Lecture 1.
Introduction, Circular flow, Classification, Data review
Resources of the country

- Human (people)
- Financial (currency, bank deposit, bonds, corporate equity, etc.)
- Natural (land, forest, water, biota, air, space, etc.)
- Produced (building, machinery, goods, technology, etc.)
Integrated framework

Human
• provides labor as means of production
• reproduce itself
• manage resources

Natural
• use as means and input to production
• reproduce itself
• absorb waste

Produced
• means of production
• input to production

Financial
• means of exchange
• produced with transactions
Types of variable

- **Stock** - measures at a certain *point in time*

- **Flow** - measure of variables during a *period of time*
Stocks

• Value of assets at a **POINT IN TIME**
  – Non Financial and Financial Assets
  – Financial liabilities
  – Net worth

• Recorded at the beginning and end of reference period
Economic flows

Flows that results in change of:

• Value
• Volume
• Compositions
• Ownership of economic assets
Types of economic flows

- Goods & services
- Distributive (income)
- Financial (financial instruments)
- Other accumulation entries
Types of economic flows

Economic flows
- Goods & services
- Distributive
- Financial
- Other accumulation entries

Level measured
- NATIONAL
- NATIONAL, INSTITUTIONAL
Economic flows & account

Economic flows
- Goods & services
- Distributive (income)
- Financial
- Other accumulation entries

Accounts
- Supply & use tables
- Income & use of income account
- Financial account
- Other value change
Circular Flow of:
1. goods and services,
2. economic assets
3. income

within the economy
Flow of:
1. goods and services,
2. economic assets,
3. income

between economy and rest of the world (ROW)
Flows of regional factors income

Factors of Production

Producers

Outside territory/ROW

Compensation

Transfer

Factors of Production

Compensation

Consumers

Factors of Production

Compensation

Compensation
What is GDP/GRDP?
Three approaches of GDP/GRDP:

- Production approach
- Income approach
- Expenditure approach
Gross Domestic Product

• Measured from the **production** of goods and services
• Measured from the **expenditure** on these goods and services
• Measured from the **income generated** from production of goods and services
Gross Domestic Product

- **GDP by production**
  - Measured from producers

- **GDP by expenditure**
  - Measured from users

- **GDP by income generation**
  - Measured from producers
How the GDP is measured?

- **GDP by production** is measured by type of industry or type of economic activity.
- **GDP by expenditure** is measured by what the goods are used for in final demand, that is whether for consumption, capital formation or export.
- **GDP by income** is measured by the payment of producers to the different resources used in production including payment to government.
Production approach

Value of products produced in a domestic territory within a certain period of time, or value of production/output less intermediate cost/input, or commonly known as: “Gross Value Added (GVA)”
Production approach … (2)

\[ \text{GDP (GRDP)} = \sum \text{GVA}_i \]

i = Industries
Income approach

Value of total income (compensation) received by production factors which is owned or possessed by residents of territory within a certain period of time.
Due to data limitations, GDP/GRDP compilation using this method is not available for both annual or quarterly basis.
Expenditures approach

“final” expenditures on various goods and services bound for final consumption (households, NPISH, and government), physical investment (GFCF & changes in inventory), and net export (X-M) in a certain territory within a certain period of time.
Expenditures approach … (2)

- GDP by expenditure is widely utilise in analysis of macro economic, which is symbolize in keynessian identity:

\[ Y = C + G + I + (X - M) \]

- **Y** = GDP
- **C** = households consumption
- **G** = government consumption
- **I** = Investation
- **X** = Exports of goods and services
- **M** = Imports of goods and services
## Classification

<table>
<thead>
<tr>
<th>By Type</th>
<th>Standard classification</th>
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</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
<td>Central Products Classification (CPC)</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>International Standard Industrial Classification of all Economic Activities (ISIC)</td>
</tr>
<tr>
<td><strong>Government consumption</strong></td>
<td>Classification of the functions of government (COFOG)</td>
</tr>
<tr>
<td><strong>Household consumption</strong></td>
<td>Classification of individual consumption according to purpose (COICOP)</td>
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<tr>
<td><strong>Nonprofit institution serving household (NPISH)</strong></td>
<td>Classification of the purposes of nonprofit institutions serving households (COPNI)</td>
</tr>
<tr>
<td><strong>Gross fixed capital formation (GFCF)</strong></td>
<td>Classification of the outlays of producers according to purpose (COPP)</td>
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<tr>
<td><strong>Exports and Imports</strong></td>
<td>Standard Industrial Trade Classification (SITC), Harmonized Commodity Description and Coding System (HS)</td>
</tr>
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Thank you