Labor Productivity and Wage Inequality

Samuel Bazzi (Boston University), Hartmut Egger (University of Bayreuth),
Michael Koch (University of Bayreuth), and *Marc-Andreas Muendler (UC San Diego)

June 2015

Abstract

This paper relates a country's aggregate labor productivity change to resource shifts across main sectors and microeconomic sources of change. We bridge established microeconomic and macroeconomic approaches to productivity analysis for the universe of formal-sector firms in Brazil over a quarter of a century from 1986 to 2009. We compute labor productivity change for firms with at least one employee and in any sector of the economy based on wage-bill related imputations of value added. The bulk of labor productivity change is explained by changes within industries and within firms. Firm entry, exit and reallocation among survivors matter to some degree. The dominant source of labor productivity growth is within-firm change, however, and in turn driven by within-plant, within-occupation and within-group changes for workers sharing similar educational attainment. Over the same period of time, the earnings disparity within firms commands an increasing share of overall earnings inequality, and larger firms exhibit stronger earnings disparity in the cross section. We posit that a model of firms that choose organizational arrangements or managerial practices to assign differentiated labor inputs to tasks under an optimal degree of substitutability can capture both the dominant within-firm contribution to labor productivity growth and the increasing importance of within firm earnings disparity for wage inequality.

Keywords: Productivity; Macroeconomic and Microeconomic Components of Productivity Change; Firm Size and Performance; Managerial Practices; Inequality, Reallocation; Brazil

JEL Classification: D24, L25, 011, O12, O47