

The Impact of Connectivity Infrastructure Development in Indonesia

Topic: CGE and Econometric Input-Output Modeling

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Infrastructure lacking has been the bottleneck of the economic development for Indonesia. The government has launched Masterplan for Acceleration and Expansion on Indonesia Economic Development (MP3EI) to address the problem. The masterplan including a large-scale investment plan in the infrastructure development to strengthening the national connectivity. It aims to expand economic development in the surrounding areas, especially in underdeveloped and remote area. The masterplan includes infrastructure investment in six economic corridors, worth of 450 billion US dollars. However, it is hard to fund the large investment required with the limited government budget. The government has to decide the financing source and encourage collaboration with the private sector to bring in the investment. Despite the large scale of the project, quantitative research supporting the benefit of the project is still lacking. Moreover, research concerning the linking between the investment expenditures with the funding choice is surprisingly rare.

The purpose of this paper is to analyze the economic effect of the development of some priority project in the masterplan of connectivity infrastructure. We employ integrated Financial Computable General Equilibrium - Transportation Network approach to analyze the problem. The model is composed of three components: (i) transportation network/accessibility component, (ii) real side market component, and (iii) financial side market (money flow) component. First, the transport network model measures improvement in the interregional minimum distances and accessibility from the project. Next, the financial CGE model analyzes the economic effect on the real and financial side market. On the real side, the model analyzes the outcome of the project from the commodity flow, while on the financial side the model explore various financing method (tax financing, debt financing, and/or private fund financing) and its intertemporal effects regarding to the funding choice. We take seriously the analysis of funding choice into project outcomes since it will affect fiscal sustainability and also imply obligation for current/future taxpayer to pay the debt. By linking the investment expenditures with specific financial resource the analysis of the outcome would be more realistic. The analysis will confirm the development of priority project investment and strengthen the masterplan.