

## The sustainability of European agricultural firms

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### Abstract

There has been an undeniable and remarkable performance of the global food system over the last fifty years. During this period, total food supply has increased almost threefold, whereas population has only increase in a twofold ratio, along with very significant shifts in diet related to the economic development. European agricultural activity plays an important role in European and world food security through the agricultural production, supply and international trade. The main aim of this paper was analyses the agricultural sustainability of the twenty-eight Member States of the European Union in terms of economics, environmental, social and political activity. Information and data comes from FADN database from the European Commission related to the year 2013, because is the last information available. The methodology includes the *min-max* approach based on the four components of sustainability, namely, economic, social, environmental and politics. We include the new component of politics in the sustainability because European agricultural are high subsidised and these subsidies have impacts on European agricultural sustainability. All the referred components of sustainability were based on various indicators in each component based on the literature. The *min-max* approach was employed to normalise the selected indicators expressed in variety dimensions for their need to be put on a common basis. Multivariate methods, namely Component Principal Analysis was used to estimate weights for the selected indicators to construct sub-indices and then the sub-indices were aggregated into the farm relative sustainability index. After, cluster analysis was used to form homogeneous groups of European countries according the agricultural sustainability indices. The results confirm three groups of European countries, namely, the North and Central countries; the New Member States and the Mediterranean counties. The results confirm that European agriculture firms and respective countries had a medium sustainability. The results also confirm that Northern European countries and the New Member States (of Eastern Europe) presents the highest levels of economic and political sub-indices of sustainability, confirming the high level of support for EU agricultural policies. However, are the Mediterranean countries (Southern Europe) that presents the highest environmental sustainability sub-indices.

The main conclusion highlines confirms the importance of the sustainability as a tool to better adjust agricultural policies among the European Member States and around the word in other sectorial firms, for better adjust sectorial policies.

**Keywords:** European Member States; economics; environmental; political; social; sustainability.

JEL CODES: Q01;Q12; Q18; Q50.

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