

LABOUR DATA

No Misunderstanding



**A Srija &
Jitender Singh**

Given the importance of high-quality data on the labour market in India, we had posed a question on this page via our article, 'A Tale of Two Methodologies' (bit.ly/3wt8Ji6): why does the trend for the employment rate as generated by the Centre for Monitoring Indian Economy's (CMIE) Consumer Pyramids Household Survey (CPHS) move in exactly the *opposite* direction to that provided by the National Statistical Office's (NSO) Periodic Labour Force Survey (PLFS)?

After all, both surveys measure the employment situation in urban areas, but CPHS' unemployment rate paints a picture contrary to PLFS'. CMIE MD-CEO Mahesh Vyas' response to our article on this page ('A Data Smell Test That Smells Fishy', bit.ly/3gnLL8s) does not answer this basic question. Instead, Vyas attempts to discredit our analysis by stating that it 'suffers from misrepresentations and misunderstandings'. As his observations helped us refine our analysis, we find that the original lacuna in the CPHS methodology remains, whether one uses real or nominal GDP, or employment or unemployment rates.

Apart from identifying the lacuna, we asked the question: should an estimate of the employment rate not correlate positively with economic conditions, as reflected in the level of GDP? As Okun's law posits this relationship, we used it to identify the lacuna's source, and no 'misunderstanding' on our part emerged. In his 1962 study, 'Potential GNP: Its Measurement and Significance' (bit.ly/3xq54BI), Arthur Okun estimated this relationship using both the levels and the changes.

In fact, Laurence Ball, Daniel Leigh and Prakash Loungani's 2013 study,

'Okun's Law: Fit at 50?' (bit.ly/3wx8qDi), employs a similar methodology and finds that in most countries, the goodness of fit is better when the estimation is done in levels. Consistent with this finding, we also find that the correlation using the changes is very weak for both PLFS and CPHS data.

Rather than clutching at straws by focusing on technical aspects of estimating Okun's law, CMIE must address the elephant in the room: when PLFS employment data — using methodology in line with International Labour Organisation (ILO)-defined parameters and in consonance with the resolution of the 19th International Conference of Labour Statisticians (2013) — indeed correlates positively with the level of GDP, why does CPHS data move in the opposite direction?

In fact, our refined analysis reinforces our earlier conclusion: CPHS unemployment data needs substantial work before they can be trusted by policymakers or academics.

We correlated the urban employment rate with all-India GDP — quarterly estimates of GDP not being available separately for urban and rural areas. Given this limitation, either we can analyse the source of the highlighted lacuna using available data, or choose to throw the baby with the bathwater. We chose the former since quarterly all-India GDP is a good proxy for urban economic activities, for two reasons.

First, linkages of agriculture sector with urban sector are high. For instance, the correlation between per-capita consumption expenditure in

urban areas and agricultural income is about 0.60. Second, the share of non-agriculture activities in net value added of rural sector is more than 60%. Taking all-India GDP, therefore, is certainly not a 'misrepresentation'.

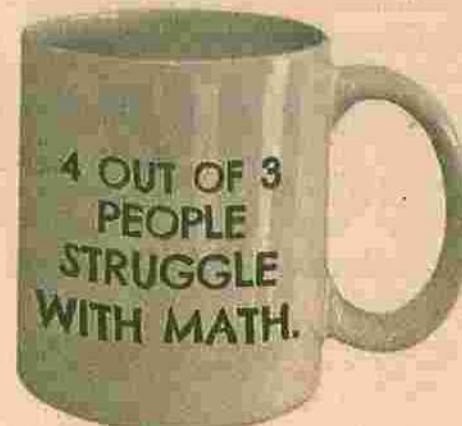
CPHS data does not report the most important indicator of the labour market: employment rate, or worker population ratio (WPR). Hence, this has to be calculated indirectly using labour force participation rates and unemployment rates. The employment rate used in the analysis comprises averages of monthly employment rates calculated using CMIE data, again, not 'misrepresentations'.

We reiterate: the CPHS data is inconsistent with simple economic relationships. The strong positive correlation between CPHS' urban unemployment rate and real GDP, and the simultaneous negative correlation between real GDP and PLFS urban unemployment rate, raise serious doubts about CMIE's labour market data.

To help CMIE to improve its dataset, we highlight a key difference in CPHS' methodology vis-à-vis that of PLFS on the use of reference periods. PLFS follows the internationally accepted standards in arriving at the definition of labour market indicators, including the reference period of 'previous one week' to count the employed and labour force. In contrast, CPHS takes the reference period of 'on the day of the survey' for counting the employed. However, while counting the labour force, the reference period changes to the last 100 days preceding the date of the survey.

Usually, as a sample size decreases — which occurs for more frequently released data — standard error increases, estimates become more unstable. However, CMIE neither publishes sample observations nor the relative standard error with its daily or monthly estimates. For evidence-based policymaking, high-quality data is essential. Therefore, standardised data methodology must be followed for results to reflect the true economy.

Srija is economic adviser, and Singh is joint director, Department of Economic Affairs, GoI



It's a mug's game