

Compilation of GDP

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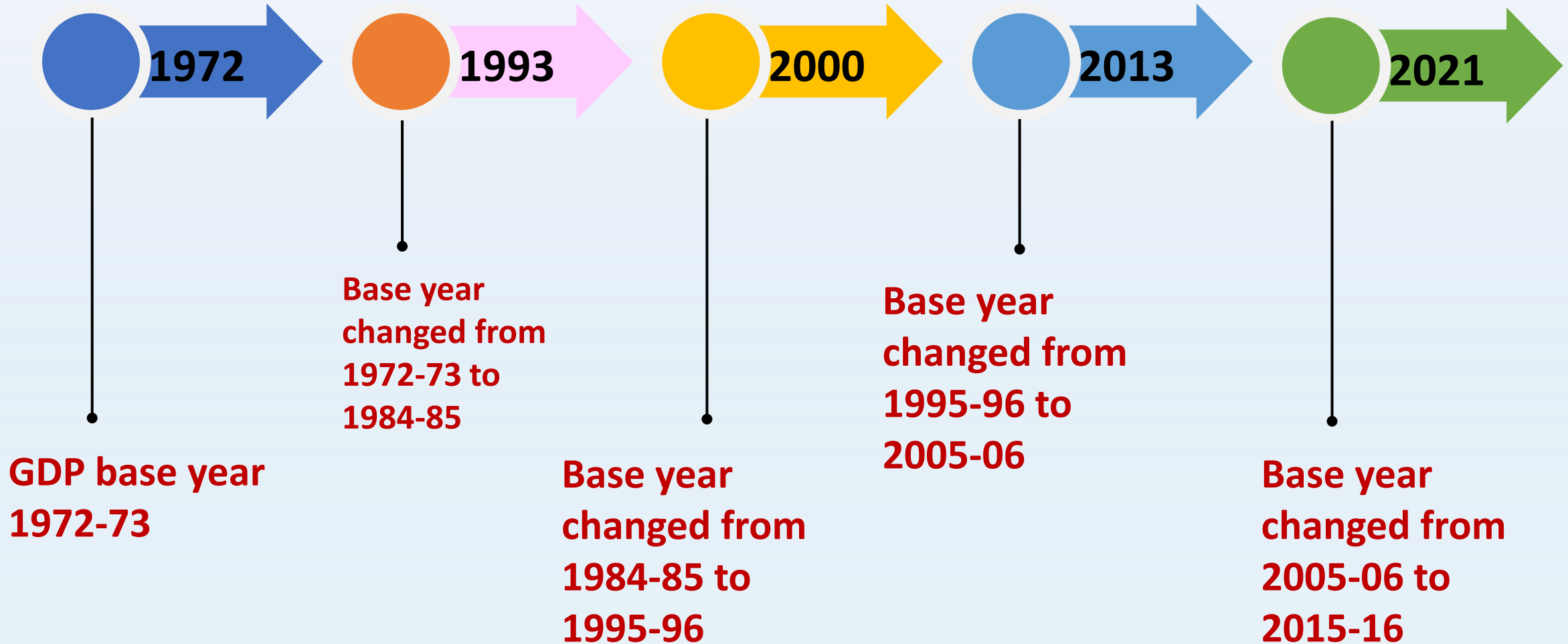
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Background

- National Accounts is one of the core activities of the Bangladesh Bureau of Statistics (BBS) and the BBS has been engaged in national accounts compilation and publication ever since 1972.
- National Accounting Wing of the BBS compile and publishes other macroeconomic indicators related to national income including Gross Domestic Product (GDP), per capita income, consumption, investment, savings.

Milestones in Bangladesh GDP Estimation



System of National Accounts

- SNA provides a framework for systematic presentation of estimates of macroeconomic aggregates relating to national income and wealth.
- National accounts consist of a systematic presentation of estimated money value of these and other such macroeconomic aggregates relating to national income and wealth.
- Prepared and recommended by UNSD of the United Nations (jointly recommended by UNSD, IMF, WB, OECD and EUROSTAT)
 - SNA 1953
 - SNA 1968
 - SNA 1993
 - SNA 2008

Compilation of National Accounts by BBS

- The national accounts of Bangladesh are compiled by the national accounting wing of the BBS.
- The estimates are based on the concept, definition, classification and methodology of the best practice document “2008 System of National Accounts” (2008SNA) .
- Compilation of national accounts of Bangladesh by
 - Production approach
 - Expenditure approach.
- GDP estimates are compiled at current and constant prices to facilitate economic analysis in real terms.

Gross Domestic Product (GDP)

- Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.
- Gross domestic product (GDP) is the value of all goods and services produced in a specific period of time (one year) minus the goods and services consumed in the production process during that period within the territory of a country.
- GDP is the most important aggregate derived from the production account. GDP reflects the aggregate production of an economy.
- It helps to measure the level of economic development and the rate of economic growth, the change in consumption, saving and investment of the total economy.

Gross National Income (GNI)

- GNI is equal to GDP less primary incomes payable to non-resident units plus primary incomes receivable from non-resident units.
- $GNI = GDP + \text{net factor income from abroad}$
- Net factor income = receipts of current income by residents abroad
 - disbursements of current income to non-residents in Bangladesh
- In contrast to GDP, GNI is not a concept of value added, but a concept of income.
- Per capita Income (GNI) (in Tk.) =
$$\frac{GNI}{\text{Mid year population}}$$
- Per capita Income (US\$) =
$$\frac{\text{Per capita income (Tk.)}}{\text{Exchange rate}}$$

Methods of estimates

GDP can be measured by three approaches namely Production, Expenditure and Income approach. Formula used in compiling GDP are as follows:

1. Production approach

- $\text{Output} - \text{Input} = \text{Value Added}$

2. Expenditure approach

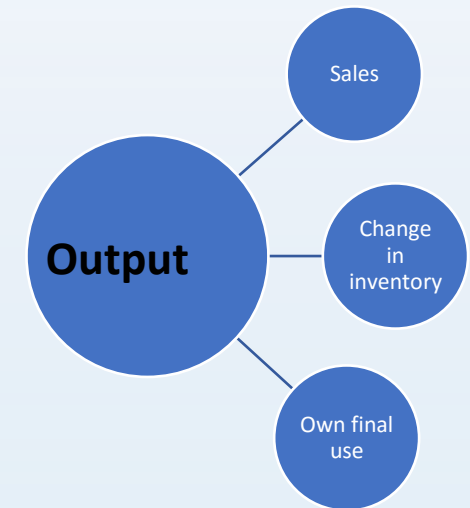
- $\text{Consumption} + \text{Gross capital Formation} + \text{Exports} - \text{Imports}$

3. Income approach

- $\text{Compensation of employees} + \text{consumption of fixed capital} + \text{Taxes less subsidies on products} + \text{Operating surplus.}$

Gross Output

- **Market Output**
 - Market output consists of output intended for sale at economically significant prices.
- **Output produced for own final use**
 - Output for own final use consists of products retained by the producer for his own use as final consumption or capital formation.
- **Non-market output**
 - Non-market output consists of goods and individual (education, health, etc.) or collective services (law & order, defence, public administration, etc.) produced by NPISHs or government that are supplied **free**, or **at prices that are not economically significant**, to other institutional units or the community as a whole.
 - Output measured as total cost of production



Intermediate consumption

- Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital.
- Intermediate consumption:
 - Seeds, fertilizers, raw materials, fuel, electricity, water charges, chemicals, packing material, transport charges, accounting/business services,
 - food material in restaurants, wrapper in retail trade, insurance services charge, etc.
 - Office rent, Electricity bill, Fuel, Telephone bill, uniforms etc.
 - Travel and hotel services while on business, medical facilities etc
 - “Small” or regular Maintenance and repairs are intermediate consumption
 - Large or such as to extend an asset’s life or improve its performance are capital formation

Estimation of GDP from GVA

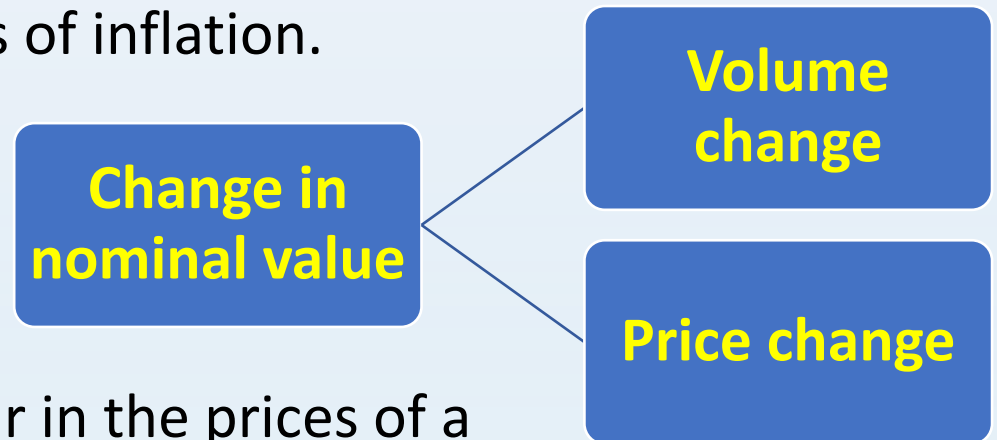
- **Gross Value Added = Output – Intermediate Consumption**
- **GDP at market price from GVA**

$$\text{GDP} = \sum \text{GVA at producers' prices} + \text{taxes} - \text{subsidies}$$

Current and constant price

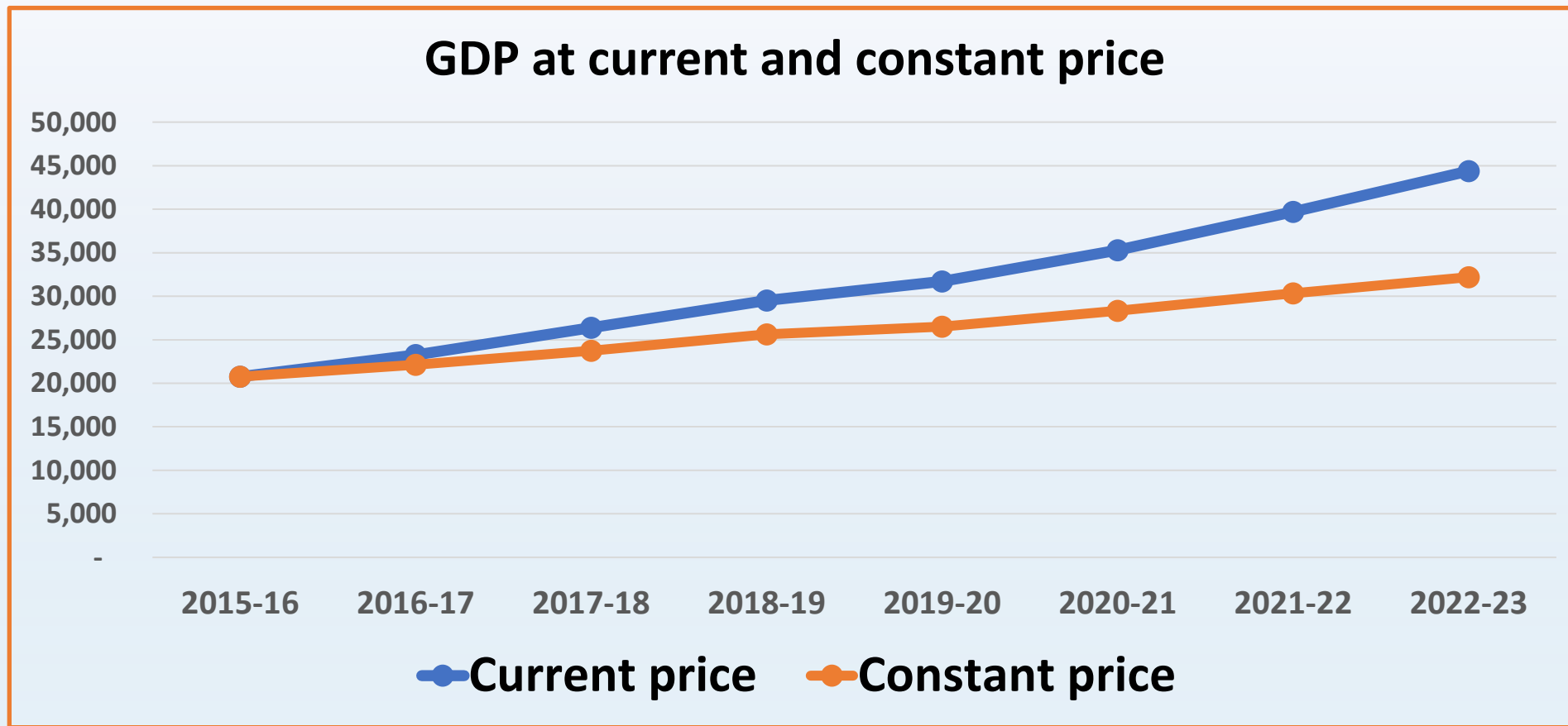
Current (or “nominal”) prices

- Data reported in current (or “nominal”) prices for each year are measured in the prices for that particular year.
- Current price series are influenced by the effects of inflation.



Constant (or "real") prices

- Constant price series show the data for each year in the prices of a chosen base year.
- Constant price series are used to measure the true volume growth, i.e. adjusting for the effects of price inflation



- Current price depict changes in GDP due to both price and volumes
- Constant price depict changes only due to volumes

Growth rate

- Growth rates refer to the percentage change of a specific variable within a specific time period.

- GDP Growth rate =
$$\frac{\textit{Current year GDP} - \textit{Previous year GDP}}{\textit{Previous year GDP}} \times 100$$

Broad Economic Sector

Agriculture

- Agriculture, forestry and fishing

Industry

- Mining and quarrying
- Manufacturing
- Electricity, gas, air conditioning supply
- Water supply; sewerage, waste management
- Construction

Services

- Wholesale and retail trade; repair of motor vehicles
- Transportation and storage
- Accommodation and food service activities
- Information and communication
- Financial and insurance activities
- Real estate activities
- Professional, scientific and technical activities
- Administrative and support service activities
- Public administration and defence; compulsory social security
- Education
- Human health and social work activities
- Arts, entertainment and recreation
- Other service activities

Agriculture Sector

- Crops and horticulture includes about 144 item of major (Paddy, Wheat, Maize etc.) and minor crops (Vegetables, Fruits, Spices, Sugarcane etc.).
- Animal farming include Meat, Milk, Hides and skin, Eggs, Cow dung, Animal fats and others.
- Forest products comprising Timber, Bamboo, Firewood, Honey etc.
- Fishing sector include Commercial fishing and Subsistence fishing

Industry Sector

- Natural gas, coal, limestone, white clay, stones and boulders, sands, crude salt etc.
- Manufacturing sector comprises
 - Large Industry,
 - Small, Medium and Micro Industry,
 - Cottage Industry
- PDB, DESCO, REB, PGCB
- Petro Bangla, Titas Gas, Jalalabad Gas, Bakhrabad Gas etc.
- Dhaka, Chittagong, Rajshahi and Khulna WASA
- Residential and non-residential building construction
- Road, Bridge, Mega project construction

Service Sector

- Wholesale and retail trade
- Railway, Bus, Truck, Rickshaw etc.
- Bangladesh Biman, US Bangla, Novo Air etc.
- Chattagram, Mongla Port, Civil aviation, Post Office etc.
- Hotel and restaurant
- BTCL, Grameen, Robi, Banglalink, Teletalk mobile
- Satellite TV, BTV,
- Commercial Banks, Bangladesh Bank, Life Insurance, Non-life insurance, DSE, SEC
- Dwelling and Non-dwelling house rent, Real estate activities
- Public administration, Health, Education services

Expenditure based GDP

$$\mathbf{GDP = C + I + X - M}$$

Where,

C = Consumption

I = Investment

X = Export

M = Import

What are the Type of Expenditure?

- **Final consumption expenditure (C)**
 - Households
 - General government
- **Gross capital formation (I)**
 - Public
 - Private
- **Net export**
 - Exports of goods and services (X)
 - Less Imports of goods and services (M)

Data Source

- **Household Income and Expenditure Survey**
- **Foreign trade statistics**
- **National Board of Revenue (NBR)**
- **Bangladesh Bank**
- **Survey of Manufacturing Industries (SMI)**
- **Revenue budget documents**
- **Development budget documents**
- **Local Government budget documents**
- **Autonomous bodies budget documents**
- **Financial institutions budget documents**
- **Bangladesh Railway, T&T, Post office budget documents**
- **Annual Institutions Enterprise Survey**
- **Survey of Travel Agent, Tour Operator and Clearing & Forwarding Agent**
- **Survey on Private Commercial Mechanized and Non-Mechanized Land and Water Transport**
- **Report on the Six Case Studies on Selected Economic Activities**
- **Survey on Private Sector Gross Fixed Capital Formation in Cultivated Biological Resources**
- **Construction Survey**

Thank You

