## Comments

**Daniel Mejía:** Gasparini, Cruces, and Tornarolli document the trends in income inequality between 1990 and 2005 across Latin American and Caribbean countries. Using household surveys for different countries, they construct high-quality measures of income inequality and labor earnings for this group of countries. The main contribution of the paper is that it provides a thorough description of the patterns of inequality across the region using the best available information and comparing different inequality measures with other regions of the world. The authors find that income inequality in most Latin American and Caribbean countries increased in the 1980s and 1990s and then decreased between 2000 and 2005. In countries where inequality did not decrease between 2000 and 2005, at least it did not keep rising. The authors suggest that this observed fall in inequality, although significant, is not based on strong fundamentals (a point I discuss below). The authors confirm the view (not yet proven with high-quality data) that Latin America and the Caribbean is the region with the highest levels of inequality in the world.

This paper is essentially an investment project, wherein the authors paid the fixed cost of constructing a high-quality data set on income inequality across regions in the Latin American and Caribbean countries. The lack of empirical research on the determinants of income inequality across countries in the world is, perhaps to a large extent, driven by the lack of reliable data with which to construct good measures (that are comparable across countries!) on income inequality. The big question that remains is simple: what comes next? In other words, how are the authors going to recover this fixed cost?

There are at least three avenues worth exploring. First, the authors present some (informed) conjectures at the end of the paper about the factors that may be behind the observed patterns of inequality in the region. These are only conjectures, however, and further research is needed to test the importance of different driving forces behind the evolution of inequality over time. The second avenue is to study the effects of income inequality on different measures of economic performance, such as aggregate activity, economic growth, and human capital accumulation. In particular, this data set could be used to test alternative channels through which inequality affects aggregate economic activity (such as the credit market imperfections channel, the political economy channel, and so on). Finally, it would also be interesting to study the effects of income inequality on political processes such as the rise (and fall?) of populist regimes, social conflict, and so on.

The factors behind income inequality include more fundamental forms of inequality. If we take a basic economic perspective, individuals' income is a function of their human capital endowments, asset holdings, abilities, and so forth. That is,

$$y_i = f(h_i, a_i, l_i).$$

Inequality in the distribution of these endowments,  $h_i$ ,  $a_i$ , and  $l_i$ , generates inequality in the distribution of income. As the authors show, most income (85 percent or more) is generated by labor earnings in Latin America and the Caribbean. Thus, pinning down measures of inequality in the distribution of human capital (education) is an important step toward understanding the determinants of income inequality. It can also provide an indication of whether the recent fall in inequality is based on strong fundamentals or not, which is perhaps the big question left unanswered in the paper.

The following figures are based on Barro and Lee's data set on education across countries and my own calculations.<sup>1</sup> They describe many interesting factors about one important dimension behind the income inequality measures presented by Gasparini, Cruces, and Tornarolli: inequality in the distribution of education across individuals. I also present two figures on inequality in land holdings in Latin America and other regions of the world that show that Latin America and the Caribbean is indeed very unequal in this dimension when compared to other regions in the world.

Figure 19 shows how the Gini coefficient associated with the distribution of the number of years of education across the population decreased by almost 0.10 points between 1960 and 2000 in Latin America and the Caribbean, going down from an initial level of 0.50 in 1960 to close to 0.41 in 2000.

Figure 20 shows the ranking of educational Gini coefficients across Latin American and Caribbean countries in 2000. This ranking more or less coincides with that for income inequality presented by Gasparini, Cruces, and Tornarolli.

1. Barro and Lee (2010).





a. The countries included in the sample are Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela.



FIGURE 20. Inequality in the distribution of income and education across LAC<sup>a</sup>

a. The countries included in the sample are Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela.



FIGURE 21. Inequality of Income and Education: International Comparisons

When one compares Latin America and the Caribbean with other regions of the world, the levels of inequality in the distribution of education are no longer the highest in the world. In particular, some countries in Asia and Africa have levels of inequality in the distribution of human capital that are much higher than the levels observed in Latin America and the Caribbean (see figure 21).

Finally, another important dimension of inequality across the world is that for land holdings. In this dimension, it becomes clear that Latin American and Caribbean countries have the highest levels of inequality in the world (see figure 22). In particular, the average Gini coefficient for land holdings in Latin America is close to 0.78, whereas for other regions in the world it is much lower (close to 0.47 for Asia and Africa, 0.50 for Europe, and close to 0.70 for Oceania).

**Daniel E. Ortega:** Inequality is often viewed as one of Latin America's greatest and most persistent economic and social challenges. It has also become increasingly important in political discourse in the region, playing a role in the level of polarization within and across several countries and in shaping public policy. The compilation of a unified and comparable source of inequality measures for twenty-five countries is therefore a commendable effort, as it should help give more substance and clarity to regional debates on inequality differences across countries in the region and over time.



FIGURE 22. Another Dimension of Endowment Inequality: Land

The paper provides comparable income inequality measures estimated from household surveys from the early 1990s to the mid-2000s for each country. It suggests that there is a pattern of increasing inequality in the 1990s, but that the twenty-first century has witnessed a generalized decrease in income disparities across Latin America. The authors are careful to show that their key results are robust to alternative methodological assumptions about the inclusion of zero reported incomes and the imputation of nonreported income based on observable characteristics like education and age. I have, therefore, little to

A. Regional Land Inequality around 1990

say about the robustness of the estimated Gini coefficients. However, I have a couple of comments about what the authors make of it and their interpretation of observed regional trends.

The essence of the paper is figure 4, which shows Gini coefficients for eighteen countries from around 1992 to 2006. It shows, for example, that inequality increased significantly during the 1990s in Argentina and after 2002 appears to be declining rapidly. Brazil, on the other hand, has been steadily reducing its income disparities throughout the period, while Costa Rica has seen an increase (despite a brief reduction between 2001 and 2005). Although the authors recognize that there is significant heterogeneity in the reported trends across countries, they also choose to underscore the possibility that there is a turning point in inequality and even that we may be witnessing a process of inequality convergence. I believe it is risky to make these kinds of claims without stronger backing, and to some extent it weighs down the greatest contribution of the paper, which is to provide new, comparable time-series data on income inequality in the region. With the amount of cross-sectional and time-series variation in the dataset, more formal tests of these claims are possible, such as evaluating the statistical significance of a break in trend around 2000.

The interpretation of the observed patterns naturally leads the reader to expect some sort of explanation, and the authors provide a brief set of suggestions as to why inequality behaved the way it did between the early 1990s and the mid-2000s. Given the heterogeneity of experiences, they are careful not to overemphasize their proposed explanations. Although it is somewhat contrived to attempt a broad account of regional patterns that may or may not exist, a policy discussion can benefit from laying out the possibilities and paving the way for further research. It would have been desirable, however, to further exploit the available information to illustrate the likely channels at work. For example, the first factor supposedly behind the recent fall in inequality between 2000 and 2006 was employment growth, since a decrease in the number of jobless workers should reduce inequality. A comparison of panel C of figure 5 and figure 10 reveals that in most countries income and hourly wage inequality moved in the same direction, which suggests (especially if zero incomes make little difference for the estimated Ginis) that for these countries employment itself may not have had much to do with inequality changes. The exceptions to this correspondence are Colombia, Ecuador, Panama, and Venezuela, where perhaps employment played a larger role.

Another factor underscored in the paper is the occurrence of macroeconomic crises, but in all the cases cited in the paper, inequality fell the year immediately after the crisis and did not increase above its precrisis pace the year of the crisis itself. In most cases, it is difficult to pick a particular year as one with an unusual spike in inequality. The Mexican case stands out as one with a fairly uneventful decline in inequality between 1992 and 2006.

This dataset presents a valuable opportunity to reexamine some of the proposed driving forces behind inequality in the region.<sup>1</sup> These include the size of the informal sector, changes in productivity, and the (un)importance of allocative distortions in the economy, the changing demographic composition of the labor force, changing returns to education, and access to financial services.<sup>2</sup> Although detailed analysis of each country's inequality trends was beyond the scope of the paper, a follow-up to the regional study should revisit some of these proposed channels.

One of the claims the paper makes is that Latin America, although very unequal, is not the most unequal region in the world. The authors arrive at this conclusion using income inequality measures based on different income definitions, which are therefore not comparable across countries and regions (see footnote 46 in the paper). This does not fit well in a paper whose strength is to provide difficult-to-find internationally comparable inequality data. The noncomparability of the levels of inequality reported in this section could have been compensated somewhat by showing trends in inequality for other regions.<sup>3</sup> This would have had at least two significant benefits: first, it would have attenuated the methodological concerns, since changes in different inequality measures are more comparable than levels, and second, it would have helped the reader understand whether the observed changes in inequality were unique to the Latin American experience or were a reflection of a wider phenomenon. Whether Latin America is the most unequal region in the world is not only difficult to know for sure, but ultimately less relevant for policy purposes than a better understanding of its dynamic and determinants.

1. IDB (1999); De Ferranti and others (2003).

2. On allocative distortions, see, for example, Cavalcanti Ferreira, de Abreu Pessôa, and Veloso (2009).

3. See, for example, OECD (2008).

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