

## Extended Abstract

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<b>Paper/Poster Title</b>	Policy distortions, misallocation and productivity: The case of European agriculture
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**Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.**

<b>Abstract</b>	<i>200 words max</i>
<p>Resource misallocation is an important source of aggregate productivity loss. Quantifying the link between misallocation and actual policy distortions is not straightforward and is relatively understudied. We provide a framework which allows us to compute the impact of specific policy distortions on misallocation and aggregate productivity. Our empirical analysis explores the impact of the subsidisation of the agricultural sector in the European Union under the Common Agricultural Policy on land and capital misallocation, and aggregate productivity, during the period 2001-2010. We find that agricultural subsidies increased inefficiencies in the input distribution, and account for about 8% of the productivity losses attributable to misallocation. We also find that the decoupling reform, implemented by most EU15 countries in 2005, reduced the detrimental impact of subsidies. Our study provides the first estimates of agricultural factor misallocation in developed economies, and represents a useful benchmark for the extensive literature focusing on misallocation in the agricultural sector of low income countries</p>	
<b>Keywords</b>	Resource misallocation, productivity, subsidies, agriculture
<b>JEL Code</b>	D22, D24, O13, Q12, Q18
<b>Introduction</b>	<i>100 – 250 words</i>
<p>We develop a model able to disentangle the contribution of specific policies to factor misallocation. The decomposition is applied to study factor misallocation in the (previously unstudied) context of the European agricultural sector pre and post the implementation of the CAP reform in 2005.</p> <p>The empirical analysis is based on FADN data from 2001 to 2010, and indicates large heterogeneity in factor misallocation across member states as well as considerable differences in the extent to which they can be attributed to CAP subsidies.</p> <p>In particular, the findings indicate large factor misallocation in Southern and Eastern countries, but that the share attributable to subsidies is a function on the member state-specific level of subsidization, the variation in subsidization across countries and the correlation between productivity and subsidies. Generally, we observe that the implementation of the CAP reform reduced the impact of subsidies on misallocation.</p>	

<b>Methodology</b>	<i>100 – 250 words</i>
<p>The methodology is an extension to the seminal Hsieh and Klenow (2009) model to study the extent of factor misallocation in an economy. More specifically, we explicitly introduce policy specific distortions (modelled after the actual rules governing the CAP subsidies) which are allowed to interact with other (unobserved) distortions.</p> <p>Empirically, the model is calibrated for each member states based on farm microdata from the FADN dataset from 2001 to 2010 for EU27 countries. In particular, the elasticities of different inputs are estimated through the Ackberger, Frasel and Cave (2015) proxy function approach and the subsidization parameters are derived from the actual micro-data on the size and type of payments received by each farm.</p> <p>The theoretically informed empirical analysis allows to estimate the productivity losses due to misallocation (the inefficient allocation of inputs across heterogeneous production units) by generating the two counterfactuals where all distortions are removed (total misallocation) and where only agricultural subsidies are (misallocation due to subsidies).</p> <p>The analysis is carried out at the member state level both before and after the implementation of the 2005 CAP reform.</p>	
<b>Results</b>	<i>100 – 250 words</i>
<p>The results suggest that overall, misallocation results in a 25% reduction in productivity in the European agricultural sector. i.e. the efficient reallocation of inputs across existing farmers could result in an increase in the aggregate total factor productivity of one fourth.</p> <p>The severity of misallocation varies across member states, being particularly large for Eastern (Romania = 41%, Latvia = 33%) and Southern (Portugal 34%, Spain 30%) countries, and less pronounced in countries like France and Germany (19% and 20% respectively).</p> <p>We find that subsidies account for about 8% of these productivity losses, as they introduce additional distortions which cause the equilibrium input distribution to further deviate from the optimal one. The share of misallocation explained by subsidies varies across member states depending on the characteristic of the policies and in particular on their generosity and whether they favour more or less productive farmers.</p>	

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Finally, we find that the decoupling reform had a significant impact, reducing the share of misallocation attributable to subsidies from over 10% to less than 6%. In terms of aggregate productivity, subsidies resulted in 2.5% losses in the pre-reform period and 1.4% losses in the post implementation one.

**Discussion and Conclusion**

*100 – 250 words*

This paper represents the first attempt to estimate the size and impact of input misallocation in the context of EU agriculture as the literature has typically focused on the manufacturing sector or in the agricultural sector of developing countries only.

In doing so, it also develops a novel theoretical framework able to disentangle the impact of specific policies from (unobserved and unspecified) distortions. While the model is generalizable, in the context of this paper it is used to study the specific impact of CAP subsidies on factor misallocation.

We find that in the case of each member states, CAP subsidies increased the magnitude of factor misallocation and accounted for about 8% of the total productivity losses. An analysis of the pre and post decoupling reform (implemented by most member states in 2005) indicates that the reform was successful in reducing the distortionary impact of subsidies.