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Growth with reduction in poverty and inequality: did Brazil show the way?

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Abstract
A comprehensive decomposition approach is applied to identify the factors that generated a remarkable change in income distribution, whereby in the a span of a decade, Brazilian inequality fell by one-fifth, and the incidence of poverty declined by two-thirds. It is argued that important elements related to these developments had been in place for some time. These elements included macroeconomic stability, long-standing increases in educational attainment, and favorable demographics in the form of a declining dependency ratio that proved to be both poverty- and inequality-reducing. Robust economic growth during the 2000s and the early 2010s resulted in across-the-board income gains that were widely shared, owing to mechanisms that favored advances at the lower end of the distribution of earnings. Demographics, as well as changes in educational attainment, labor force participation, and lower-skill prices explain most of the significant drop in the headcount ratio, with education and the interaction between economic growth and a rising wage floor accounting for the bulk of the change. The same factors explain up to 85% of the decline in income dispersion that was especially driven by markedly compressed earnings differentials. Human capital accumulation and strong labor market institutions thus stand out as key mechanisms linking economic growth to income distribution.

Keywords Brazil · Demographics · Education · Growth · Inequality · Poverty · Public transfers · Skill differentials

1 Introduction

During the first decade of the 21st century, a remarkable change in income distribution unfolded in a country known as one of the most unequal in the world. After rising through decades of formidable growth, fluctuating in the macroeconomically turbulent 1980s, and stagnating in an ensuing period of meager growth, Brazilian inequality began to fall sharply

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and consistently for the first time in recorded history. Income growth was strongest at the bottom half of the distribution, lifting millions from poverty and leaving almost no one behind. These developments coincided with the implementation of social policies intended to generate such results, as conditional and unconditional transfers grew in scope and economic importance. However, they also occurred in the context of continued improvement in educational attainment, macroeconomic stability, demographic shifts that included a plunging dependency ratio and, perhaps most notably, a long period of robust economic growth. Even though the question of what caused the distribution of income to change is a controversial subject that is still far from well understood, popular sentiment and academic research lean toward an explanation with a strong social policy component (Barros et al. 2006, 2010). This explanation is also supported by evidence regarding the poverty-reducing role that public transfers played in the years leading to the economic upturn (Ferreira et al. 2010).

An assessment of the forces that generated such shifts in distribution has policy implications that go beyond the case of Brazil. Although there is an extensive body of literature on the causal relationship between inequality and growth and to a lesser extent on how they move together, evidence on the mechanisms that link them is much less abundant, with answers also important for reconciling differences in the short- and long-run relationships between inequality and growth (Halter et al. 2014). Similarly, whereas economic growth has been established as a major instrument of poverty reduction (Dollar and Kraay 2002), unanswered questions remain.[1] Kraay (2006) decomposes the impact of economic growth on poverty alleviation into components associated with growth in average incomes and growth in relative incomes. Growth in average incomes is found to be influenced by factors such as institutional quality, trade openness, and government consumption, but no evidence is found on the correlates of growth effects on relative incomes. Ravallion (2012) stresses the importance of a better understanding of the factors that hinder or favor poverty reduction in developing economies.

The remarkable run of poverty and inequality reduction in Brazil represents an exceptional opportunity to gather evidence on the mechanisms linking growth to distribution. Barros et al. (2010) highlight public transfers as an important source of redistribution in Brazil, but their conclusions are based on a sequential decomposition that evaluates a large number of contributors to distribution trends in a single arbitrary order. Moreover, the methodological approach evaluates mechanisms such as changes in transfer income sources alongside other potential explanations based on changes in the composition of the population, such as changes in labor force participation. An assessment of factor income and population-based explanations of changes in income distribution can be performed under a common framework, but by a regression-based approach (Cowell and Fiorio 2011). The strategy proposed in this study is well-tested, adapted to this end, and extended to evaluate skill price effects across the earnings distribution, incorporating a quantile regression approach that has proved to be useful for examining Brazilian gender and racial wage disparities (Salardi 2012). The empirical strategy also generates results that are not dependent on the order in which determinants of income distribution trends are evaluated in a sequential approach and is capable of assessing the impact of the determinants on both poverty and income inequality.

The evidence presented in this paper indicates that Brazilian distribution trends benefited from elements that had been in place for some time. These included human capital accumulation and demographic changes that had consistently positive effects on distribution.

[1] Brazilian time series evidence is consistent with this result. Empirical tests establish a positive association between poverty and growth that has grown more elastic over time (Sotomayor 2006).