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Productive structure and income distribution: The Brazilian case

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Abstract

The objective of the paper is to assess the impacts of some of the important changes occurred in the Brazilian economy in the 90s on income distribution. A Pure Leontief Model and a Leontief-Miazawa Model were utilized to portray the structure of the economy in both years, and to perform counterfactual simulations on some important changes occurring during the period. The methodology allowed for the identification of the high- and low-inequality sectors in both years, and to assess their contribution to the increasing inequality during the period. It is interesting to notice that some sectors with low internal inequality ended-up provoking increased global inequality through their interaction pattern with other sectors in the economy, and through the consumption structure. The results also indicate that the change in sectoral shares in the period contributed to diminishing inequality. Therefore, the causes for increasing inequality remain within the distribution of wages within the sectors.

Keywords: Income inequality; Structural changes; Input-output; Wage distribution

1. Introduction

Brazil is one of the most unequal countries in the world in terms of income distribution. This situation is quite stable and remains almost unchanged for decades (Baer, 2001). Barros and Mendonça (1997) indicate that economic growth alone would not be able to solve the problem,

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and that some specific policies should be put in place. Some authors argue that opening of the economy to the external market could help reducing inequality (Rocha, 1998, dealing with regional aspects; Green, Dickerson, & Arbache, 2001, analyzing labor market changes; Gurgel, Harrison, Rutherford, & Tarr, 2003, on trade liberalization). Azzoni, Guilhoto, Haddad, Menezes, and Silveira (2004) and Ferreira-Filho and Horridge (2005) indicate that even a huge reduction in trade barriers by developed countries would have very limited impacts on income distribution in Brazil.

According to Radar Social Brasileiro,[1] Brazil is only worse than Sierra Leone in terms of income inequality in a group of 130 selected countries. The Brazilian Gini inequality index is two and a half times the ones for Austria and Sweden; it is substantially worse even than Mexico's indicator. As a whole, Brazil must not be considered as a poor country, and yet its income distribution is equivalent to very poor countries. Barros, Henriques, and Mendonça (2001) identified the heterogeneity of schooling of the labor force as the main determinant of wage inequality in Brazil. Moreover, the authors found that the process of economic development experienced by the country reinforces such heterogeneity. Their analysis of labor demand and supply indicates that the inequality levels are due to a conflict between a highly technology-intensive economy facing an inefficient education system. While labor demand becomes more and more sophisticated, the incapacity of the educational system to provide the necessary supply of skilled workers creates such a situation. Thus, new educational policies are needed. However, the capacity of the educational system to provide the necessary labor supply is limited. Social programs are alternatives, but their reach is also limited, as all evidence of such recent programs as *Fome Zero* suggests.

The 1990s were a period of intense economic changes in Brazil. Until 1990, the Brazilian economy was quite closed, with most of final, as well as intermediate, consumption being supplied by Brazilian companies. Even exports were a small part of final demand. In a few years time, the economy was opened up at a fast pace, generating opportunities and creating problems at a very rapid rate. As a whole, the decade was marked by low product growth, many stabilization plans, changes of currency, etc. The weak economy was highly vulnerable to external crises, such as those of Mexico in 1995, Southeast Asia in 1997, and Russia in 1998. On top of that, the Argentinean crisis and energy supply problems resulted in a low growth, stop-and-go economy, with an overall poor economic performance.

In order to be able to design efficient policies, a better diagnosis of income inequality and its causes is in order. Although growth was not impressive in the period, important structural changes took place. The objective of this paper is to assess the impacts of some of the important changes that occurred within the Brazilian economy in the 1990s on the distribution of income. This will be done by examining the productive structures existing in 1992 and 2002. A series of simulations will be performed in order to establish the impacts of such changes on the distribution of income. It follows the steps of Baer and Haddad (1997), who analyzed the influence of income distribution on employment absorption in the 1960s.

The paper is organized in five sections. Section 2 presents the methodology employed based on the Leontief–Miyazawa type of model. In Section 3 the data sources are presented and some general features are discussed. Results are presented and discussed in Section 4. The last section presents the conclusions of the study.

[1] www.ipea.gov.br/Destaques/livroradar.htm.