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Trade and Economic Development: Evidence from Less Developed Countries

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by
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Abstract

Improving living standards is a key priority for both policymakers and researchers. While trade is positively associated with income levels, finding evidence on the causal effect that trade may have on living standards is a challenge because decisions on whether to trade and how much to trade are not random. This thesis offers evidence on the extent to which trade activities can affect economic development in three groups of less developed countries: least developed countries (LDCs), landlocked developing countries (LLDCs), and Sub-Saharan African countries (SSAs).

First, the thesis investigates if a reduction in child mortality can be achieved by increasing trade in 48 LDCs between 1995 and 2012, and whether this effect depends on a country's type of political regime, namely, democracy or autocracy. While trade empirically promotes income levels, whether the benefits of trade activities do trickle down to ordinary citizens is questionable and may be influenced by political institutions. The thesis adopts an instrumental variable approach in a panel country and year fixed effects model to deal with unobserved factors and reverse causality. To do so, the thesis employs a known trade cost indicator that exploits information of bulk dry shipping costs captured by the Baltic Dry Index (BDI). The thesis finds that regardless of political regimes, there is no evidence that under-5 child mortality rate responds to trade arising from a cheaper shipping cost. Indeed, in autocratic LDCs, trade could even cause the child mortality rate to rise. To explore why this is the case, the thesis investigates the effect that trade might have on the environment. Evidently, trade could increase pollution, and this subsequent increase in pollution

in turn relates to an increase in child mortality.

Second, the thesis investigates the effect of trade cost on economic development in 31 LLDCs between 2001 and 2012. Lacking direct sea access, the LLDCs have expensive trade costs for shipping goods, which is considered a major reason for the LLDCs' underdevelopment. Given that the LLDCs may rely on container freight for trade because of the long distances over land, the thesis proposes a new measurement of trade cost by exploiting information from the Harpex index, an international container shipping rate. The thesis employs a recent advancement in panel data estimation - the interactive fixed effect which has the ability to deal with a large class of unobserved confounding information. Consequently, a reduction in trade cost is found to benefit the LLDCs substantially, in such was as higher income levels and better health conditions. The thesis also finds that a trade elasticity of income is roughly 1 for the LLDCs, which is about five times that estimated for the world as a whole, suggesting that trade can be a powerful force for the LLDCs progress.

Finally, the thesis investigates the effect of exports on urbanization in 48 SSAs between 1985 and 2012. As a feature of development, the high rate of urbanization may reflect improvements in living standards in the SSAs. Finding factors contributory to determining urbanization is important to the SSAs, that are among the worlds poorest countries and home to 13% of the worlds population. The thesis adopts a novel estimator, the correlated common effects (CCE) estimator, which employs interactive fixed effects to handle a large class of omitted and potentially confounding variables and cross-sectional dependence. The thesis uses a known instrumental variable for exports, the BDI cost, which is relevant to the SSAs to address the possibility of reverse causality. An expansion in exports is found to increase the urbanization rate, expand the size of primate cities and reduce income levels of these cities. The thesis also finds that an increase in exports can improve the accessibility of water and sanitation facilities for urban residents, but at a cost of expanding an urban-rural gap in water access and sanitation facilities. To explain how exports can

affect urbanization, the thesis examines the effect of exports on shaping a country's production in agriculture, manufacturing and services. Evidently, higher exports could expand the size of the services sector, which in turn relates to the urbanization process in the SSAs.

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Declaration

I, Ngoc T.A. Pham, certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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