

Measuring Industry Productivity Across Time and Space and Cross Country Convergence

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Paper Abstract:

The paper introduces a new method for simultaneously comparing industry productivity levels across countries and over time. The new method is similar to the method for making multilateral comparisons of Caves, Christensen and Diewert (1982b) but their method can only compare gross outputs across production units and not compare real value added of production units across time and space. The present paper uses the translog GDP methodology for measuring productivity levels across time that was pioneered by Diewert and Morrison (1986) and adapts it to the multilateral context. The new method is illustrated using an industry level data set and shows that productivity dispersion across 38 countries between 1995 and 2011 has decreased faster in the traded sector than in the non-traded sector. In both sectors, there is little evidence of decreasing distance to the productivity frontier