UNDERSTANDING ESTIMATES OF ECONOMIC INEQUALITY

WHY IS THIS IMPORTANT?

From day to day we are confronted with headlines about inequality rising or falling. Oxfam and others have warned of high and rising extreme inequality and its undesirable impacts on poverty and social justice. In a highly political and contentious landscape, we are more empowered as activists and campaigners when we know how measures of inequality are calculated and what they tell us. Specifically, to make evidence-based arguments, we need to understand the diversity of measures and data used for capturing inequality. This guideline introduces the fundamentals of how economic inequality is estimated.

WHAT IS ECONOMIC INEQUALITY?

Inequality is a term that is used in many different contexts. In the development sector, many will think of aspects of discrimination on the basis of identity such as gender, ethnicity or caste.

Such horizontal discrimination interacts with economic inequalities. This usually means measurable differences in income and wealth, which are referred to as economic outcomes. But when we seek to describe these differences, there is no single measure for either economic outcomes nor the dispersion over a given population. Rather, each measure and each data source reveals a different story about different parts of the economy and places a different emphasis on different parts of the distribution. This guideline explains the most common measures and data sources behind the state of economic inequality.

UNDERSTANDING WHERE DATA COMES FROM

Measuring inequality requires information about the richest people in society, the poorest, and everyone else in between. As such, there are two established sources for data on economic inequality: household surveys and tax documents. The data they provide helps us estimate economic inequality. In the midst of binary discussions around inequality, where some claim it has fallen where others insist it is on the rise, it is important to remember estimates are just that: an approximation of reality, with varying degrees of reliability.

Household surveys

For household surveys, respondents are chosen from different societal groups to represent the whole of a population (see Oxfam's guidelines on Planning Survey Research and Understanding Survey Sampling. In household surveys, respondents typically provide information about their incomes, assets or what they consume. Since such representative samples are seen as an

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approximation of what is happening in society at large, surveys stand and fall with the proper selection, accuracy and cooperation of the respondents. Respondents representing the richest people are harder to get hold of and tend to under-report their earnings, making for a bigger margin of error in inequality estimates. In practice this means that data about those at the very top of the distribution – the most fortunate – is vital but difficult to estimate. Those at the bottom of the distribution provide different challenges: depending on the country, they often have irregular incomes, are mobile, work in informal settings such as domestic work, and it is difficult to capture their assets, such as livestock. Other excluded groups include incarcerated populations, as well as the homeless, geographically mobile, and displaced individuals. As most data are collected at the household level, it is also difficult to identify within-household differences, such as between men and women, which hinders our understanding of the gendered nature of inequality.

When we turn to relating the information provided by these groups to each other, depending on how well data collection is done, we get a more or less precise estimate of economic inequality within a population.

Tax records

Tax records are another popular source for data on economic inequality, in particular for long-term analyses. This is because working residents of industrialized countries have a history of completing income tax returns, and historic tax records contain information on the earnings and assets of different individuals by age, gender and income group. These data can be combined with external estimates of the total population and total income to estimate how big the share of a given group is. Tax receipts are therefore increasingly used for analysing the revenues received by the richest and the historic concentration of incomes at the top.

However, the method is limited to the taxpaying population, and relies on a functioning tax authority and a degree of tax compliance to produce usable statistics. This means it produces the most reliable data for a handful of developed countries, like the US and France.

As researchers have come to realise how substantial the margin of error in estimating inequality can be when based solely on survey data, in particular at the top end of the distribution, they have started to combine both data sources. This often reveals more inequality than previously thought. For the same reason, new methods for capturing incomes and assets in contexts of low data capacity are constantly being proposed – such as using data on property prices as proxies for wealth.

BREAKING DOWN THE CONCEPT OF ECONOMIC INEQUALITY

The data described so far capture information on different economic outcomes. But how do researchers process these data to get to a number that measures inequality?

Wage inequality

Concept and measure

- In most countries and for most people, wages are the most important component of income. Wage inequality strips back a household or individual's total income to earnings through labour. This concept doesn't consider taxes, benefits or other redistributive policies.

- Wage inequality matters because it expresses the disparity of earnings between different groups: within supply chains, within companies, or in countries. Wage inequality measures tell us how the highest salaries (such as the pay of chief executives) compare with the lowest wages at the bottom (such as minimum wage) and therefore how the wage bill is shared throughout a population.

Sample data source for wage inequality

Wage data can be broken down in different ways, reflecting the breadth of information they cover. Since the 1990s, the International Labour Organization (ILO) has collected survey data on the earnings of workers across the income distribution in about 50 countries. This database captures the distribution of earnings from those at the bottom all the way to those at the top. In a similar way to other inequality ratios, it compares groups to each other, for instance the top 10 percent to those in the bottom 10 percent.

But income can be earned not only by labour (through wages) but also through capital returns, for example on shares. As capital owners are for the most part in the wealthier end of the distribution, wage data detailing the capital share of income contains vital information on an economic system and its rewards. Those with the highest wages have been argued to be taking home an increasing share of the economic pie through both wages and returns to capital, and lower taxes.

Disposable income inequality

Concept and measure

- Disposable income (after taxes, transfers and benefits) is the real income a household or individual has. Unlike income from wages only, disposable income takes redistributive policies into account.

- Disposable income matters at the bottom of the distribution because it determines to what extent a person is in or at risk of income poverty. But Oxfam's analysis of political capture also shows how those at the top of the income distribution have disproportionate influence over policies that have a society-wide impact, while in effect working in the interests of the elites.

- The Gini coefficient is the best known measure for determining the level of national income inequality. The Gini is a measure of dispersion. It captures how far away incomes are from a line of perfect equality, and places equal emphasis on this distance at all points of the distribution.

- For Oxfam, measures for disposable income inequality should deliberately contrast the incomes for the poorest with those at the very top of the distribution. The Palma index is more explicit in doing this than the Gini, comparing the total income of the richest 10 percent of households against the total income of the poorest 40 percent of households.

- Other inequality ratios plot the incomes of a group like the top one percent or 10 percent against what the rest of the population earns.

Sample data source for disposable income inequality

Several datasets now have country-specific data on the share of national income going to each income decile, which can be used to calculate the Palma and other income distribution ratios. World Bank data cover 156 countries, with data available for most countries between 2009 and 2013, based on their own household survey data (with the aforementioned caveats).

Multiple data sources, including World Bank, Eurostat and more, and expressed in a common currency and prices, have been compiled by former World Bank economist Branko Milanovic in the World Income Distribution Database. This database lines up all incomes in the world on a single distribution, and therefore allows analysis of global trends in disposable incomes, such as that of the global middle class. It is also the resource underlying Oxfam's 2016 Davos report.

Wealth inequality

Concept and measure

- Net wealth is the total sum of assets: financial (money in the bank) and non- financial (such as property) minus debts (like a mortgage). Wealth plays an important but varied role in different places of the income distribution.

- Wealth is crucial at the bottom of the distribution: savings determine the ability of an individual or family to react to financial shocks, such as a medical bill or a poor harvest. This is true even in higher-income countries where those with the least amount of wealth are sometimes in net debt, for instance due to paying off a loan. Poor households are vulnerable, facing high interest costs and risks to being able to make payment.

- Extreme wealth begets power and influence. Therefore, the people at the top of the wealth distribution are an important group to study.

- In principle, it is possible to capture wealth inequality using the same data sources and methods described above. Practically, reliable statistics on wealth inequality are much harder to produce through both surveys and tax receipts, especially in countries with low capacity to collect data. This is partly because individuals with great wealth are scarce, so the information they disclose has a higher margin of error, in particular in the context of global tax avoidance.

Sample data source for wealth inequality

Some countries like the UK now collect national wealth data. The European Central Bank has recently compiled a data set for European countries, and several magazines and investment banks measure the extremely wealthy (Forbes, Bloomberg, Wealth-X, Cap Gemini). The yearly Credit Suisse Global Wealth Report remains the only data source with global coverage that measures wealth across the whole of the distribution. This resource is based on national household surveys. However, most of the data for middle and lower income countries is based on estimates and extrapolations from similar countries where limited data are available.

Because net wealth at the top of the distribution is such a large proportion of total wealth stock, wealth inequality measures have focused on analysing the level and trends of how wealth is

developing at the top, rather than the indices that exist for income inequality. By most accounts, wealth inequality is [even more extreme](#) than income inequality.

SUMMARY OF MAIN POINTS

There is no one 'right' measure of economic inequality, just as there is no one type of inequality overall.

Wage, wealth and income inequality all reveal different stories about the haves and the have-nots. These concepts are intimately linked to whom the economy rewards and to what extent, how it redistributes assets, and how many resources are captured by people at the top. Within a population, the concept used to describe inequality, as well as the data and how you analyse it, can lead to very different emphases on different parts of a distribution.

In addition, we need to be aware that despite becoming more sophisticated, all inequality estimates based on surveys and tax data have a margin of error. Estimates are just that – they are never simple truths. These data limitations make it important to question any inequality indicator, both in terms of data and the intentions of whoever is communicating it.

LINKS

All links last accessed March 2019.

An Economy for the 1%: How privilege and power in the economy drive extreme inequality and how this can be stopped: http://policy-practice.oxfam.org.uk/publications/an-economy-for-the-1-how-privilege-and-power-in-the-economy-drive-extreme-inequ-592643

Even it Up: Time to end extreme inequality: http://policy-practice.oxfam.org.uk/publications/even-it-up-time-to-end-extreme-inequality-333012

Planning Survey Research: http://policy-practice.oxfam.org.uk/publications/planning-survey-research-578973

Understanding Survey Sampling: https://policy-practice.oxfam.org.uk/publications/understanding-survey-sampling-615904

Top Incomes in the Long Run of History: http://www.nber.org/papers/w15408

Exclusion in Household Surveys: Causes, impacts and ways forward: https://www.odi.org/publications/8824-exclusion-household-surveys-causes-impacts-ways-forward

The World Wealth and Income Database: http://www.wid.world/#Database:

The Upper Tip of Income Distribution in Brazil: First estimates with income data and a comparison with household surveys (2006–2012):
https://www.researchgate.net/publication/282198304_The_Upper_Tip_of_Income_Distribution_in_Brazil_First_Estimates_with_Income_Data_and_a_Comparison_with_Household_Surveys_2006-2012

Is Inequality underestimated in Egypt? Evidence from house prices:
http://documents.worldbank.org/curated/en/588041468195577344/Is-inequality-underestimated-in-Egypt-evidence-from-house-prices

International Labour Organization Data Collection on Wages and Income:
http://www.ilo.org/travail/areasofwork/wages-and-income/WCMS_142568/lang--en/index.htm

Who, What, Why: What is the Gini coefficient?: http://www.bbc.co.uk/news/blogs-magazine-monitor-31847943

On Inequality, Let's Do the Palma (because the Gini is so last century):
https://oxfamblogs.org/fp2p/on-inequality-lets-do-the-palma-because-the-gini-is-so-last-century/

Inequality and the Tails: The Palma proposition and ratio revisited:
http://www.un.org/esa/desa/papers/2015/wp143_2015.pdf

World Bank Database: http://data.worldbank.org/

World Income Inequality Database:
https://www.wider.unu.edu/project/wiid-world-income-inequality-database

Working for the Few: Political capture and economic inequality: http://policy-practice.oxfam.org.uk/publications/working-for-the-few-political-capture-and-economic-inequality-311312

Forbes the World's Billionaires: http://www.forbes.com/billionaires/list/

Bloomberg Billionaires: www.bloomberg.com/billionaires/

The Wealth-X High Net Worth Handbook 2019: http://wealthx.com/intelligence-centre/

Cap Gemini World Wealth Report: https://www.worldwealthreport.com/

Credit Suisse Global Wealth Report 2018: https://www.credit-suisse.com/corporate/en/research/research-institute/global-wealth-report.html

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