

Are technological or efficiency differences more pronounced between Hungarian and Polish poultry farms? A stochastic meta-frontier analysis

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Electronic supplementary material

Supplementary Tables S1–S2

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Table S1. Technical efficiency, metafrontier and metatechnology ratio

Measures	Poland				Hungary				PL/HU ratio	M-W test <i>P</i> -value	Median test <i>P</i> -value
	mean	SD	min	max	mean	SD	min	max			
<i>TGR</i>	0.94	0.06	0.72	1.00	0.90	0.08	0.50	1.00	1.04	0.00	0.00
<i>TE</i>	0.85	0.07	0.54	0.97	0.81	0.07	0.15	0.96	1.05	0.00	0.00
<i>MTE</i>	0.79	0.10	0.39	0.97	0.72	0.11	0.07	0.96	1.10	0.00	0.00

TGR – meta technology ratio; *TE* – technical efficiency to the country frontier; *MTE* – technical efficiency to the meta frontier; PL/HU ratio – ratio of the mean of the examined measures between Poland and Hungary; M-W – test statistics and associated *P*-value of a Mann-Whitney test; corresponding test statistics are available on request from the authors
Source: Author's own study based on FADN data (<https://agridata.ec.europa.eu/extensions/FarmEconomyFocus/FADN-Database.html>)

Table S2. Returns to scale test

Country	Coefficient	SE	<i>z</i>	<i>P</i> > <i>z</i>	95% confidence interval	
Poland	1.06	0.03	36.31	0.00	1.00	1.11
Hungary	1.05	0.02	56.05	0.00	1.01	1.08

We tested whether the linear combination of the parameter estimates of the applied frontier models are equal to one. The test clearly shows that the production exhibits increasing return to scale.

Source: Author's own study based on FADN data (<https://agridata.ec.europa.eu/extensions/FarmEconomyFocus/FADN-Database.html>)