Income Inequality in Latin America

A brief assessment of the Distributional National Accounts Agenda

Facundo Alvaredo

Forty Years of the Luxembourg Income Study
Anniversary Conference

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This brief presentation draws on two papers

The first one, on the comparison of income aggregates across surveys, administrative records and national accounts:

Alvaredo, F., Mauricio De Rosa, Ignacio Flores Beale, and Marc Morgan. (2022). The inequality (or the growth) we measure. Data gaps and the distribution of incomes. CEPR DP 17135.

The second one, on the combination of income between surveys, administrative registries, and national accounts to measure inequality:

• Chico’s presentation has reminded your recollection (or informed you) about the declining trends in income inequality in Latin America in some fifteen years of the last two decades, based on households’ surveys

• He stopped “before one introduces additional data sources, such as tax and social security records, or aggregate information from the national accounts”

• In the initial days of the literature of top incomes applied to Latin America, there was the presumption that “correcting” surveys with income tax data would “break” this observed decline, and would show the “truth”

  …even if those kind of changes in the dynamics was not what had been shown for the US or for any other country (despite narratives)

&

  …even if the methods behind this “correction” were far from being statistically robust
United States - Gini Coefficient

Figure 6. CPS Gini Coefficients: Correcting Top 1 Percent with Tax Data

Atkinson, Piketty, Saez (2011)
Brazil. Income inequality indicators (gross income)

Gini Coefficient

Top 10% share

Top 1% share

Source: Morgan 2017
• Chico’s presentation has reminded your recollection (or informed you) about the declining trends in income inequality in Latin America in some fifteen years of the last two decades based on households’ surveys.

• In the initial days of the literature of top incomes applied to Latin America, there was the presumption that “correcting” surveys with income tax data would “break” this observed decline, and show the “truth”:

  …even if changes in the dynamics was not what had been shown for the US or for any other country (despite narratives) &
  …even if the methods behind this “correction” were far from being statistically robust.

• In the last ten years there has been a remarkable increase in the provision of administrative data in the LATAM countries (income tax and social security, both tabulated data and microdata).

• There has been as well more debate and progress on the statistical methods of “adjustment” (e.g. Blanchet, Flores, Morgan, 2022), even if this has not been settled.
<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Availability</th>
<th>Survey microdata</th>
<th>Source</th>
<th>Availability</th>
<th>Population (% of total)</th>
<th>Definitions</th>
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<tbody>
<tr>
<td>Mexico</td>
<td>Encuesta Nacional de Ingresos y Gastos de los Hogares, Instituto Nacional de Estadística, Geografía e Informática (INEGI)</td>
<td>2002-2020 (biannual)</td>
<td>Income tax microdata, Servicio de Administración Tributaria (SAT)</td>
<td>2000-2019, 2009-2014</td>
<td>20% (wages), 2% (diverse)</td>
<td>Wages of salaried workers are reported separately from income from diverse sources.</td>
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Source: Alvaredo, De Rosa, Flores Beale, Morgan (2022)
• Subsequently, recent work has embarked in a process of combining surveys, administrative records, and National Accounts. This includes
  ◊ DINA, from the World Inequality Lab
  ◊ DNA, from the OECD
  ◊ DPI from the Bureau of Economic Analysis of the US (Fixler et al, 2017)
  ◊ Etc. (Official work by the statistics offices of Canada, Australia, France…)

• It was argued that the large (and sometimes increasing gaps) between [survey+tax] data and NA makes it hard to assess how macroeconomic growth is distributed across income groups

• There is no time in this presentation to discuss these endeavors conceptually (Do they make sense? Are they necessary? Can this be done at present with the available data? Is the NI concept right?). I will just focus on “results” today.

• But let’s remember that
  • There is nothing new in this: the discrepancies have long been recognized in different parts of the world. None more so than in Latin America. E.g. CONADE-CEPAL (1965); Altimir (1987); etc.
  • The very first studies in the region since the 1940s systematically attempted to present the distribution of income in the context of the NI, or input-output matrices,…
• The current practice (the machine) follows more or less the following pattern

1. Start with the survey

2. “Adjust” somehow the survey at the top using the information from the income tax and/or the social security registers

3. Upscale to the National Income from the National Accounts; making the necessary imputations

4. Impute undistributed profits (taken as the net balance of primary incomes of corporate sector in NA)
From household’s surveys to national income (I)

Source: Alvaredo, De Rosa, Flores Beale, Morgan (2022)
From households’ surveys to national income (II)

Figure 1: Comparing total income in national accounts, surveys and administrative data

Source: Alvaredo, De Rosa, Flores Beale, Morgan (2022)
Discrepancies between surveys and NA by income components

Source: Alvaredo, De Rosa, Flores Beale, Morgan (2022)

Notes. Wage incomes are relatively well represented in surveys, while capital incomes are heavily underestimated. The coverage of other types of income is more heterogeneous, with both under- and over-estimation, depending on the case. Conceptual matching follows the benchmark in table 2. For a further decomposition of capital incomes, see appendix A.2. Chile and Ecuador report the corresponding aggregates of self-employment income and imputed rents together in the same item, they are not included here. Own elaboration based on ECLAC harmonized surveys and UN National Accounts.
Undistributed profits (Net balance of primary incomes of corporate sector in NA)  
Ratio to aggregate income

Figure 6: Undistributed Profits as % of Aggregate Incomes

(a) % of Survey Income
(b) % of National Income

Source: Alvaredo, De Rosa, Flores Beale, Morgan (2022)
Gini Coefficients in Latin America (gross income)

(a) Argentina  
(b) Brazil  
(c) Chile  
(d) Colombia  
(e) Costa Rica  
(f) Ecuador  

Source: De Rosa, Flores Beale, Morgan (2022)
Gini Coefficients in Latin America (gross income)

Source: De Rosa, Flores Beale, Morgan (2022)
A few final remarks:

-So far, while the existing gaps have strengthened the feelings of uncertainty about inequality measures, these “new” approaches have taken for granted the numbers provided by the NA, uncritically.

-This practice does not contribute to diminish the feelings of uncertainty, at least in the case of developing countries (or at least in the case of Latin America).

-“Administrative data are highly preferable to survey data [...] The development and expansion of direct, secure access to administrative micro-data should be a top priority for the NSF. Administrative data offer much larger sample sizes and have far fewer problems with attrition, non-response, and measurement error than traditional survey data sources.”