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1 Paper submitted to Session II of the Seventh IMF Statistical Forum (Measuring the Informal Economy)
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Outline of Presentation

• Motivation
• Main Challenge
• Framework
• Methodology
• Some Results
• Some initiatives
Motivation

• Philippines’ adoption of official operational definition of informal sector in 2002-2003

• Philippine commitment to meeting the Sustainable Development Goals in 2015

• Demand for measurement from various sectors
Main Challenge

• Data gaps

• Solution – measure the “unorganized sector” instead
Framework

• informal sector = household unincorporated enterprises, both informal own-account enterprises and enterprises of informal employers.

• Informal own–account enterprises:
  – owned and operated by own-account workers
  – either alone or in partnership with members of the same or other households
  – may employ unpaid family workers and seasonally hired workers
  – but 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 households
- employ one or more employees on a continuous basis
- Exclusions: corporations, quasi-corporations, units with ten or more employees, corporate farms, commercial livestock raising and commercial fishing.
Framework

• Criteria to operationalize:
  – Enterprise Ownership - Household;
  – Legal Organization - Household enterprises which refers to unincorporated enterprises owned by household, are units engaged in the production of goods/services that are not constituted as legal entities independent of the households or the household members that own them;
  – Type of Accounts - No complete set of accounts that will distinguish production activities, flows of income and capital between the households and the enterprises
Framework

- Characteristics Relative to Employment
  - Informal own-account enterprises - household enterprises owned and operated by own-account workers, either alone or in partnership with members of the same or other households, which may employ contributing family workers and employees on an occasional basis, but do not employ employees on a continuous basis;
  - Enterprises of Informal Employers - household enterprises owned and operated by employers, either alone or in partnership with members of the same or other households, which employ one or more employees on a continuous basis;

- Product Destination – at least some market; hence not entirely for market output
Framework

• Definition of unorganized sector
• The unorganized sector refers to the sector not covered by establishment surveys of the Philippine Statistical System (Virola and de Perio 2000).
• The report on unorganized sector is based on an indirect estimation using the Labor Input Method as suggested by Humans and Mehran(1989).
Framework

In capturing the unorganized, the following are described under various industries:

a. Agriculture, Hunting, Forestry and Fishing (AHFF)

• activities undertaken by household such as planting, harvesting, hauling, grading and packing of agricultural crops; rearing of farm animals; and the production of its by-products such as milk, cheese and eggs.
• covers production of agriculture-based products such as wine, vinegar, copra, among others
• mostly municipal fishing and gathering of seashells, mollusks, seaweeds and other fishery products.
• own-account activities such as logging, afforestation/reforestation, on-farm charcoal making and gathering of firewood and other forestry products.
Framework

b. Mining and Quarrying (MAQ)
   • output of gold panning activities that are not sold to the Philippines’ Central Bank, the Bangko Sentral ng Pilipinas (BSP), the central bank of the Philippines
   • stone quarrying and mining of other non-metallics

c. Manufacturing (MFG)
   • manufacture of consumer goods by household enterprises such as
     – food (meat processing, home baking, milk, and other dairy products);
     – textile (hand weaving, needlework, knitting, smocking, and subcontracting of garments manufacturing);
     – woods;
     – furniture; publishing and printing; leather; chemicals;
     – non-metallic mineral products; metal products; and,
     – miscellaneous manufacturing (e.g. toys).
Framework

d.Construction (CNS)
• produced by the owner-occupiers and the household unincorporated enterprises in producing housing services such as minor repairs and maintenance.

e.Electricity, Gas and Water Supply (EGWS)
• household use of tubed/piped deep and shallow wells.

f.Transport, Storage and Communication (TSC)
• includes jeepney, tricycle, pedicab, and unregistered commuter vehicles for the public; school bus services; and pump boat operations.

g.Trade and Repair of Motor Vehicles, Motorcycles, Personal and Household Goods (TRD)
• selling in household-operated sari-sari (variety) stores;
• selling raw and cooked foods by households either in their homes or on the streets; wholesale and retail of vegetables, rice, livestock, poultry and other agricultural products by households or small scale establishments;
• repair of motor vehicles; and,
• personal and household goods by individual shop-owners in the premises of their homes or on the streets.
Framework

h. Financial Intermediation (FIn)
   • money-lending activities under non-bank financial intermediation such as “5-6” lending (lending operations with exorbitantly high surcharges).

i. Real Estate, Renting and Business Activities (RERBA)
   • letting and leasing operations of the households (room and board, room for rent, bed space); ownership of dwellings; services of sub-agent for real estate, among others.

j. Other Services (OS)
   • eateries (“carinderia”) operations, cooked food street vending (commonly, fish ball, beverages, banana barbecue, peanuts, etc.);
   • home-service beauticians and barbers
   • shop operations,
   • home-based tutorial services, household help services, and other service activities.
Data Sources

• Censuses
  – *Census of Philippine Business and Industry (CPBI)* every 5 years
  – *Census of Population and Housing (CPH)* every 10 years
  – *Census of Agriculture and Fisheries (CAF)* every 10 years
Data Sources

• Surveys
  – Annual Survey of Philippine Business and Industry (ASPBI)
  – Quarterly Labor Force Survey (LFS)
  – Triennial Family Income and Expenditure Survey (FIES)
  – Palay and Corn Production Survey
  – Crops Production Survey
  – Livestock and Poultry Survey
  – Survey of Commercial and Municipal Fishing
  – Survey of Jeepney Operators
Data Sources

• Administrative-based data
  – forest charges from the Forest Management Bureau (FMB), cost of hog production from the Bureau of Animal Industry (BAI), cost of coconut production from the Philippine Coconut Authority (PCA), irrigation fees from the National Irrigation Administration (NIA), number of sugar planters from the Sugar Regulatory Administration (SRA), reported output of gold panning from the Bangko Sentral ng Pilipinas (BSP), number of professionals by type from the Professional Regulation Commission (PRC), income data from the Bureau of Internal Revenue (BIR), prices of waters from the Local Water Utilities Administration (LWUA), and the gold panning data from the Bangko Sentral ng Pilipinas, published by the Mines and Geosciences Bureau (MGB).
General Estimators

- \( GVA_i = O_i \times (1 - ICR_{SE}) \)

where:

- \( GVA_i \) = gross value added, unorganized, of sector \( i \)
- \( ICR_{SE} \) = intermediate consumption ratio of small establishments
General Estimators

- $O_i = E_i \times OPW_{SE}$
- $E_i = E_{LFS} - E_{ES}$

where:

$O_i$ = output, unorganized, of sector I

$E_i$ = employment, unorganized, of sector I

$E_{LFS}$ = employment from the Labor Force Survey

$E_{ES}$ = employment from the establishment survey

$OPW_{SE}$ = output per worker of small establishments
Sector specific methods in estimating the Gross Output

a. Agriculture, Hunting, Forestry and Fishing

Using PSA data, which are assumed to be household-based, the Gross Output (GO) is computed as follows:

\[
GO = \sum_{i_s} (P_i \times Q_i)
\]

where:

- \(GO\) = Gross Output of the unorganized activities at current prices of the \(i^{th}\) commodity;
- \(Q_i\) = volume of production the \(i^{th}\) commodity; and
- \(P_i\) = average farmgate price the \(i^{th}\) commodity.

Intermediate consumption is based from the updated cost of production of agricultural commodities.
Intermediate consumption is based from the updated cost of production of agricultural commodities.

\[ IC = \sum_{\forall ij} (GO_{ij} \times ICr_{ij}) \]

where:

- \( IC \) = intermediate consumption of the unorganized activities;
- \( ICr_{ij} \) = ratio of IC to the GO of the \( i^{th} \) commodity based from the cost of production and result of the ASPBI/CPBI;
- \( GO_{ij} \) = gross output at current prices of the \( i^{th} \) commodity.
Some Results

Figure 1. Gross Domestic Product by Organized and Unorganized, 1998-2018 at current prices (in Million Pesos)

Source: Macroeconomic Sector Service, Philippine Statistics Authority
Some Results

Share of the Unorganized Sector to nominal GDP by Major Industry, 2006 and 2016, Philippines

<table>
<thead>
<tr>
<th>Sector</th>
<th>2006</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>67.1</td>
<td>96.4</td>
</tr>
<tr>
<td>Industry</td>
<td>22.4</td>
<td>31.4</td>
</tr>
<tr>
<td>Services</td>
<td>41.6</td>
<td>26.4</td>
</tr>
<tr>
<td>Total</td>
<td>39.1</td>
<td>34.7</td>
</tr>
</tbody>
</table>

Source: Philippine Statistics Authority
Some Initiatives

2018 Listing of Establishments (LE)

- There are a total of 1,001,608 records of establishments in the Preliminary 2018 LE as of 1 February 2019

Source: Philippine Statistics Authority
Employment in the Informal Sector

- all jobs in informal sector enterprises
- all persons employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or a secondary job.
Criteria for Informal Sector Enterprise

- private unincorporated enterprises

- All or at least some of the goods or services produced are meant for sale or barter

- size in terms of employment is below a certain threshold to be determined according to national circumstances

- not registered under specific forms of national legislation and/or their employees (if any) are not registered

- engaged in non-agricultural activities, including secondary non-agricultural activities of enterprises in the agricultural sector
Informal Employment comprises:

- Own-account workers and employers employed in their own informal sector enterprises.
- Contributing family workers, irrespective of whether they work in formal or informal sector enterprises.
- Employees holding informal jobs, whether employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households.
- Members of informal producers’ cooperatives.
- Own-account workers engaged in the production of goods exclusively for own final use by their household.
### April 2018 Labor Force Survey with Informal Employment Rider Questions

<table>
<thead>
<tr>
<th>What is the legal status/organization of the enterprise you own or where you work?</th>
<th>How does your business/enterprise maintain its records or account?</th>
<th>Does the enterprise you own or where you work sell or barter its goods/services?</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column (47)</td>
<td>Column (48)</td>
<td>Column (49)</td>
<td></td>
</tr>
<tr>
<td>Criteria of Informal Employment</td>
<td>April 2018 LFS (with Informal Employment Rider Questions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Own-account workers and employers employed in their own informal sector enterprises</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Contributing family workers, irrespective of whether they work in formal or informal sector enterprises.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Employees holding informal jobs, whether employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Members of informal producers’ cooperatives.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Own-account workers engaged in the production of goods exclusively for own final use by their household.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment Status</td>
<td>Both Sexes</td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Philippines</td>
<td>40,896</td>
<td>100.0</td>
<td>25,307</td>
</tr>
<tr>
<td>Formal</td>
<td>15,230</td>
<td>37.2</td>
<td>8,438</td>
</tr>
<tr>
<td>Informal</td>
<td>25,667</td>
<td>62.8</td>
<td>16,870</td>
</tr>
<tr>
<td>Wages Employee</td>
<td>26,079</td>
<td>63.8</td>
<td>16,748</td>
</tr>
<tr>
<td>Formal</td>
<td>6,305</td>
<td>15.4</td>
<td>3,407</td>
</tr>
<tr>
<td>Informal</td>
<td>19,774</td>
<td>48.4</td>
<td>13,341</td>
</tr>
<tr>
<td>Worked for Private Establishment</td>
<td>20,559</td>
<td>50.3</td>
<td>14,730</td>
</tr>
<tr>
<td>Formal</td>
<td>4,550</td>
<td>11.1</td>
<td>2,630</td>
</tr>
<tr>
<td>Informal</td>
<td>16,009</td>
<td>39.1</td>
<td>12,100</td>
</tr>
<tr>
<td>Worked for Gov't/Gov't Corporation</td>
<td>3,451</td>
<td>8.4</td>
<td>1,604</td>
</tr>
<tr>
<td>Formal</td>
<td>1,621</td>
<td>4.0</td>
<td>738</td>
</tr>
<tr>
<td>informal</td>
<td>1,831</td>
<td>4.5</td>
<td>866</td>
</tr>
<tr>
<td>Employment Status</td>
<td>Sex</td>
<td>Both Sexes</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>----------------------</td>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Worked for Private Household</td>
<td></td>
<td>1,923</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>117</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,806</td>
<td>4.4</td>
</tr>
<tr>
<td>Worked with pay in family owned Business</td>
<td></td>
<td>146</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>129</td>
<td>0.3</td>
</tr>
<tr>
<td>Self Employed</td>
<td></td>
<td>11,140</td>
<td>27.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7,910</td>
<td>19.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,230</td>
<td>7.9</td>
</tr>
<tr>
<td>Employer</td>
<td></td>
<td>1,517</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,014</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>502</td>
<td>1.2</td>
</tr>
<tr>
<td>Contributing Family Worker (Unpaid) (Inform)</td>
<td></td>
<td>2,160</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Source: Philippine Statistics Authority, April 2018 Labor Force Survey
• Thank You!