NATIONAL BANK OF ROMANIA

Are expatriates managing banks' CEE subsidiaries more risk takers?

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Outline

- Objective
- Literature review on corporate governance and international staffing
- Data
- Methodology
- Discussion of results
- Conclusions and further work

Objective

The scope of this paper:

- are expatriates top management teams different than local ones?
- how are managers' characteristics related to risk taking of banks and lending activities?

Colakoglu et al. (2009): nationality of the management positions have a stronger potential to impact a host country subsidiary's effectiveness

Dorrenbacher et al.(2013): parent country nationals are followers of headquarters views

Literature review -1-

- Basel Committee on Banking Supervision (2014): an effective corporate governance in the financial system is crucial for an adequate functioning of the banking and real sector.
- Management characteristics (gender, education, work experience) affect companies' risk profiles, strategy, capacity of reacting to shocks: Barkema and Shvyrkov (2007), Faccio et al. (2015)
- The *nationality* of the CEO and of top management team matter: Greve et al. (2014), Bogaard and Sonkova (2013)

Literature review -2-

- Various roles of expatriates: Edstrom and Galbraith (1997), Harzing (2001)
- Corporate governance for foreign-controlled bank subsidiaries/braches: Cardenas et al. (2003), Allen et al. (2011), Bogaard and Sonkova (2013)
- Top management teams' structure and management changes are endogenous: Dezdo and Ross (2012), Fee et al.(2013), Kaczmarek and Ruigrok (2013)
- The endogeneity makes difficult identifying the causal effect of management on strategy and performance of the organization, invalidating traditional estimators.

Data description -1-

- Time frame: **2007-2013**
- Financial information for **27** (largest) credit institutions: Croatia (5), Czech Republic (5), Hungary (6), Poland (6) and Romania (5).
- Data regarding **366** CEOs and members of the top management teams: nationality, birth year and tenure in the current position
- Data sources: banks' annual reports, Bloomberg, banks websites, Reuters, Orbis Bureau van Dijk, managers' curriculum vitae.

Data description -2-

Bank specific variables

	2007			2013		
	Mean	Median	Std. dev	Mean	Median	Std. dev.
total assets (EUR mil.)	13,590	9,682	10,466	16,982	10,553	12,849
ROA (%)	1.58	1.54	0.71	0.63	1.03	1.46
ROE (%)	11.66	11.16	7.64	2.82	5.95	14.47
Risk Weighted Assets (% of total assets)	68.68	65.60	17.20	61.48	62.07	16.03
LTD	1.02	0.99	0.30	0.97	0.95	0.22
Parent funding (% of total assets)	9.78	4.73	11.19	8.81	6.09	8.53
Total related party liabilities (% of total assets)	14.72	10.74	12.75	12.79	8.55	10.30
Equity (% of total assets)	9.81	9.22	4.08	11.59	10.92	3.14
Total loans (% of total assets)	62.75	61.43	10.60	63.13	64.53	11.45
Cash holding (% of total assets)	11.66	7.30	9.61	8.83	8.01	6.31
Interbank assets (% of total assets)	8.89	7.79	7.42	5.03	3.06	4.56

Managers' characteristics

	Total number of managers (2007-2013), out of which*:	Minimum across banks (2007-2013)	Maximum across banks (2007-2013)
	366		
women (percent)	14.48	0	75
men (percent)	85.52	25	100
domestic nationality (percent)	57.7	0	100
expatriates (percent), out of which:	42.3	0	100
parent bank nationals (percent)	31.8	0	100
third country nationals (percent)	10.5	0	100
age (in years)	47.2	33	67
tenure (in years)	4.0	1	22
management team size (number of members)	6.7	2	18

Source: Bloomberg, Reuters, Orbis, credit institutions' annual reports, managers' curriculum vitae

Methodology -1-

Two methodological approaches:

A. Fixed effects models (Hausman test and F test for significance of fixed effects):

$$X_{it} = \beta_0 + \beta_y Y_{it-1} + \beta_z Z_{it-1} + u_i + e_{it}$$

•X_{it} -the explained variable for bank i: 1) measures of risk: LTD, ratio of RWA to total assets, ratio of provision for loan losses (PLL) to total assets and 2) lending indicators

•Y_{it-1} - control variables for bank factors (one year lagged): size (log of total assets), profitability indicators (ROA), capitalization level (ratio of equity to TA)

• Z_{it-1} - management team and/or CEOs' characteristics: age, tenure, *nationality* etc.

• u_i - bank-specific, time-invariant FE and e_{it} - the i.i.d. disturbance.

• All estimations include time dummies.

Methodology -2-

The accurate impact of having an expatriate CEO: comparing the performance of a credit institution with an expatriate CEO with the performance it would have obtained if it had been administered by a domestic manager => unobservable => control (counterfactual) group - banks with local CEOs

B. Matching techniques: Propensity score (Rosenbaum and Rubin, 1983)

- estimate the propensity of a bank having an expat as CEO (logistic regression)

$$P(\text{CEO\_expat}_{it} = 1 | Z_{it-1}) = \Phi(\text{size}_{it-1}, \text{ROA}_{it-1}, \%\text{expat\_managers}_{it-1}, \text{avg\_team\_tenure}_{it-1})$$

- construct the control group
  - nearest neighbor
  - kernel matching
- estimate the Average treatment of the treated (ATT): the difference for each "treated" bank between: (i) the effective outcome the bank obtains under the treatment and (ii) the potential outcome resulted if it had not received the treatment. "The treatment" = being managed by an expatriate CEO

$$\text{ATT}=E[X_{it}(1) - X_{it}(0) | \text{CEO\_expat}_{it} = 1] = E[X_{it}(1) | \text{CEO\_expat}_{it} = 1] - E[X_{it}(0) | \text{CEO\_expat}_{it} = 1]$$

Results -1-

Banks with expatriate CEOs or higher share of expatriates in the management team are more risk-takers (higher LTD, ratio of RWA and PLL in total assets).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	LTD	LTD	LTD	LTD	LTD	RWA/TA	RWA/TA	RWA/TA	RWA/TA	RWA/TA	PLL/TA	PLL/TA	PLL/TA	PLL/TA
lag share of expatriate managers	0.0993				0.078	0.00786	0.0349	0.062			0.0030	0.0034	-0.0029	
	(0.102)				(0.107)	(0.071)	(0.075)	(0.090)			(0.003)	(0.004)	(0.003)	
lag CEO nationality	0.101	0.141*	0.172*	0.109*				0.0536	0.0652	0.0583			0.00032	0.00052
	(0.081)	(0.077)	(0.090)	(0.057)				(0.075)	(0.077)	(0.063)			(0.001)	(0.001)
lag TA		0.231**	0.0605		0.208	-0.317***	-0.0645		-0.0593	-0.216*	-0.00991*	-0.00983	-0.01004*	-0.00938*
		(0.107)	(0.144)		(0.131)	(0.092)	(0.078)		(0.105)	(0.107)	(0.005)	(0.007)	(0.005)	(0.005)
lag ROA	1.351	0.689	1.68	0.666		0.8		0.336	0.725	1.07	-0.1409	-0.1018	-0.1397	-0.1489
	(1.357)	(1.520)	(1.570)	(1.230)		(1.038)		(0.921)	(0.991)	(1.150)	(0.111)	(0.826)	(0.114)	(0.120)
lag capitalization		3.270**			3.424***		1.159**		1.114**		0.0315		0.0301	0.0354
		-1.241			-0.822		-0.544		-0.503		(0.058)		(0.061)	(6.569)
lag total loans/TA	0.728***			0.627*				0.0785		-0.205				
	(0.230)			(0.307)				(0.152)		(0.365)				
lag parent funding/TA										0.15		0.03773*		
										(0.180)		(0.022)		
lag related party liabilities/TA						0.395								
						(0.271)								
lag CEO age				-0.00495										
				(0.007)										
lag CEO tenure			0.00618							-0.00205				
			(0.005)							(0.004)				
lag board size					-0.0247	-0.0148*								
					(0.015)	(0.008)								
lag average board tenure												-0.00070		
												(0.001)		
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared within	0.252	0.289	0.213	0.262	0.276	0.365	0.263	0.233	0.325	0.329	0.206	0.392	0.206	0.201
Number of observations	153	153	153	144	162	119	157	149	142	128	125	105	125	125

Huber- White robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Source: Bloomberg, Reuters, Orbis, credit institutions' annual reports, authors' calculations

Results -2-

Banks managed by expatriates and more dependent on resources from parent bank/group deliver more credit to companies and households (as share in total assets).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
VARIABLES	loans/TA	loans/TA	loans/TA	loans/TA	loans/TA	loans/TA	loans/TA	loans/TA	loans/TA	yoy loan growth
lag share of expatriate managers	0.000288	-0.0365	-0.0701*	-0.0705*	-0.0347	-0.0698*				0.0547
	(0.0282)	(0.0317)	(0.0359)	(0.0376)	(0.0319)	(0.0343)				(0.0768)
lag CEO nationality					0.0297*		0.0314*	0.0268	0.0296	
					(0.0166)		(0.0171)	(0.0195)	(0.0196)	
lag TA	0.0534**	0.0704**	-0.00578	-0.00974	0.0673***	-0.00685	0.0588**	0.0617***	0.0192	-0.200*
	(0.0230)	(0.0261)	(0.0309)	(0.0325)	(0.0241)	(0.0320)	(0.0253)	(0.0194)	(0.0304)	(0.111)
lag ROA			0.410	0.605		0.410	0.345		0.622	1.963*
			(0.594)	(0.645)		(0.598)	(0.381)		(0.549)	(1.104)
lag capitalization	0.620**	1.422***			1.263***		0.739***	0.838***		
	(0.258)	(0.364)			(0.365)		(0.169)	(0.248)		
lag parent funding/TA			0.181***			0.181***		0.0796		
			(0.0583)			(0.0588)		(0.0739)		
lag related party liabilities/TA				0.248***					0.241***	
				(0.074)					(0.065)	
lag average board age	-0.000600									
	(0.00159)									
lag average board tenure		-0.00720*								
		(0.00401)								
lag management team size						-0.000373				
						(0.00455)				
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared within	0.117	0.239	0.138	0.156	0.242	0.138	0.159	0.155	0.149	0.319
Number of observations	147	162	130	123	162	130	153	138	123	153

Huber- White robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Source: Bloomberg, Reuters, Orbis, credit institutions' annual reports, authors' calculations

Results -3-

Larger and more profitable banks are more likely to have an expatriate CEO. The coefficient for the share of expatriate managers in bank's top management teams is negative, although not significant. The longer the average board tenure, the lower the probability of the bank having an expatriate as CEO.

VARIABLES	P(CEO_expatriate=1)
lag share of expatriate managers	-0.0526
	(0.171)
lag size (log TA)	0.196***
	(0.0757)
lag ROA (percent)	0.0222
	(0.0446)
lag average management team tenure	-0.0489*
	(0.0291)
_Icountry_HR	-0.141
	(0.131)
_Icountry_HU	0.0848
	(0.145)
_Icountry_PL	**-0.273***
	(0.153)
_Icountry_RO	**0.487*****
	(0.161)
_Iyear_2008	-0.0398
	(0.166)
_Iyear_2009	-0.0490
	(0.153)
_Iyear_2010	-0.00155
	(0.142)
_Iyear_2011	-0.0237
	(0.145)
_Iyear_2012	0.0289
	(0.139)
Logit Wald chi2	27.2
Logit Pseudo R-squared	0.1757
Number of observations	153

Average marginal effects on bank's probability of having an expatriate as CEO. Base country is Czech Republic.
Huber- White robust standard errors in parentheses;
*** p<0.01, ** p<0.05, * p<0.1
Source: Bloomberg, Reuters, Orbis, credit institutions' annual reports, authors' calculations

Results -4-

The matching methods confirm the regression results regarding the risk profiles of banks with expatriate CEOs.
However, the differences among banks' characteristics due to CEO country of origin are in most cases statistically insignificant.

Variables	Unmatched	Kernel matching Average treatment of the treated.	Nearest neighbor matching Average treatment of the treated.	Observations
LTD	0.0509	0.0149	0.0268	153
	(0.0516)	(0.0849)	(0.0701)	
RWA/TA	0.0633**	0.0623	0.0766*	149
	(0.0279)	(0.0415)	(0.0394)	
PLL/TA	0.411***	0.589***	0.557***	125
	(0.128)	(0.194)	(0.172)	
Total loans/TA	0.0402**	0.0376	0.0439**	153
	(0.0182)	(0.0260)	(0.0190)	
Cash and cash equivalent/TA	0.0231**	-0.00101	-0.000831	153
	(0.0116)	(0.0158)	(0.0139)	
Interbank assets/TA	-0.0132	0.000841	0.00427	148
	(0.00839)	(0.0103)	(0.00845)	
Deposits/TA	0.0175	0.0417	0.0385	153
	(0.0202)	(0.0255)	(0.0256)	
RWA yoy growth	-0.0472	-0.00566	0.00770	146
	(0.0468)	(0.0414)	(0.0385)	

Bootstrapped standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Source: Bloomberg, Reuters, Orbis, credit institutions' annual reports, authors' calculations

Conclusions

- We studied how the country origin of the banks' managers is related to developments in banks strategies, risk profiles and lending.
- Credit institutions from CEE with expatriate CEOs or higher share of expatriates in top management teams are more risk-takers (higher LTD, ratio of RWA and PLL to total assets).
- There is a stronger relationship between CEO and risk compared to management teams' composition-risk.
- A larger number of members in the management team might decrease the risk profile of a bank.
- Being managed by an expatriate CEO and having a higher degree of interconnectedness with the financial group have positive significant role for sustaining lending towards companies and households.
- Nevertheless, the results are statistically significant in a limited number of specifications.
- In similar conditions about a bank (dimension, profitability, etc.), the probability for a Romanian bank to have an expatriate CEO is considerably higher than in other countries. At the opposite, Polish banks have a lower inclination than in other countries in appointing expatriates as CEOs, all else being equal.

Further work

- The results in the study are based on data from large banks. For smaller bank, the results might be more acute.
- Robustness checks by using other indicators measuring risk appetite: i) Reserve for Losses on Loans, ii) D&A and Provision for Loan Losses, iii) net interest income etc.
- Assessing how banking group's tenure in a certain country impacts the results.
- Extending the dataset.
- In depth analysis of financial interconnectedness.

Thank you!