

The Economic Dimension of Farms in the European Union: A Statistical Approach*

Agatha POPESCU

University of Agronomic Sciences and Veterinary Medicine, Bucharest, Romania

Valentin SERBAN

University of Agronomic Sciences and Veterinary Medicine, Bucharest, Romania

Correspondence should be addressed to: Agatha POPESCU; agatha_popescu@yahoo.com

* Presented at the 41st IBIMA International Conference, 26-27 June 2023, Granada, Spain

Copyright © 2023. Agatha POPESCU and Valentin SERBAN

Abstract

The paper analyzed the concentration of the economic dimension of the EU farms using Eurostat data and Herfindahl-Hirschman Index (HHI) which is a novelty in the literature. Based on HHI for standard output (SO) and for number of farms (NF), the EU member states were classified into: countries with a low concentration (LC), countries with a moderate concentration (MC) and countries with a high concentration (HC). This aspect is of high importance for reflecting farm structure based on their economic power. The decreasing trend in NF continues to led to a higher physical and economic farm size. In 2020, the EU had 9.07 million farms with 17.4 ha average farm size, and produced Euro 351 Billion SO, i.e. Euro 39,703.6/farm. About 59.6% farms are in Romania, Poland and Italy and the least numerous in Luxemburg. France, Germany, Spain, Poland and Netherlands are the main contributors to the EU SO (74.3%), while Malta is on the last position (0.01%). SO/farm varied between Euro 447,780 in Belgium and Euro 4,050 in Romania, and 15 countries (55.5%) exceed the EU mean. Concerning NF concentration by SO class, at the EU level, it was found a HHI =0.1885 (MC), but HHI ranged between 0.5370 in Romania (HC) and 0.1041 in Denmark (LC). A HHI < 0.15 was noticed in 13 countries (48%), a HHI between 0.15 and 0.25 in 10 countries (37%) and a HHI > 0.25 in 4 (15%). Regarding SO concentration by class, a HHI < 0.15 is in 6 countries (22.2%), a HHI between 0.15 and 0.25 is in 9 countries (33.3%) and a HHI > 0.25 in 12 countries (44.5%). A number of 13 countries exceeded the EU HHI= 0.2319 for SO by class. Taking into account HHI both for NF and for SO by class, it resulted that 9 countries (33%) with a HCSO have a LCNF, other 9 countries (33%) having a MCSO are associated to an equal proportion either of a HC or MC or LC of NF. Six countries have a LCSO, of which 4 have a MCNF. As a conclusion, the actual EU farm structure reflects a low and moderate concentration in NF and a moderate to high concentration in SO, in other words a trend to a higher economic power.

Keywords: standard output, agricultural holdings, Herfindahl-Hirschman Index, concentration, EU