

Should High Ratio of Domestic Value Added to Gross Exports be an Objective of Policy?—Based on China's Provincial Level Data

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As the division of labor of global value chain becomes an important form of global production, value added in trade can more accurately reflect trade gains than gross trade value. Many developing country policy-makers aspire to increase the ratio of domestic value added to gross exports (DVAR). However, whether high DVAR could be used as a policy objective remains to be studied. To study this, we use China provincial data to explore the relationship between the ratio of intra-provincial value added to gross exports (PVAR) and the development level, and compare the difference in PVARs of different province. The gross exports of 31 provinces and 14 sectors in China are decomposed into intra-provincial value added, other domestic provincial value added, foreign value added, and double counted terms based on the global Input-Output table embedded with China's most up-to-date provincial Multi-Regional Input-Output table for 2012 and the extended WWZ decomposition method.

This study gets the following four key findings. (1) There is a "U-shape" relationship between the PVARs of provinces and the provincial development levels. (2) There is a "U-shape" relationship between the PVARs of sectors with provincial development levels. (3) The PVAR for Agriculture, Industry and Services shows a "U-shape" difference; The PVAR of Agriculture and Services is relatively higher than that of Industry; The PVAR of labor-intensive manufacturing is higher than that of capital-intensive manufacturing which is higher than that of technology-intensive manufacturing. (4) With the effect of export structure, the province with higher development level may have lower PVAR.

These findings suggest that high PVAR cannot be separately used as an objective of policy. Development stage and structural characteristics of the provinces should also be considered to determine the direction and path of trade upgrading.