Income Inequality Series for Latin America and the Caribbean

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Overview

Inequality remains very high in the region and is underestimated in measures based solely on survey data. New post-tax national income series describe lower levels of concentration than their pretax counterparts in all cases. Only in a few countries are the trends different. We find that both outcomes are mainly driven by the dynamics of in-kind public transfers, as opposed to the incidence of monetary redistribution, i.e., the subtraction of taxes and addition of monetary transfers, which in many cases end up increasing inequality given the prevailing regressiveness of the tax systems in the region and their dependence on indirect taxation. The inclusion of new data and the correction of bugs in the pretax series only results in marginal changes to trends and levels, as compared to the previous update.

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1 Introduction

This issue brief describes changes to previous series and the introduction of brand new post tax estimates of income inequality for ten countries in Latin America and the Caribbean, submitted to the World Inequality Database in the November 2022 update.

Main novelties include 1) the prolongation of pre-tax national incomes series, with new sources and methodological revisions enhancing precision, and 2) The presentation of new post-tax national income series for ten countries: Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Peru, and Uruguay. These new series account for all kinds of taxes, monetary transfers and in-kind public spending, mainly using data from OECD, World Bank, and the Commitment to Equity project. In addition, we present new estimates for the Dominican Republic since 2012. These are, however, presented in a separate technical note (De Rosa, Flores, and Morgan, 2022a).

We find that the inclusion of new data and the correction of bugs in the pretax series only results in marginal changes to trends and levels. Previous series slightly understated the level of income concentration in most cases due to a mistreatment of imputed rents. This is discussed in section 2. Post-tax national income series describe lower levels of concentration than their pretax counterparts in all cases. Only in a few countries are the trends different. We find that both outcomes are mainly driven by the dynamics of in-kind public transfers, as opposed to the incidence of monetary redistribution, i.e., the subtraction of taxes and addition of monetary transfers, which in many cases end up increasing inequality given the prevailing regressiveness of the tax systems in the region and their dependence on indirect taxation. These series are further commented in section 3

We highlight that this is a summary description of our estimates. The scientific assessment of our findings and a more detailed description of sources, methods, as well as comments on how our results contribute to the literature can be found in Alvaredo et al., 2022 and De Rosa, Flores, and Morgan, 2022b.

2 Updated pre-tax series

2.1 New data sources

Table 1 summarizes new data sources with respect to the 2021 update. The latest year available for pre-tax inequality statistics was 2019 for all countries except Chile, which was 2017 due to low surveying frequency (column 1).

We were able to include both household surveys and detailed national accounts until 2020 for most countries, which is particularly encouraging, especially since national accounts used to become available with greater lag in the past. Nonetheless, given the lack of information, none of the countries –except for the Dominican Republic– includes new data on income tax declarations for that same year. We thus call for extreme caution when interpreting results for 2020, which was a special year due to the economic impact of the Covid-19 pandemic.

The results for 2020 are thus subject to revision once access to administrative data for this year becomes available. The estimates for 2020 are also sensitive to practical issues that remain under-investigated, such as whether the month of implementation of national surveys captured pandemic related unemployment or public transfers. Other methodological issues such as running surveys over the phone instead of in-person could also have an impact. In many countries, overall output decreased significantly, worsening the situation for most individuals. This should caution against viewing the 2020 results in an optimistic light. It is also difficult to anticipate how ephemeral these dynamics could be. Overall, the estimates for 2020 should be understood as exploratory statistics.

2.2 Methodological improvements

In both national accounting and household surveys, rental income is imputed to home-owners, mostly to

Table 1. New data sources used for pre-tax income series

Country	Latest year before update (1)	New data bases		
		Detailed national accounts (2)	Household survey data (3)	Administrative data (4)
Argentina	2019	-	2020	
Brazil	2019	2019	2020	
Chile	2017	2020	2020	
Colombia	2019	2020	2020	
Costa Rica	2019	2017	2020	
Dominican R.	-	2007-2016	2012-2020	2012-2020
Ecuador	2019	-	2020	
Mexico	2019	2020	2020	
Peru	2019	2017-2020	2020	
Uruguay	2019	-	2020	

Source: Own elaboration.

allow comparability of macroeconomic aggregates between countries with different home-ownership rates (and thus varying magnitudes of rental income adding up to national income). It is defined as the amount owners would pay if they were renting their home.

In our previous estimates, an excess amount was being allocated to non-adult household members mistakenly, thus artificially inflating the aggregated amount of imputed rents per household and in the dataset. This problem was solved in the new series. Although the effect is barely noticeable in our main concentration estimates (see next sub-section), the direction of the adjustment tends to increase inequality. This is not surprising, since we deflated the amount of imputed rent, which is a particularly important income component for poorer households.

2.3 Changes in pre-tax series

Figure 1 compares old series to our newest estimates, using the top 10% and bottom 50% shares as an example. During overlapping years, inequality estimates are only affected marginally, following the older estimates rather closely.

Our newest data estimates point to an sharp increase in income concentration in 2020 for three countries: Peru, Ecuador and Colombia. In the last case, the increase

started at least since 2017. In the case of Chile, and to a lesser extent Mexico, we observe a decrease of income concentration in the top 10%. It is not, however, compensated by an increase in the bottom 50% but rather, the middle 40%, which only experienced an increase in real average income in the case of Chile, falling everywhere else (see De Rosa, Flores, and Morgan, 2022 for more details). In other countries, the distributions remained somewhat stable. Again, as mentioned in the previous sub-section, we call for extreme caution when interpreting these results, which we consider as preliminary and experimental.
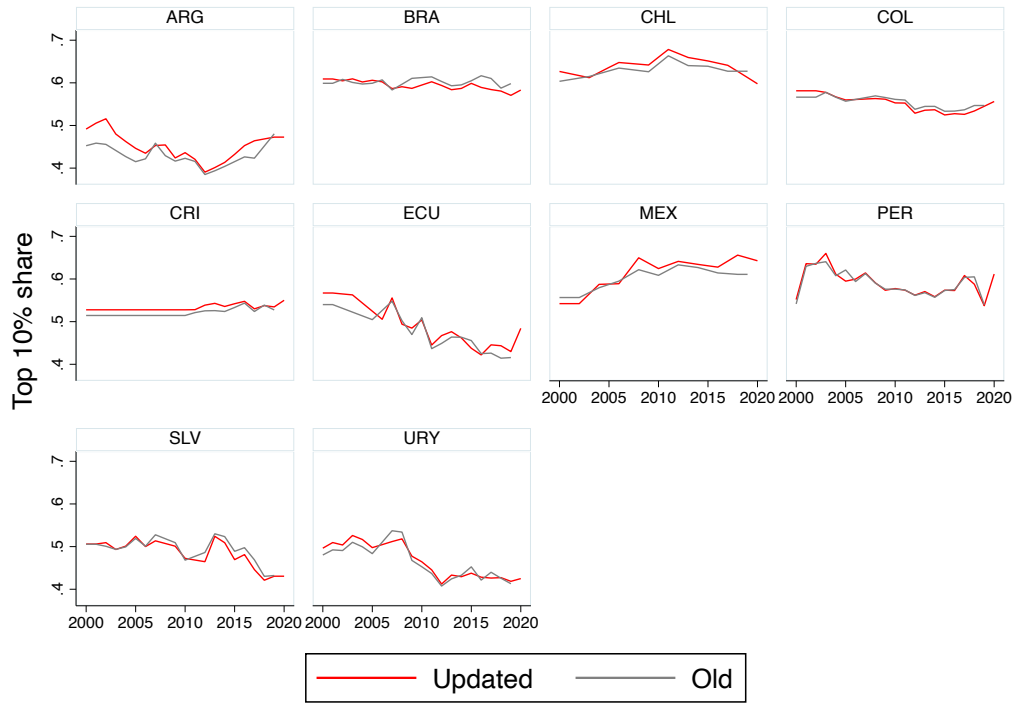
3 National post-tax income series

Following the concepts defined in Alvaredo et al., 2020 post-tax national income is equal to pretax national income, minus all taxes on production (D2–D3, S13, for their respective codes in the national accounting system), taxes on income and wealth (D5, S13), plus social assistance benefits in cash (D623, S14). Retained earnings are still distributed to individuals, but net of corporate tax. In addition, the remaining government spending, i.e., individual and collective consumption expenditure of the government (P3, S13), and the surplus or deficit of the government, are added such that aggregate income adds up to national income.

Figure 2 presents top 10% and bottom 50% shares in comparison to pretax estimates, as a preview of the series. However, given the complexity and richness of these estimates, which include the use of multiple sources and methods, we strongly advise our readers to read De Rosa, Flores, and Morgan, 2022b for a full description of their construction. In the paper, the impact of every step of the estimation is explicit and commented in more depth.
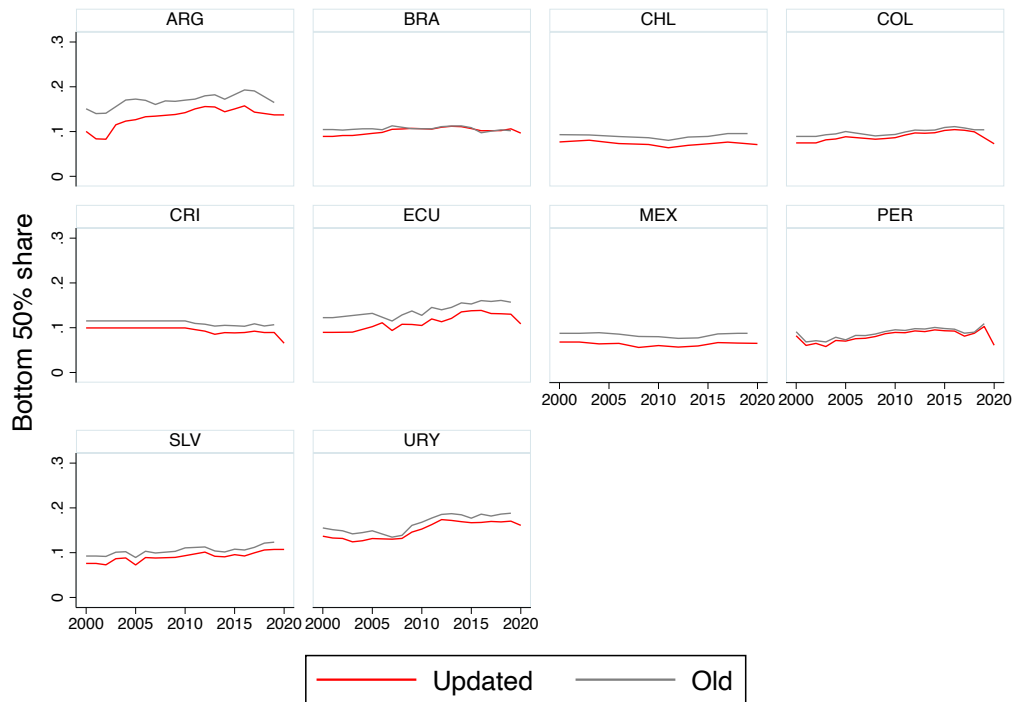
Among other interesting findings, we highlight that lower inequality is mainly driven by the dynamics of in-kind public transfers, which increased during the period, mostly in public education and health, producing fall inequality in countries like Brazil, Ecuador, and Uruguay; and to a lesser extent in Chile, Colombia and Peru. Another interesting fact is that publicly financed covid-relief is very visible in the Chilean series in 2020, which is not surprising since it is one of the countries with the largest and most targeted public responses to the pandemic. The result is a rather strong decrease in inequality, at least in the short term and for that given year. The role of profit withdrawals and dividends for the results is still to be analysed (given the absence of tax data).

Another of the main findings of De Rosa, Flores, and Morgan, 2022b is that the incidence of taxes and monetary transfers ends up increasing inequality, given the prevailing regressiveness of the tax systems in the region and their dependence on indirect taxation. However, there is notable heterogeneity across countries and over time. Uruguay, for instance, is an exceptional case that started with a regressive system in the early 2000s and finished the period with a rather neutral system, according to our estimates.
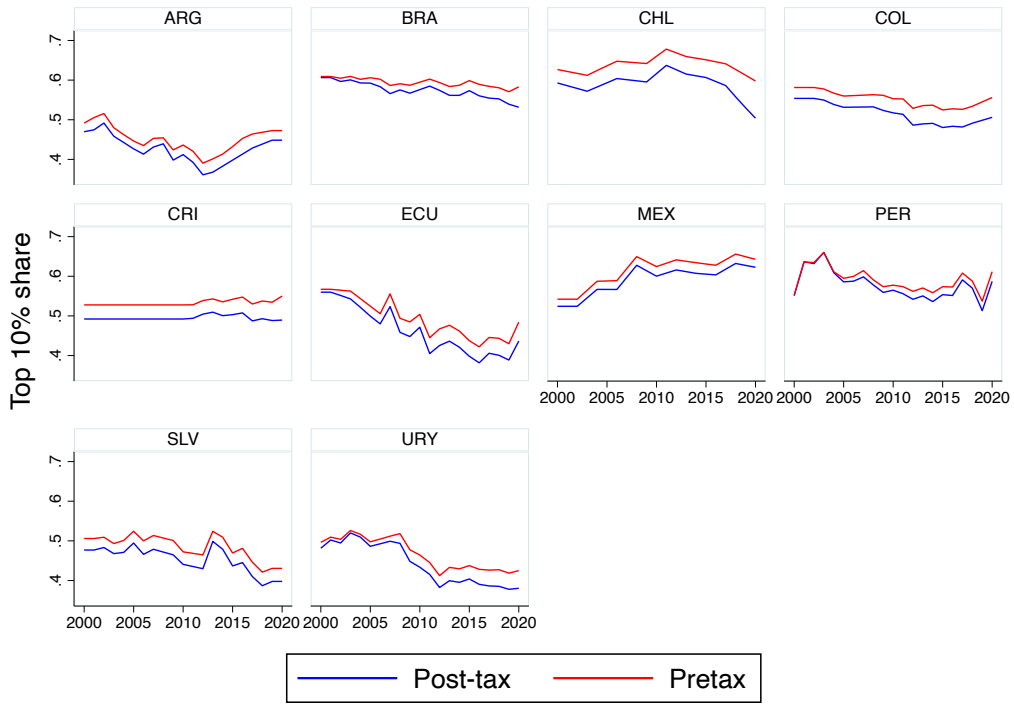
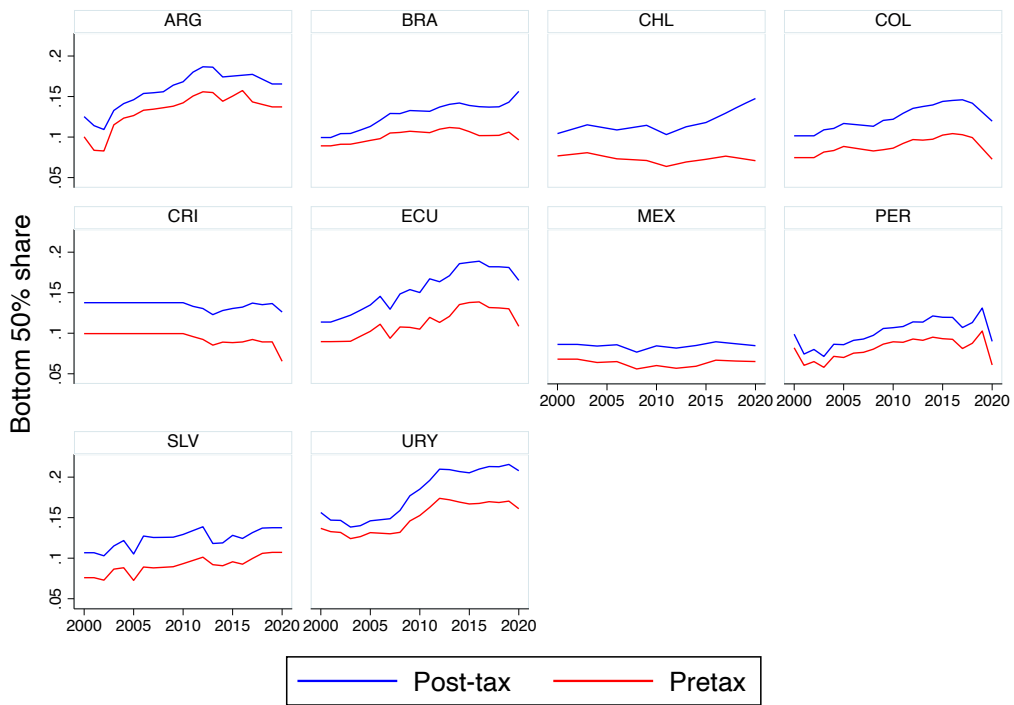**Figure 1.** Pre-tax national income: new vs. old series

(a) Top 10% share

(b) Bottom 50% share

Figure 2. Post-tax national income series

(a) Top 10% share

(b) Bottom 50% share

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The World Inequality Lab

The World Inequality Lab aims to promote research on global inequality dynamics. Its core mission is to maintain and expand the World Inequality Database. It also produces inequality reports and working papers addressing substantive and methodological issues. The Lab regroups about twenty research fellows, research assistants and project officers based at the Paris School of Economics. It is supervised by an executive committee composed of 5 co-directors. The World Inequality Lab works in close coordination with the large international network (over one hundred researchers covering nearly seventy countries) contributing to the database.

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