

Contribution of transport to economic growth and productivity in New Zealand

Topic: Economic growth, diversification and integration

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In response to the recent economic recession, governments worldwide have been using infrastructure as a means to accelerate the rate of economic growth. The key question is: how much do transport and transport infrastructure contribute to the growth of the economy? While there are many economic analyses on the economic benefits from specific infrastructure investment projects, these analyses seldom look at the overall effects from a national perspective. The purpose of this paper is to gain a better understanding of the economic impacts of transport and transport infrastructure in New Zealand using: (a) input-output approaches; and (b) a time series analysis.

The first part of the paper utilises the input-output tables for 1996, 2003 and 2007 to estimate the multi-factor productivity (MFP) for the transport industry at a disaggregated level, using both a gross output-based MFP measure and a value-added-based MFP measure. Our analysis found that the transport industry as a whole displayed productivity gains over the periods from 1996 to 2003 and to 2007. 'Water and air transport' sub-group shows the highest productivity gains from 2003 to 2007. Efficient use of labour inputs has been a major driver for the estimated improvements for the transport industry as a whole and for its industry sub-groups.

The second part of the paper attempts to separately identify the relative contribution from productive road infrastructure capital stock to economic growth. The econometric analysis is carried out using data from 1972 to 2009. Our analysis found that increase in net productive road infrastructure capital stock can enhance New Zealand Gross Domestic Product.

Key words: Transport and economic growth, multi-factor productivity, Economic impacts of road infrastructure

(The views expressed in this paper are those of the authors and do not necessarily reflect the views of the New Zealand Ministry of Transport.)