



REPUBLIC OF THE PHILIPPINES

PHILIPPINE STATISTICS AUTHORITY

**Regional Course on Statistics on Informality: Informal economy,
work and employment
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Chiba, Japan**

**GDP Estimation for the 2008 Informal Sector
Using the 1- 2 Survey in the Philippines**

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FRAMEWORK

1. Methodologies

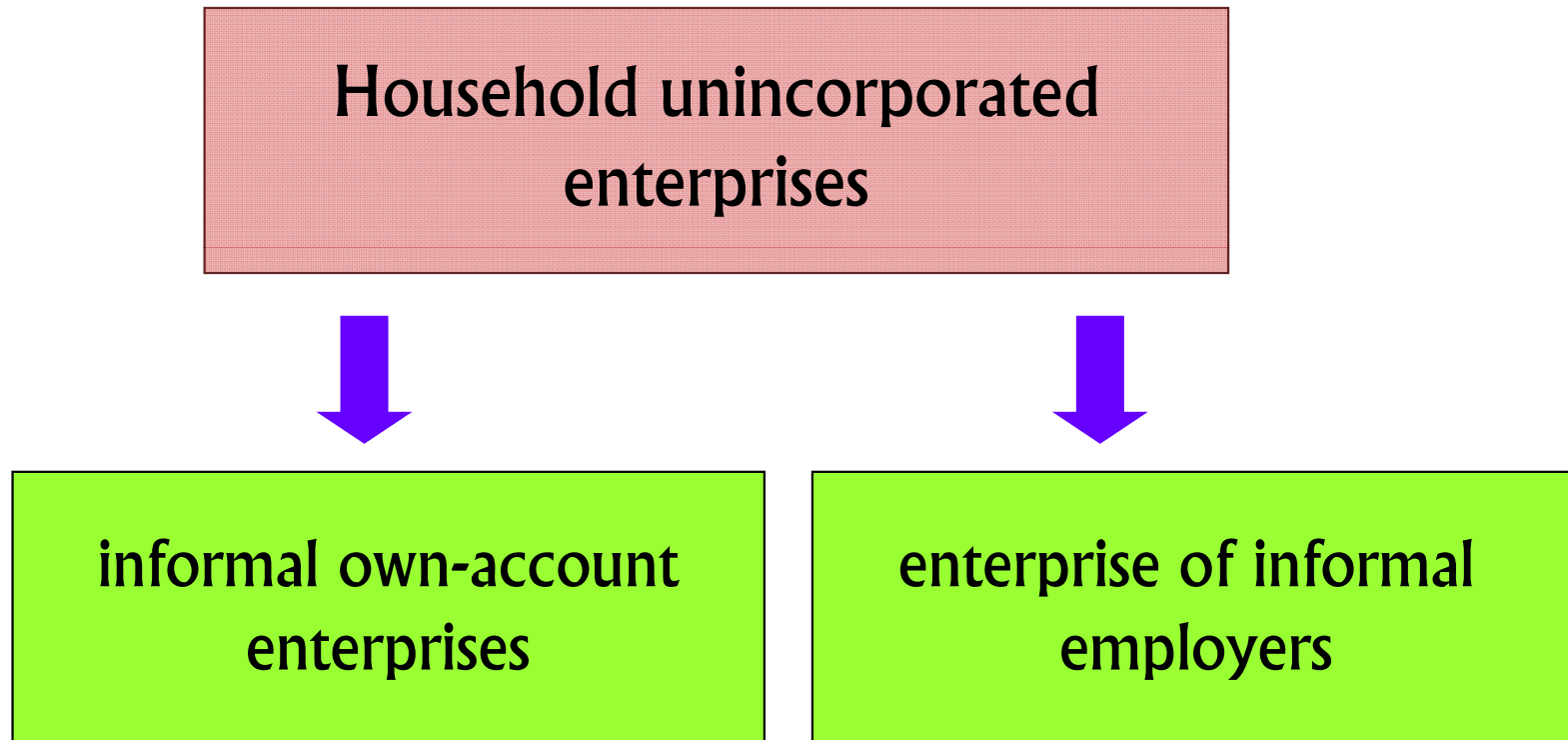
- Production Approach
 - GVA Concept
 - Estimation of Output
 - Estimation of Intermediate Inputs
 - Estimation of GVA
- Income Approach
- Validation of GVA Estimates

2. Results



What is Informal Sector?

Operational Definition:



NSCB Resolution No. 15, series of 2002
(Adoption of an Official Definition on the Informal Sector)



Informal own-account enterprises

- owned and operated by own-account workers
- either alone or in partnership with members of the same or other household
- may employ unpaid family workers as well as occasionally/seasonally hired workers
- do not employ employees on a continuous basis.



Enterprises of informal employers

- owned and operated by own-account workers
- either alone or in partnership with members of the same or other household
- may employ one or more employees on a continuous basis



Excluded from informal sector

- Corporations
- Quasi-corporations
- Units with 10 or more employees
- Corporate farms
- Commercial livestock raising
- Commercial fishing



Informal Sector GVA Computation

Methodologies:

- ✓ Production Approach – applied directly given the data available from the HUEM 1-2 Survey
- ✓ Income Approach – required additional data on taxes and subsidies on products
- ✗ Expenditure Approach – not applied for practical and conceptual reasons

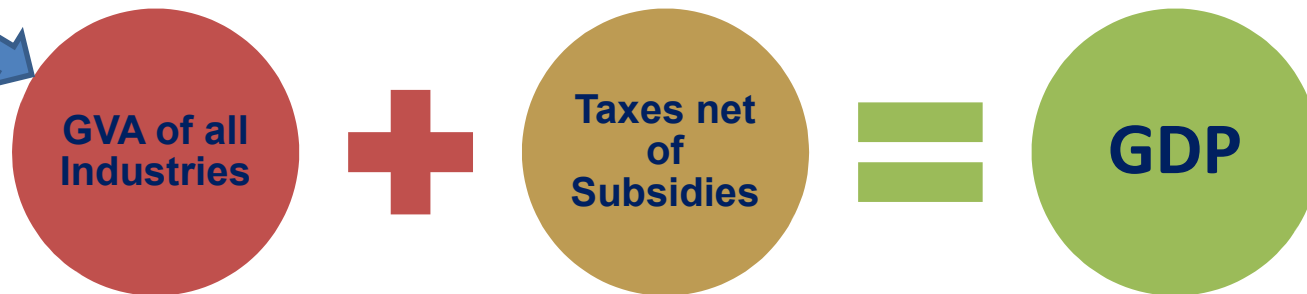
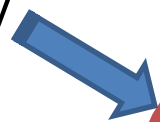


Methodologies :

Production Approach

- measures GDP as the sum of the GVA of all industries plus taxes net of subsidies on products.

Estimated separately for IS industries





Methodologies : **Production Approach**

Gross Value Added (GVA)

- a measure of the contribution to Gross Domestic Product (GDP) made by an individual producer, industry or sector
- the difference between Gross Output (GO) and Intermediate Inputs (II) of the industry



Methodologies : **Production Approach**

OUTPUT – the value of goods and services produced within an establishment that become available for use outside that establishment, plus any goods and services produced for own final use



Methodologies : **Production Approach**

Estimation of OUTPUT

- estimated the annual production (sales/revenues) of an industry using 2 options

OPTION 1 – by summing the monthly production data obtained by utilizing the business activity performance in the months of operation from section C5 Phase 2 questionnaire and the minimum, average and maximum value of gross sale/revenue from section C6



Methodologies : **Production Approach**

Estimation of OUTPUT

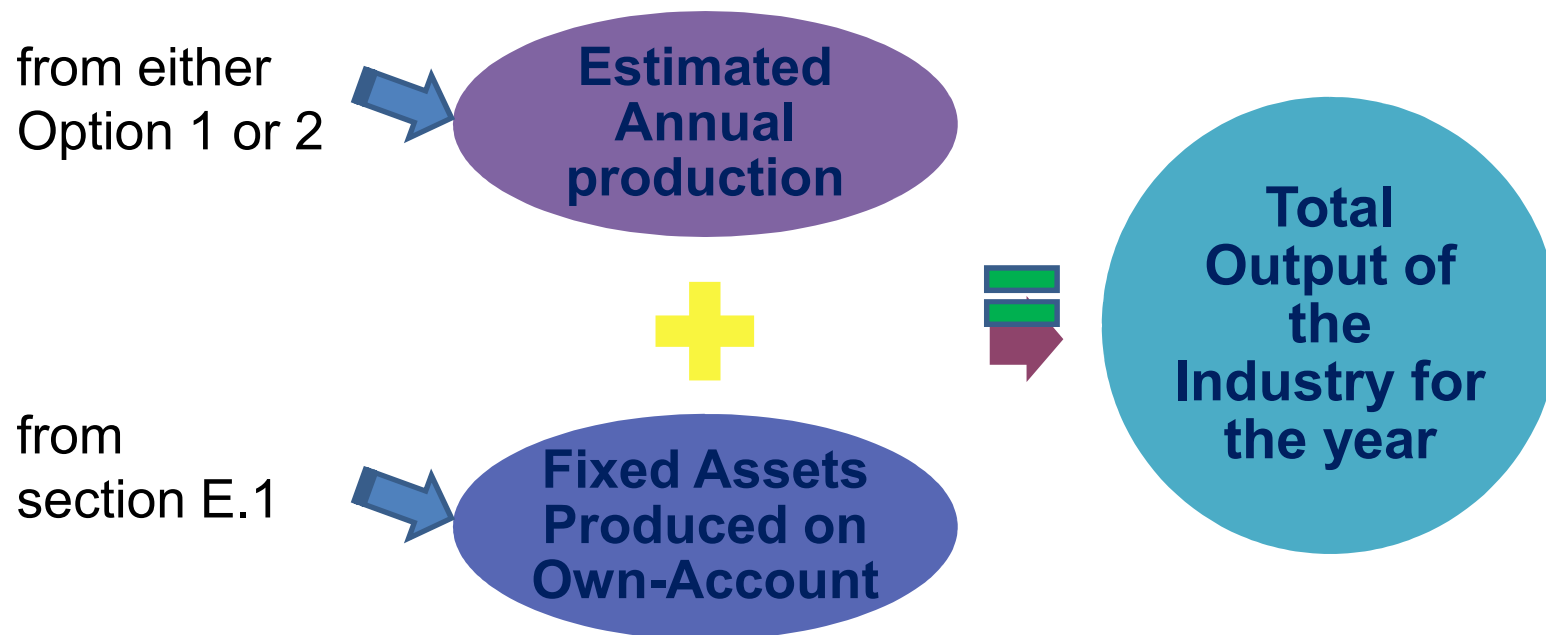
- estimated the annual production (sales/revenues) of an industry using 2 options

OPTION 2 – by multiplying by 12 the total gross sale/revenue for the last month of operation obtained from sections C1 to C4 Phase 2 questionnaire



Methodologies : **Production Approach**

Estimation of OUTPUT





Methodologies : **Production Approach**

Estimation of OUTPUT

In HUEM survey items, OUTPUT of IS by industry is computed as:

$$\begin{aligned} \text{OUTPUT} = & \textit{Value of products sold after transformation (FINISHED PRODUCTS)} \\ & + \textit{Value of products sold without transformation (GOODS FOR RESALE)} \\ & - \textit{Value of purchases of products sold without transformation} \\ & + \textit{Value of services offered} \\ & + \textit{Fixed assets produced on own-account} \end{aligned}$$



Methodologies : **Production Approach**

Estimation of OUTPUT

Output for Wholesale and Retail Trade

- measured in terms of the TRADE MARGIN adjusted for CHANGE IN STOCKS

TRADE MARGIN – computed as the difference between the *value of products sold without transformation* and the *value of purchases of products sold without transformation*



Methodologies : **Production Approach**

Estimation of OUTPUT

Output for Wholesale and Retail Trade

- measured in terms of the TRADE MARGIN adjusted for CHANGE IN STOCKS

CHANGE IN STOCKS– considered part of the output of Trade activity



Methodologies : **Production Approach**

Estimation of OUTPUT

OUTPUT is not the same as SALES

- what was sold may have come from previous period production or not all of what has been produced is sold

Hence, **SALES** need adjustments for **CHANGE IN INVENTORY**

In HUEM, *Value of Sales* was assumed to be equal to *Value of Production* since *Inventory* data was not collected



Methodologies : **Production Approach**

INTERMEDIATE INPUTS (II)- are goods and services consumed as inputs by a process of production. The goods and services may either be transformed or used up by the production process



Methodologies : **Production Approach**

Estimation of INTERMEDIATE INPUTS

In HUEM, the II ,used interchangeably as INTERMEDIATE CONSUMPTION (IC), is obtained as the sum of:

Purchases of Raw Materials and Supplies

+ *Fuel, Gasoline and Lubricants* **+** *Water*

+ *Other Industrial Services* **+** *Other Non-industrial Services*

+ *Rental Payments (space, machinery, structures)*

+ *Transport Services* **+** *Post, Communication, Internet* **+** *Insurance*

+ *Other Charges* **+** *Repair and Maintenance of Facilities and Equipment*



Methodologies : **Production Approach**

Estimation of INTERMEDIATE INPUTS

Value of each inputs are annualized by multiplying the reported entries by the corresponding months in operation

In the absence of *Inventory* data, *Purchases of Raw Materials and Supplies* can be assumed as the *Cost of Materials and Supplies Consumed*



Methodologies : **Production Approach**

Estimation of GROSS VALUE ADDED (GVA)

The GVA of an industry is the difference between the GROSS OUTPUT (GO) and the INTERMEDIATE CONSUMPTION (IC) of the industry



Methodologies : **Production Approach**

Estimation of GROSS VALUE ADDED (GVA)

VALUE ADDED can be measured:

GROSS – before deducting Consumption of
Fixed Capital (CFC or Depreciation)

or,

NET – after deducting CFC



Methodologies : **Production Approach**

Estimation of GROSS VALUE ADDED

Although CFC data were not captured in the HUEM 1-2 survey, from the computed GO and ICs from the Production Approach, **the HUEM survey can still provide basis for estimating the benchmark GVA for the Informal Sector**



Methodologies: **Validation of GVA Estimate**

Corrections made during the edit and consistency checks
on the data items of ISS form 2 :

1. Misclassification of the output
(particularly in the Agriculture and Manufacturing sectors)
2. Negative Gross Outputs, Value Added and Gross Value
Added Ratios (GVARs)



Methodologies: **Validation of GVA Estimate**

- ✓ Basic estimates of the Outputs, Intermediate Inputs and Primary Incomes were computed at the 4-digit industry level of the updated 1994 PSIC
- ✓ Tables were generated based on the edit and consistency checks done on the survey questionnaires with minimal adjustments based on the validation with the results of the 2006 Census of Philippine Business and Industry (CPBI) for establishments with total employment of less than 20



Results:

- Option 1** - annualized production values based on industry performance and gross sales/revenue
- Option 2** - annualized production values based on months in operation



Results: **Option 1**

The computed GVAs using the production approach indicated the following:

- Compared with the GDP for 2008, the computed GDP (sum of the GVAs by major industry) of the informal sector was only 7 percent of total



Results: Option 1

The computed GVAs using the production approach indicated the following:

- By major industry: GVA of trade accounted for almost 4 percent of total GDP, 55 percent to GDP of the informal sector and 26 percent to industry GVA



Results: **Option 2**

The computed GVAs, indicated the following:

- Compared with GDP for 2008, the computed GDP (sum of the GVAs by major industry) of the informal sector was 12.5 % of total



Results: **Option 2**

The computed GVAs, indicated the following:

- By major industry: GVA of trade accounted for almost 6 % of total GDP, 48 % to GDP of the informal sector and 41 % to industry GVA



Results: **Option 2**

The computed GVAs, as compared with Option 1, indicated the following:

- Share of all service sectors to GDP of IS were reduced
- Share of Agriculture, Fishery and Forestry and the industry subsectors (Mining & Quarrying and Construction) increased
- Manufacturing sector contribution almost unchanged



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Thank you!

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