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Globalization, Structural Change and Productivity Growth: A Cross Country Analysis of Select Asian Countries

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It is true that the development of an economy entails rapid structural change within an economy such that with the accelerations of the development process the resources shift from low productivity sector or activities to the high productivity activities because of the growing differences in return on resources between the traditional low productivity activities and the modern high productivity activities. Such structural transformation is the fundamental reality in the developing countries. The famous two-sector models of Lewis (1958), Harris-Todaro (1970) give us clear analytical insight about such structural change where the main driver has been the wage as well as productivity differentials between the traditional and modern high productivity sector. Contemporary global economic scenario clearly reveals the tremendous slowdown in productivity growth in the developed economies that are almost operating on the global technology frontier vis-à-vis the global productivity frontier. Parallely, it is also found that there has been a remarkable growth in the productivity of some of the developing and emerging market economies especially some of the Asian economies like India, China etc. which are trying to catch up the global technology frontier vis-à-vis the global productivity frontier. Interestingly, the rapid globalization process through the liberalization of trade, investment, finance, cross-country transfer of technology and migration seems to have strengthened the structural transformation, technological transformation as well as the productivity growth across the developing countries. The contemporary literature also unveils the impact of globalization on productivity growth and structural change (Timmer et. al. 2007, 2009; Rodrik, 2007,2008, Pavcnik,2000, Bartelsman,2006; Pages,Carmen,2010; Paus et.al.2003, McMillam and Rodrik,2011; Samaniego et. al.,2013 etc.). Further, Ngai and Pissarids (2007) and Acemoglu and Guerrieri (2008) have shown that if goods are substitutes then in equilibrium, the resources should shift towards industries with rapid productivity growth and the reverse happens if the goods are compliments. Actually, the productivity mechanism of structural change leads to the shifting of resources depending on the initial conditions. In fact, the integration of the developing and emerging market economies with the advanced economies through globalization seems to

have produced some challenges for sustaining productivity growth before such countries as a result of the slowdown of global productivity.

Under this backdrop we will examine, first of all, the dynamics of contribution of structural change to the labour productivity across the select fourteen countries in Asia during 1990 to 2017. Secondly, we will see the impact of globalization on the structural change as well as productivity growth. Finally, we will examine the correlation between the productivity growth and the structural change as well as globalization across the sample countries over the period from 1990 to 2017 using dynamic panel framework with GMM technique. Entire exercise will be done on the basis of the secondary data which are available from APO productivity database, World Development Indicators, PENN World Table etc . It is worth mentioning that the labour productivity growth in an economy may be achieved in one of the two ways. First, productivity may grow within economic sectors through capital accumulation, technological change etc. Secondly, the laborers can move from low productivity sectors to high productivity sectors thereby increasing the overall labour productivity in the economy. Therefore, in our study we will decompose the labour productivity growth into two components viz. (i) within component of productivity growth; (ii) the productivity effect of labour reallocation across different sectors which is essentially the inner product of productivity levels with the change in employment share across the sectors such that the second component is a measure of structural change. To this end we will use the technique of McMillan and Rodrik (2011). It is also worth mentioning that while estimating the impact of globalization on productivity growth first of all ,we will use the KOF comprehensive globalization index and secondly we will also develop economic globalization index in terms of the weighted sum of the value of trade share in GDP of each country and the share of net inflow of FDI in GDP such that larger weights (0.8) to be given to first component and smaller weight (0.2) to the second component. The preliminary results that we have worked out (of course very rough) by using dynamic panel exercise reveal a clear positive correlation between productivity growth and globalization across the select Asian countries. We also observe from the data base that there has been a long run increasing trend in the shifting of workforce from primary sector to secondary sector and further to service sector. After analyzing the dynamics of the structural change and the productivity growth and estimating the relation between the productivity growth and structural change as well as globalization we will derive some policy conclusions which emerge out of our exercise.

**Key Words:** Productivity Growth, Globalization, Structural Change, Asia, Dynamic Panel.