

Effects of Incentives for Conversion to Organic Farming: An Evaluation of Causal Pathways and Long-Term Outcomes

Abstract

This study examines the long-term effects of public incentives for conversion to organic farming, focusing on how such policies affect both farm survival and the persistence of organic production over time. Using a nine-year follow-up of administrative data from a policy program implemented in Italy, the analysis addresses a key challenge in policy evaluation: production outcomes are only observed for farms that remain active, while survival itself may be influenced by the incentive.

To deal with this issue, the study adopts a causal framework based on potential outcomes and principal stratification, allowing different causal pathways to be explicitly modeled according to farms' latent survival responses to treatment. The evaluation is implemented within a Bayesian inferential framework, which enables the joint estimation of survival, production outcomes, and the distribution of principal strata in both the target population and the treated group.

The results indicate that the incentive has limited effects on farm survival, benefiting only a small subset of farms whose continuation depends on the support. In contrast, among farms that would have survived even in the absence of the incentive, the policy substantially increases the likelihood of maintaining organic production in the long run. Differences in the composition of the principal strata reveal systematic heterogeneity in structural characteristics, such as farm size and organizational form, pointing to non-uniform responses to the policy and enabling an assessment of how the targeting mechanism shapes the population actually reached by the incentive.

Complementary survey evidence on treated and surviving farms provides additional insights into the strategies and conditions associated with long-term persistence in organic farming. Overall, the study offers policy-relevant evidence on the mechanisms through which conversion incentives operate and highlights the importance of aligning policy design and targeting with heterogeneous farm responses.