

Application of Factor Decomposition Techniques to Vertical Specialisation Measurements

Topic: Decomposition Analysis

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The increasing importance of vertical specialisation (VS) trade has been considered a representative feature of rapid economic globalisation and regional integration. In order to measure a country's degree of participation in global production chains, many Input-Output based VS indicators have been developed. However, most of them focus on showing the overall magnitude of a country's VS trade, rather than explaining the roles that specific sectors or products play in VS trade and what factors make the VS change over time. Changes in vertical specialisation indicators are, in fact, determined by mixed and complex factors such as import substitution ratios, types of exported goods and domestic production networks. In this paper, decomposition techniques are applied to VS measurement based on the OECD Input-Output database. The decomposition results not only help us understand the structure of VS at detailed sector and product levels, but also show us the contributions of trade dependency, industrial structures of foreign trade and domestic production system to a country's vertical specialisation trade.