

The General Equilibrium Wage Impact of Trade-Induced Shifts in Industrial Compositions of Employment in Brazilian Cities, 1991-2000*

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Abstract

Conventionally, it is presumed that restructuring of industrial composition of employment only modestly affects the average wage. This is because in a partial equilibrium setting such a restructuring affects the calculation of the average wage only through changes in employment shares of industries used as weights on *constant* industry wages. On the contrary, this paper brings substantial evidence indicating that aside from such partial equilibrium shift-share effects, a change in industrial composition sizably impacts all industry wages through general equilibrium (G.E.) feedbacks from the average wage – as a reservation wage in all industries in a search and bargaining framework – onto *all* industry wages. In particular, this paper uses Brazilian census data for years 1991 and 2000 to study the G.E. wage impacts of exogenous shifts in industrial compositions in cities of Brazil induced by substantial trade liberalization in this country during the 1990s. A restructuring of industrial composition in a city favouring high-wage industries that modestly raises the average wage in this city by only 1% through shift-share accounting, is estimated here to increase all industry wages in the city in average by at least twice as much – between 2 to 4 percent – in the long-run through the G.E. impacts, resulting in an overall increase of 3 to 5 percent in the average wage. Concerns about endogeneity is address by using an IV strategy that exploits distance of a city from major international commercial ports as an indicator of how the change in trade policy impacted its industrial composition. The result is also robust to correcting for sample selection bias generated by regional migrations and to the presence of alternative explanatory mechanisms. The finding here highlights the importance of considering G.E. interactions in policy evaluations. It also indicates that major changes in national industrial or trade policies in developing countries such as Brazil, with already non-uniform distribution of economic development across regions, create geographical winners and losers depending on how the impacts are distributed across different localities sub-nationally. If the distribution of impacts is such that the losers-to-be regions are those already suffering, then balancing measures are necessary to avoid spatially uneven sub-national economic development.

Keywords: Industrial Composition, Wage Structure, International Trade, Sub-national Economic Development, Spatial Distribution of Policy Impacts, Brazil

JEL Classification: O18, R58, O24, R11, O25, J31, O54, O11, O12, R23

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