Measuring the non-observed economy

Regional Seminar on Developing a Programme for the Implementation of the 2008 SNA and Supporting Statistics in the Pacific region

Apia, August 21, 2013
Outline

- Scope and terminology
- Production boundaries
- Compilation issues
- Non observed economy in the PICs
Terminology: Non observed economy

- Not captured in regular statistical enquiries
- Informal (unincorporated enterprises, low level of organization, with little/no division between labor and capital as factors of production and on a small scale subsistence)
- Concealment of legal activity (tax avoidance)
- Illegal activity (forbidden by law or unauthorized)
SNA and unrecorded economy

The SNA production boundary

- Production of all goods whether produced for the market or for own-use
- Production of services if
  - Sold on the market
  - Supplied to units other than producers
  - Produced by paid labor
- Production of housing services by owner-occupier
Implications of incomplete coverage of GDP

- Biased growth rates
- Misleading information on structure of economy
- Misleading information on the level of GDP
- Biased international comparability
- Distortions in the internal consistency of the national accounts
References: Non observed economy

- See Measuring the Non-observed Economy: A Handbook, OECD
- 2008 SNA, chapter 25
- Delhi Group
Comprehensive coverage

- Covering all economic activities that fall within the production boundary
  - Whether market or non-market
  - For sale or own use
  - Legal or illegal
  - Hidden or not
  - Formal or informal sector
  - Recorded or unrecorded economic activities
Size of informal economy

- $9 trillion in 1999 (The Economist)
- Kiribati (including monetary unrecorded and non monetary-subsistence fishing and agriculture plus owner occupiers): 35%
- Solomon Islands: 28% for 2012
- OECD: 16% on average in 2005
- Significant for agriculture, fishing, construction in the PICS
Separate measurement: Difficulty

Difficult to identify and separately estimate hidden, illegal, and informal activities due to:

- Overlaps between them
- Borderline issues
- Unclear definition and scope
- Lack of data
### Recorded vs. unrecorded economic activities

<table>
<thead>
<tr>
<th>Recorded - covered in statistical collections</th>
<th>Unrecorded - not covered in statistical collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most of the corporate (or formal) sector included in the regular data collections</td>
<td>- Units within the survey scope</td>
</tr>
<tr>
<td>Part of HH unincorporated enterprises (informal sector activity)</td>
<td>- But excluded – outdated frames</td>
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<tr>
<td></td>
<td>- But excluded – non-registration</td>
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<td>- Covered, but misreport</td>
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<td>- Part of unincorporated ent. Not in survey scope</td>
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<tr>
<td></td>
<td>- Part of corporate (formal) units not in survey scope</td>
</tr>
<tr>
<td>Part of illegal – misreport</td>
<td>Most part of illegal economy</td>
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</tbody>
</table>
Strategy for measuring the unrecorded economy

- Be clear on what is to be measured
- Assess the existing national accounts compilation
- Evaluate existing statistical sources
- Analyze the unrecorded economy
- Increase the efficiency of existing data collections
- Develop measurement procedures using
  - available source data, supplemented with ad-hoc collections
  - indirect techniques and adjustments
- Develop new data sources
Inadequacy of data sources

- Incorporating unrecorded activities in GDP involves extensive use of available statistics to obtain INDIRECT INDICATORS.
- Shortcomings in available data:
  - Overlap in coverage
  - Coverage is often partial
  - Classification in various sources may differ
  - Indicators are usually a by-product of regulatory needs
  - Partial information
  - No clear distinction between incorporated and unincorporated enterprises
  - Available irregularly
Under-reporting or mis-reporting

- Fiscal audits (personal and corporate income tax systems and the VAT system)
- Confrontation of detailed data and detailed ratios of income and expenses for similar type of establishments from business surveys
- Demand side data to verify and correct production estimates
- Specific study of under-reporting or mis-reporting
- Expert knowledge
- Suitable methods vary for different kinds of under-reporting and for different activities
Illegal activities

- Direct observation is obviously out of the question
- Indirect sources have to be used
  - Administrative and law enforcement records
  - Data on key inputs
  - Data on major uses
  - Special research/studies
- Part of illegal production may have been included implicitly
  - Enterprises over-reporting legal activities to legalize income from illegal activities
Household production: Two problems in surveys

Problems in identifying production units, developing sample frames, and managing data collection:

- Often a large number of small scale units
- Some activities are widespread and some are concentrated in certain areas
- Often invisible – may take place within the premises of a household
- Often not registered
- Open and close quickly, frequently
- Part-time, seasonal and move from industry to industry
- Often not regulated and supported by government
- Mobile - no fixed working premises
Household production: Two problems in surveys

- Measurement problems:
  - Often no formal bookkeeping is kept
  - Production for own use - appropriate market prices might not be available
  - Use of own material, labor and capital - difficult to calculate cost of production
  - Expenditure for production is often indistinguishable from Household consumption expenditure
  - Many capital goods may be used indistinguishably for business and Household consumption purposes
  - Seasonal character of many activities
Production: Labor input-based method

Uses data on labor force obtained from:
- Business surveys and administrative sources
- Household labor force surveys

Both sources should provide comparable data, or should provide information to convert to a standard labor unit
- Hours worked, or
- Full time equivalent
Production: Labor input-based method

- Determination of the labor participation not covered in business surveys

- The assumption is that the regular household survey give a comprehensive estimate of labor participation benchmarked to census data
Production: Labor input-based method

- Determination of output/value added per labor unit
  - Analyze the characteristics of units excluded from the business surveys
  - Derive output/value added per labor unit on the basis of ad-hoc studies
  - If not feasible, use information that is closely related to unrecorded activities
  - Determine ratios at a detailed level
Household Income Expenditure Survey

Compilation methods

• Direct observation methods
  ✰ Enables periodic benchmarking
  ✰ Confrontation of income and expenditure data
  ✰ Standardized SPC questionnaires in the PICs
  ✰ 12 months and diary
Non observed economy in the PICs

- Subsistence covered in most (all?) PICs
- HIES extrapolated using various indicators
- FAO agriculture censuses (Vanuatu)
- Adjustments for illegal activities or under/mis-reporting: started in Fiji, Solomon Islands
- Commodity flow approach can help identifying inconsistencies