



Informal sector activity – Methods and Estimation Techniques

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Outline of presentation

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- Direct methods
- Indirect methods
- Which method should be used?
- References
- Questions



Direct methods

- Are microeconomic in nature
- Involve the use of sampling surveys to collect data such as output, intermediate consumption, compensation, etc. to measure the informal sector and informal employment
- Unit of observation includes the enterprise, the establishment, the individual or the household
- Examples
 - Labour force/household surveys
 - Household and income expenditure surveys
 - Establishment surveys
 - Mixed household-enterprise surveys



Labour force/household surveys

- Additional questions can be added to existing labour force/household surveys to obtain information such as
 - Production
 - Informal sector employment
- Additional costs are low
- One issue is that employees, contributing family workers and proxy respondents may have limited knowledge of the operations of the enterprises and may not be able to respond to the questions



Household income and expenditure surveys

- Can be used to collect information on demand by households for goods and services produced in the informal sector
- For each expenditure group, data may be collected by point of purchase
- Cannot provide information on total demand for informal sector output



Establishment surveys

- Require the availability of a sampling frame of informal sector enterprises or establishments
- Thus, these surveys can only be conducted following a census of informal sector units or general economic/establishment census
- Tend to be costly
- Can easily omit production units without a fixed location or recognizable business premises
- Double-counting may occur if data collection for different types of economic activity are undertaken at different times
- Are, nevertheless, useful for collecting information on identifiable establishments



Mixed household-establishment surveys

- Are the most suitable approach when the aim is to collect comprehensive data about the informal sector as a whole and about the various segments of which it is composed
- Can cover all informal sector entrepreneurs (except homeless persons) and their activities
- Are usually conducted in two phases



Mixed household-establishment surveys

- First phase (the household survey component)
 - A sampling frame for informal sector enterprises or, more generally, small enterprises is obtained through a household listing or survey in the selected sample areas (primary sampling units)
 - All enterprises falling within the scope of the survey and their owners are identified
- Second phase (the enterprise survey component)
 - A sample (or all) of the enterprise owners are interviewed to obtain detailed information about them, their enterprises, and their employees (if any)
 - The informal sector enterprises can be more precisely identified during this stage



Mixed household-establishment surveys

- There is a need to ensure sample adequately reflects the geographical distribution of economic activities of household production
- It is necessary to consider how enterprises with production units in more than one location are handled
- There is a need to ensure how duplication of coverage for enterprises that are operated under partnerships may be avoided if the same enterprise is reported by each of its partners who may belong to different households



Indirect methods

- Are macroeconomic in nature
- Combine various economic variables and a set of assumptions for producing estimates of total economic activity
- Can be used where basic data are insufficient
- Are used to derive measures of informal sector activity on the basis of indicator series or estimates from other parts of the accounts



Indirect methods

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- General indirect methods that can be used to include the informal sector in production-based GDP estimates include
 - Supply based methods
 - Labour input methods
 - Demand based methods
 - Income based methods
 - Product flow methods



Supply based methods

- Are based on inputs that are used in producing goods and services
- Inputs may include a number of primary raw materials, just one major raw material, labour, fixed capital stock, etc.
- Input/output and input/value added ratios are used to calculate output and value added estimates from input data
- Ratios should preferably be obtained through ad-hoc surveys for current period
- If past ratios are used, compute volume measures first and reflate to obtain nominal measures
- Examples: Agriculture, construction



Labour input methods

- Most significant supply based procedure
- Involve three basic steps
 - Obtain estimates of the supply of labour input to GDP, for selected economic activity and size of enterprise, from a household labour force survey and/or other demographic sources
 - Obtain estimates of output per unit of labour input and value added per unit of labour input for the same activity and size breakdown from regular or special purpose enterprise survey
 - Multiply the labour input estimates by the per unit ratios to get output and value added for the activity and size categories



Labour input methods

- Elements
 - Collect household data – labour force survey, demographic and administrative data (supply)
 - Collect enterprise data – surveys and administrative data (use)
 - Standardize the household and enterprise data
 - Compare supply-use of labour inputs
 - Identify labour missing from use side
 - Estimate output and gross value added per unit of labour input ratios
 - Estimate contribution to GDP as product of labour input and ratios



Demand based methods

- Estimate production (output) using indicator data on specific uses of goods and services from
 - Household final consumption expenditures of a certain product (e.g. transport services)
 - Uses of major products as raw materials (e.g. processing of agricultural products)
 - Exports (e.g. major export commodities)
 - Administrative data indicating demand for a product (e.g. motor vehicle registrations and building permits)
- Derive value added estimates using output/value added ratios, as for supply-based methods
- Work best when a product has one major use



Income based methods

- Some categories of income are available from administrative sources and can be used to obtain an indication of production covered by the administrative system
- These could be
 - Income tax paid by self-employed persons
 - Social security contributions paid by self-employed persons



Product flow method

- Involves balancing total supplies and uses of individual products
- It is used to estimate the output or an expenditure element by balancing the supply and use of that product, based on the following equation
 - $\text{Output} = \text{sum of all intermediate consumption, final consumption, changes (positive or negative) in inventories, gross fixed capital formation and exports minus imports}$



Product flow method

- Is effective if product is primarily used for one or a limited number of uses and if accurate data on these uses are available
- Example of use
 - Estimation of retail trade output



Which method should be used?

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- Which method to use depends on the circumstances in a country
- Indirect methods can be used if basic data and surveys are insufficient
- Which direct method to use depends on the measurement objectives
- A labour or household survey can be used for monitoring evolution of informal sector employment
- A household income and expenditure can be used to collect information on household demand for goods and services produced by informal sector
- An informal sector survey can be used to collect detailed structural information on the informal sector



Challenges

- Developing countries typically lack estimates on size, characteristics and contribution of the informal sector to GDP
- One main reasons for the lack of estimates is the limited resources of national statistical systems which do not allow for integrating regular data collection on the informal sector
- Typically, a fragmented approach is used comprising different methods, questionnaires and reference periods in conducting ad hoc industry surveys of informal sector enterprises



Challenges

- To get reliable and sustainable estimates of the informal sector, national statistical offices should prioritize their strategic objectives
- One – Consult main users of the statistics to ensure that the data to be produced are relevant to the needs and priorities identified at national and international levels and build support for developing statistical programmes
- Two – Establish the approach for collecting data and defining the main indicators to be estimated



References

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- 2008 SNA
- Measuring informality: A statistical manual on the informal sector and informal employment
(http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_222979.pdf)
- Handbook on Measuring the Non-Observed Economy
(<http://www.oecd.org/std/na/1963116.pdf>)



Questions

- How concerned are stakeholders about the statistical measurement of the informal economy in your economy?
- Is a strategy developed in the statistical office to start informal sector estimations or to improve them?
- Does the statistical office have a multi-year plan and what is the informal sector's place in this plan?



Thank you