

One or many European models of agriculture? How heterogeneity influences income creation among farms in the European Union

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Electronic supplementary material

Supplementary Tables S1–S2

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Table S1. The results of the Kruskal–Wallis test and post-hoc Dunn’s pairwise comparison tests

	Fixed assets (SE441)/labour (SE011) (EUR/h)			Intermediate consumption (SE275)/land (SE025) (EUR/ha)			Land (SE025)/labour (SE011) (ha/h)		
Kruskal-Wallis equality-of-populations rank test (chi-squared)	92.154***			68.772***			63.609***		
Dunn’s pairwise comparison test	1–2	1–3	2–3	1–2	1–3	2–3	1–2	1–3	2–3
	6.88***	–3.24***	–8.89***	8.28***	3.88***	–2.88***	2.41***	–5.92***	–7.93***

***, **, and * statistical significance at 0.01, 0.05, and 0.1, respectively; cluster 1 – intensive farming; cluster 2 – extensive/traditional farming; cluster 3 – large-scale farming

Source: Own elaboration based on Farm Accountancy Data Network (FADN) (European Commission 2020) and Eurostat (2021)

Table S2. Cumulative change in TFP and its decomposition (Färe-Primont index) – Mean for representative farms in clusters

Time period	Intensive				Extensive/traditional				Large-scale			
	TFP	TC	OTE	OSME	TFP	TC	OTE	OSME	TFP	TC	OTE	OSME
2007	1	1	1	1	1	1	1	1	1	1	1	1
2008	1.021	1.083	0.999	0.944	1.022	0.960	0.979	1.087	1.030	1.077	1.039	0.921
2009	1.061	1.074	0.992	0.997	1.086	1.030	0.963	1.095	1.000	1.091	1.054	0.869
2010	1.060	1.132	0.987	0.949	1.156	0.987	1.025	1.143	1.050	1.107	0.978	0.971
2011	1.083	1.164	1.013	0.919	1.174	1.000	1.049	1.119	1.093	1.164	0.988	0.951
2012	1.057	1.139	1.043	0.890	1.162	0.962	1.048	1.151	1.116	1.159	0.995	0.967
2013	1.049	1.147	1.050	0.870	1.183	1.018	1.027	1.131	1.087	1.169	0.987	0.942
2014	1.156	1.178	1.057	0.929	1.260	1.153	1.002	1.090	1.131	1.201	0.998	0.944
2015	1.157	1.141	1.061	0.955	1.278	1.137	0.986	1.139	1.136	1.240	1.018	0.901
2016	1.194	1.139	1.035	1.013	1.340	1.179	0.976	1.164	1.081	1.282	1.006	0.838
2017	1.154	1.194	1.054	0.917	1.355	1.089	1.035	1.202	1.128	1.295	0.989	0.881
2018	1.198	1.200	1.045	0.955	1.429	1.219	0.961	1.219	1.103	1.231	0.968	0.927
Average annual growth (%)	1.6	1.7	0.4	–0.4	3.2	1.8	–0.4	1.8	0.9	1.9	–0.3	–0.7

TFP – total factor productivity; TC – technical change; OTE – output-oriented technical efficiency change; OSME – output-oriented scale-mix efficiency change

Source: Own elaboration based on Farm Accountancy Data Network (FADN) (European Commission 2020) and Eurostat (2021)