

## Executive Compensation, Bank Performance and Risk Taking: Some Indonesian Evidence

Asri Laksmi Riani, Taufiq Arifin and Pradityo Abi  
Faculty of Economics and Business, Universitas Sebelas Maret,  
Kota Surakarta, Tengah, Indonesia

---

**Abstract:** Researchers investigate the impact of executive compensation on bank performance and risk taking behavior using data for Indonesian commercial banks. The findings confirm that executive compensation could lead to a higher performance. Researchers also conclude that at least in context of Indonesian banking, a higher executive compensation does not bring to a higher risk taking behavior. Researchers argue that the banking oligopoly in Indonesia create less incentive for managers to invest in risky projects, as they enjoy the higher interest rate on loans even in less risky loans.

**Key words:** Total compensation, individual compensation, performance, risk taking, Indonesian banks, invest, risky projects

---

### INTRODUCTION

Executive compensation has been an important issue in the academic literature, as well as in the business practice since a couple of decades ago. During the recent years, however greater attention has been paid on such a matter (Otten, 2008), especially with regard to the need of good governance and transparency for shareholders. Large bodies of literature, in the fields of finance, management, accounting and economics have examined the determinants of executive compensation, mainly on the pay based performance hypothesis.

On the other hand, a number of papers have also studied the impact of executive compensation on the outcome of firms, particularly on accounting and market performance. Ozkan (2011) studies the impact of cash compensation, non-cash compensation and total compensation on performance of UK firms. This study finds that cash compensation for executive significantly increases firm performance but there is no evidence on the relationship between total compensation and performance. Hayes and Schaefer (2000) examine the effect of cash compensation for executive on the market performance and accounting performance. They find evidence that cash compensation improve performance.

Another role of executive compensation that has recently been a debate in the academic literature is on the risk taking behaviors. Saunders *et al.* (1990) argue that

compensation could be considered as a tool to minimize the agency conflict between managers and shareholders. On the other hand, however it could also be argued that performance-based compensation may thus lead to a strategy that tend to be an excessive risk taking behaviors as the top management would like to maximize their compensation that can be reached by maximizing firm performance.

The present study examines the impact of executive compensation on performance and risk taking of banking firms. The unique feature of banks, especially on their business makes them to be risky. Saunders *et al.* (1990) explain that risk taking behavior of banks could be in the form of excessive credit granted to borrowers which subsequently increase the non-performing loans. Related to executive compensation, Chen *et al.* (2006) find that stock option compensation tends to increase the degree of risk taking in the banking industry, consistent with the finding of Belkhir and Chazi (2010).

Researchers study Indonesian banks in which the role of banking is still relatively dominant in the financial sector like in other developing countries (Trinugroho *et al.*, 2012).

### MATERIALS AND METHODS

Researchers collect data on executive compensation of Indonesian commercial banks from their financial and annual reports. However, researchers face some

difficulties as for non-publicly traded banks, information reported in the financial reports, especially on the compensation for executives are often incomplete. To deal with this problem, researchers extend the sample from 2001-2010 resulting in 92 observations. However, researchers treat them in a cross-section research, as it is unable to do panel estimations.

To measure firm performance, researchers employ 2 most used measures which are the ratio of Return on Assets (ROA) and the ratio of Return on Equity (ROE). Researchers have 3 proxies of bank risk taking behavior which are the ratio of Non-Performing Loans to total loans (NPL), the Standard Deviation of Return on Assets (SDROA) and the Standard Deviation of Return on Equity (SDROE). The 2 latter refer to the research of Lepetit *et al.* (2008). Researchers divide the variable of interest (executive compensation) into 2 measures:

- The natural logarithm of total compensation (LnKom\_Tot)
- The natural logarithm of individual compensation (LnKom\_Indv)

Researchers also include some variables in the empirical models which are a dummy variable for State-owned Banks (SOB), a dummy variable for Foreign Banks (FOB), the ratio of Equity to Total Assets (EQTA) and a dummy variable for publicly traded banks (LISTED).

## RESULTS AND DISCUSSION

Table 1 presents the descriptive statistics of all variables while correlation structure among variables is exhibited in Table 2.

Table 2: Correlation structure

Variables	LnKom Tot	LnKom Indv	EQTA	SOB	FOB	Listed	ROA	ROE	NPL	SDROA	SDROE
LnKom Tot	1.000										
LnKom Indv	0.954	1.000									
EQTA	-0.271	-0.298	1.000								
SOB	0.285	0.305	-0.284	1.000							
FOB	-0.284	-0.267	0.294	-0.228	1.000						
Listed	0.156	0.075	-0.205	-0.428	-0.095	1.000					
ROA	0.223	0.246	0.324	0.442	0.029	-0.450	1.000				
ROE	0.413	0.432	-0.231	0.661	-0.239	-0.312	0.740	1.000			
NPL	-0.239	-0.272	0.019	0.043	-0.113	0.202	-0.302	-0.307	1.000		
SDROA	-0.251	-0.224	0.086	-0.014	0.303	-0.006	0.009	-0.138	0.053	1.000	
SDROE	-0.051	-0.052	-0.298	0.185	-0.020	0.080	-0.210	0.052	0.110	0.697	1

Table 2 presents the correlation of variables. LnKom\_Tot is the natural logarithm of total compensation. LnKom\_Indv is the natural logarithm of individual compensation. ROA is Return on Assets (percentage) while ROE is Return on Equity (percentage). NPL is the ratio of Non-Performing loans to total loans. SDROA is the Standard Deviation of Return on Assets while SDROE is the Standard Deviation of Return on Equity. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned Banks. FOB is a dummy variable for foreign banks. LISTED is and a dummy variable for publicly traded banks

Table 3: Regression results; dependent variable: ROA

ROA (Return on Assets)								
Variables	1	2	3	4	5	6	7	8
Constant	-2.043*		-2.425*	-2.166*	-0.804	-2.037*	-2.511*	-1.194
	-2.325		-2.110	-2.437	-0.549	-2.416	-2.304	-0.927

Table 3 presents the regressions results with ROA as a dependent variable. Generally, we find as researchers expect that total compensation and individual compensation have positive and significant effect on performance. As shown in Table 4, identical results are found when researchers alter the proxy of performance to ROE.

Turn to the impact of executive compensation on risk taking behaviors, researchers document interesting findings. Contrary to the previous studies, the results show that the higher the compensation for top management, the lower the risk banks have as shown by the negative coefficients of total compensation and individual compensation on Non-Performing Loans (NPL)

Table 1: Descriptive statistics

Variables	N	Min.	Max.	Mean	SD
LnKom_Tot	92	7.38	11.92	9.7494	1.1411
LnKom_Indv	92	5.30	9.09	7.4034	0.92749
ROA	92	-1.24	4.64	2.0177	1.13650
ROE	92	-16.45	43.83	16.7163	10.45651
NPL	92	0.26	9.06	3.4152	1.91443
SDROA	92	0.01	2.14	0.4997	0.37045
SDROE	92	0.43	22.60	4.8002	4.14047
EQTA	92	3.37	25.67	10.4700	4.47240
SOB	92	0.00	1.00	0.4565	0.50084
FOB	92	0.00	1.00	0.0978	0.29871
Listed	92	0.00	1.00	0.5870	0.49508
Valid N (listwise)	92				

Table 1 presents the descriptive statistics of variables. LnKom\_Tot is the natural logarithm of total compensation. LnKom\_Indv is the natural logarithm of individual compensation. ROA is Return on Assets (percentage) while ROE is Return on Equity (percentage). NPL is the ratio of Non-Performing Loans to total loans. SDROA is the Standard Deviation of Return on Assets while SDROE is the Standard Deviation of Return On Equity. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned Banks. FOB is a dummy variable for Foreign Banks. LISTED is and a dummy variable for publicly traded banks

Table 3: Continue

ROA (Return on Assets)

Variables	1	2	3	4	5	6	7	8
LnKom_Tot	0.277*		0.31*	0.297*	0.157			
	3.223		2.885	3.356	1.107			
LnKom_Indv		0.350*				0.409*	0.381*	0.244
		3.378				3.048	3.514	1.518
EQTA	0.116*	0.121*	0.119*	0.119*	0.110*	0.124*	0.116*	0.116*
	5.185	5.400	5.142	5.142	4.782	5.411	5.035	5.020
SOB	0.928*	0.951*	1.892	1.892	0.896*	2.083	0.949*	0.944*
	4.076	4.244	1.011	1.011	3.899	1.257	4.234	4.204
FOB	0.175	0.163	0.214	0.214	0.128	0.206	2.182	0.140
	0.552	0.517	0.655	0.655	0.398	0.640	1.040	0.444
Listed	-0.506*	-0.437*	-0.469*	-0.469*	-2.266	-0.421**	-0.435*	-1.720
	-2.301	-2.041	-2.022	-2.022	-1.350	-1.947	-2.033	-1.152
LnKomTot_SO			-0.095					
			-0.519					
LnKomTot_FOB				-0.277				
				-0.950				
LnKomTot_Listed					0.179			
					1.058			
LnKomIndv_SO						-0.148		
						-0.690		
LnKomIndv_FOB							-0.296	
							-0.973	
LnKomIndv_Listed								0.172
								0.868
R <sup>2</sup>	0.492	0.497	0.493	0.497	0.498	0.5	0.503	0.502
Adj R <sup>2</sup>	0.462	0.468	0.458	0.462	0.463	0.465	0.468	0.466
Observation	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000

Table 3 presents the regression results. The dependent variable is ROA (Return on Assets). LnKom\_Tot is the natural logarithm of total compensation. LnKom\_Indv is the natural logarithm of individual compensation. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned banks. FOB is a dummy variable for Foreign Banks. LISTED is a dummy variable for publicly traded banks.

Table 4: Regression results (dependent variable: ROE)

ROE (Return on Equity)

Variables	1	2	3	4	5	6	7	8
Constant	-9.395	-9.390	-10.158	-11.035	8.085	-8.241	-11.257	8.500
	-1.82	-0.944	-0.975	-1.381	0.616	-1.074	-1.450	0.463
LnKom_Tot	2.487*		2.554*	2.76*	0.799			
	3.2		2.621	3.465	0.628			
LnKom_Indv		2.995*				3.136*	3.511*	0.883
		3.174				2.563	3.601	0.614
EQTA	-0.075	-0.035	-0.07	-0.178	-0.158	-0.027	-0.12	-0.132
	-0.372	-0.172	-0.333	-0.831	-0.765	-0.131	-0.579	-0.637
SOB	10.373*	10.657*	12.297	10.346*	9.912*	13.339	10.627*	10.518*
	5.033	5.226	0.725	5.049	4.815	0.886	5.279	5.235
FOB	-1.867	-2.045	-1.789	31.345	-2.541	-1.941	31.428**	-2.493
	-0.65	-0.714	-0.603	1.322	-0.885	-0.661	1.667	-0.881
Listed	-3.238	-2.577	-3.165	-3.247	-28.07	-2.537	-2.549	-28.031*
	-1.629	-1.322	-1.508	-1.643	-1.867	-1.286	-1.324	-2.098
LnKomTot_SO			-0.189					
			-0.114					
LnKomTot_FOB				-3.703				
				-1.411				
LnKomTot_Listed					2.531**			
					1.666			
LnKomIndv_SO						-0.359		
						-1.183		
LnKomIndv_FOB							-4.911**	
							-1.796	
LnKomIndv_Listed								3.415**
								1.925

Table 4: Continue

ROE (Return on Equity)

Variables	1	2	3	4	5	6	7	8
R <sup>2</sup>	0.509	0.508	0.509	0.520	0.524	0.508	0.526	0.528
Adj. R <sup>2</sup>	0.480	0.479	0.474	0.486	0.491	0.473	0.492	0.495
Observation	92.0000	92.000	92.000	92.000	92.000	92.000	92.000	92.000

Table 4 presents the regression results. The dependent variable is ROE (Return on Equity). LnKom\_Tot is the natural logarithm of total compensation. LnKom\_Indv is the natural logarithm of individual compensation. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned Banks. FOB is a dummy variable for Foreign Banks. LISTED is a dummy variable for publicly traded banks.

Table 5: Regression results (dependent variable: NPL)

NPL (Non-Performing Loan)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Constant	8.005*	7.751*	7.054*	8.015*	10.961*	6.269*	8.303*	8.138*	4.958*	5.848*	4.753*	5.624*
	4.363	4.380	2.940	4.297	3.593	2.750	4.608	3.001	2.554	3.215	2.506	3.220
LnKom_Tot	-0.688*		-0.605*	-0.689*	-0.973*				-0.323	-0.346		
	-3.833		-2.695	-3.706	-3.288				-1.619	-1.792		
LnKom_Indv		-0.837*				-0.655*	-0.931*	-0.996*			-0.377	-0.395**
		-3.848				-2.335	-4.116	-2.617			-1.527	-1.68
EQTA	0.060	0.048	0.067	0.06	0.046	0.058	0.064	0.046	0.145*	0.057	0.137*	0.049
	1.275	1.026	1.379	1.204	0.957	1.215	1.328	0.944	2.867	1.298	2.649	1.119
SOB	1.334*	1.260*	3.732	1.334*	1.256*	4.797	1.266*	1.257	2.039*	2.219*	1.977	2.179*
	2.804	2.682	0.955	2.778	2.623	1.385	2.709	2.709*	4.139	4.365	4.010*	4.332
FOB	-0.962	-0.917	-0.864	-1.166	-1.076	-0.781	-7.045	-0.927	-0.884	-1.076**	-0.847	-1.062**
	-1.452	-1.388	-1.265	-0.210	-1.612	-1.161	-1.611	-1.391	-1.415	-1.732	-1.357	-1.721
Listed	1.660*	1.480*	1.751*	1.660*	-2.539	1.531*	1.474*	0.891	1.326*	1.452	1.200*	1.301*
	3.616	3.293	3.619	3.595	-0.726	3.387	3.300	0.283	2.992	3.348	2.771	3.085
LnKomTot_SOB			-0.236									
			-0.619									
LnKomTot_FOB				0.023								
				0.037								
LnKomTot_Listed					0.428							
					1.211							
LnKomIndv_SOB						-0.464						
						-1.030						
LnKomIndv_FOB							0.899					
							1.417					
LnKomIndv_Listed								0.079				
								0.189				
LnKomTot_ROA									-0.077*			
									-3.449			
LnKomTot_ROE										-0.008*		
										-3.613		
LnKomIndv_ROA											-0.099*	
											-3.352	
LnKomIndv_ROE												-0.011*
												-3.723
R <sup>2</sup>	0.219	0.22	0.223	0.219	0.232	0.230	0.238	0.22	0.315	0.323	0.311	0.329
Adj. R <sup>2</sup>	0.174	0.175	0.168	0.164	0.178	0.175	0.184	0.165	0.267	0.275	0.262	0.282
Observation	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000

Table 5 presents the regression results. The dependent variable is NPL (the ratio of Non-Performing Loans to total loans). LnKom\_Tot is the natural logarithm of total compensation. LnKom\_Indv is the natural logarithm of individual compensation. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned Banks. FOB is a dummy variable for Foreign Banks. LISTED is a dummy variable for publicly traded banks.

in Table 5 on Standard Deviation of Return on Assets (SDROA) in Table 6 and on Standard Deviation of Return on Equity (SDROE) in Table 7.

Going deeper by looking at the impact of executive compensation on bank performance regarding the ownership types of banks, researchers do not find

evidence on the impact of compensation on performance is different between state-owned banks and private banks. Little evidence is found that such an impact is lower for foreign banks. Similarly, only one coefficient is significant when researchers look at the interactions between ownership types and executive compensation. It means

Table 6: Regression results (dependent variable: SDROA)

SDROA												
Variables	1	2	3	4	5	6	7	8	9	10	11	12
Constant	1.082	0.946*	0.811	0.989	1.440*	0.556	0.881*	1.136*	1.165*	1.011*	1.012*	0.856*
	2.913*	2.620	1.674**	2.664*	2.319	1.199	2.378	2.054	2.780	2.561	2.458	2.233
LnKomTot	-0.078*		-0.054	-0.062**	-0.113**				-0.090**	-0.061		
	-2.146		-1.198	-1.685	-1.867				-1.683	-1.190		
LnKomIndv		-0.08**				-0.032	-0.069	-0.104			-0.09**	-0.061
		-1.806				-0.563	-1.484	-1.509			-1.683	-1.19
EQTA	0.002	0.001	0.004	-0.004	-7.66E-5	0.003	-0.001	0.000	0.000	0.002	-0.001	0.001
	0.171	0.077	0.369	-0.425	-0.008	0.348	-0.109	-0.036	-0.064	0.16	-0.107	0.081
SOB	0.138	0.121	0.822	0.137	0.129	1.054	0.121	0.12	0.119	0.167	0.106	0.161
	1.433	1.267	1.041	1.434	1.319	1.497	1.257	1.244	1.118	1.515	0.989	1.454
FOB	0.354*	0.365*	0.381*	2.247*	0.340*	0.401*	1.086	0.360*	0.351*	0.35*	0.364*	0.359*
	2.636	2.710	2.762	2.039	2.501	2.931	1.207	2.651	2.601	2.594	2.683	2.651
Listed	0.107	0.082	0.133	0.106	-0.402	0.095	0.083	-0.206	0.116	0.100	0.088	0.074
	1.149	0.893	1.360	1.157	-0.564	1.039	0.898	-0.322	1.211	1.062	0.937	0.803
LnKomTot_SOB			-0.067									
			-0.873									
LnKomTot_FOB				-0.211**								
				-1.730								
LnKomTot_Listed					0.052							
					0.720							
LnKomIndv_SOB						-0.122						
						-1.337						
LnKomIndv_FOB							-0.106					
							-0.810					
LnKomIndv_Liste								0.039				
								0.454				
LnKomTot_ROA									0.002			
									0.435			
LnKomTot_ROE										0.000		
										-0.547		
LnKomIndv_ROA											0.002	
											0.339	
LnKomIndv_ROE												0.000
												-0.721
R <sup>2</sup>	0.145	0.132	0.153	0.174	0.150	0.150	0.139	0.134	0.147	0.148	0.133	0.137
Adj R <sup>2</sup>	0.095	0.082	0.093	0.116	0.090	0.090	0.078	0.073	0.087	0.088	0.072	0.076
Observation	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000

Table 6 presents the regression results. The dependent variable is the Standard Deviation of Return On Assets (SDROA). LnKom\_Tot is the natural logarithm of total compensation LnKom\_Indv is the natural logarithm of individual compensation. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned Banks. FOB is a dummy variable for Foreign Banks. LISTED is and a dummy variable for publicly traded banks

Table 7: Regression results (dependent variable: SDROE)

SDROE												
Variables	1	2	3	4	5	6	7	8	9	10	11	12
Constant	12.598*	12.357*	9.682**	11.898*	12.188**	7.833	11.834*	12.541*	9.376*	12.284*	9.139*	12.034*
	3.043	3.095	1.792	2.849	1.756	1.531	2.882	2.048	2.033	2.787	2.034	2.832
LnKomTot	-0.735**		-0.481	-0.619	-0.696							
	-1.817		-0.953	-1.486	-1.033							
LnKomIndv		-0.899**				-0.343	-0.810	-0.923			-0.406	-0.832
		-1.832				-0.544	-1.571	-1.208			-0.694	-1.456
EQTA	-0.246*	-0.258	-0.225*	-0.29*	-0.244	-0.227	-0.273*	-0.259*	-0.156	-0.246*	-0.163	-0.258*
	-2.328	-2.430	-2.064	-2.585	-2.229	-2.107	-2.491	-2.353	-1.296	-2.319	-1.325	-2.415
SOB	2.147*	2.071**	9.501	2.136*	2.158	12.874	2.066**	2.070**	2.893*	2.276**	2.841*	2.210**
	2.001	1.953	1.08	1.994	1.981	1.655	1.940	1.939	2.472	1.848	2.432	1.806
FOB	1.060	1.107	1.359	15.242	1.076	1.519	6.911	1.102	1.142	1.043	1.181	1.085
	0.709	0.743	0.883	1.229	0.708	1.006	0.693	0.733	0.770	0.693	0.798	0.722
Listed	1.471	1.279	1.752	1.467	2.053	1.436	1.284	0.999	1.117	1.44	0.979	1.252
	1.420	1.262	1.608	1.419	0.258	1.415	1.262	0.141	1.061	1.371	0.954	1.220
LnKomTot_SOB			-0.720									
			-0.840									
LnKomTot_FOB				-1.581								

Table 7: Continue

Variables	1	2	3	4	5	6	7	8	9	10	11	12
				-1.152								
LnKomTot_Listed					-0.590							
					-0.070							
LnKomIndv_SOB						-1.416						
						-1.402						
LnKomIndv_FOB							-0.852					
							-0.589					
LnKomIndv_Listed								0.038				
								0.040				
LnKomTot_ROA									-0.08			
									-1.54			
LnKomTot_ROE										-0.001		
										-0.217		
LnKomIndv_ROA											-0.110	
											-1.520	
LnKomIndv_ROE												-0.002
												-0.232
R <sup>2</sup>	0.150	0.151	0.157	0.163	0.150	0.170	0.154	0.151	0.173	0.151	0.173	0.151
Adj R <sup>2</sup>	0.101	0.101	0.098	0.104	0.090	0.111	0.094	0.091	0.115	0.091	0.115	0.091
Observation	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000	92.000

Table 6 presents the regression results. The dependent variable is the Standard Deviation of Return On Equity (SDROE). LnKom\_Tot is the natural logarithm of total compensation LnKom\_Indv is the natural logarithm of individual compensation. EQTA is the ratio of Equity to Total Assets. SOB is a dummy variable for State-owned Banks. FOB is a dummy variable for Foreign Banks. LISTED is and a dummy variable for publicly traded banks

that there is no different effect of compensation on risk taking between state-owned banks, foreign banks and private-domestic banks.

Researchers also estimate the impact of compensation on risk taking behaviors with regard to the performance of banks. It could be contended that the impact of compensation on risk taking behaviors would be stronger when banks have an excellent performance. Basically, the results do not support this argument as the coefficients of the interactions are negative.

In overall, the findings confirm that executive compensation could lead to a higher performance in line with some previous researches (Ozkan, 2011; Hayes and Schaefer, 2000). Banks compensate their executive at a higher level could benefit in the form of higher profitability. Interestingly, researchers find that a higher compensation does not lead to a higher risk taking behaviors. These results might be explained by the fact that the structure of banking industry in Indonesia is slightly oligopoly which is dominated by a small number of large banks that control the market (Rosengard and Prasetyantoko, 2011). Banks could reach a higher profit at a convenience condition (without excessively take risk). Therefore, managers enjoy their job and less incentive to invest in risky projects.

## CONCLUSION

This study examines the impact of executive compensation on bank performance and risk taking behavior using data for Indonesian commercial banks.

Researchers find some evidence that the higher the compensation for executive, the higher the bank performance, consistent with previous studies. However, researchers find a different conclusion with some previous studies on the impact of compensation on risk taking behaviors. In the context of Indonesia, a higher executive compensation does not bring to a higher risk taking behavior. Possibly, the banking oligopoly structure in Indonesia which may also be found in other emerging countries could explain these results.

## ACKNOWLEDGEMENTS

Researchers thank Irwan Trinugroho for his helpful suggestions. This research is made possible through the funding from Universitas Sebelas Maret on the Fundamental Research Grant scheme.

## REFERENCES

- Belkhir, M. and A. Chazi, 2010. Compensation vega, deregulation and risk-taking: Lessons from the U.S. banking industry. *J. Bus. Finance Accounting*, 37: 1218-1247.
- Chen, C.R., T.L. Steiner and A.M. Whyte, 2006. Does stock option-based executive compensation induce risk-taking? An analysis of the banking industry. *J. Banking Finance*, 30: 915-945.
- Hayes, R.M. and S. Schaefer, 2000. Implicit and explanatory power of top executive compensation for future performance. *RAND J. Econ.*, 31: 273-293.

- Lepetit, L., E. Nys, P. Rous and A. Tarazi, 2008. The expansion of services in European banking: Implications for loan pricing and interest margins. *J. Banking Finance*, 32: 2325-2335.
- Otten, J.A., 2008. Theories on executive pay. A literature overview and critical assessment. MPRA Paper No. 6969, January, 2008. <http://mpra.ub.uni-muenchen.de/6969/>
- Ozkan, N., 2011. CEO compensation and firm performance: An empirical investigation of UK panel data. *Eur. Financial Manage.*, 17: 260-285.
- Rosengard, J.K. and A. Prasetyantoko, 2011. If the banks are doing so well, why can't I get a loan? Regulatory constraints to financial inclusion in Indonesia. *Asian Econ. Policy Rev.*, 6: 273-296.
- Saunders, A., E. Strock and N.G. Travlos, 1990. Ownership structure, deregulation and bank risk taking. *J. Finance*, 20: 391-405.
- Trinugroho, I., A. Agusman and A. Tarazi, 2012. Why have bank interest margins been so High in Indonesia since the 1997/1998 financial crisis? Working Paper, University of Limoges. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2319057](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2319057).