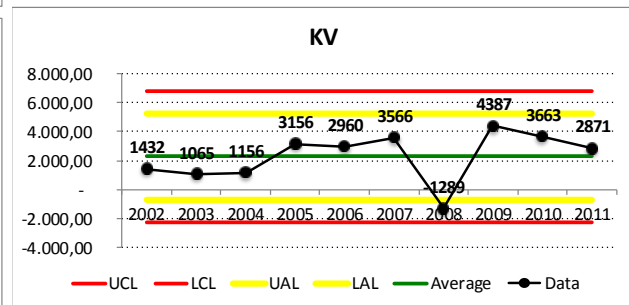
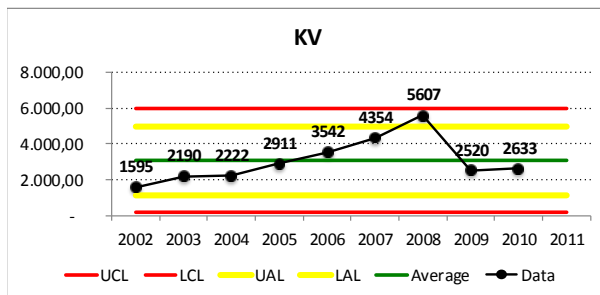
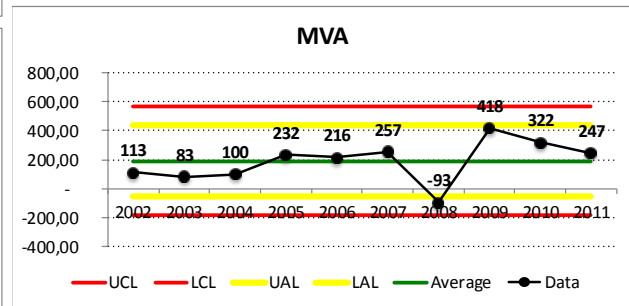
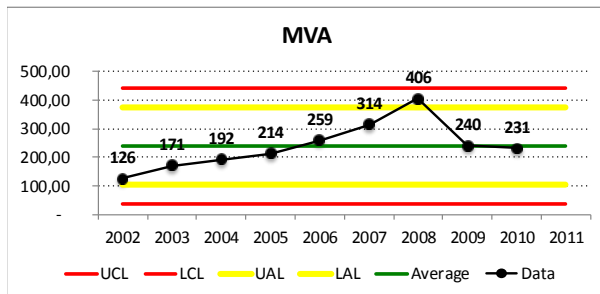
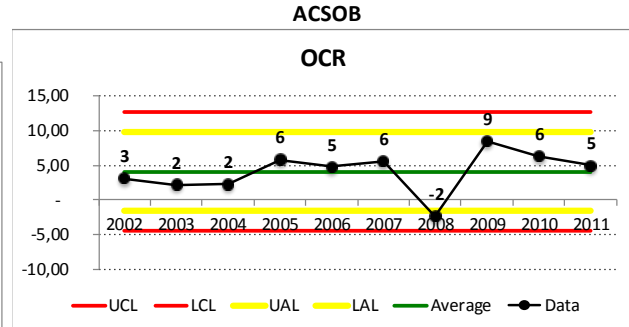
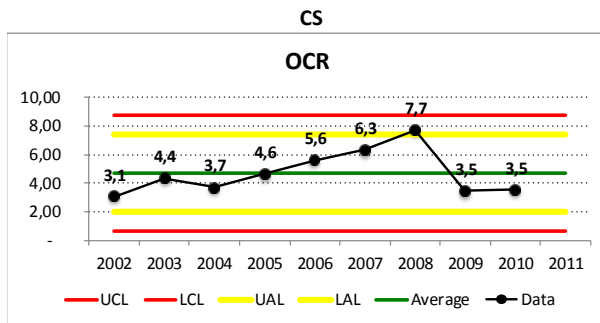
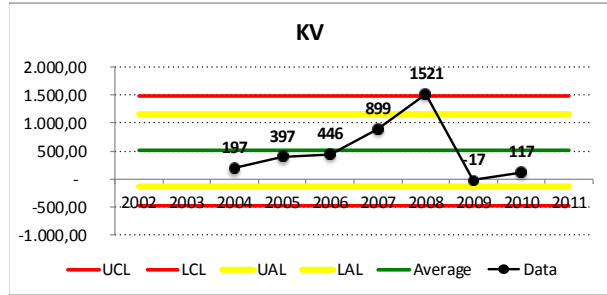
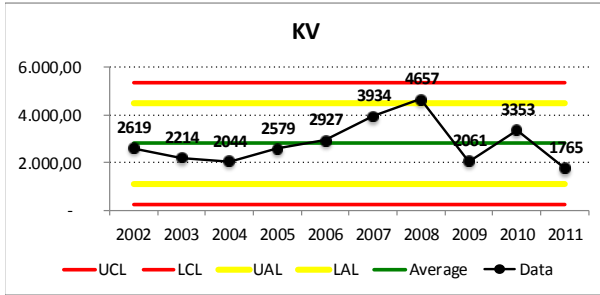
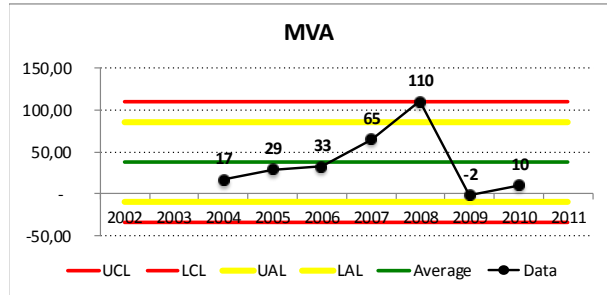
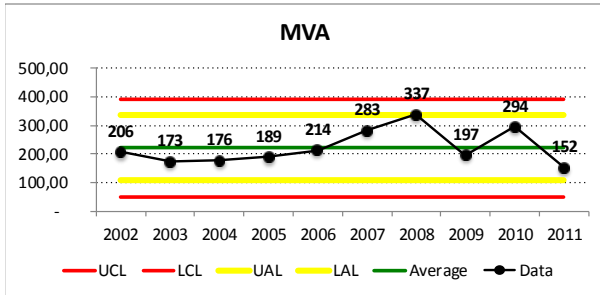
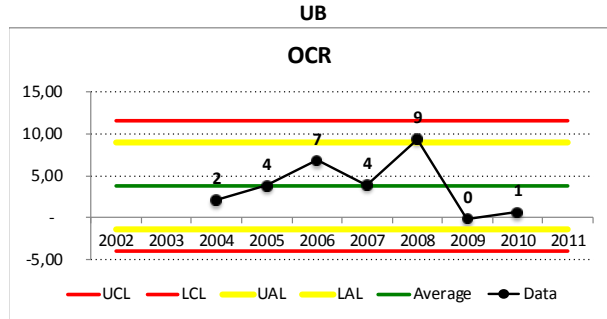
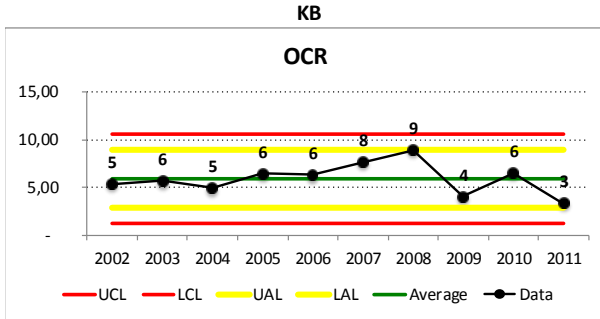
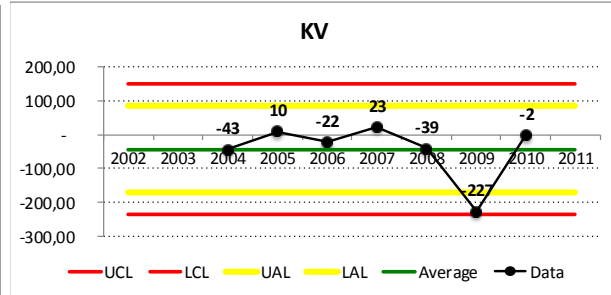
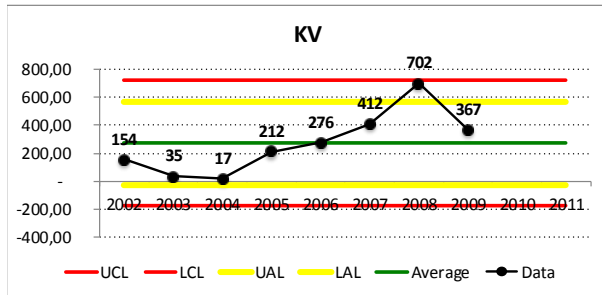
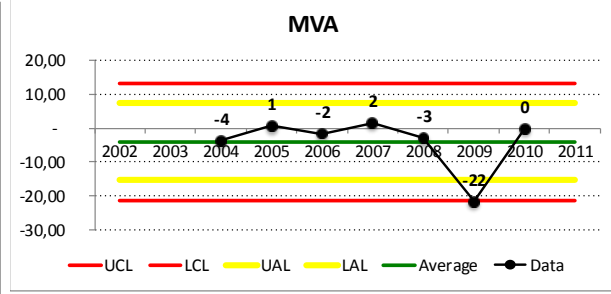
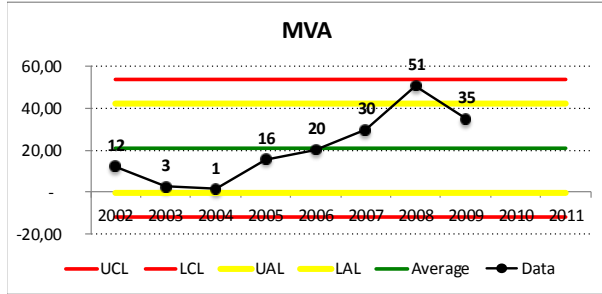
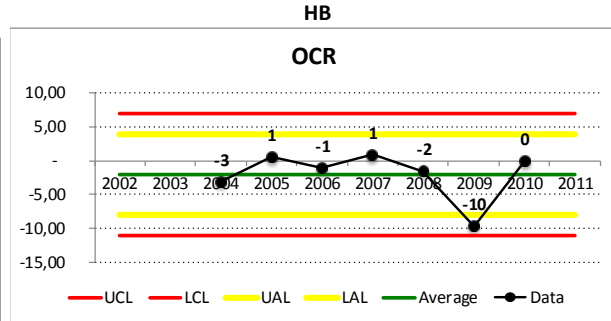
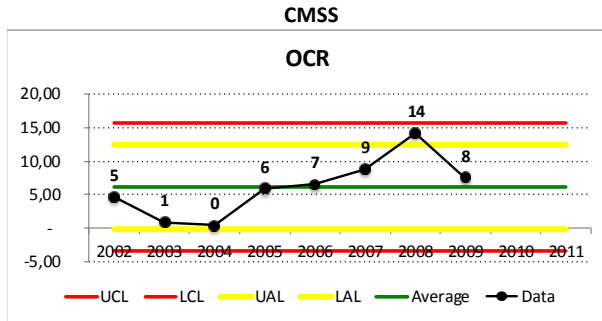


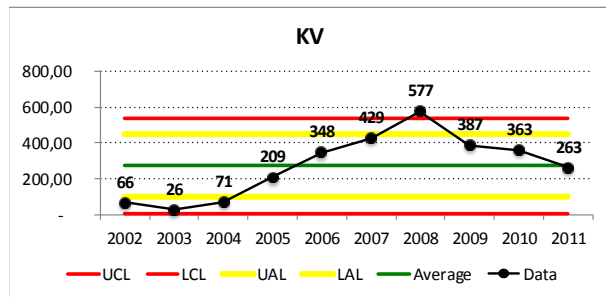
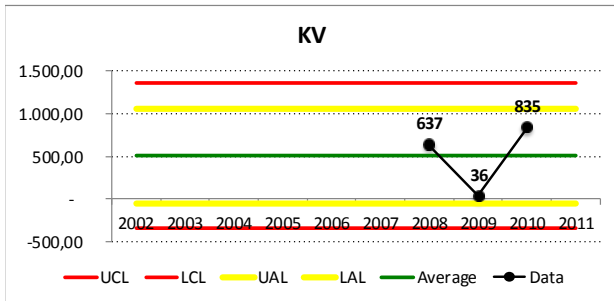
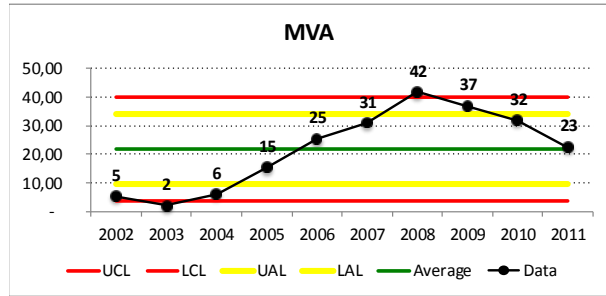
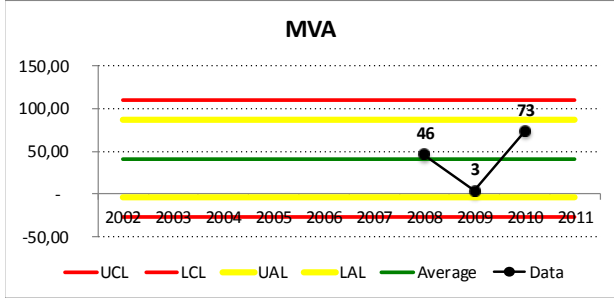
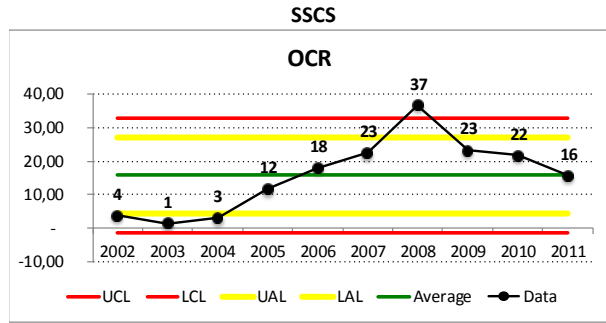
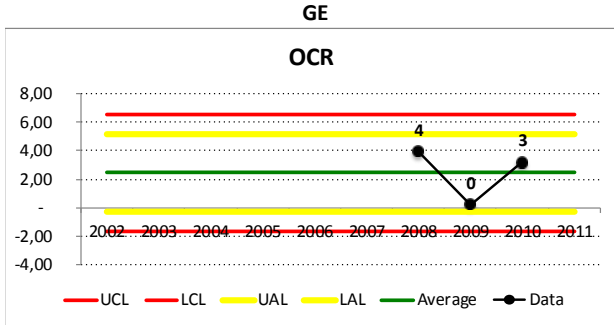
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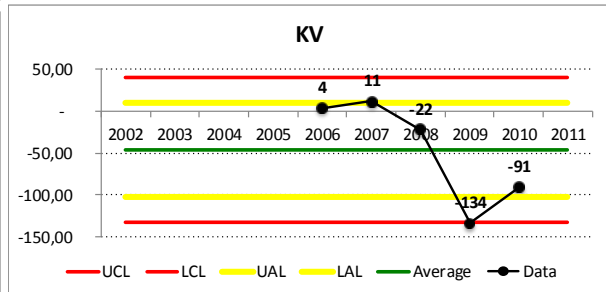
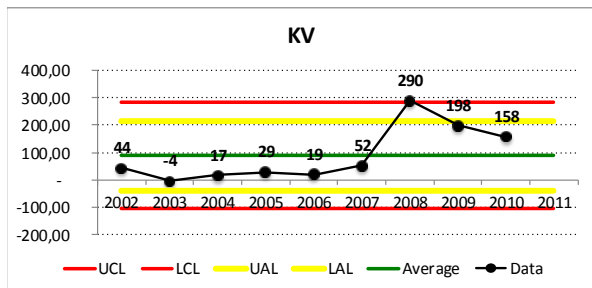
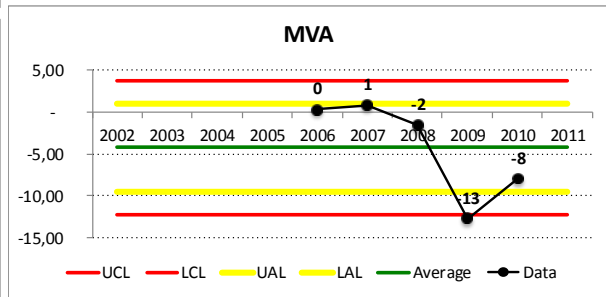
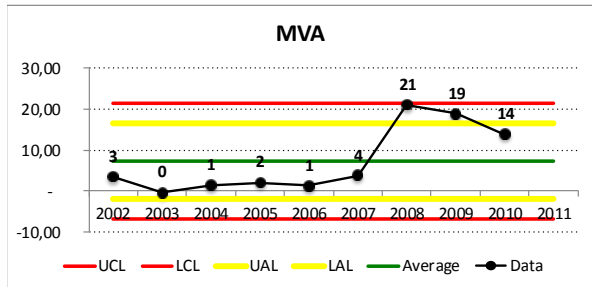
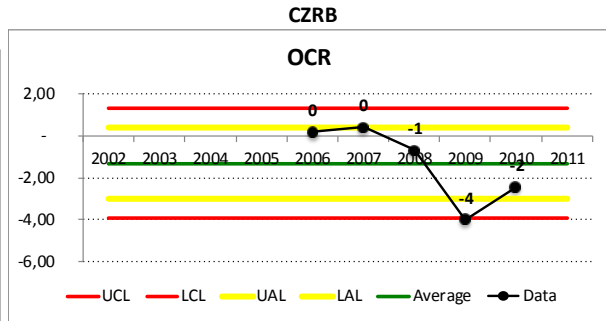
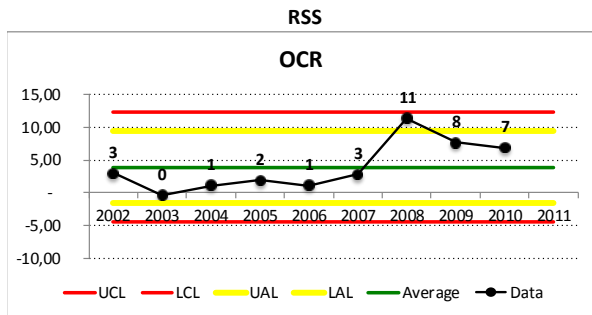
Appendix 2: Statistical Process Control of knowledge variables, per bank

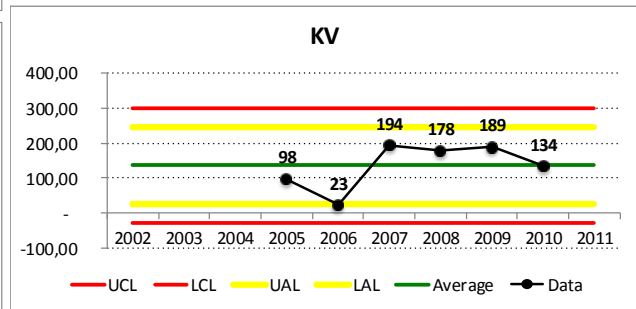
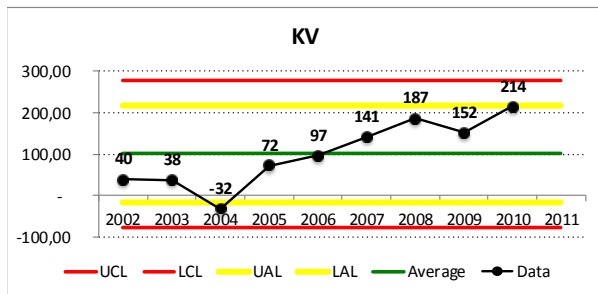
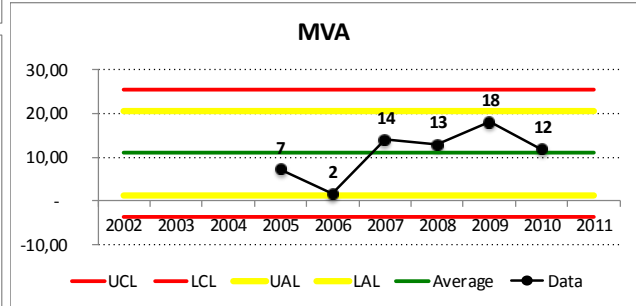
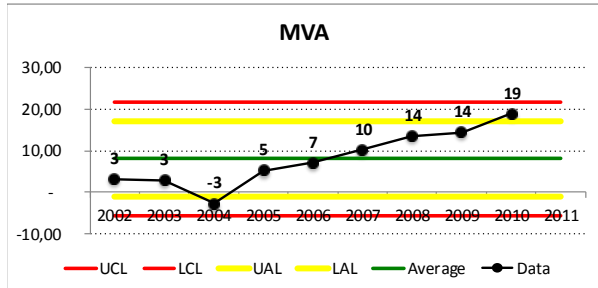
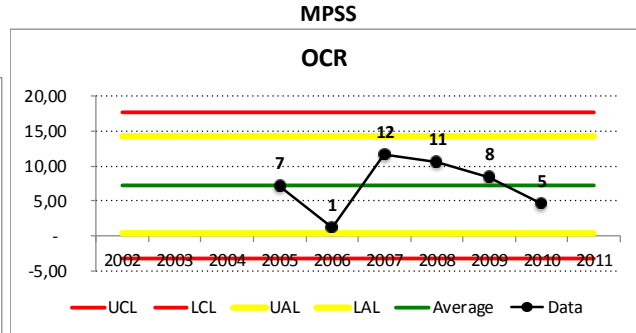
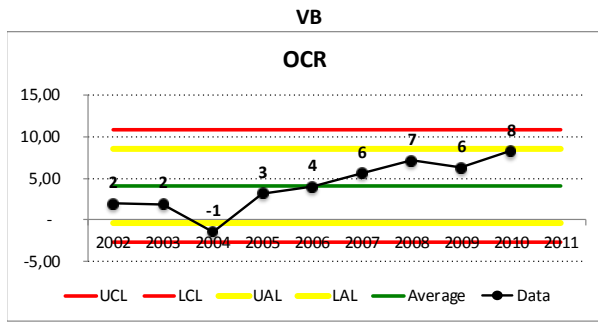


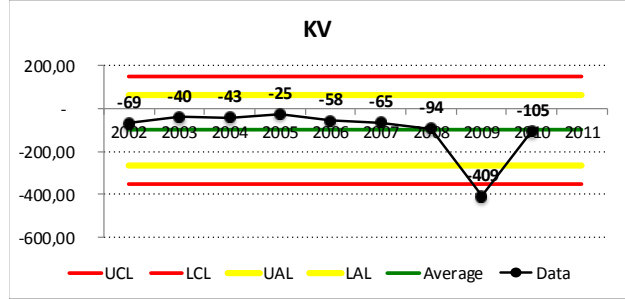
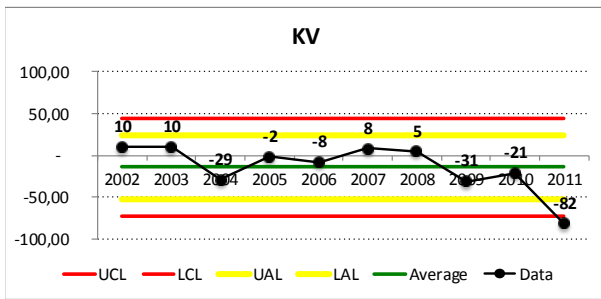
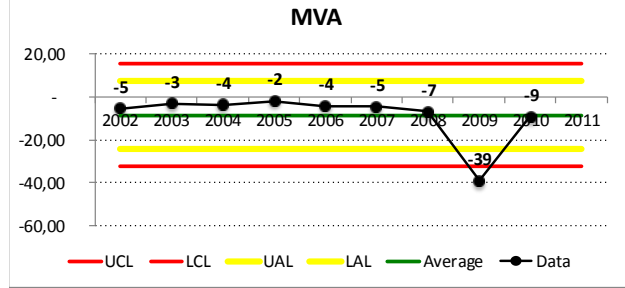
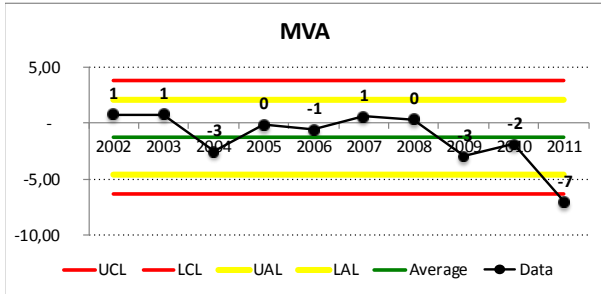
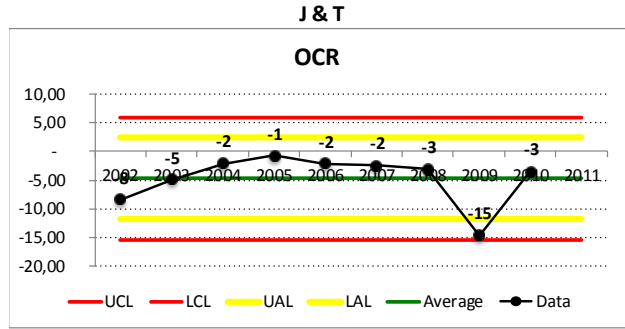
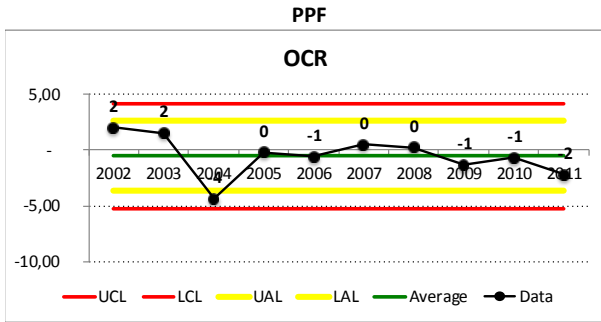


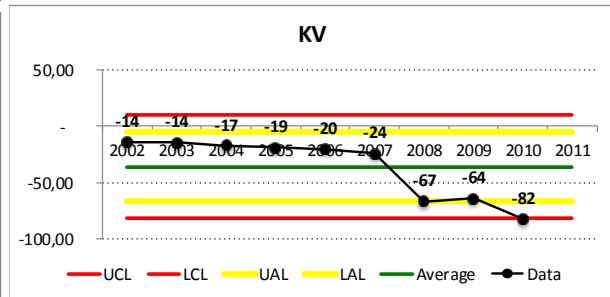
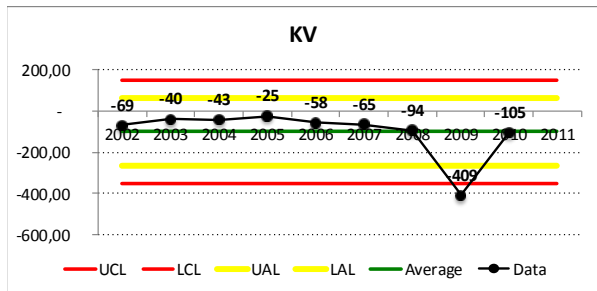
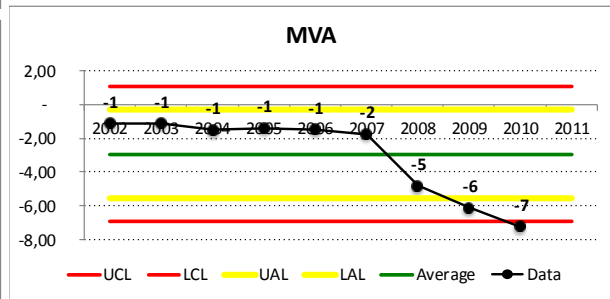
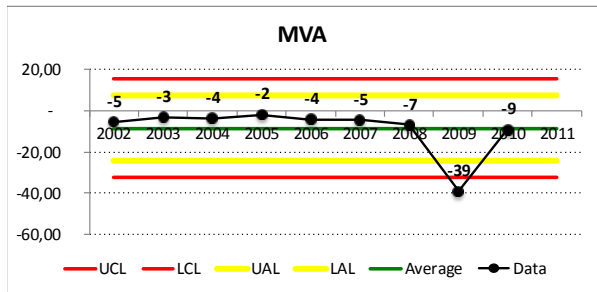
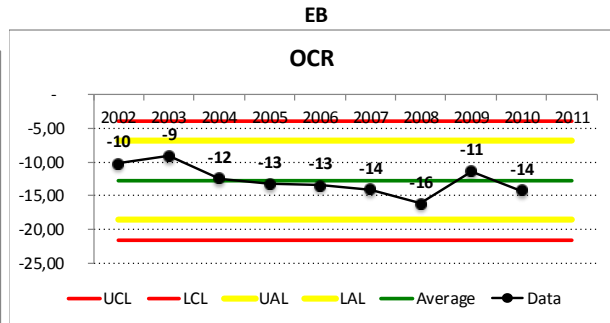
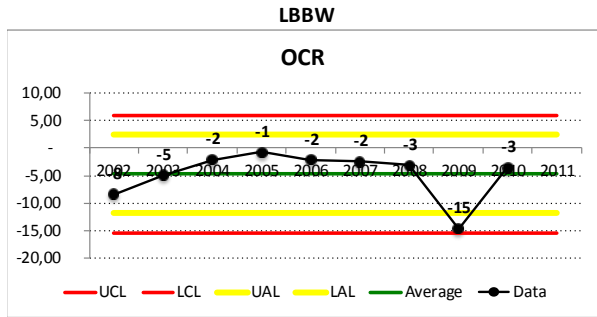






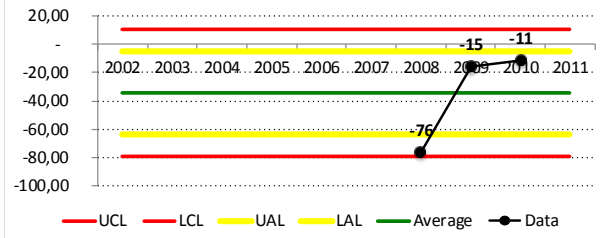




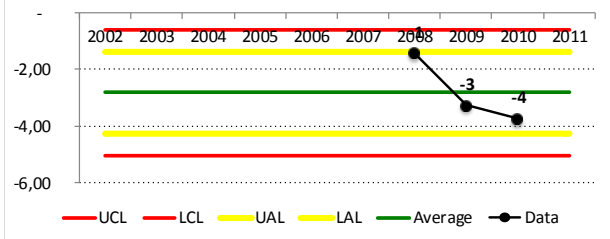


ERB

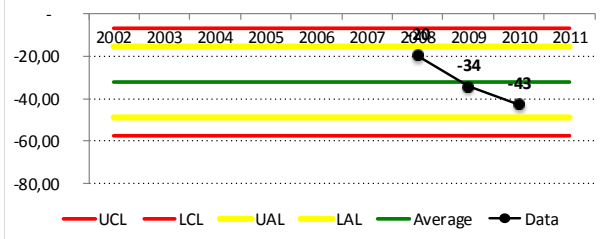
OCR



MVA



KV



Appendix 3: Spearman's Rank Correlation of Efficiency terms with efficiency control variables and country variables

Total				Big			
	Spearman's rank corr. coefficient (rho)	z-score	two-tailed p-value		Spearman's rank corr. coefficient (rho)	z-score	two- tailed p- value
Tefic - OCR	0,09461848	1,01025	0,3124	Tefic - OCR	-0,32234432	-1,64364	0,1003
Tefic - KV	-0,18719325	-1,99868	0,0456	Tefic - KV	0,17216117	0,877853	0,38
Tefic - MVA	-0,17819774	-1,90263	0,0571	Tefic - MVA	0,21733822	1,10821	0,2678
Tefic - TNiE	-0,20291959	-2,16659	0,0303	Tefic - TNiE	0,60805861	3,1005	0,0019
Tefic - PE	-0,21029748	-2,24536	0,0247	Tefic - PE	0,56471306	2,87948	0,004
Tefic - FA	-0,22331729	-2,38438	0,0171	Tefic - FA	0,94627595	4,82508	0
Tefic - Inf	0,05695562	0,606431	0,5454	Tefic - Inf	-0,14956063	-0,75631	0,4565
Tefic - GDP	0,17010819	1,83502	0,0691	Tefic - GDP	-0,11152306	- 0,561116	0,5797
Tefic - Year	0,16218066	1,74713	0,0833	Tefic - Year	-0,11643868	- 0,586181	0,563

Medium				Small			
	Spearman's rank correlation coefficient (rho)	z-score	two- tailed p- value		Spearman's rank correlation coefficient (rho)	z-score	two- tailed p- value
Tefic - OCR	-0,0386679	-0,259392	0,7953	Tefic - OCR	0,05696459	0,364751	0,7153
Tefic - KV	0,19629972	1,31682	0,1879	Tefic - KV	-0,26213435	-1,67848	0,0933
Tefic - MVA	0,18125193	1,21587	0,224	Tefic - MVA	-0,25694838	-1,64527	0,0999
Tefic - TNiE	0,42263336	2,83511	0,0046	Tefic - TNiE	0,60716311	3,88774	0,0001
Tefic - PE	0,36416898	2,44292	0,0146	Tefic - PE	0,67004295	4,29037	0
Tefic - FA	0,79660808	5,34381	0	Tefic - FA	0,76355239	4,88912	0
Tefic - Inf	-0,24769212	-1,69585	0,097	Tefic - Inf	-0,01710042	- 0,108168	0,9144
Tefic - GDP	-0,11110044	-0,741548	0,4623	Tefic - GDP	0,28737742	1,89758	0,065
Tefic - Year	-0,04933655	-0,327661	0,7447	Tefic - Year	0,34418364	2,31846	0,0256

Appendix 4: Evolution of Efficiency terms in time and evidence of smallest values per year

Banks	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average per Group
CS		0,997875	0,997931	0,99786	0,997383			0,99828	0,998455		
ACSOB	0,997745		0,997805	0,995056	0,997133	0,997043		0,777354	0,991527	0,994928	
KB	0,996496	0,995929	0,995689	0,992014	0,993818	0,990427	0,972855	0,995509	0,988072	0,99599	
UB			0,656439	0,6028	0,461829						
Mean_B	0,99712	0,996902	0,911966	0,896932	0,862541	0,993735	0,972855	0,923714	0,992684	0,995459	0,9543907
CMSS	0,582601	0,613935	0,594918	0,56164	0,558128	0,517597	0,447808	0,486091			
HB			0,4394	0,401741	0,397437	0,398551	0,399544	0,518613	0,4888		
GE							0,763943	0,989001	0,981091		
SSCS	0,491119	0,485411	0,487021	0,469664	0,463156	0,455321	0,471075	0,436928	0,450298	0,452149	
RSS					0,422455	0,421983	0,414268	0,401576	0,411687		
CZRB	0,438285		0,444467	0,468861	0,451289	0,430707	0,45802	0,446545	0,438173		
Mean_M	0,504002	0,549673	0,491451	0,475476	0,458493	0,444832	0,492443	0,546459	0,55401	0,452149	0,4968988
VB					0,419466	0,43773	0,482969	0,512408	0,493911		
MPSS				0,517172	0,506922	0,497337	0,485264	0,466704	0,470002		
PPF				0,386886	0,420794	0,44322	0,368927	0,414048	0,459027		
J&T	0,434859	0,40786	0,37929	0,392138	0,423269	0,452706	0,508866	0,488483	0,514657		
LBBW	0,406043	0,360034	0,451387	0,592897	0,535208	0,572582	0,599422	0,621624	0,576157		
EB	0,290791	0,304854	0,284857	0,280136	0,277065	0,281841	0,315592	0,333114	0,331273		
ERB							0,087137	0,360469	0,370307		
Mean_S	0,377231	0,357583	0,371845	0,433846	0,430454	0,447569	0,406882	0,456693	0,459333		0,4157151
MEAN_T	0,579742	0,595128	0,611746	0,589143	0,555023	0,530542	0,483978	0,577922	0,597562	0,814356	0,5935142

The more intense red the smallest is the estimate in comparison with the whole period per bank