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2021 DINA Regional Update for Latin America

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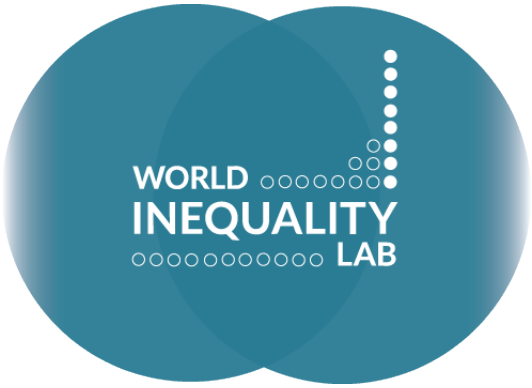

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Income Inequality Series for Latin America*

Technical Note

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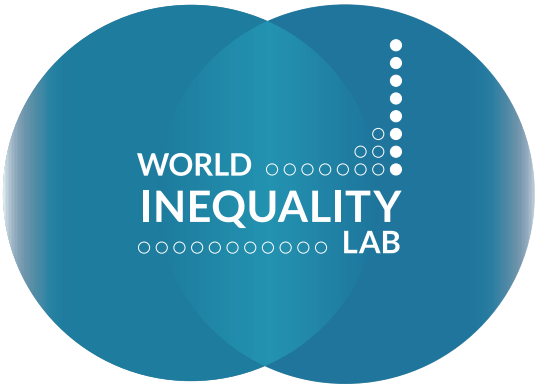
Update



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1 Introduction

This technical note documents changes introduced to the Latin American income inequality series from the World Inequality Database, during the October 2021 update.

We improved the pretax national income series presented in the previous update (see De Rosa, Flores, and Morgan (2020)). These improvements mostly result from access to more and better data, such as new household surveys, administrative data and national accounts. Our updated series also include some methodological improvements, such as a revised imputation of indirect taxes and improved macroeconomic consistency of income components, as well as updated extrapolation of coefficients for countries with poor detail in their national accounts.

We stress that this is a summary description of our estimates. The scientific assessment of our findings, as well as a detailed analysis of several important issues raised by the challenging task of distributing national income in a situation of relatively rich but particularly imperfect data, will be presented in two separate scientific papers (forthcoming). The results of the current update should be considered as *preliminary*, hence subject to revision and improvement. We welcome comments and feedback from the research community on this on-going project.

The main results and conclusions of this exercise are the following. Our updated pretax national income series shows smoother trends for some countries and slight changes in trends for particular cases. However, these changes remain marginal, hence keeping the main findings of our previous note.

The next section of this note describes the updated pre-tax national income series, listing new data sources and methodological improvements in detail, before comparing old and updated series graphically.

2 Updated pre-tax series

2.1 New data sources

Table 1 summarizes new data sources with respect to the 2020 update (see the latest year available for pre-tax inequality statistics in column 1). The most relevant addition corresponds to detailed national accounts (column 2), for which coverage was extended

up to four more years in the case of Mexico, three years for Brazil, Chile, Colombia and Ecuador, two years for Uruguay and one year for Costa Rica. Such data was scrapped from each country's national statistical offices, which generally display more up-to-date estimates than the UN-Stats data base (until now, the only source that was used for national accounts). Since national data sets are not harmonized at the regional level, their treatment is considerably more time consuming, which explains why they were not included in earlier versions of our estimates.

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

		New data bases		
Country	Latest year before update (1)	Detailed national accounts (2)	Household survey data (3)	Administrative data (4)
Argentina	2018	-	2019	2019
Brazil	2018	2016-2018	2019	2019
Chile	2017	2017-2019		2019
Colombia	2018	2017-2019		
Costa Rica	2018	2016	2019	
Ecuador	2018	2017-2019	2019	
Mexico	2018	2016-2019		
Peru	2018		2019	
Uruguay	2018	2012/2016	2019	

Source: Own elaboration

In addition, we have gained access to new household survey data sets, harmonized by UN-ECLAC's statistics division, for the year 2019, in six countries: Argentina, Brazil, Costa Rica, Ecuador, Peru and Uruguay. Other countries, such as Chile and Mexico do not run surveys on a yearly basis, but rather on a bi-annual or tri-annual basis, hence new data points for them could not be included.

Only three countries in the region report data on fiscal income declarations on a yearly basis, Argentina, Brazil and Chile, which allows us to adjust for the coverage of top incomes in the most recent surveys. For other countries that do not report such data, the adjustment of top incomes is thus based on earlier years, where tax data was made available.[1]

2.2 Methodological improvements

First, following the Distributional National Accounts Guidelines (WIL, 2020), taxes on products –i.e., indirect taxes–, which are the most important source of tax receipts for

[1] (The imputation of missing years remains as in last year's update, following the general rule in the database. See (Chancel and Piketty, 2020))

the governments of the region, should be imputed proportionally to the factor income of households (while they are imputed following a different distribution in the post-tax definition). The previous version of our estimates did not include this imputation, imputing them proportionally to total income instead, due to insufficient information. The current update follows the Guidelines more closely. However, the distributional impact of such an imputation is very limited, since factor and total income are very similar for most individuals.

Second, whenever detailed national accounts are available, after adjusting for missing individuals and incomes at the top, we scale different types of income to match the national accounts– i.e., wages, pensions, capital income, imputed rents and mixed income. To do so, we use what we call 'scaling factors', for which we assume constancy at the country level for years for which detailed data is not available. For countries without any decomposition of national accounts, such as Argentina, our previous estimates scaled incomes based on a yearly regional average. Estimates from the current update not only consider more data points (see previous subsection), which increases the reliability of such an average, but they are also based on a slightly different assumption. In order to avoid adding unnecessary noise to our estimates, instead of a yearly average, we use an average for the whole period, for each income type.

The third methodological improvement, enforces accounting consistency by adding an assumption for those years for which scaling factors cannot be estimated based on detailed national accounts. In those cases, not only we assume constancy of scaling factors, but we also ensure that the macroeconomic share of income received by the household sector remains constant. This third improvement explains most of the changes observed in Argentina and Peru.

2.3 Changes in levels and trends

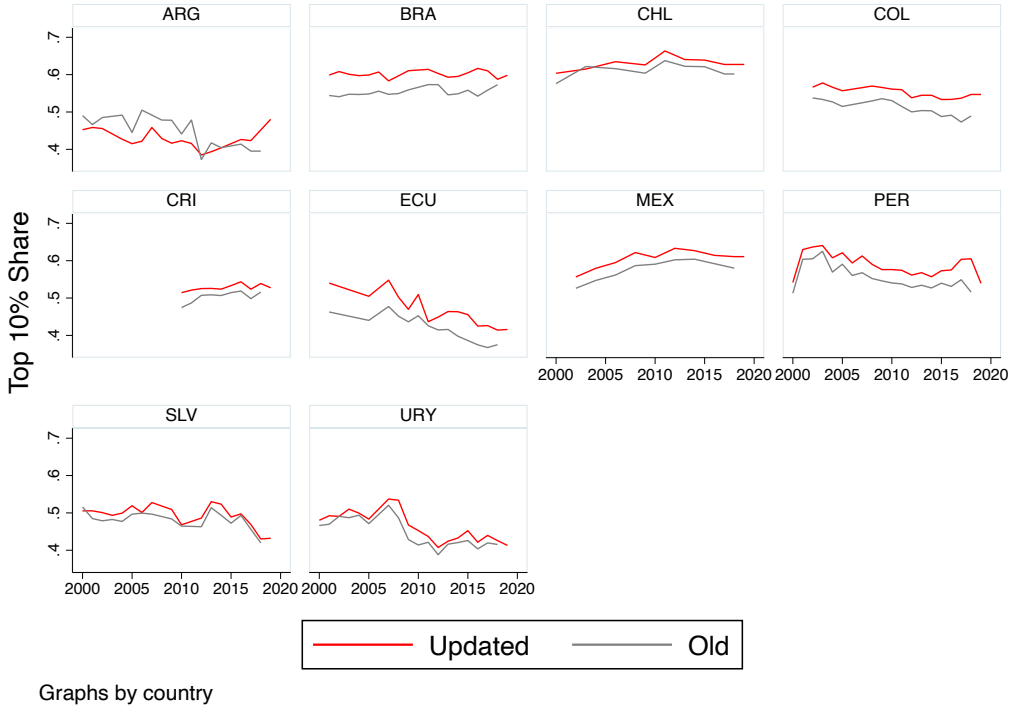
Figure 1 compares the old series (from November 2020) to our newest estimates, using the top 10% share, as an example. In most cases, inequality estimates are only affected marginally, following the older estimates rather closely.

In all cases with the exception of Argentina, inequality levels are slightly higher. This exception is the result of scaling of incomes being based on regional averages, due to a lack of detail in national accounts. The most important difference trends-wise, is that the updated series shows increasing inequality by the end of the period in that country. Trends for the remaining countries remain similar, with minor changes in the case of Chile and Colombia, which in the first case reaffirm the 2020 series conclusion that

inequality remained stable, while in the latter seem to indicate that the trend was flatter than previously thought.

Other noteworthy cases are Peru during the early 2000s and Chile in 2003. In the former, the downward shift of inequality levels is due to the third methodological improvement described in the previous subsection, which mainly consists in further ensuring the consistency of the macroeconomic income of the household sector. In the latter, the change is due to the inclusion of a more detailed series of national accounts, which allowed us to estimate scaling factors based on actual data, instead of relying on average values.

Figure 1: New vs. Old series



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