CAPITAL INCREASE IN BRAZILIAN AGRICULTURE SECTOR: A VISION BASED ON COMPUTABLE GENERAL EQUILIBRIUM MODEL

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In the last decade, the Brazilian agriculture has undergone several chances. One of them is the increase of grains production such as soybeans and corn beans which raises Brazil as one of top producer and exporter for these grains. To reach this position, was necessary to increase the planted area, by doing this the grain production expanded for unexplored areas that creates a new agricultural frontier between the states of Maranhão, Piauí, Tocantins and Bahia, all in the Brazilian northeast. At the same time, consolidated grains planting areas were modernized in center-west and south of Brazil. The need for more areas of plantation caused an increase in the value of land, which caused an increase in the capital employed. Therefore, all Brazilian agriculture and livestock were affected by this increase in land values. In this scenario, what are the economic impacts (prices of the grains, production value and quantity exported) that the increase in the land value causes in Brazilian agriculture sector? To answer this question, the present paper will use a computable general equilibrium model and the main data input in the model is an Input-Output Table structured to represent the five macro-regions of Brazil and those interactions around the globe. The computable general equilibrium model chosen is the Project of Analysis of General Equilibrium of the Brazilian Economy (PAEG) develop to represents a Brazilian economy in 19 sectors and 12 regions (five macro-regions of Brazil and seven other regions). Using this model, the main objective of the paper is to quantify the gains in production by the increase in invested capital. Thus, this paper deals with a current and important theme for the Brazilian agriculture, that can help making efforts and decision by measure the impacts in increasing the planted area in the medium and long term.