

**Module One: Review and Assessment of Economic Census
Tools**



**Session 1.3: Fundamental Principles of Questionnaire
Design – Economic Census / Surveys**

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Support 2008 SNA Implementation
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Contents

- Questionnaire Design – General Principles
- Developing Questions and kind of Response
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- Economic Surveys
- Questionnaire Design – Issues specific to Economic Surveys
- Measuring Output and Compensation of Employees

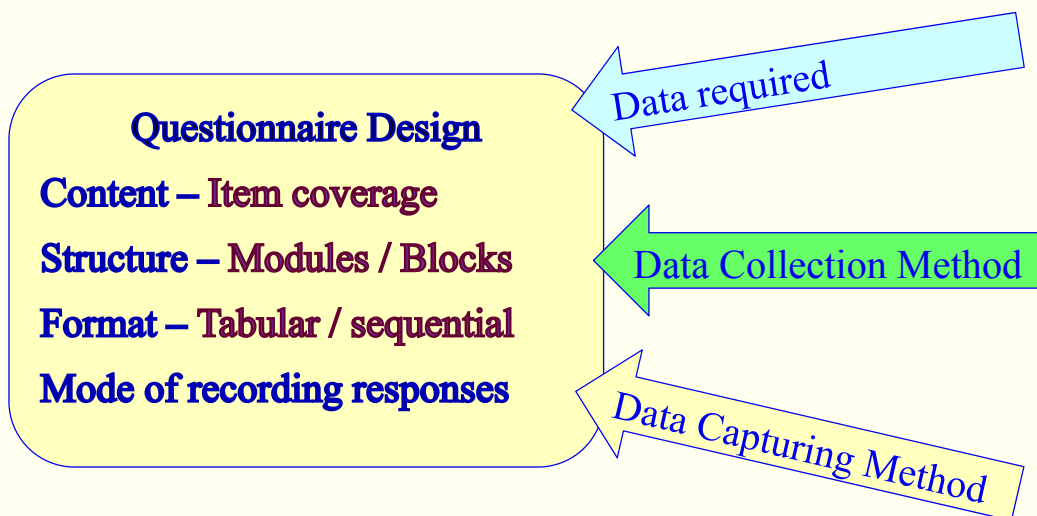
Questionnaire Design

– General Principles

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Questionnaire Design

Three Determinants



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Questionnaire Design

Data required to be collected

Objective of the survey determines the indicators to be estimated

- **Data required** to be collected and compiled
- **Questions** to be included in the Questionnaire
- Desirable: **Tabulation plan** at an early stage of planning

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Questionnaire Design

Data Collection Method

The design of the questionnaire depends on who fills the data and how are they filled – whether

- filled in by a trained enumerator;
- completed by the respondent without any help;
- others using results of measurements and observations.

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Questionnaire Design

Data Capturing and Processing Method

The design of the questionnaire depends on

- methods of data capture and
- data processing requirements, such as
 - Edit (range and filter checks) at data entry stage
 - Bivariate and balance edits (consistency checks) at post-data capture stage
 - How are the edit failures dealt with?
 - Re-organizing the captured data into micro-data, i.e.
 - grouping of related variables
 - putting related variables in a records of different formats
 - organising records of same formats into files / tables.

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Developing Questions and Kinds of Response

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Developing Questions

Survey Questions

- **Question:** a data item of a questionnaire that requires a response.
- **Data Item:** one question or one series of questions
- **First step:** preparing a list of all the items of questions.
 - from the survey objective – the list of tables to be generated.
- A **general rule:** separate question(s) to obtain information on each data item.
- **Conversion** of theoretical concepts and definitions to operational definitions, understandable for respondents
 - Compromise between theory and practice
 - International standards and best practices

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Developing Questions

Types of Questions by Purpose

- **Identification** of the target unit of the survey
 - Name, address, etc. of every person or object for which data are collected.
 - Sampling particulars: such as first-stage & subsequent-stage stratum, order of selection – stage-wise, etc.
 - These are used as ‘keys’ or ID particulars during data processing.
- For some **background** information
 - Used for classifying the target units
- Key questions to accomplish the **basic purpose** of the survey.

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Two Questions

Can you give examples of data items used for background information?

Give examples of questions serving the basic purpose of carrying out an establishment survey?

Developing Questions

Questions on Subject of Investigation

- Questions about **facts**.
 - “How many people live in your households ?”,
- Questions concerning **people's opinions or attitudes**
 - e.g. “What do you think about ?”;
- Questions about **people's motivation** why they do somethings.
 - e.g. “Why do you smoke cigarettes ?”.
- In Economic Census/ Surveys, the questionnaire consists questions about **facts**.

Developing Questions

Problems of Response

- Even factual questions have problems
 - **Response errors:** owing to ignorance, recall lapse or deliberate misreporting.
- To reduce possibilities of such errors, provision is kept
 - for checking consistency – inclusion of redundancies
 - indirect questions.

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Developing Questions

Type of Questions by Response type

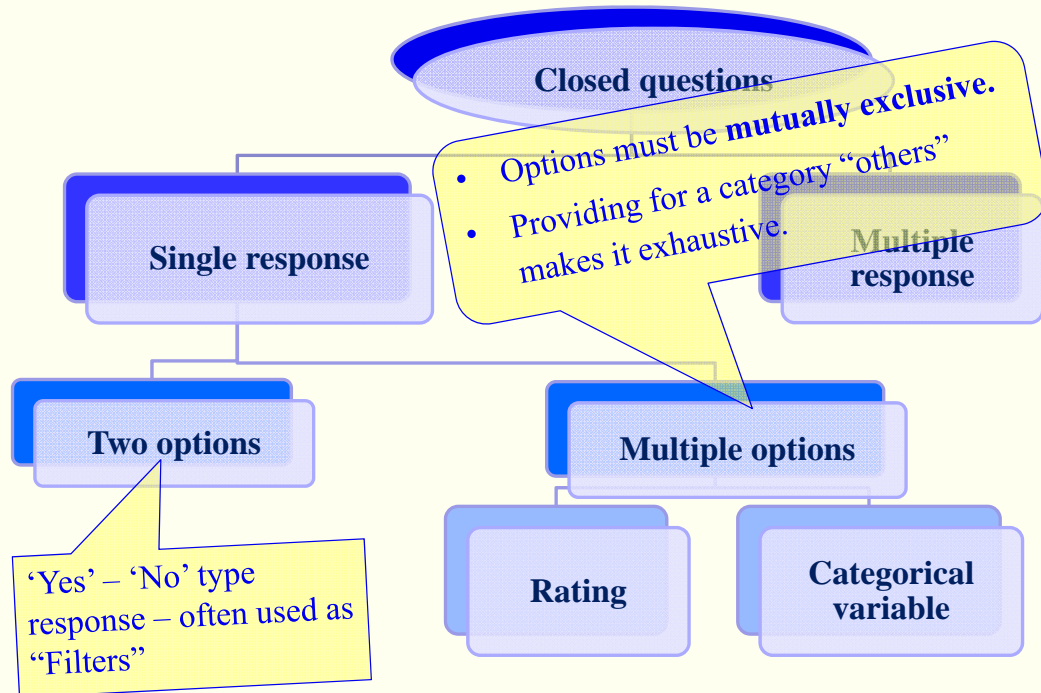
Closed and Open Questions:

- **Closed (Pre-coded) questions:** admits one (or more) pre-specified response(s).
 - The possible responses listed with the question are called response categories.
 - restricts the responses.
- **Open (Open-ended) questions** are answered **in the respondent's own words**.

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Developing Questions

Closed Questions by Response Categories



Developing Questions

Matter of Wording

Question should preferably be

- short, neutral and unambiguous questions
- only one issue per question
- clear definitions and NOT jargon
- using filter questions where needed.
- in a logical order – a logic making sense to the respondent.
- having provision of answering “Don’t know”, “Not applicable”, etc.
- having option for ‘Other’, or “Other, please specify: ____”
- having as many multiple choices as there are logical answers. Avoid combining choices.

Developing Questions

Matter of Wording (Contd.)

- Questions should preferably be grouped into sets having a common multiple choice options.
- The following should be strictly avoided
 - ambiguous questions - Questions with vague words
 - presuming questions
 - influencing the answers by asking leading questions or providing choices purposefully
 - asking about events of the distance past – difficult to recall.

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Developing Questions



An Exercise – for Roundtable

Discuss and summarize advantages and disadvantages of Closed and Open Questions

- with examples of each type
- and advantages/disadvantages for whom – respondent, interviewer and survey designers?

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Structure of Questionnaire

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Questionnaire Structure

Designing Questionnaire

Involves three main considerations

- Format of questionnaire
- Instructions
- Processing consideration

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Questionnaire Structure

Format of Questionnaire

Format consists of two main elements

- Sequence of questions
- Layout

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Questionnaire Structure

Sequence of Questions

Each topic, item and question should be arranged in proper order, with attention to the logical and natural flow of thought involved in answering the questions.

The order of questions should

- be designed to encourage respondents to complete the questionnaire and maintain their interest in it.
- should also facilitate respondents' recall and appear sensible to respondents.
- reflect what is logical to respondents and at the same time focus on the topic of the survey.
- flow smoothly from one question to the next.
- grouped together by subject.

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Questionnaire Structure

Layout

- Survey Questionnaires are usually divided into sections or Modules or Blocks (tabular format).
- Generally they consist of a number of blocks or modules, viz.
 - The first is usually an Introductory or Identification Block
 - Followed by a number of modules – each containing related sets of items grouped by topics.
 - The grouping is done considering
 - the ease of conducting the interviews
 - data file structures at the processing stage.

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Economic Surveys

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Economic Surveys

Commonly Published Statistics

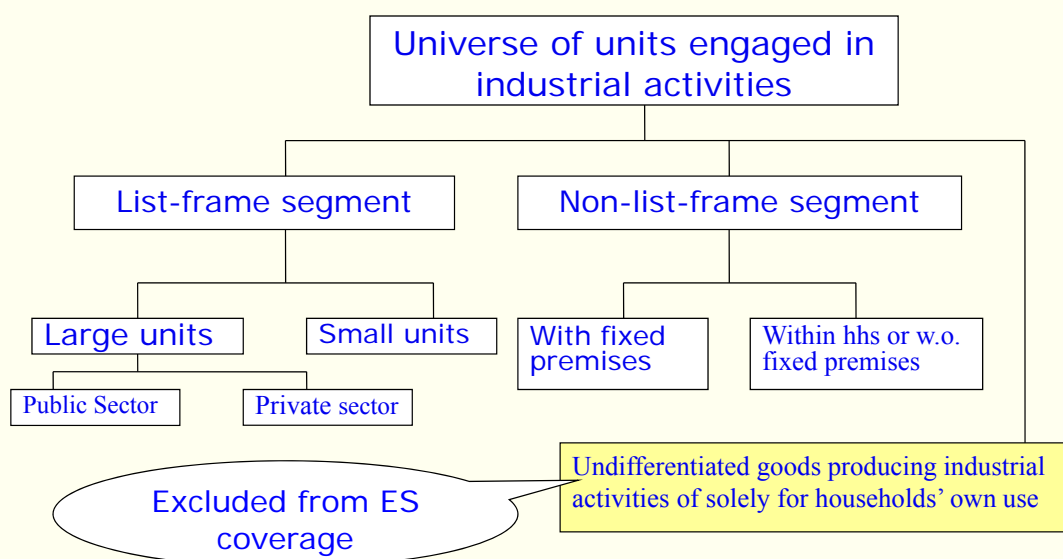
Both in List-frame based and area-frame based Enterprise Surveys the commonly published statistics are:

- **General industrial statistics:** number of establishments, 3 and 4-digit ISIC, ownership, etc.
- **Employment related statistics:** no. of workers by gender, wages and salaries,
- **Production related transactions:** output, cost of raw materials and other inputs, value added, gross fixed capital formation.
- **Stock of economic assets**

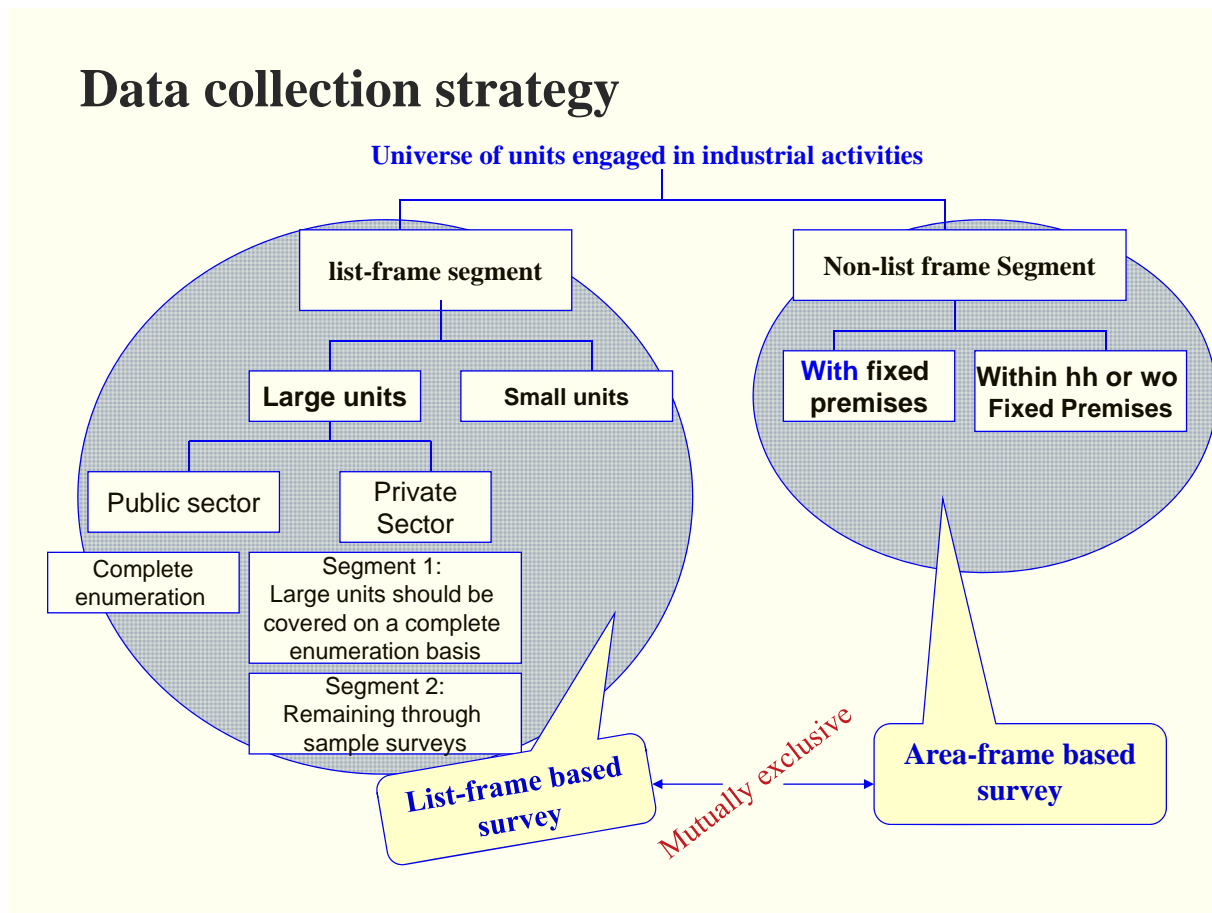
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Economic Surveys

Categorisation for data collection



Data collection strategy



Economic Surveys

List-frame based Economic Surveys

Economic Surveys conducted with comprehensive list of establishments (sometimes enterprises) as a frame.

- The list used for this purpose ought to be regularly updated using data from administrative sources.
- Coverage is usually defined by Acts and Laws of the government.
- Mostly these units have formal books of accounts
- thus the questionnaire is framed in a way that the data required for the survey can be culled out from the books of account.

Economic Surveys

Economic Census and Follow-up Surveys

- Economic Census consists of a country-wide complete enumeration of all units carrying out economic activities (other than cultivation and plantation), followed by
- Detailed sample surveys of unorganised segments of the non-agricultural economy, in phased manner covering activities of
 - Manufacturing
 - Trade, hotel & restaurants
 - Transport, storage, warehousing and other services

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Economic Surveys

Coverage of Economic Census

All establishments engaged in economic activities except:

- Crop production & plantation
- Public administration
- Defence & compulsory social security
- Goods & services for sole purpose of own consumption

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Economic Surveys

Coverage of Economic Surveys

- All establishments principally engaged in the economic activities
- These cover unorganised sector establishments:
 - Units of *all sizes* (with and without fixed locations) and
 - Units of all types of ownership including the govt. and household units
 - Household unincorporated enterprises for market production and NPISHs for non-market production.
- Households engaged in economic activities solely for own consumption are not covered.

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Questionnaire Design – Issues specific to Economic Surveys

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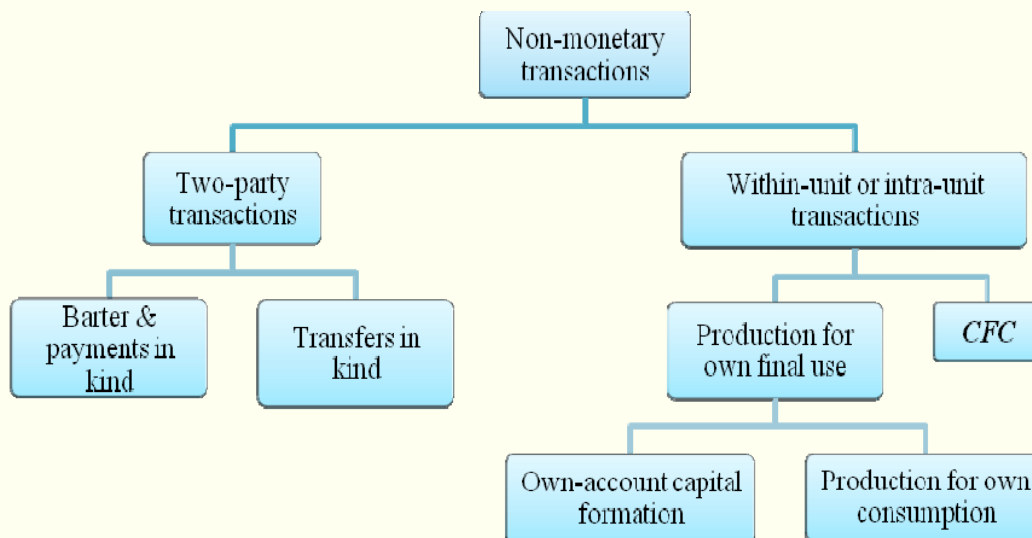
Scope of SNA

One of the main uses of results of Economic Surveys is for compilation of the national accounts.

- The scope of the SNA is NOT limited to only monetary transactions.
- Transactions (as recognized in the SNA) which do not involve any money flow are **non-monetary transactions**.
- For national accounts, the non-monetary transactions are required to be derived – either at micro level, i.e. unit-level, or at macro-level.

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Non-Monetary Transactions



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Questionnaire Design for Economic Surveys

Data items for non-monetary transactions

- Most of the transactions are monetary transactions
[i.e. involving at least one of the parties paying money or other financial asset, either with counterpart (exchange) or without counterpart (transfers).]
- Value of all monetary transactions are observable.
- Unlike the monetary transactions, value of non-monetary transactions are not observable.
- In the Economic surveys, it is necessary to make provision for recording the data that are required for deriving value of non-monetary transactions at the unit level.

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Some Questions – Non-Monetary Transactions



State whether TRUE or FALSE.

1. All *monetary* transactions involve two parties. **Q 1. TRUE**
2. CFC is a non-monetary transaction. **Q 2. TRUE**
3. Value of original sound track prepared by a music company can not be derived from data collected from it. **Q 3. FALSE**
4. Social transfer in kind (Government to households) is a non-monetary transaction. **Q 4. TRUE**
5. The entire amount of premium paid for non-life insurance is the value of insurance service consumed by the policy holder. **Q 5. FALSE**
6. The value of FISIM consumed by an enterprise can not be determined from its books of account. **Q 6. TRUE**

Measuring Output and Compensation of Employees

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Ⓢ Measuring Output

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Kinds of Output – their measures

Market Output

Non-Market
Output

Measured as

- volume X market price
- or outflow of output
- or by input cost

Measured as the sum of
IC, CE, CFC and other
(*t-s*) on production

Measured as the sum of
IC, CE, CFC and other
(*t-s*) on production +
Net return to fixed
capital

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Measuring Output

Valuation – according to disposal

- Note that for obtaining the **GDP** (at market prices) the industry-wise **GVA**s, if primarily estimated at *basic price*, have to be converted to *market price*.
- The prices to be applied for valuation of output at *market prices* depends on the mode of disposal

Sales – are valued at *producer price* (+ product taxes paid directly by the consumers if any)

Change in inventory:

for finished product - always at *basic price*

for purchased raw materials – always at purchaser's price

Own final use - always at *basic price*

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Measuring Output

Valuation – according to disposal

For example, if a farmer produces rice and

- sells 100 kgs in the market at 110 per kg;
of which, 10 per kg is product tax
- retains 50 kg for consumption of its household; and
- stores 15 kg for use as seeds the next year.

The farmer had 10 kg of rice from the previous year that he used as seeds for current year production.

What is the value of the farmers' output at market prices?

Yes, you are right.

The gross value of output of the farmer is 16,500

= 11000 [=100*110 for the rice sold]

+ 5000 [=50*100 for rice retained for self-consumption]

+ 500 [= 5*100 for the CII].

Measuring Output

Output of selected industries

We will now see how the output of some of the special industries like

trading

Music Company

Insurance services and

NPISHs

are defined.

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Measuring Output

Output of Trading

The output of trading activities is *trade margin* defined as:

$$GVO = \text{Sale} - \text{cost of goods sold}$$

Cost of goods sold = Purchases of goods for resale

+ opening stock of goods for resale

- closing stock of goods for resale

Thus, $GVO = \text{Sale} + \text{closing stock} - \text{opening stock} - \text{purchases of goods for resale}$.

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Measuring Output



Output of Trading – an example

For example consider a retail store that recorded the following transactions in 2006:

Sale	= 50,000	
Purchases of goods for sale	= 30,000	
Opening stock	= 4,000	Closing stock = 5,000
Utilities	= 200	
Expenditure on supplies	= 500	
Other service charges paid	= 50	

What is the $GVO =$
 $GVA =$

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Measuring Output

Output of Music Recording and Sale of CDs

The output of music recording is used as produced asset by the company for making copies in CDs for sale.

$GVO = GVO$ of CDs + GVO of original sound track

GVO of original sound track =

Cost of recording original sound track =

- Purchases of goods & services
- + Compensation of employees
- + other production (t-s)
- + CFC [how?]
- + net return to fixed capital

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Measuring Output



Output of Music Recording and Sale of CDs

The following are the values of transactions in 2006:

Sale of CDs	= 3,50,000	
Purchases of blank CDs	= 30,000	
CE of those engaged in recording	= 15,000	
Fees paid to musicians and singers	= 1,00,000	
(Current) Value of sound recording instruments, etc.	= 200,000	
CFC on sound recording instruments, etc.	= 20,000	[How?]
Net return to fixed capital	= 10,000	[How?]
Utilities & service charges for sound recording	= 200	
Annual license fee paid for sound recording	= 50	
<i>What is the</i>	<i>GVO of sound recording</i>	<i>=</i>
	<i>GVO of CDs</i>	<i>=</i>
	<i>Total GVO</i>	<i>=</i>

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Measuring Output

Output - Non-life Insurance

- In non-life insurance only the risk is covered. Thus, when the event occurs for which insurance has been made, the policy holder makes his/ her claim.
- Thus for Non life or term insurance

GVO =

Actual premiums earned
plus premium supplements
minus 'adjusted' claims incurred

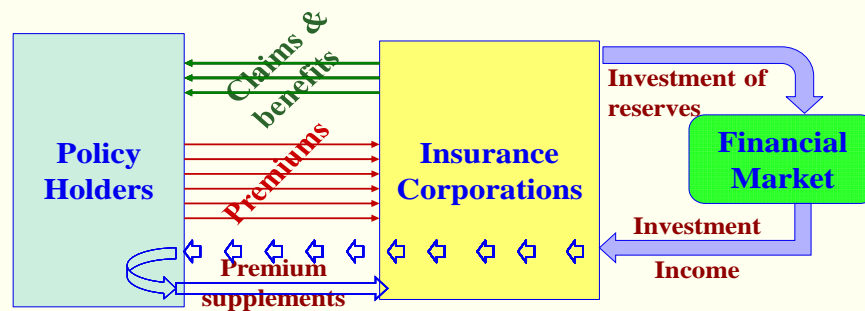
No adjustment of premium supplements made.

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Measuring Output

Output of Non-Life Insurance Service

Insurance – transactions involved



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Measuring Output

Insurance Services - important terms

Some important terms:

- **Investment income:** all income from the investment of reserves (usually financial assets). These are income attributed to policyholders.
- **Premium supplement:** The investment income attributed to policyholders as their primary income \equiv Repaid to the insurance corporation as premium supplements.

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Measuring Output

Output of NPISHs

The output of a school run by a NGO charging a nominal amount as fees from the students is

GVO of school =

Cost of running the school=

- + Purchases of goods & services
- + Compensation of employees
- + other production (t-s)
- + CFC [how?]

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Measuring Output



Output of a Free School run by an NPISH

The following are the values of transactions in 2006:

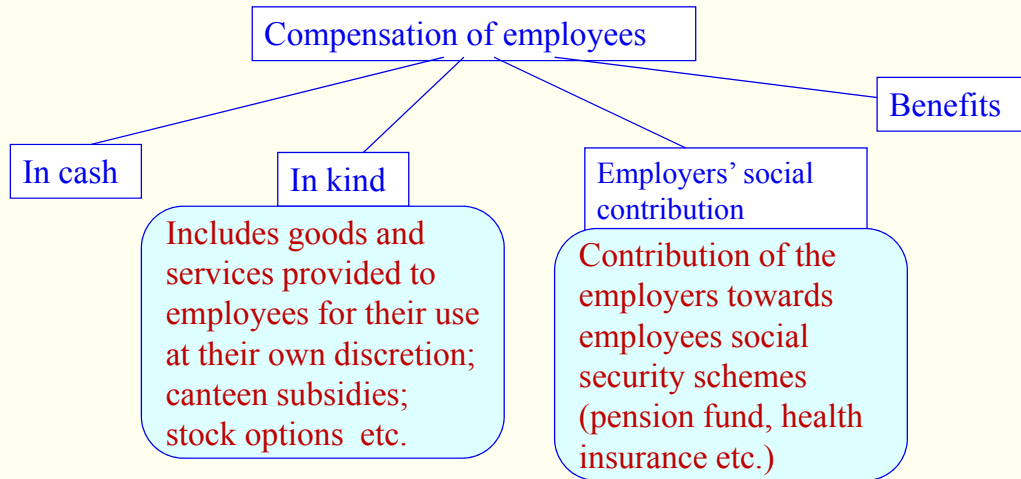
Fees earned	= 350	
Purchases of stationery etc.	= 3000	
CE of teaching and non-teaching staff	= 35,000	
(Current) Value of fixed assets	= 300,000	
CFC on fixed assets	= 30,000	[How?]
Utilities	= 500	
Municipality annual tax on buildings	= 50	

What is the **GVO** of the school =

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Measuring *CE*

CE in Cash and Kind



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Measuring *IC*

Rerouting Employers' Social Contribution



In the SNA, it is treated as a part of the *CE* payable to the employees, who in turn makes contribution to the social security agency.

Employers' social contribution for the benefit of the employees is made directly to the social security agency.

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Thanks