## 2020

## **36<sup>th</sup> IARIW General Conference**

Paper Prepared for the 36<sup>th</sup> IARIW General Conference, Oslo, Norway, August 24-28, 2020

Trade Openness and Income Disparity across Indian States

## Prateek Kukreja

The Indian economy continues to be among the fastest growing economies in the world. Despite being one of the most populous countries, India has managed to not only maintain, but consistently improve its growth rate figure over time. However, this impressive growth rate has been maintained against the backdrop of historically widespread poverty and inequality conditions. There is a strong concentration of prosperity and wealth to specific regions and sectors. Economic reforms, such as trade liberalisation no doubt, have resulted in a spurt in the growth rate of national income (World Bank, 2008). However, it remains to be seen, whether, and if, to what extent this spurt in growth has translated into greater and equitable regional welfare within the country. There are two contrasting views within the 'new economic geography (NEG) school' concerning the impact of trade liberalisation on regional inequality. While one group, pioneered by Krugman and Livas (1996) argues that trade liberalisation leads to de-concentration of economic activity as a result of the weakening of the process of agglomeration (i.e. backward and forward linkages), as the domestic producers would now have their major markets, not in their domestic economy, but in their trading partners' countries and most of the required inputs will be imported. This would result in the shrinking of the large metropolis formed as a result of protectionist policies and would therefore lead to deconcentration of economic activity and thereby reducing regional disparity. On the other hand, there is another group of NEG theorists, including Paluzie (2001), who argue that trade liberalization benefits those regions the most, which have some initial advantage, such as regions favoured by the trading partner countries for some reason. The favoured region would then increase the demand for skilled labour. As they assume labour to be mobile within the country, so it can always move to the favoured regions and as a result, some particular regions may grow at the cost of others and therefore it may result in polarization rather than dispersal.

In this context, the proposed study aims at examining and analysing the relationship between openness of major Indian states to international trade and income disparity between them. Our objective therefore is to look at the trends of regional disparity in India, the contribution of various manufacturing industries to international trade and thereby examining the relationship between openness to trade and rising income disparity across Indian states over the years, with the help of the trade openness index and relative rankings of states based on the export performance and import competing performance.

Since trade data is not available at state-level in India, we construct a trade openness index, following Marjit et al (2007) and rank Indian states such that the one with rank 1 is deemed to be

the most "open". In order to capture changes in regional disparity, we look at trends in coefficient of variation of Per capita Net State Domestic Product (PCNSDP) across major Indian states. After estimating the regional openness index across each state, we examine the relationship between openness and income disparity across states by estimating the augmented Solow model following Mankiw et al. (1992) as follows:

$$\ln Y_{it} = \alpha + \beta \ln Y_{it-1} + \psi X_{it} + \theta Z_{it} + \mu_i + \eta_t + \varepsilon_{it}$$

Where,  $Y_{it}$ : Per capita Net State Domestic Product (PCNSDP) for each state i during year t

 $X_{it}$ : Regional openness index

 $Z_{it}$ : Set of control variables

The data on PCNSDP is obtained from Directorate of Economics and Statistics of respective state governments, CSO. For the construction of trade openness index, state-wise data on GVA at the 2-digit level of industrial classification is collected from Annual Survey of Industries (ASI), CSO. In order to match industrial and trade statistics, we use a concordance table at the two digit level of NIC and HS classification.

The paper ends with a discussion on whether and if, to what extent does trade openness affect differential growth across states and provides recommendations for accelerating growth in low income states.