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## **Technical efficiency of agriculture in Western Balkan countries undergoing the process of EU integration**

*ALEKSANDRA MARCIKIĆ HORVAT<sup>1</sup>, BOJAN MATKOVSKI<sup>2\*</sup>, STANISLAV ZEKIĆ<sup>2</sup>,  
BORIS RADOVANOV<sup>1</sup>*

<sup>1</sup>*Department of Business Informatics and Quantitative Methods, Faculty of Economics in Subotica,  
University of Novi Sad, Serbia*

<sup>2</sup>*Department of Agricultural Economics and Agribusiness, Faculty of Economics in Subotica,  
University of Novi Sad, Serbia*

*\*Corresponding author: bojan.matkovski@ef.uns.ac.rs*

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### **Electronic supplementary material**

Supplementary Tables S1–2

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Table S1. Results of DEA model – efficiency scores

DMU	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Western Balkan</b>											
Albania	0.334	0.368	0.366	0.355	0.213	0.038	0.040	0.377	0.281	0.453	0.430
Bosnia and Herzegovina	0.532	0.229	0.231	1.000	0.136	0.613	0.206	0.046	0.673	0.213	1.000
Montenegro	0.702	0.193	0.152	0.159	1.000	0.173	0.222	1.000	0.209	0.199	0.219
North Macedonia	0.304	0.593	0.044	0.408	0.598	0.441	1.000	0.329	1.000	0.390	0.461
Serbia	0.538	0.522	1.000	0.529	0.397	1.000	0.495	0.514	0.417	0.480	0.613
<b>EU15</b>											
Austria	0.346	0.513	0.456	0.419	0.356	0.410	0.391	0.335	0.547	0.420	0.043
Belgium	1.000	1.000	0.134	0.126	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Denmark	1.000	1.000	1.000	1.000	1.000	1.000	0.946	0.931	1.000	1.000	1.000
Finland	0.265	0.464	0.299	0.274	0.231	0.234	0.224	0.225	0.237	0.254	0.277
France	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.108	1.000	1.000	1.000
Germany	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.010	1.000	1.000	0.145
Greece	0.389	0.419	0.373	0.376	0.401	0.425	0.461	0.412	0.449	0.049	0.471
Ireland	0.563	0.644	0.517	0.067	0.614	0.717	0.613	1.000	0.504	0.558	0.669
Italy	0.095	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.442	1.000	1.000
Luxembourg	1.000	1.000	1.000	1.000	1.000	1.000	0.076	0.605	1.000	1.000	1.000
Netherlands	1.000	0.243	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Portugal	0.365	0.395	0.430	0.438	0.386	0.420	0.432	0.429	0.390	0.504	0.455
Spain	0.828	0.827	0.793	0.790	0.817	0.832	0.178	0.073	0.772	0.808	0.868
Sweden	0.419	0.420	0.398	0.375	0.004	0.364	0.344	0.678	0.369	0.364	0.388
United Kingdom	0.996	0.914	0.929	0.890	0.839	0.842	0.764	1.000	0.703	0.774	0.830
<b>New member states</b>											
Bulgaria	1.000	0.292	1.000	0.257	0.024	0.271	0.254	1.000	0.265	0.298	0.396
Cyprus	1.000	0.082	1.000	1.000	1.000	1.000	1.000	1.000	0.765	1.000	1.000
Czechia	0.322	0.424	0.462	0.414	0.347	0.372	0.325	0.366	0.377	0.396	0.462
Estonia	0.240	0.240	0.288	0.327	0.196	0.250	0.250	0.302	0.269	0.377	0.360
Hungary	0.432	0.542	0.667	0.051	0.415	0.441	0.038	1.000	0.430	0.452	0.521
Latvia	0.130	0.154	0.189	0.186	0.109	0.042	0.170	0.231	0.144	0.246	1.000
Lithuania	0.209	0.268	0.309	0.305	0.182	0.237	0.284	0.294	0.213	0.296	0.341
Malta	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Poland	0.479	0.054	0.536	0.544	0.549	0.557	0.593	0.505	0.609	0.590	0.656
Romania	0.297	0.263	0.281	0.284	0.280	0.306	0.027	0.316	1.000	0.342	0.406
Slovakia	0.317	1.000	0.356	0.342	0.198	0.287	0.267	0.347	0.247	0.306	0.442
Slovenia	0.370	0.372	0.378	0.065	1.000	0.656	0.346	0.291	0.247	0.365	0.088

Source: Authors' calculations

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Table S2. Results of DEA model – projections and slacks (%)

DMU	Proportionate movement (labour, land, capital)	Slack movement (labour)	Slack movement (land)	Slack movement (capital)	Slack movement (valueAP)
<b>Western Balkan</b>					
Albania	-57.88	-32.29	0.00	0.00	0.00
Bosnia and Herzegovina	0.00	0.00	0.00	0.00	0.00
Montenegro	-40.62	0.00	-28.55	0.00	4.26
North Macedonia	-50.99	-1.88	0.00	0.00	0.00
Serbia	-38.04	-27.47	0.00	0.00	0.00
<b>EU15</b>					
Austria	-95.83	0.00	0.00	0.00	0.00
Belgium	0.00	0.00	0.00	0.00	0.00
Denmark		0.00	0.00	0.00	0.00
Finland	-73.30	0.00	0.00	0.00	0.00
France	-61.02	0.00	-12.01	0.00	0.00
Germany	-85.47	0.00	0.00	0.00	0.00
Greece	-53.01	-7.36	0.00	0.00	0.00
Ireland	-32.79	0.00	-4.59	0.00	0.00
Italy	0.00	0.00	0.00	0.00	0.00
Luxembourg	0.00	0.00	0.00	0.00	0.00
Netherlands	0.00	0.00	0.00	0.00	0.00
Portugal	-54.81	-5.52	0.00	0.00	0.00
Spain	-21.77	0.00	0.00	-35.90	0.00
Sweden	-62.77	0.00	0.00	0.00	0.00
United Kingdom	-23.56	0.00	-43.06	0.00	0.00
<b>New member states</b>					
Bulgaria	-60.26	0.00	0.00	0.00	0.00
Cyprus	0.00	0.00	0.00	0.00	0.00
Czechia	-54.41	0.00	0.00	0.00	0.00
Estonia	-61.02	0.00	-12.01	0.00	0.00
Hungary	-47.78	0.00	0.00	0.00	0.00
Latvia	0.00	0.00	0.00	0.00	0.00
Lithuania	-65.66	0.00	0.00	0.00	0.00
Malta	0.00	0.00	0.00	0.00	0.00
Poland	-49.43	-20.29	0.00	0.00	0.00
Romania	-60.60	-16.36	0.00	0.00	0.00
Slovakia	-55.45	0.00	0.00	0.00	0.00
Slovenia	-51.51	0.00	-18.43	0.00	127.17

Source: Authors' calculations