

Potential effects of the Income Stabilisation Tool in Estonian agriculture

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Abstract

Income variability management instruments (e.g., income insurance schemes, mutual funds), and policy interventions to facilitate their uptake may decrease income inequalities between farms and may stabilize agricultural income. The Common Agricultural Policy (CAP) offers a measure, called the Income Stabilization Tool (IST), aimed at supporting income risk management for farms through the use of mutual funds. IST provides farmers a right to receive indemnification from mutual fund if they suffer more than 20% loss compared to the average annual income of the previous three years or to the ‘Olympic’ average of the annual income from previous five years. The mutual fund will compensate up to 70% of the lost income.

There are a few countries and regions that have announced an interest in establishing IST: Italy, Hungary and the Spanish region Castilla and León. In Estonia, IST has not been applied due to low interest of farming community.

The main aim of the paper is to analyse, based on historical data, how the hypothetical indemnity payments would affect income variation in different farm types and size classes.

We use farm-level data on the gross farm income from the Estonian FADN database and period 2006-2019. To avoid potential biases caused by differences in farm characteristics in an unbalanced panel approach, we select a balanced panel data set that includes all farms with data entries for each year over the period 2006–2019. To allow better comparability of the variability of economic results among farms the values of all variables were deflated by the total agricultural output price index. 2006 was considered as the base year.

According to the European Commission proposition the income is defined as the sum of revenues the farmer receives, including any form of public support, deducting input costs. However, previous research has used different income categories, e.g., net farm income, crop margin, gross margin. Due to lack of crop/gross margin data, we identified the farms that could have received the indemnification based of the gross farm income. The analysis assumes that farmers must pay an annual financial contribution to the mutual fund – 5% to their expected income – to join in the scheme and receive compensation for their income losses. The statistical difference of the two distributions of farm income (i.e. with and without the IST) were tested throughout the Wilcoxon signed-rank test where the null hypothesis is that both distributions are the same.

The analysis executed shows the effectiveness IST is confirmed by the strong farm income variability decline at a comparatively limited expenses for farmers, thanks to the availability of certain policy support measures. In addition, successful implementation IST in Estonian agriculture could help crop, small and mixed farms, which are most exposed to income risk, to cope better with income losses in the hard years.

Keywords: income stabilisation tool, risk management, mutual funds, gross farm income, Estonia