Investments, subsidies and financial constraints in Estonian agriculture

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Abstract

Purpose – The purpose of this study is to explore the determinants of investment decisions of Estonian farms after the transition to market economy and accession to the European Union (EU), in the period 2006–2019.

Design/methodology/approach – The paper employs Estonian Farm Accountancy Data Network (FADN) individual farm-level data from the period 2006–2019, and standard and augmented accelerator investment models. Generalised methods of moments (GMM) and bias-corrected least-squares dummy variables (LSDVC) regressions were used to estimate parameters of these models.

Findings – By using FADN data and an adapted augmented accelerator investment model, we have provided three important findings.
First, the econometric results confirmed a positive and statistically significant association between the farms' gross investment decisions and the growth in real sales, indicating that investment decisions of Estonian farms were subject to their ability to sell output at competitive markets. The farms' investment decisions were determined by increase in real market sales. Second, we have identified that according to the standard augmented accelerator model specification, farms in the sample were financially constrained in their investment behaviour during the period studied, which suggests that farms' access to loans is dependent on their cash flow.
Third, decomposition of cash flow into volatile market income related part, and more stable, subsidies related part indicated that investments do not depend on volatile part of cash flow. However, the stable part of the cash flow (balance current subsidies and taxes) had a significant and positive effect on investments. This suggests SBC (soft budget constraints) is present in case of market. Financial constraints in Estonian agriculture income part of the cash low, and that credit rationing could still be present and it depends on the subsidies not market income.

Originality/value – Despite the wealth of literature on the investment behaviour of farmers, this article is the first attempt to decompose farm cash flow into stable (farm subsidies) and volatile (market income) parts to explain the role of subsidies as a part of cash flow in credit rationing.

Keywords: Farm investment behaviour, Soft budget constraints, Investment subsidies, Cash flow, Common Agricultural Policy