Economic Efficiency of Investments in Agricultural Land

Saša Z. Todorović, University of Belgrade, Serbia
Zorica R. Vasiljević, University of Belgrade, Serbia
Zoran N. Rajić, University of Belgrade, Serbia

ABSTRACT

The goal of the research presented in this paper is to examine economic efficiency of investments in agricultural land, to detect the most important factors influencing this, and to contribute successfully to the formulation of the answer to the question if and under which conditions this investment is justified. The analysis of economic efficiency of investments in agricultural land is based on dynamical methods for investment evaluation. Analyses have shown that investing in agricultural land amounting to 4,000.0 EUR per ha at discount rate of 4% would be more profitable than the amount which would be realised by external investment, but only when applying the 30 year investment horizon, because at the end of the 30 year of investment horizon, the amount of receipts, which is higher by 284.00 EUR than the amount realised by external investment of capital, what is not the case with the amount realised after the 10 year of investment horizon (577.00 EUR less). It is a consequence of realised rate of return on investment in agricultural land amounting to 4.39% for the 30 year and 0.04% for the 10 year investment horizons.

Keywords: Agricultural Land, Capitalised Value, Internal Rate of Return, Investments, Net Present Value

INTRODUCTION

Agriculture of the Republic of Serbia is faced with many challenges. Increases in food prices have not only raised awareness of the urgency to increase agricultural investment, but they have also created opportunities for profitable investments. In such circumstances, a well-designed development policy plays an important role. In this regard, a special attention must be paid to the family farms as strategic holders of agriculture production. The main objective of their business operations in the market economy is to achieve a profitable production. The achievement of this goal necessarily follows an intensive investment activity directed at improving conditions for agricultural production. Bearing in mind preparation of the Republic of Serbia for European integrations and the obligations that the process of association carries, it is quite probable that the investment planning in the market economy becomes highly significant in the future, especially for those subjects involved in the implementation of measures to support the development of agriculture on family farms. The growing need for a long-term
investment on family farms in order to allow of much-needed improvements in their business performance and accelerate the adaptation to market economy typical for EU’s farm, is evident. However, the possibility of self-financing in Serbian agriculture is very small, primarily due to lower rate of surplus value caused by lower labour productivity (Božić, Munćan, & Bogdanov, 2009). On the other hand, agrarian economy of transition countries, to which the Republic of Serbia belongs, is faced with the capital lack problem for investment needs as well as structural adjustment to requirements necessary as an imperative during preparation period for European integrations. This problem has been especially acute within the Central and Eastern European agricultural sector (Dries & Swinnen, 2004). Budget constraint has been found to be an important factor limiting farms’ use of inputs not only in developing countries, but also in developed economies (Bhattacharyya & Kumbhakar, 1997; Blancard, Boussemart, Briec, & Kerstens, 2006; Färe, Grosskopf, & Lee, 1990; Heltberg, 1998; Lee & Chambers, 1986). Financial constraints and credit market imperfections are a major constraint on investment, growth and poverty reduction in transition and developing countries (Dries & Swinnen, 2010). In the situation when available investment capital is lacking, while the needs for the capital are significant, it is very important to direct properly existing financial resources towards those purposes and projects where the highest investment economic effectiveness could be achieved (Vasiljević, Sredojević, & Čejvanović, 2006).

Considering that in ownership structure of farms in the Republic of Serbia, small farms, which with below 3 ha of land make 60.2%, are predominant, whereas farms with over 10 ha make only 5.6% of total number of farms (Bogdanov & Božić, 2005), there is a need for investments in agricultural land, which appears to be one of priority investment purposes. One of the major arguments in favour of land consolidation is based on the hypothesis that larger farm sizes generally lead to a higher standard of living of rural families. Closely related to the fragmented ownership structure is overstaffing on farms and incomplete utilisation of family labour force, almost throughout the year, due to which there is a need and tendency for employment of household members outside the household (Todorović, Munćan, & Miljković, 2009). The dominant influence on the functioning of the family farm and its business results includes several organisational and economic factors, among which farm size expressed by available arable land particularly stands out (Todorović & Munćan, 2009). The amount of investment, capacity and utilisation of available manpower, the volume and value of production and the achieved farm economic results depend on the size of the farm (Vasiljević & Sredojević, 2005). Increasing the size of farm brings change of the optimal sowing structure, increasing degree of utilisation of family labour force, increasing degree of utilisation of own agricultural machinery, reducing the fixed costs per hectare and hour of work, as well as increasing the gross margin on the farm level (Munćan, Todorović, & Ivkov, 2008). Farmers with more tangible assets and with more owned land were less credit constrained than others (Latruffe, 2005). However, the degree of uncertainty, that has characterised the development of land market in the Republic of Serbia, has always been very high, together with unclear and insecure property rights, high transaction costs, market constraints such as credit, and the lack of collateral mechanisms have delayed the possibility of investing in agricultural land. Agricultural policy should, therefore, strive to reduce transaction costs for buying and selling of land, which are at present excessive and constitute an obstacle to the development of buy-and-sell transactions for land consolidation (Lerman & Cimpoieș, 2006). Agricultural policies affect the value of farm commodities, which in turn influence land values. Hence, it is important for policy makers to determine the factors that influence agricultural land values.

Due to characteristics, specificity and complexity of agricultural production, agricultural market as well as government agricultural policy, the risk in agriculture is extremely high.
Greening the Mediapolis with Media Literacy
www.igi-global.com/article/greening-the-mediapolis-with-media-literacy/114116?camid=4v1a