE)	VUB (IntesaSP)	Tatra (RZB)	CSOB (KBC)	UniCredit (UCG)	Dexia (Dexia)	Prva Stavebna (Bausparkassen)	ING (ING)	OTP (OTP)	Volksbank (Volksbank Intl)
Hungary	OTP Majority foreign capital	K&H (KBC)	CIB (IntesaSP)	MKB (BayernLB)	Raiffeisen (RZB)	ERSTE (ERSTE)	UniCredit (UCG)	Budapest Bank (GE Capital)	FHB (No majority)	Citibank (Citi)
Slovenia	NLB (state)/(KBC)	NKBM (state)	Abanka Vipa Local private	UniCredit (UCG)	SKB (SocGen)	Banka Koper (IntesaSP)	Banka Celje (NLB 41%)	Hypo Alpe (BayernLB)	SID banka d.d. (state)	Gorenjska (Local private)
Croatia	Zagrebacka Banka	Privredna (IntesaSP)	ERSTE (ERSTE)	Raiffeisen (RZB)	Hypo Alpe (BayernLB)	SocGen (SocGen)	Hrvatska Postanska (state)	(OTP)	Volksbank (Volksbank Intl)	Podravska Banka (Foreign ownership)
Bulgaria	UniCredit (UCG)	DSK (OTP)	UnBulgBnk (NB of Greece)	Raiffeisen (RZB)	Eurobank EFG (Eurobank EFG)	FirstInvestBank (Private)	Piraeus (Piraeus)	SG Expressbank (SocGen)	Alpha Bank (Alpha Group)	CrpCommBnk (Local private)
Romania	Banca Comerciala (ERSTE)	Pentru Dezvoltare (SocGen)	Volksbank (Volksbank Intl)	Raiffeisen (RZB)	Alpha Bank (Alpha Group)	UniCredit (UCG)	Banca Transilvania (Local private)	Banc Post (Eurobank EFG)	CEC (state)	ING (ING)
Bosnia-H.	Raiffeisen (RZB)	UniCredit (UCG)	Hypo Alpe Mostar (BayemLB)	Hypo Alpe BL (BayernLB)	NLB Razvojna (NLB)/(KBC)	Intesa SP (IntesaSP)	Volksbank (Volksbank Intl)	NLB Tuzlanska NLB/(KBC)	Nova (foreign private)	-
Serbia	Banca Intesa (IntesaSP)	Komercijalna (state)	Raiffeisen (RZB)	Eurobank EFG (Eurobank EFG)	Hypo Alpe (BayernLB)	UniCredit (UCG)	Vojvodjanska (NB of Greece)	AIK (ATEbank Greece)	SocGen (SocGen)	ProCredit (ProCredit)
Turkey	Ziraat (state)	Is Bankasi (Is Bank fund)	Garanti (Dogus Group & GE Capital)	Akbank (Sabanci Group & Citi)	Yapi Kredi (UCG)	Vakifbank (state)	Halk Bank (state)	Finansbank (NB of Greece)	Denizbank (Dexia)	ING (ING)
Ukraine	PrivatBank (Local private)	Raiffeisen (RZB)	UniCredit (UCG)	Oschadbank (state)	Ukrsibbank (BNP Paribas)	Ukreximbank (state)	(OTP) (OTP)	Alfa (Alfa Group)	Bank Nadra (Local private)	VTB bank (VTB Group)
Russia	Sberbank (state)	VTB (state)	Gazprombank Gazprom / (state)	Rosselkhozbank (state)	Bank of Moscow (Moscow City)	Alfa-bank (Alfa Group)	UniCredit (UCG)	Raiffeisen (RZB)	Rosbank (SocGen)	Uralsib (Local private)
Kazakhstan	BTA Bank (state)	Kazkommerts Bank (Local private)	Halyk Sav(ING)s (Local private)	Alliance Bank (state)	ATF Bank (UCG)	Center Credit (Kookmin B. Korea)	NUR Bank (Local private)	Temirbank (state)	Eurasian Bank (Local private)	Kaspi Bank (Caspian Group)
Estonia	Swedbank (Swedbank)	SEB (SEB)	Sampo Pank (Danske Bank)	Nordea (Nordea)	Eesti Krediidipank (Latv Bsn. Bank)	DnB Nord (DnB Nord)	Tallinna Aripank (Local private)	Marfin Bank (Marfin Popular)	UniCredit (UCG)	Parex banka (Parex Group)
Latvia	Swedbank (Swedbank)	Parex banka (state)/EBRD	SEB (SEB)	Nordea (Nordea)	DnB Nord (DnB Nord)	Rietumu (Private)	Aizkraukles (Local private)	Mortgage Bank (state)	UniCredit (UCG)	Latvijas Krajbanka (Snoras)
Lithuania	SEB (SEB)	Hansabankas (Swedbank)	DnB Nord (DnB Nord)	Nordea (Nordea)	Danske Bank (Danske Bank)	Snoras (Local private)	Ukio (Local private)	Parex bankas (Parex Group)	Siauliu (EBRD)	UniCredit (UCG)

Large international groups (top7 in CEE)

State, state-controlled and state-related

Regional foreign players

xxxxxxxxxx Other

Other international players

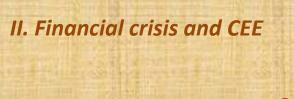
### **CEE -5: Banking Key Figures**

Poland: sound financial system, relatively unexposed to sophisticated financial instruments and high leverage, the loan-to-deposit ratio in the banking system is around 120 per cent, among the lowest in the region,

**Czech and Slovak banking:** more conservative funding structure and focus on traditional banking activities

**Hungary:** some 70 per cent of banking sector loans to the private sector are denominated in foreign currencies

	Banking	Assets,	bn Eur	No. of banks	7.2	3	Loans	Jo %	GAP % of TD	NPL % of TL	Share of		Banks %
Poland		26	52	7(		44		46	118	4.5		67	
Hungary		12	26	38		54		59	136	2.9		83	
Czech R.		15	54	37		62		56	81	2.8		88	
Slovakia		6	53	26		71		47	77	2.9		96	
Slovenia		4	17	19		59		90	88	1.6		29	



### **CEE-5 banks:**

Are they sound and stable?

Are they resistant to crisis?

Will they be strengten/weakened by new regulatory architecture?





### Financial architecture: form follows function

BGK Warsaw



Post-war regimes: traditional banking



Fed.

ING Katowice



**Basel II Framework** 



Citigroup Warsaw

**Basel III Framework** 

Sound, strong, and efficient banking system to create financial system stability for promotion of national economic growth Effective Healthy Adequate Banking Infrastructure Supervisory Structur e System Robust Effective Strong Consumer Regulation Banking Protection System Industry Pillar 1 Pillar 2 Pillar 5 Pillar 6 Pillar 3 Pillar 4

### **Building Post Crisis Financial Architecture**

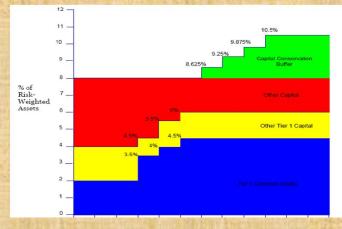
Global, regional, national?

Banks are internatonal in life but national in death

(Charles Goodhart)

 Macro and micro prudential regulations: do safe bank create a safe system?

- Global solution (BKBS, G-20):
  - Microprudential regulations Basel III
  - Macroprudential regulation FSB



 Practical outcome: regionalisation of macroprudential regulations (US,EU)

### **US Dodd-Frank Act, 2010**

Dotted line indicates authority to request information. but no examination authority to request information, but no examination authority

Green indicates new agency or new powers and authornit

Gold indicates old agency

OFAC / **FinCEN** 

SEC

### CFTC

Regulates securities exchanges; mutual funds and investment advisers. Examination authority for

Authority over security-based swaps, security-based swap dealers and major security-based swap participants

broker-dealers.

Market oversight and enforcement functions.

Authority over swaps swap dealers and major swap participants. Regulates trading markets, clearing organizations and intermediaries

Office of the Comptroller of the Currency

Focus on safety and soundness. Primary regulator of national banks and federal savings associations. Examination authority. Examines loan portfolio, liquidity, internal controls, risk management, audit compliance, foreign branches.

### Financial Stability Oversight Council

Identify risks to the financial stability of the U.S. from activities of large, interconnected financial companies. Authority to gather enformation from financial Institutions. Make recommandations to the Fed and other primary financial regulatory agencies regarding heightened prudential standards.

### Federal Reserve

Focus on safety and soundness-Supervisor f or bank holding companies: monetary policy: payment systems Supervisor for systemically important financial institutions and their

subsidiaries. Establish heightened prudential standards on its own and based an council recommendations. Examination authority.

### State Regulatory Authorities and AG's

Power to enforce rules promulgated by Bureau of Consumer Financial Protection

### FDIC

Focus on protecting deposits through insurance fund; safety and soundness; manage bank receiverships.

Examination authority\*. Orderly liquidation of systemically important financial institutions 3

**Bureau of Consumer** 

**Financial Protection** Focus on protecting

consumers in the financial

products and services

markets. Authority to

write rules, examine institu

tions and enforcement. No

prudential mandate.

### FINRA

Regulates brokerage firms and registered securities representatives. Writes and enforces rules. Examination authority over securities firms.

Investment

Advisory

Mutual and

money market

funds; wealth Management: trust services

Derivates Consumer Lending Futures, commodities

Credit cards student and auto loans

derivatives

Commercial Lending

Commercial and industria lending

Broker-dealer Institutional

and retail brokerage; securities lending; prime broker services

Retail Banking

Deposit products; mortgages and home equity

Alternative nvestments

Office of Financial

Office within Treasury, which may collect data from financial institutions on behalf of Council. No examination authority.

Research

Hedge funds; privare equity

Investment Banking

Securities underwriting; M&A financia advisory services

Payment and Cleaning Systems

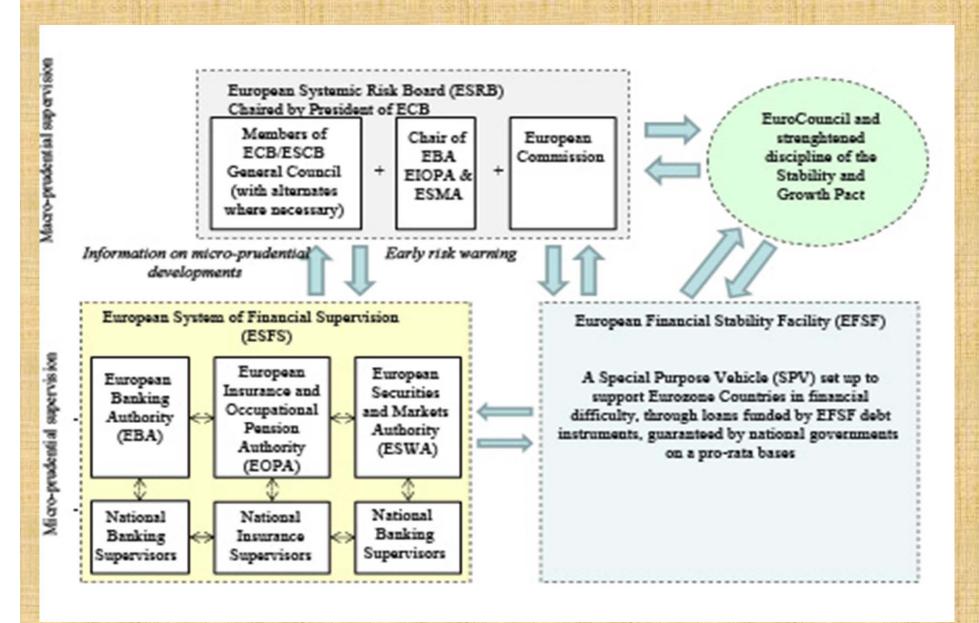
> processing; custody and clearing

This chart assumes activities are conducted a systematically important bank holding company (BHC) 
1 The Council, through Office of Financial research, may request report from systematically important BHCs 
2 FDIC may conduct exams of systematically important BHCs for puposes of implementing its authority for 
order liquidations, but may not examine those in generally sound condition 
3 The Dodd-Frank Act expanded the FDIC's authority when liquidating a financial institution to include 
the bank holding company, not just entities that house FDIC-insured deposits

Note: Green lines from SEC anf CFTC represent enhanced authority over existing relationships

Masera 2010

# **EU Financial Architecture 2010**

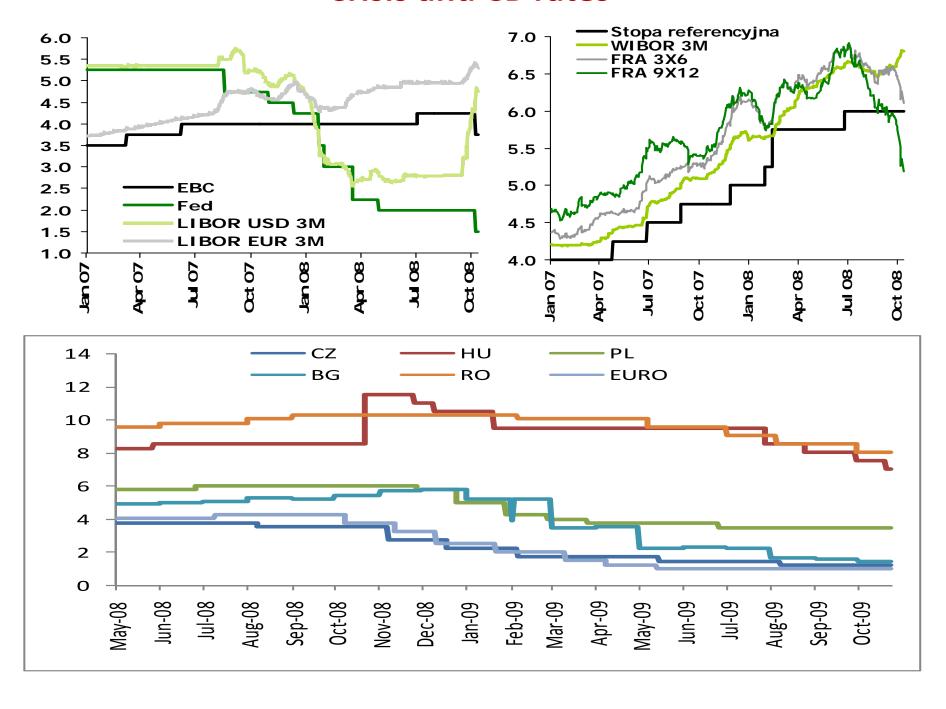


## Do we need macroprudential regulations?

# Macroprudential regulations: has the 2007-2008 crisis been properly diagnosed?

- "Current financial crisis was misdiagnosed as a liquidity problem when the issues were solvency and uncertainty about solvency")
   Key problems were excessive leverage combined with funding longer term assets with short term liabilities (wrong bank business models)
   (FRB Chicago)
- regulatory capture (integrated regulatory model in many countries)
- replacing strong supervision by market discipline incorrect trade-off

### **Crisis and CB rates**



# Do safe bank create safe system? In CEE-5: Yes

- Anayiotos, Toroyan, Vamvadikisn (2010): research of relative efficiency of banks in emerging Europe, using Data Envelopment Analysis (DEA).
- The results suggest that DEA efficiency scores before the recent crisis were strongly linked to the host country's level of development;
- were higher for foreign-owned banks,
- bank efficiency increased during the pre-crisis boom, but fell during the crisis,
- foreign-owned banks in EE seem to be less efficient than their mother banks,
- the easy access of foreign owned banks to financing from their parent banks was to a large extent the engine of the pre-crisis credit boom.
- On average, bank efficiency was equal to 0.55 in 2004, increasing to 0.61 in 2007, just before the crisis, but falling to 0.52 just after the crisis.
- Bank efficiency during the boom years increased the most in Romania, Poland, and Bulgaria.

# Regression results: ROAA

- Positive impact on bank profitability:
- -high GDP growth
- high asset growth
- -low banking costs,
- -high bank concentration

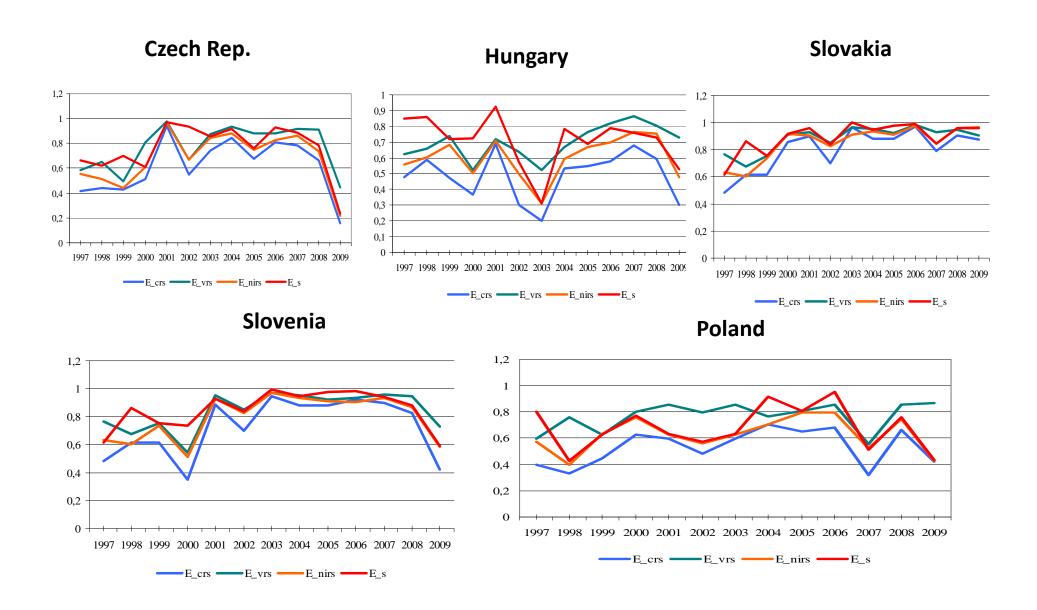
Variable	Model1		Model2	
Intercept	3.595	***	18.345	*
•	(0.832)		(10.351)	
GDP per capita (UE27=100)	-0.045	***	-0.058	**
	(0.004)		(0.023)	
Real GDP growth rate	0.048	***	0.058	***
-	(0.010)		(0.008)	
Inflation	-0.037		-0.056	
	(0.035)		(0.045)	
Concentration: C5 index	0.022	**	0.043	**
	(0.009)		(0.018)	
Share of foreign capital in banking sector	-0.012	***	-0.031	
	(0.003)		(0.021)	
Ln Total Assets	0.202	***	-0.777	
	(0.076)		(0.606)	
Growth of Total Assets	0.008	***	0.006	***
	(0.002)		(0.001)	
Equity Capital to Total Assets	0.053	***	0.013	
	(0.010)		(0.054)	
Cost to Income Ratio	-0.047	***	-0.045	***
	(0.001)		(0.002)	
Loans to Total Assets	-0.003		0.013	*
	(0.003)		(0.007)	
Non-Interest Income to Gross Revenue	-0.011	*	-0.012	
	(0.006)		(0.010)	
Bank Deposits & Short-term Funding to Total Assets	0.004		0.005	
	(0.003)		(0.007)	
Country dummy: USA	1.103	***		
	(0.173)			
Country dummy: Belgium & the Netherlands	-0.257	***		
	(0.063)			
R-squared	0.73		0.88	
Adjusted R-squared	0.72		0.83	
F-statistic	90.94		21.62	
Prob(F-statistic)	0.00		0.00	

**DEA:** the input: personnel expenses, total fixed assets, interest expense. the output: total loans net, liquid assets, total deposits.

Technical efficiency and scale efficiency have been investigated in the period 97-09

Year (e_vrs)	1997	1998	99	2000	2001	2002	2003	2004	2005	06	2007	2008	2009	No. of banks
Czech Rep.	0.59	0.65	0.50	0.81	0.98	0.67	0.88	0.94	0.88	0.88	0.92	0.91	0.44	27
Poland	0.60	0.76	0.63	0.80	0.86	0.80	0.86	0.77	0.81	0.86	0.56	0.85	0.87	41
Slovakia	0.76	0.67	0.75	0.91	0.93	0.85	0.97	0.96	0.93	0.98	0.93	0.95	0.91	17
Sovenia	0.74	0.64	0.73	0.54	0.95	0.85	0.97	0.96	0.93	0.94	0.96	0.94	0.73	19
Hungary	0.62	0.66	0.74	0.52	0.72	0.64	0.52	0.67	0.76	0.82	0.86	0.80	0.73	32

### **DEA Indicators for banking sectors of CEC5 (1997-2009 means)**



# **CEE: threats**

# Situation on foreign currency markets

- IMF (2008): 15% of private sector credit in EE is either denominated in or indexed to foreign currencies (Euros and Swiss Francs), compared with only 4% a decade ago
- the EU membership increased people's willingness to assume currency risk
- Foreign currency borrowing raises region's exposure to banking crisis

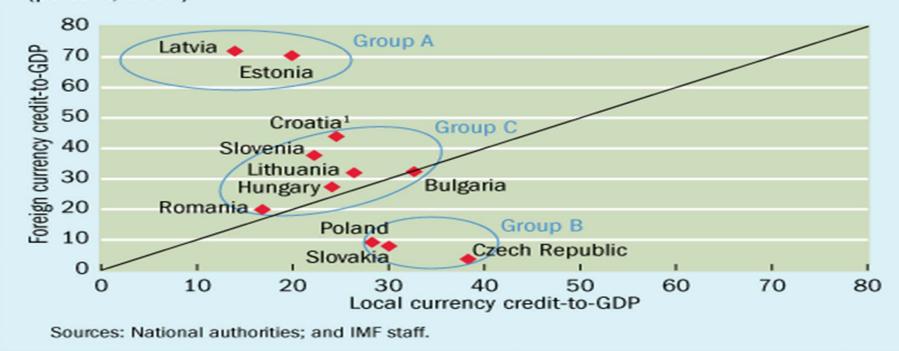
### Foreign currency borrowing: by-product of EU membership

Banks refinance themselves abroad and then pass on the currency risk to their clients.

### Change in behavior

Foreign currency borrowing is up dramatically in some new member states but not in others.

(percent, 2007)



IMF Survey Magazine: Countries & Regions

# FX loans: Threat to financial stability in EE

- Unhedged foreign currency borrowing: more than 70 % of all private sector loans in Estonia, Latvia, and Serbia
- The share of FX loans exceeds that of domestic currency loans in (Bulgaria, Hungary, and Romania)
- FX borrowing throughout the region is dominated by retail loans – household mortgages and small business loans – to clients which typically have their income and assets in local currency.
- National authorities have taken measures to discourage such loans, which are not very effective

# **FX loans: other views**

- Currency mismatch (bank lending to unhedged borrowers) exposes the economy to systemic risk, but it is also an engine of growth (Brown, De Haas, EBRD 2011)
- They found out that foreign banks lend more in FX to corporate clients, but not to households.
- Found evidence for 'contagion': banks with low levels of FX lending in 2001 increase their FX lending more strongly.
- Indicated that macroeconomic stability is a key determinant of FX lending in the transition economies, while real exchange rate volatility discourage FX lending,
- Conclusions: credible macroeconomic policies which encourage depositors to save in local currency may be more important than regulatory proposals to limit the wholesale funding of banks.

### **Conclusion: Financial crisis and CEE-5 banks**

### 2007-2009 period:

- banks entered crisis in a sound shape (successful restructuing of the 1990s), hence they reguired less restructuring than their international owners,
- experience in bank crisis management (early 1990s, 1997-98),
- global owners (70-90% of CEE bank assets) behaved responsible,
- many risk areas has not been developed i yet,
- bank business model: traditional intermediation.

### **Bright prospects? - NO**

- Crisis short-term impact: small (slowing down of growth, diminished profitability)
- Long-term impact strongly negative

Market risk	Currency volatility
Credit risk	Tightening of credit availability
Bank ownership	New business models of foreign banks: less risk, less product innovation, less competition
Macroeconomy	Transferring imbalances and volatitity
Regulations	Marginalisation of EE (BCBS)