Factor Incomes in Global Value Chains: The Role of Intangibles

Wen Chen
University of Groningen
Email: wen.chen@rug.nl

Bart Los
University of Groningen

Marcel Timmer
University of Groningen

Today's production processes are fragmented across countries and industries. Intangibles play an important role, but their measurement is elusive. In contrast to tangible inputs, their use is not bound by geographical location. We propose an empirical framework to measure factor incomes in production that spans countries. We define intangible capital income residually as the difference between the value of a final product and the costs of all tangible factor inputs (capital and labour) in any stage of production. We bring this to the data using the WIOD and additional national account statistics on capital stocks.

Our main finding is that the share of intangibles in the value of final goods has increased, in particular in the run up to the financial crisis in 2008. Its share is generally (much) higher than the tangible capital income share. This is found at the aggregate as well as for more detailed manufacturing product groups. Nevertheless, there is clear heterogeneity in the pace of the increase. For some non-durable products the intangible share increased only slightly over the whole period 2000-14. In contrast the share increased rapidly in durable goods (machinery and equipment products). We find suggestive evidence that this variation is linked to variation in the speed of international production fragmentation. We discuss measurement problems and stress the explorative nature of the exercise.