Evaluating Productivity Growth of Austrian Crop Farms By Semiparametric Estimation

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Summary

In this article, we estimate total factor productivity growth of Austrian crop farms. As an alternative to the widely used nonparametric procedures, we make use of semiparametric estimation, which has proven useful in the context of production functions, to provide inference on total factor productivity. The results reveal substantial productivity growth accompanied by large fluctuations over time and that productivity growth can be mainly attributed to growth within farms as opposed to reallocation between firms. Our results also exhibit substantial differences between productivity estimates from different estimation procedures.

Keywords: total factor productivity, productivity growth, agriculture, semiparametric estimation

JEL classification: D24, O12, Q10