

# Issues in using Consumption for Poverty and Inequality Analysis

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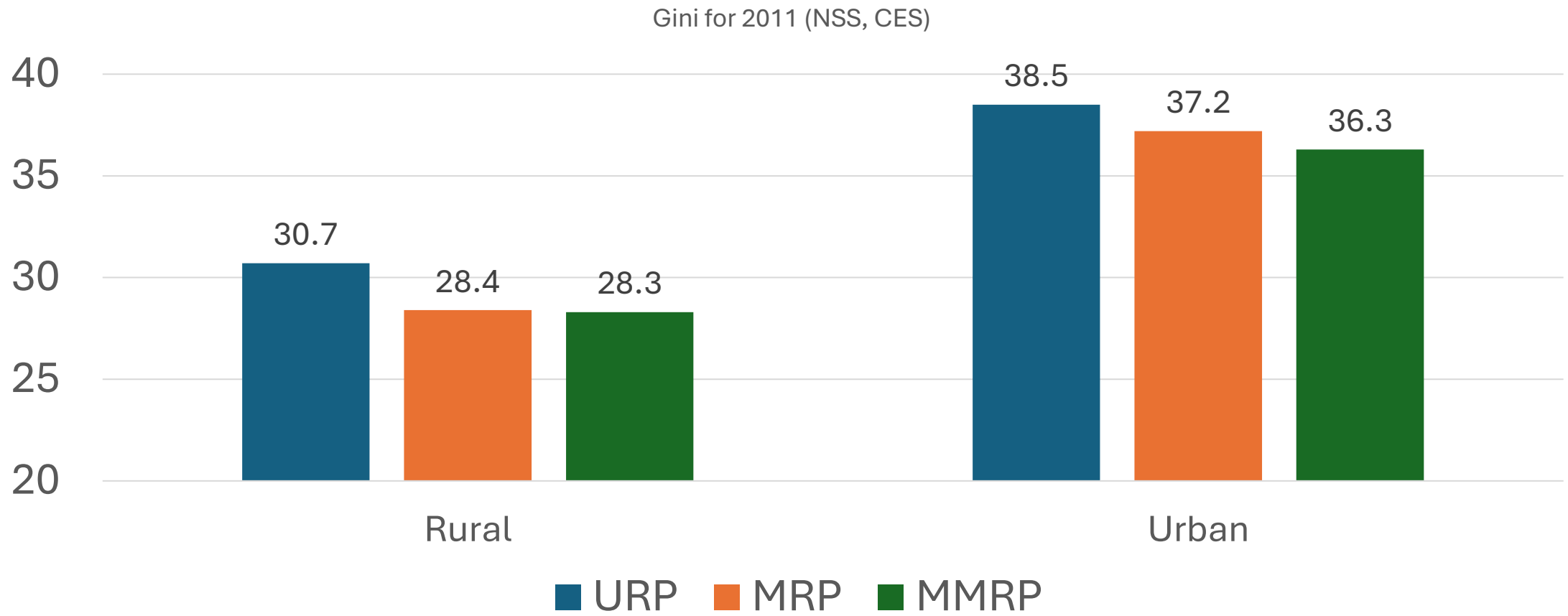
# Measuring Inequality: Income, Consumption, Wealth

- Income is the preferred variable for inequality analysis, partly due to availability of data but also due to its comprehensive nature.
- Unlike, income consumption is preferred for poverty analysis: smoothness, easier to collect and robust as long as the focus is on the bottom tail
- But not preferred as it is not comprehensive and excludes savings (deferred consumption)
- Wealth is an altogether different category being a stock variable unlike income/consumption as flow variable.

# Income and many consumptions

- It is well known that inequality measured by income is 7-14% higher compared to consumption estimates for the same population.
- But even with consumption, measured inequality is different based on the choice of recall period, level of aggregation and the coverage of items of consumption.
- For example, India in 2011-12 collected consumption data using three different recall periods, Uniform Recall Period (URP), Mixed Recall Period (MRP) and Modified Mixed Recall Period (MMRP).
- The inequality in consumption expenditure by these three are significantly different despite the fact that these are for same population, collecting by the same agency following same sampling strategy

# Gini for consumption expenditure by different recall period, 2011 CES



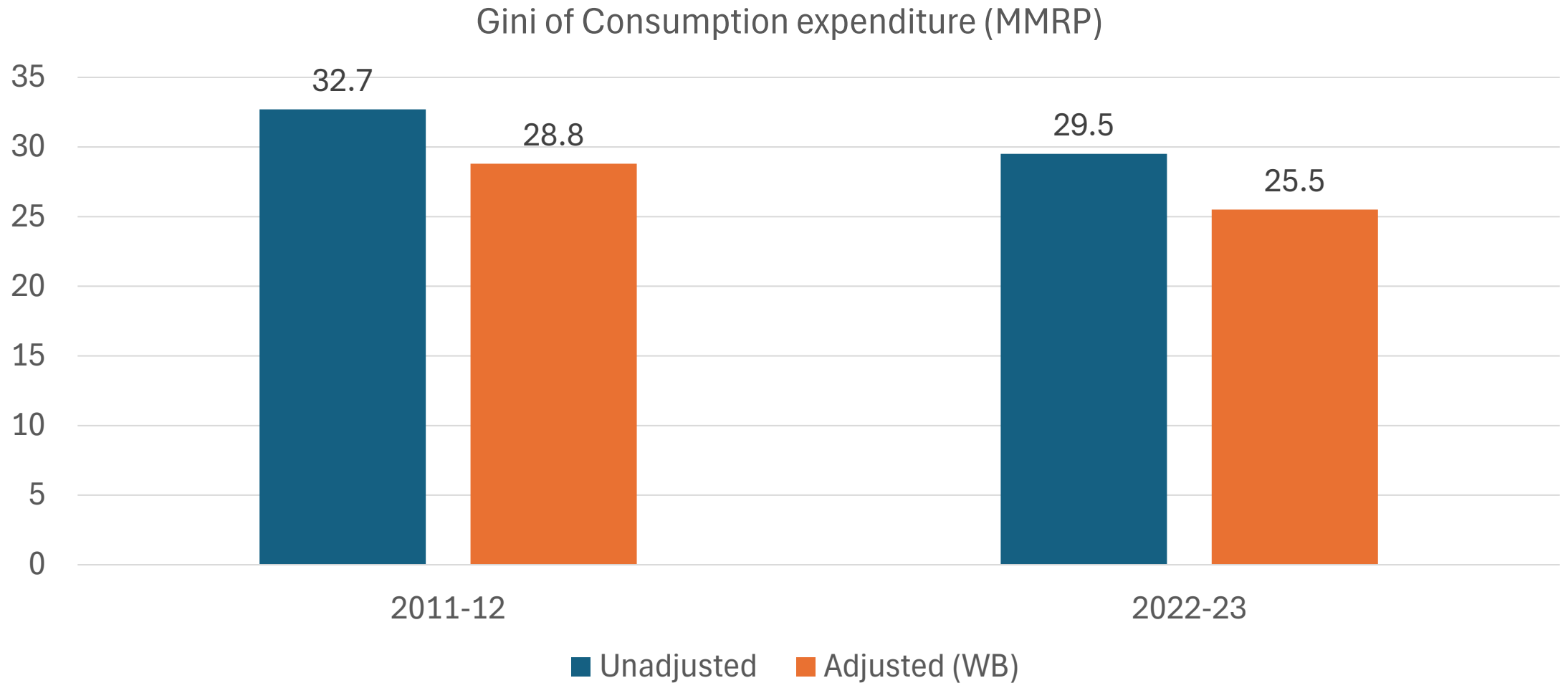
# WB adjustments

- Until 2011-12, WB was using the URP measure of consumption expenditure for estimating gini for India.
- That puts India at 51<sup>st</sup> most unequal country among 85 countries for which data is available in 2011-12.
- But if we only compare among countries where consumption expenditure is used for gini, India ranks 18 out of 30 countries.
- World Bank estimates using 2022-23 HCES places India as the fourth most equal country among 177 countries. Of these 177 countries, 104 countries now use consumption surveys. Even among these 104 countries, India ranks 3<sup>rd</sup> most equal country.

# Did India really become more equal in the last decade?

- Part of the low inequality in India in WB estimates is due to the shift from URP to MRP estimates.
- But there were several other changes made to India's estimates
- WB now adds the imputed value of free transfers, food, clothing and footwear for children
- It excludes expenditure on durables
- It excludes expenditure on some items of consumption such as jewellery, watches, furniture etc
- It excludes institutional health expenditure

# Adjustments lead to lower measured inequality



# How do these changes affect measured inequality

- Since it adds imputed consumption expenditure for the poorer households and excludes expenditure by the rich, the net impact is much lower inequality as measured by gini
- The lowering of gini by almost 4 percentage points both years is more than the entire decline than most countries witness in a decade.
- With unadjusted estimates, Indian ranks 18<sup>th</sup> among countries with consumption inequality
- It is also similar to other South Asian countries: Bhutan (28.5), Pakistan (29.6), Nepal (30.0) and China (30.4)

# Issues in using consumption expenditure for inequality analysis

- Four Issues
  - Recall period
  - Imputation of non-market items
    - Free transfers
    - Own production/use
    - Rent
  - Durables
  - Health

# Recall Period

- Most important
- Not only changes the mean consumption but also the distribution
- Unfortunately , direction of change unclear and depends on the category/item of consumption
- In general, frequently consumed food items do not show large variations. For example, cereals etc
- Large variations in durables and low frequency items
- In general, longer (annual recall period) is better for low frequency items, infrequent food items have better recall on weekly basis whereas daily staples are better on monthly recall
- Unfortunately, no way to ensure comparability across recall periods

# Non-Market items

- Tricky issue
- In principle, one should avoid any transfer if the purpose is to analyse inequality across individuals. It should be strictly based on private income/consumption
- In other words, all forms of transfers should be excluded
- Consumption out of own produce is not a transfer and should be included as it reflects the deemed income from goods and services produced by the household.
- Rent is a different category. There is no production equivalent. However, rents are problematic for empirical reason also.

# Free transfers

- These do not reflect the purchasing power of the household
- These are in fact, part of government expenditure
- Issues of valuation
- Only goods? What about services (education, health etc)
- Only tangible or also intangibles (law and order, social outcomes, environment and so on)
- Also underlying issue of prices
- What should be done if goods and services are not free but heavily subsidised?

# Rents

- Paid out rents are included
- Imputed rents are consumption out of inherited assets and therefore do not form part of current income/production unlike food produced from own consumption
- Difficult to impute is no rental market exists
- In 2022-23, only 20% of rural households reported availability of rental market. In Bihar it was only 2%
- Need detailed housing characteristics for hedonic modelling

# Durables/Semi-durables

- Should be included as households spend on purchasing the items of consumption
- The entire value of spending on the durable should be included as it reflects the purchase price.
- The distinction on time period of use is artificial and has nothing to do with the households use of the item or the choice of the household to purchase the item
- Absolutely no logic to exclude furniture, utensils and jewellery as the WB has done
- Respect the principle of consumer sovereignty

# Health expenditure

- Completely inexplicable as to why it should not be included
- It reflects necessary consumption and as long as it is done by the household using own resources it needs to be included
- The argument that it is expenditure incurred in case of sickness which is associated with negative utility is problematic
- As long as it increases overall utility and is necessary expenditure, it is part of the household consumption spending

# Consumption Expenditure in India

- One of the earliest to collect consumption expenditure, starting 1950s although experimental rounds even before that
- Includes all paid out consumption expenditure items
- Free transfers not included
- Subsidised items priced at consumer prices
- Imputed rent not included in final expenditure estimates although data is collected for urban areas and in rural since (2022-23)
- Purchase price of durables included (1<sup>st</sup> hand as well as second hand)
- Health expenditure included
- Recall period experiments since the 1990s. Based on rigorous field experiments with actual measurements

# Consumption Expenditure versus Welfare

- Distinction needs to be made between consumption expenditure which is used as proxy of income and welfare which is associated with utility derived by the household
- Consumption expenditure is a closely related variable to income ( $\text{income} - \text{savings} = \text{consumption}$ ). No relation to utility derived from consumption
- Consumption expenditure is also consistent with principles of national accounting framework in India and global standards
- Welfare is a broad concept and it reflects the overall utility derived by the household irrespective of the source of such utility
- Similar to the capability approach of Amartya Sen



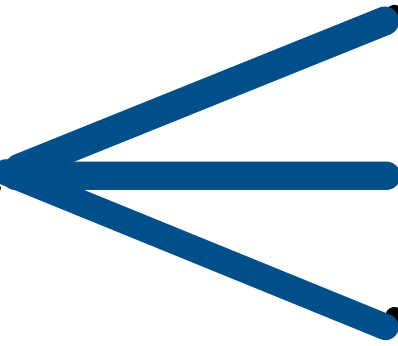
# Consumption Expenditure (basic principles)

- For consumption expenditure, basic principle should be that it is everything that the household spends from its income from that year. Time period is crucial
- It is a monetary variable and only includes goods and services that the household consumes out of its own income/production
- Should exclude any transfer
- Prices should be prices paid by the consumer and not the implicit prices
- Easier to measure and conceptual similarity with income leads to better interpretation

# Welfare

- Broader concept which looks at consumption as source of utility/welfare/well-being
- Transfers can be included in principle
- But should include all transfers including services
- Allows the possibility of valuing the services of durables and semi-durables rather than purchase price
- Allows the possibility of valuation of services derived from inherited assets such as housing, automobiles and so on
- In principle, the monetary value of goods and services should include non-subsidised prices to reflect the true value
- While useful, difficult to measure

# Consumption versus welfare

- Consumption Expenditure
- Production  Income  Consumption Expenditure  
(all in current year)
- Welfare
- Welfare 
  - Consumption Expenditure (current year)
  - Transfers (Free or subsidised)
  - Consumption (out of accumulated wealth)

# In lieu of conclusion

- Consumption expenditure and consumption (welfare) are two distinct categories and we should maintain the distinction
- Consumption expenditures is easily related to national accounts (PFCE) and income and therefore easier to interpret
- Consumption (welfare) should be a separate category, preferably named as welfare to avoid any relation with consumption expenditure
- Deaton and Zaidi (2002) muddled the distinction.
- Easier availability of consumption expenditure should allow its ready use and interpretation and should be the beginning point
- Measuring welfare is an ongoing effort and should be kept separate for the time being