

## Key sectors in economic development: a perspective from input-output linkages and cross-sector misallocation

Topic: 714D Productivity and Efficiency (2)

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For a typical developing country, this paper shows that once inter-sectoral linkages are taken into account, closing the productivity gap in a number of services gives bigger gains in aggregate productivity than closing it in agriculture or in manufacturing, despite their larger gaps. This is performed in the context of an input-output economy and general equilibrium. Also, the importance of sector-specific distortions that produce cross-sector misallocation is addressed. I compute the effect of the removal of these distortions on aggregate productivity using the input-output model and find that this could increase productivity up to 68%, depending on whether the rents from distortions stay in the economy or not.

I make two main arguments regarding the questions at hand. First, I argue that to determine which sectors make poor countries so unproductive, it matters not only which sectors have the largest productivity gap with respect to the leader, but also the "degree of influence" (See Acemoglu et al. (2012)). of each sector. This degree of influence is determined by the way each sector is linked to the rest of the economy through input-output relationships. Some sectors play a central role in the input-output network because they are important suppliers of intermediate inputs in the economy, and thus, they have a high degree of influence.

The second argument in the paper is that there exist sector-specific distortions in developing countries that are not directly linked to low productivity at the industry level, but that could be a source of cross-sector misallocation, and thus, have an impact on aggregate productivity. These distortions disrupt the equalization of marginal products across sectors potentially undermining aggregate productivity. Keep in mind that sector-specific distortions might simply be the result of firm-level distortions that differ across sectors.. The second goal is to measure the quantitative importance of these distortions on aggregate productivity, and to understand the economic channels through which this occurs.

To achieve these goals, I use a multi-sector model with inter-sectoral linkages based on Long Jr et al. (1987), Acemoglu et al. (2012), and Jones (2011). In the model, there are  $N$  sectors (or industries) that produce different goods. The output of each sector can be used either as consumption or as an intermediate input in the production of the other sectors. This introduces the link between the performance of an individual sector and the performance of the rest. I calibrate this model to Mexico, an important developing country, and perform counterfactuals.