Distributional National Accounts

An overview

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Continuation of pioneering work of Kuznets in the 1950s and Atkinson in the 1970s combining fiscal and national accounts data

Kuznets, 1953 and Atkinson and Harrison, 1978

WID.world started with the publication of historical inequality series based on top income shares series using tax data


In 2011, we released the World Top Incomes Database, gradually extended to over thirty countries and to wealth

Alvaredo et al., 2013, Saez-Zucman , 2016, Alvaredo-Atkinson-Morelli, 2016, etc.
Over the past years, we have been going beyond top fiscal incomes

- What about wealth?
- What about the bottom of the distribution?
- What about taxes and transfers?
- What about differences in statistical units?
- What about tax-exempt income?

→ Need to measure inequality within a consistent framework, with standard guidelines and a comprehensive measure of both income and wealth.
There is already a set of internationally accepted guidelines on how to quantify income and wealth: the **System of National Accounts**.

- The SNA has a huge impact on how we think about and act upon the economy.

**Distributional National Accounts (DINA) agenda:** present the best possible estimates of the distribution of national income and wealth between all adult individuals living in a given country during a given year.
Key objective: distribute 100% of national income and wealth

There's no such thing as “the correct data source”
  • All sources have their merits and demerits and we should combine them in consistent + transparent ways to use their respective strengths → Trying to achieve consistency between sources is a driving force for better data quality

There's no such thing as “the right indicator”
  • We provide as much detail as possible on the distribution and let users decide what suits their purpose

Collaborative and cumulative project
  • Collaboration between research groups and with public statisticians is paramount
Several data sources to distribute income and wealth

- **National accounts**
  - Broadest and most standard definition of income and wealth
  - Reference for measuring inequality between countries

- **Survey data**
  - Covers the entire distribution (the bottom in particular)
  - Usually available as microdata ⇒ richness + flexibility in the use of concepts
  - Small sample + richest households underrepresented

- **Tax data**
  - Covers the top well
  - Only covers the top well
  - Not always available as microdata
  - Influenced by various legislative quirks (tax units, income definition)
  - Tax evasion

- Useful complements: **Rich lists** (but few observations, not transparent) + **Leaks** (but rare cases)
Surveys tell an important part of the story, tax data tell another: evidence from Brazil.
Reconciling taxable capital income with total (=national) capital income: evidence from the USA

Decomposition of capital income in the USA, 1916-2014

- Non-filers & other
- Retained earnings
- Corporate income tax
- Income paid to pensions & insurance
- Imputed rents + property tax
- Dividends, interest, rents & profits reported on tax returns

Source: Appendix Table I-S.A8.

Piketty, Saez, Zucman 2018 available on WID.world
Reconciling taxable capital income with total (=national) capital income: evidence from the USA

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2/3 missed by tax data

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Global income inequality dynamics, 1980-2016
Behind apparent Gini stability: rising Top, falling Middle

The ratio of the average income of the Top 10% to that of the Middle 40% increased by 20 percentage points (p.p.) between 1980 and 2016 (it increased from 4.5 to x5.6). The ratio of the average income of the Middle 40% to that of the Bottom 50% decreased by 27 p.p. between 1980 and 2016 (it decreased from x6.9 to x4.8). The global Gini in 2016 was at its 1980 level (65).
Need to publish distributional information beyond deciles or quintiles: USA

Distribution of wealth in the USA, 2014

Data from Saez, Zucman 2016 available on WID.world
Need to publish distributional information beyond deciles or quintiles: USA

Wealth shares of the Top 1-0.1% and Top 0.1% in the US, 1913–2012

In 2012, the share of household wealth owned by the Top 0.1% in the US was 22%.
DINA datasets: Shares, averages, thresholds for 127 g-percentiles to recover any kind of inequality indicator

Figure 3. Distribution of European growth, 1980-2017: growth of average income by percentile

Blanchet, Chancel, Gethin 2019, available on WID.world
Benchmark DINA: best case scenario, large data availability and in-depth decomposition of income concepts + tax structure

- USA, France, Brazil
- Germany and several other countries soon published

« Simplified » DINA: decomposition into key concepts

- Other large emerging countries: Russia, India, China + Thailand + Malaysia
- All European countries
- Africa + Asia + Latin America in the coming 18 months

Evolutive process: simplified DINA to be progressively upgraded
US vs Europe: huge rise of inequality in the US but stagnation of bottom 50% average income

Top 1% vs. bottom 50% in the US and Western Europe, 1980-2016

Source: World Inequality Report 2018, Figure 2.1.3. See wir2018.wid.world for data sources and notes.
Comparing the impact of fiscal redistribution in the US and Europe

Figure 30: Redistribution in Europe and the United States: Ratio top 10% to bottom 50% average incomes

(a) Pre-tax income inequality

(b) Post-tax income inequality

Source: authors’ computations combining surveys, tax data and national accounts for Europe; Piketty, Saez, and Zucman (2018) for the United States.
India vs China: higher rise in inequality in India, but less growth

Top 1% vs. bottom 50% in China vs. India, 1980-2016

Source: World Inequality Report 2018, Appendix Figure A4. See wir2018.wid.world for data sources and notes.
Top 1% income shares in China, India, Russia, Brazil, 1905-2015

Data from WIR2018 available on WID.world
The geographical breakdown of global income groups changed significantly (1990)

Source: World Inequality Report 2018, Figure 2.1.5. See wir2018.wid.world for data sources and notes.
The geographical breakdown of global income groups changed significantly (2016)

Geographic breakdown of global income groups in 2016

Source: World Inequality Report 2018, Figure 2.1.6. See wir2018.wid.world for data sources and notes.
Rise in wealth inequality since the 1980s in most countries after a historical decline

Top 1% personal wealth share in emerging and rich countries, 1913–2015

Source: World Inequality Report 2018, Figure 4.2.1. See wir2018.wid.world for data sources and notes.
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A collaborative, cumulative, long-term project

- WID.world today relies on the work of **100+ researchers** over the world from academia and statistical offices; 20 based in Paris + Berkeley
  - DINA for **50+ countries**
  - Top shares for **90+ countries**
  - Wealth income ratios and/or distribution for **30+ countries**

- Developing DINAs
  - Different types of expertize required (surveys / tax / combination / national accounts) → reinforces the need for synergies between ‘survey’, ‘tax’, ‘national accounts’ experts, on a **country-by-country approach**

- “Shift to policy” requires **setting conventions**
  - Clarify agreements and agree that we can disagree
  - Importance of public statisticians (UN/OECD + national level)
**Conclusion: towards a global public service of inequality data**

- **DINA agenda:** construct new series on the distribution pre- and post-tax income consistent with macro totals.

- **Many challenges ahead:** data challenge + methodological challenge + human resource challenge + standardization challenge.

- There may be technical and conceptual debates among inequality experts: to some extent there will always be. This shouldn’t prevent the development of common standards.

- **Social and political demand** for data on macro growth and inequality (US Senate bill, G7, UN general assembly, etc.).