

Extended Abstract

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Paper/Poster Title	Does agriculture matter to rural economies? Evidence from agricultural multipliers in the EU
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Abstract	200 words max
<p>Does agriculture benefit rural economies? In this paper, I show the surprisingly limited economic contribution of agriculture across EU regions, including rural regions. Even in remote rural regions, the direct economic contribution of agriculture is smaller than that of the service sector, as measured by the Gross Value Added and employment. Yet, agriculture could still matter if it has large positive multiplier effects on local economies. To investigate this indirect channel, I estimate agricultural multipliers for employment and for income in EU regions using shift-share instruments. For employment, estimates show little effect of agriculture on other sectors. For income, rather than a positive effect, I find that agriculture may crowd out manufacturing activity. This negative effect is robust to different income indicators and alternative compositions of the shift-share instrument. These findings suggest that attempts to stimulate rural economies in the EU by supporting agriculture may be misguided.</p>	
Keywords	Agricultural multipliers, agriculture, rural economy, regional economy, local multipliers
JEL Code	Q10, Q18, R11, R12, R15, J43
Introduction	100 – 250 words
<p>In the public imagination, rural regions are farming regions and vice versa. This assumption is also embedded in European policy. For example, one of the stated aims of the EU Common Agricultural Policy (CAP) is to achieve "balanced territorial development", while the actual policy overwhelmingly target agriculture. European policy seems to assume that stimulating the agricultural sector is effective in strengthening rural economies.</p> <p>The relationship between agriculture and rural economies in high-income countries is not quite so simple. Research by OECD (2020) highlights that the direct contribution of agriculture to rural regions is not as large as many would expect. Likewise, agriculture accounted for only 6% of employment in rural economies in the United States in 2010 (Irwin et al., 2012). Yet, these low direct contributions could still mask a significant indirect role of agriculture: as a sector exporting tradable goods, incomes generated through agriculture and spent in local economies could in theory support activities in local non-tradable sectors, either to support agricultural activities or through consumption expenditures of those active in agriculture.</p> <p>In contrast with a large literature on such "agricultural multipliers" in low-income countries, there is surprisingly little empirical evidence for high-income countries, and more specifically the EU. The lack of evidence is particularly surprising given the large policy support provided to agriculture in many high-income countries. In this paper, I investigate the direct and indirect economic contribution of agriculture to EU regions.</p>	

Methodology	100 – 250 words
<p>I analyse the direct economic contribution through descriptive analyses using the recent year data of Gross Value Added (GVA) and employment. In order to capture the indirect contribution, I estimate agricultural multipliers on employment and income through econometric analyses. I use detailed employment and income data by the type of farming for each region to capture how a region responds to the EU-wide employment and income shifts, which are then used as a shift-share instrument variable (SSIV). This way, I attempt to isolate the unobserved time-varying local economic conditions in the multiplier estimation. The analyses are based on the balanced panel data of 130 regions in the EU for the periods of 2008-2012 and 2012-2017, which I construct from various datasets including the Annual Regional Database of the European Commission’s Directorate General for Regional and Urban Policy (ARDECO), Eurostat, the Farm Accountancy Data Network (FADN) and the firm financial statements of Bureau van Dijk (BvD).</p>	
Results	100 – 250 words
<p>I do not find a large direct contribution of agriculture in rural economies: Even in remote rural regions, agriculture contributes 7% to the total GVA and 14% to the total employment. Conversely, I also find that rural regions are not as important to overall agricultural activity as often thought: Non-rural regions account for more than half of the agricultural GVA and agricultural employment of the EU.</p> <p>Regarding indirect effects, the estimates of agricultural employment multipliers show no significant effects in other sectors, except a positive effect on the specific manufacturing sector of food and beverages. But the positive employment multiplier is not specific to rural regions. It is rather the other way around: in heterogeneous analyses, I find that agriculture creates jobs in manufacturing of food and beverages more substantially in urban regions, than in rural regions. For income, I find negative agricultural income multipliers in the manufacturing sector, which could be driven by input competition. The negative effects remain robust when I use different income indicators and alternative compositions of the SSIV.</p>	
Discussion and Conclusion	100 – 250 words
<p>My findings show that there is no obvious link between agriculture and rural economic outcomes: not only is the direct economic contribution of agriculture in rural regions limited, but there is no evidence of large positive multipliers on other sectors. A clear policy implication is that policies targeting the agricultural sector may not be the most effective way of supporting rural economies.</p>	