



De La Salle University – Dasmariñas

**MACROECONOMIC DETERMINANTS OF TOTAL FACTOR
PRODUCTIVITY GROWTH IN THE PHILIPPINES**

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ABSTRACT

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The study aimed to identify the macroeconomic determinants of Philippine total factor productivity growth. Specifically, the study analyzed the impact of the four vectors of variables: macroeconomic control variables, openness of the economy indicators, infrastructure development indicators, and human capital indicators.

The growth of TFP tends to decrease over time. However, results of the simple linear regression model indicated a strong positive impact of TFP growth on economic growth, evidenced by the significance of the estimated coefficient. By developing two full multiple regression models, the identified macroeconomic factors were tested empirically to be able to identify those that are applicable in the case of the Philippine economy. Among the two, Model B, is a more reliable model evidenced by the individual significance of the identified indicators of TFP growth and the better coefficient of determination and *F*-statistic. Results indicate that among the macroeconomic control variables, only the price changes, as measured by the rate of change in the GDP deflator, was found to be a determining factor of TFP growth which caused negative impact during the years under consideration. On the



other hand, total trade and exports alone were found to exert positive impact on TFP growth in so far as the openness of the economy is concerned, evidenced by their statistically significant estimates. Even though foreign direct investments and imports are being considered as the main channels of technology and knowledge, estimates were found to be insignificant for the Philippine TFP growth. Surprisingly, none of the included infrastructure development indicators were found to foster TFP growth and this led to the conclusion that the previous Medium – Term National Action for Productivity Agenda may have failed to identify the true indicators of infrastructure development.

In order for the study to add new findings in the existing body of empirical research on TFP growth in the Philippines, the study tested for the significance of the human capital indicators which include the fiscal expenditures on education, health, and defense. By constructing a separate multiple regression model, it was found that health and defense expenditures are very crucial in fostering TFP growth.

The study proves that increase in total trade, public education spending, and defense expenditures, have significant positive effects on TFP growth. On the other hand, inflation rate, government consumption spending, and imports exert negative impact on TFP growth.



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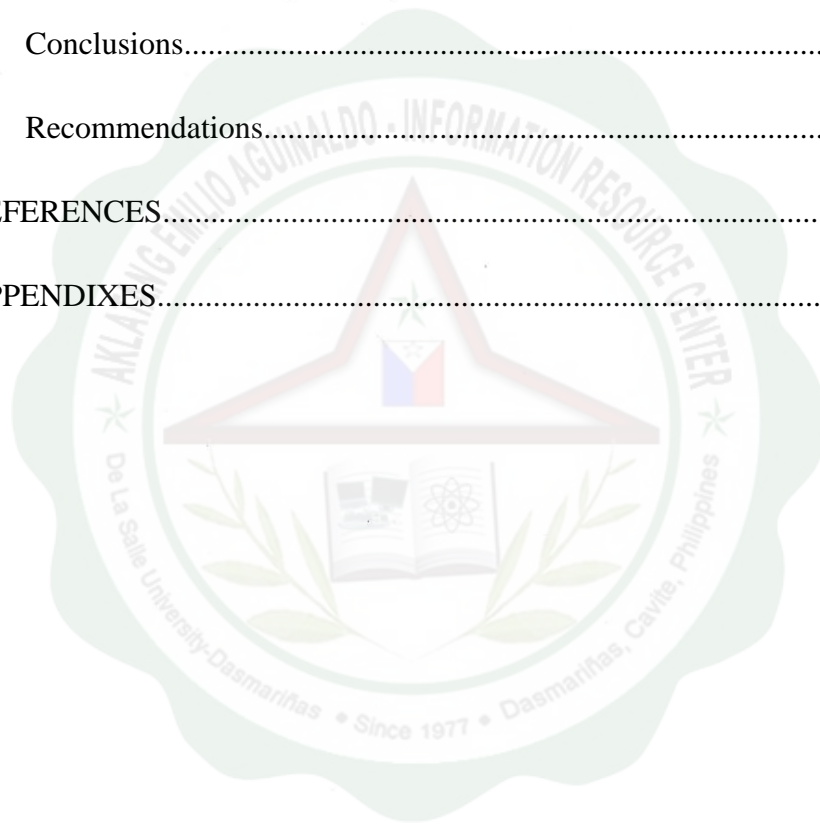
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