MEASUREMENT OF INFORMAL ECONOMY_INDIAN EXPERIENCE

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OUTLINE OF THE PRESENTATION

- Structure of the Indian economy

- Data sources for estimation of informal economy

- Estimation of the informal economy

- Effective Labour Input method

- Bench Mark estimates of broad sectors

- Moving estimates forward

- Limitations

- Issues relating to Non observed economy

- Way forward

STRUCTURE OF THE INDIAN ECONOMY

- Service sector contribute more than 50% of the GVA

- Agriculture contribute 17-18% of GVA

- Agriculture employs the largest share with a lot of underemployment

- This is followed by construction sector in employment and contributes less than 10% to the economy.

- The informal sector contribution is over 50%.

- The share of informal employment is more than 90%.

STRUCTURE OF ECONOMY

Table 1: Share of Broad Economic Activity sectors in Overall Gross Value Added (%)			
Industry	2011-12	2016-17	2017-18
Agriculture, forestry and fishing	18.5	17.9	17.2
Mining and quarrying	3.2	2.3	2.3
Manufacturing	17.4	16.8	16.4
Electricity, gas, water supply & other utility services	2.3	2.5	2.7
Construction	9.6	7.8	7.8
Trade, repair, Accommodation	10.9	11.5	11.8
Transport, storage, communication & services related to broadcasting	6.5	6.7	6.4
Financial services	5.9	5.4	5.4
Real estate, ownership of dwellings & professional services	13.0	15.5	15.6
Public administration and defence	6.1	5.9	6.2
Other services	6.6	7.7	8.1
TOTAL GVA at basic prices	100.0	100.0	100.0

SHARE OF INFORMAL SECTOR IN INDIA

Industry	2011-12				2016-17				2017-18			
	organised /formal	unorganis ed/inform al	HH	Total	organis ed/for mal	unorga nised/in formal	HH	Total	organis ed/f orm al	unorganis ed/inform al	HH	Total
Agriculture, forestry and fishing	3.2	96.8	94.8	100.0	2.8	97.2	95.2	100.0	2.9	97.1	95.2	100.0
Mining and quarrying	77.4	22.6	22.6	100.0	77.4	22.6	22.6	100.0	77.5	22.5	22.5	100.0
Manufacturing	74.5	25.5	12.7	100.0	76.4	23.6	12.5	100.0	77.3	22.7	12.0	100.0
Electricity, gas, water supply & other utility services	95.7	4.3	3.2	100.0	95.0	5.0	5.0	100.0	94.7	5.3	5.3	100.0
Construction	23.6	76.4	76.4	100.0	26.6	73.4	73.4	100.0	25.5	74.5	74.5	100.0
Trade, repair, Accommodation and food services	13.4	86.6	56.0	100.0	13.4	86.6	55.8	100.0	13.4	86.6	55.8	100.0
Transport, storage, communication & services related to broadcasting	53.0	47.0	39.6	100.0	53.7	46.3	38.5	100.0	52.3	47.7	39.6	100.0
Financial services	90.7	9.3	0.0	100.0	88.1	11.9	0.0	100.0	88.1	11.9	0.0	100.0
Real estate, ownership of dwelling & professional services	36.9	63.1	57.2	100.0	46.8	53.2	46.7	100.0	47.2	52.8	46.0	100.0
Public administration and defence	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0
Other services	58.8	41.2	22.6	100.0	52.7	47.3	24.4	100.0	52.1	47.9	24.3	100.0
TOTAL GVA at basic prices	46.1	53.9	45.5	100.0	47.3	52.7	43.6	100.0	47.6	52.4	43.1	100.0

Table 2- Share of formal/informal sectors across broad sectors to GVA

Source: Computed from National Accounts Statistics, 2019

SHARE OF INFORMAL SECTOR EMPLOYMENT

Worker	2011-12			2017-18		
	Unorganized	Organised	Total	Unorganized	Organised	Total
Informal	82.6	9.8	92.4	85.5	5.2	90.7
Formal	0.4	7.2	7.6	1.3	7.9	9.3
Total	83.0	17.0	100.0	86.8	13.2	100.0

DATA SOURCES FOR MEASURING INFORMAL SECTOR

- Household surveys – Employment and Unemployment

- Enterprise surveys

- VAPW estimates

- VAPW for the unorganized manufacturing and services sectors are from

- NSS 67 round (2010-11) on Unincorporated Enterprises survey

- NSS 68th round (2011-12) on Employment and unemployment

- ratio of the gross value added to the total employees in the particular compilation category represents VAPW

ENTERPRISE SURVEYS- WHAT DATA IS COLLECTED

- Coverage excludes- Agriculture, mining manufacturing, construction, mining quarrying and electricity sectors

- Receipts and expenditure

- compute value added

- By NIC (ISIC wise) – compilation categories

- By Workers fulltime, part time

- By type of enterprise- proprietary and partnership, trusts, non profit institutions

EMPLOYMENT UNEMPLOYMENT SURVEYS

- Household approach

- Categorization of activity status based on major time criterion- usual status, current weekly status, daily status

- Principal and subsidiary status of labour force participation

- By education qualifications

- By industry activity

- By type of residence- rural urban

- By type of enterprise- proprietary & partnerships, government, private sector, cooperatives, others

- procedures for estimating

- – Labour Input

- – value added per worker (VAPW)

- method of estimating Gross Value Added (GVA)

- – for base year

- – for subsequent years

- **Indirect procedures**

➤ benchmark-indicator method

➤ base year GVA estimates – LI X VAPW or ELI * VAPEW

➤ For other years – base year estimates extrapolated with proxy indicators

- Compiled at detailed activity level (compilation categories)

➤**WORKFORCE ESTIMATES (Labour Input)**

➤Population census

➤NSS employment and Unemployment Surveys

➤Organised sector employment – Same survey

EFFECTIVE LABOUR INPUT METHOD

- A new methodology for the estimation of GVA in unorganised sector in the series with base year 2011-12.
- Adopted in 2015 on recommendations made by sub committee on unorganised manufacturing & services sectors.
- Refinement over old methodology – Labour Input Method which measured Average Labour Productivity
- To address the issue of differential labour productivity among the different categories of workers.

OLD METHODOLOGY - LIM

- An indirect method for estimating GVA in the unorganised segments of manufacturing and services sectors.
- The GVA estimates are compiled at compilation categories level for the base year as the product of estimated GVAPW and estimated labour input.
- The estimates of GVAPW are obtained from Unincorporated Enterprise Survey and estimates of labour input are obtained from Employment Unemployment Survey.

NEW METHODOLOGY - ELIM

- For computing weights for different categories of workers on the basis of their marginal productivity, a nested Cobb-Douglas production function is used.

$$Y = AK^{\beta}[L_2 + \delta_1 L_1 + \delta_2 L_3]^{\alpha}$$

where,

Y = GVA

K = Capital Input

L_1 = Labour Input of Owner (in person days per year)

L_2 = Labour Input of Hired Worker (Formal + Informal)

L_3 = Labour Input of Helper

- The coefficients δ_1 and δ_2 represent the relative marginal productivity of owners and helpers in terms of hired workers respectively.

- These coefficients are estimated using non-linear regression for groups of compilation categories based on establishment data only.

- The estimated coefficients are used for estimating effective LI from ES using the formula: $L_2 + \delta_1 L_1 + \delta_2 L_3$. The GVAPW thus obtained are termed as effective GVAPW.

- The same estimated coefficients δ_1 and δ_2 are used for estimating effective LI from EUS.

- The GVA estimates for a compilation category as the product of estimated effective GVAPW and estimated effective labour input for that category.

ESTIMATES FOR OTHER YEARS

- Unorganised manufacturing sector – compilation category wiae Proprietary and partnership growth deflated by weighted WPI

- Trade, Hotels and restaurants – Index of net sales tax turnover deflated by weighted WPI

- Road transport - quantum of index of registered vehicles

- Ownership of dwelling – extrapolated number of census dwellings

- Other services – different indicators like, workforce, growth in consumption,

LIMITATIONS ON EFFECTIVE LABOUR INPUT METHOD & OTHER LIMTATIONS

- Wage data would have been ideal in measuring ELI but the presence of self-employed and unpaid family workers where wage rates are not available, choice remained for the different categories of workers instead.

- The information on increase in fixed assets in the surveys is also very poor.

- The assumptions (linear aggregation of different types of labour – employers, hired workers and unpaid family workers) in the estimation of effective labour input were assumed to be too simplistic.

- In the services sector the application of effective labour input method was limited and a modified effective labour input was used.

- The bench mark estimates of the informal sectors are moved forward using indicators which are deemed appropriate at that point of time but it has been observed that these estimates differ with the new survey results. They may be an over or under estimate.

LIMITATIONS- CONTD

- The new base change of 2011-12 had seen a drop in the levels of GVA by almost three percent. This may be because of the lag between two surveys and the indicators.

- The surveys are essentially based on oral information and not all information collected is record based. These have sometimes have impact on the expenditure side of the GDP also as some of the estimates of private final consumption expenditure are moved using estimates derived from the supply side for example communication expenses are moved by the current prices GDP estimates of communication.

- No adjustment is made for the non observed economy.

ISSUES RELATING TO NON OBSERVED ECONOMY

- The informal employment by definition have no written contract, paid leave and hence pay no minimum wages, nor pay attention to conditions of work.

- Gambling and Prostitution is illegal in India. Gambling is legal in one states.

- Betting on Horses is legal but not on cricket matches. No adjustment is made in the National accounts.

- The production undertaken by households for their final use is taken into account are limited to agriculture, fisheries and forestry. In case of manufacturing goods only weaving of textiles is taken into account while the rest of manufacturing is not.

- While the services of owner occupied dwellings and domestic services produced by employing paid domestic staff are included.

- The Output of own account capital formation – included as part of the household final use.

- Time use survey is being conducted in India which may give more activities which may not be accounted for in the current socio economic activities

CHALLENGES & WAY FORWARD

- Major challenges is to capture the dynamic nature of the Informal sector

- It is important, while using rates and ratios and indirect methods for a sizeable part of GDP estimation, that they are frequently updated and their reliability is tested.

- Generally, most rates and ratios are updated at the time of revision of base year through type studies and supply use tables/ input-output tables.

- Indicators used in indirect estimation of GDP are continuously evaluated for their appropriateness and changes are made when needed

- The NSO provides an extensive documentation of the sources and methods used in the compilation of national accounts

- All methodological documents on national accounts as well as the complete set of publications on national accounts are available on the internet, at www.mospi.gov.in

CHALLENGES & WAY FORWARD--CONTD

- Annual Surveys of Unincorporated sector

- Annual Periodic Labor Force Surveys

- Even if the indictors are required, they would be for those years for which data is not available.

- Labour Input or effective Labour Input

- Time use survey

- **Use of administrative data**

➤ MCA 21 data for corporate sector- 7,00,000 companies data is currently being used fro annual estimates

➤ GST system has 12.5 million registered enterprises - with returns filed on monthly basis on turnover and taxes

Thanks