

The Growth of Slovenian Farms

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During the second half of the twentieth century, the number of farms declined sharply in developed countries. Similar phenomena was observed in Central and Eastern European countries after transition. Corollary to the decrease in the number of farms, there is the increase in the remaining farms' average size. The issue of farm size growth refers specifically to that of structural change, which is a permanent and irreversible change in the agriculture. Therefore, the aim of this paper is to investigate the relationship between size and farm growth. The existing theories of the association between size and farm growth give mixed results by countries and over time. The aim of the paper is to test the validity of Gibrat's Law for Slovenian farms between 2007 and 2015 using Farm Accountancy Data Network datasets.

Different approaches have been developed in firm/farm level analyses to test whether Gibrat's Law holds. We employ several alternative panel unit root tests that have been applied to test the relationship between farm growth and the measures of farm size. Firstly, we investigated the potential for cross-sectional dependence (CD) in farm sizes, applying the Pesaran (2004) CD test. As it revealed evidence of CD, we used a second generation panel unit root test. As in our dataset the time dimension is relatively small, we used the Pesaran (2007) test, which performs accurately also with small samples (Moscone and Tosetti 2009). In addition, we apply different the heteroskedasticity-robust panel unit-root tests suggested in Herwartz and Siedenburg (2008), Demetrescu and Hanck (2012), and Herwartz, Maxand, and Walle (2017). While the former two tests are robust to time-varying volatility when the data contain only an intercept, the latter test is asymptotically pivotal for trending heteroskedastic panels.

Different indicators of farm size are used in the literature. Some authors use indicators of physical size, such as the total utilized agricultural area or the total number of heads of livestock, others use indicators of economic size, such as total gross margin or turnovers. In this paper we apply both input and output sizes of variables as proxy for farm size, namely total utilized agricultural area and total economic size of farms.

Our results suggest that Gibrat's law is valid for Slovenian farms independently from measures of farm size and types of panel unit root tests.

Keywords: Gibrat's Law, farm growth, Slovenia

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