National Institute of Economic and Social Research

“Level comparisons for 8 Latin American countries. PPP measurement at the industry level”, by Wulong Gu and Andre Hofman

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Summary of the paper

- This paper presents levels of productivity at the industry level for a group of Latin American economies (Chile, Colombia, Costa Rica, El Salvador, Honduras, Mexico, Peru and Dominican Republic) and the US for the period 1990 to 2018.
- Includes the PPPs of *output, capital*, *labour* and *intermediate inputs* and it allows the international comparison of levels of Total Factor Productivity.
- As expected, all eight LA economies have labour productivity levels that are much lower than that of the United States (in 2015).
- Relative lower levels of labour productivity in LA economies are attributed to lower levels of TFP. The rest is due to the lower levels of input intensity.
- Chile has the highest TFP level, followed by Mexico, and Honduras and El Salvador have the lowest TFP levels.

Comments

- Ambitious (and necessary) initiative, with complex measurement issues.
- Detailed description of data and methodological choices.
- Comparisons of productivity growth are a standard tool of economic analysis, but comparisons of productivity levels are less frequent, and provide useful insights for productivity growth and catch-up potential.
- At the level of total GDP, comparisons of labour productivity levels are more simple to establish, disaggregated comparisons are usually hindered by lack of data (sector-specific conversion factors).
- Estimates of labour productivity levels for the economy do not yield insights in the sectoral composition of productivity: It is possible that one country is very productive in one sector, but is a laggard in another.

Decomposition of income per capita level into the following components:

$$\frac{GDP}{pop} = \frac{GDP}{\underbrace{Hours}_{Productiviy}} * \frac{Hours}{\underbrace{L}_{\substack{hours\ worked \\ employed}}} * \frac{L}{\underbrace{A}_{\substack{Employment \\ rate}}} * \frac{A}{\underbrace{pop}_{\substack{Activity \\ rate}}}$$

Questions & suggestions

- Diagram for data sources for different uses could be useful.
- Robustness: Interesting comparison with results from Penn tables which reveals some differences.
- Comparison with prior evidence (even qualitative) on the resulting productivity gaps: Are these surprising or expected? How do these compare with other LA countries?
- What are the main results on the productivity gaps at the industry level?
- The result that the skill levels between the US and LA countries is small appears surprising.
- Very useful exercise with lots of potential analytical applications, for instance to explore the drivers of productivity gaps among these economies (due to natural or structural features) as well potential for knowledge transfer across regions that are geographically closer.