

NATIONAL ACCOUNTS COMPILATION: Issues and Challenges

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OUTLINE

- **INTRODUCTION**
- **GROSS DOMESTIC PRODUCT (GDP)**
- **KEY ISSUE AND CHALLENGES**
- **CONCLUSION**



INTRODUCTION

This is a short exposition of the principles underlying some major macro economic statistics, namely: -

- ❖ **National Accounts Statistics (NAS)**
- ❖ **Balance of Payment (BOP),**
- ❖ **Monetary Statistics (MOS) and**
- ❖ **Government Finance Statistics (GFS).**



INTRODUCTION.....

The roadmap for this paper therefore is narrowed towards the GDP and in the following order:-

- ❖ Definition and concept,**
- ❖ uses of GDP,**
- ❖ sources of data,**
- ❖ estimating procedure (compilation approaches),**
- ❖ key issues and challenges and conclusion.**



❑ GROSS DOMESTIC PRODUCT (GDP)

❖ Definition and Concept

- **Gross Domestic Product (GDP) measures the value of Economic activities within a country. Strictly defined GDP is the sum of the market values, of all final goods and Service produced in an economy during a period of time.**



□ **GROSS DOMESTIC PRODUCT (GDP).....**

There are however, three important distinction within this seemingly simple definition:-

- ❖ GDP is a number that expresses the worth of the output of a country in local currency.**
- ❖ GDP tries to capture all final goods and services as long as they are produced within the country, thereby assuring that the final monetary value of everything, that is created in a country is represented in the GDP.**
- ❖ GDP is calculated for specific period of time, usually a year or quarter of a year.**



□ GROSS DOMESTIC PRODUCT (GDP).....

❖ Basic Concepts

- The various sets of macroeconomic statistics use the same basic concepts and definitions such as
 - ✓ institutional units,
 - ✓ residence,
 - ✓ stocks (assets/liabilities),
 - ✓ economic flows,
 - ✓ accounting rules,
 - ✓ valuation and
 - ✓ conversion procedures.



□ GROSS DOMESTIC PRODUCT (GDP).....

- ***Institutional units and sectors***

- ✓ ***An institutional unit is defined to be an economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in other economic activities and transactions with other entities.***



□ **GROSS DOMESTIC PRODUCT (GDP).....**

- **Institutional units are grouped into five mutually exclusive institutional sectors of the economy according to their different economic objectives, functions, and behaviour. The sectors are:**
 - ✓ **Non financial corporations sector,**
 - ✓ **financial corporations sector,**
 - ✓ **general government sector,**
 - ✓ **non-profit institutions serving households sector (NPISH), and**
 - ✓ **household sector.**



□ **GROSS DOMESTIC PRODUCT (GDP).....**

- ***Residence***

- ✓ **“Resident” is a term used to designate institutional units that have a closer tie with the economic territory of the country in question than with any other country.**
- ✓ **Residence is not based on nationality or currency of denomination. Rather, it is based on where the unit’s centre of economic interest lies.**



□ GROSS DOMESTIC PRODUCT (GDP).....

▪ ***Stocks***

- ✓ Stocks are economic magnitudes *measured at a point in time*.

That is, they are positions in, or holdings of, assets and liabilities at a point in time.

▪ ***Flows***

- ✓ Flows are economic magnitudes *measured with reference to a period of time*. Flows fully reflect the change in the value of the stock of an asset or liability during the accounting period. There are two types of flows:

- transactions and
- other economic flows.



□ GROSS DOMESTIC PRODUCT (GDP).....

- ***Integration of stocks and flows***

- ✓ It follows from the above definitions of stocks and flows that the total change in the stock of each asset or liability from the beginning of a period to the end of the period is explained fully by the flows. That is,

- Stock (end) = Stock (beginning) + Transactions + Other Economic Flows



□ GROSS DOMESTIC PRODUCT (GDP).....

▪ *Accounting rules*

✓ All the systems of macroeconomic statistics are based on the double-entry accounting system whereby every flow is recorded twice; as a debit entry and a credit entry.

○ The debit entry refers to

- the increase in an asset,
- decrease in a liability or
- decrease in net worth (e.g., an expense) of the unit.

○ The credit entry refers to

- the counterpart increase in a liability,
- decrease in an asset, or
- increase in net worth (e.g., revenue) of the unit.



□ **GROSS DOMESTIC PRODUCT (GDP).....**

- ***Valuation and conversion procedures***

- ✓ In principle all transactions and position data should be measured on the basis of market prices. This means that transactions are valued at the actual price agreed upon by the parties (in other words, amounts of money that willing buyers pay to acquire something from willing sellers), while the stock of assets and liabilities are valued on the basis of the market prices in force at the time to which the balance sheet relates.



❑ **GROSS DOMESTIC PRODUCT (GDP).....**

❖ **Uses of GDP**

- ✓ **To provide a measure of the quantum of economic activities within the well defined territory;**
- ✓ **To determine the variation in economic growth and development across the country;**
- ✓ **To enhance investment decisions by prospective Investors and Development Partners;**



❑ **GROSS DOMESTIC PRODUCT (GDP).....**

- ✓ **To identify key drivers of economic growth within the economy with a view to aiding policy decisions in the respective states of the Federation;**
- ✓ **To measure the effectiveness of Government spending; and**
- ✓ **To provide necessary tools for designing programmes that would improve the welfare of people and poverty reduction.**



❑ GROSS DOMESTIC PRODUCT (GDP).....

❖ Methodology

✓ The methodology gives us an insight into the sources of data and compilation procedure.

▪ Sources of data

- Administrative records,
- survey/census source, and
- estimation method



□ **GROSS DOMESTIC PRODUCT (GDP).....**

Data collection is mainly on the bases of the following:

(a)

- ✓ **Formal Sector: which is made up of the Establishment and Corporate farmers**
- ✓ **Informal Sector which is made up of the General Household Survey (GHS)**

(b)

- ✓ **Data from Administrative record**
 - **Government revenue and Expenditure Statistics.**
 - **Foreign trade statistics**
 - **Money and Banking Statistics.**
 - **Tax records.**
 - **Business Accounts of publicly trade corporations.**

(c)

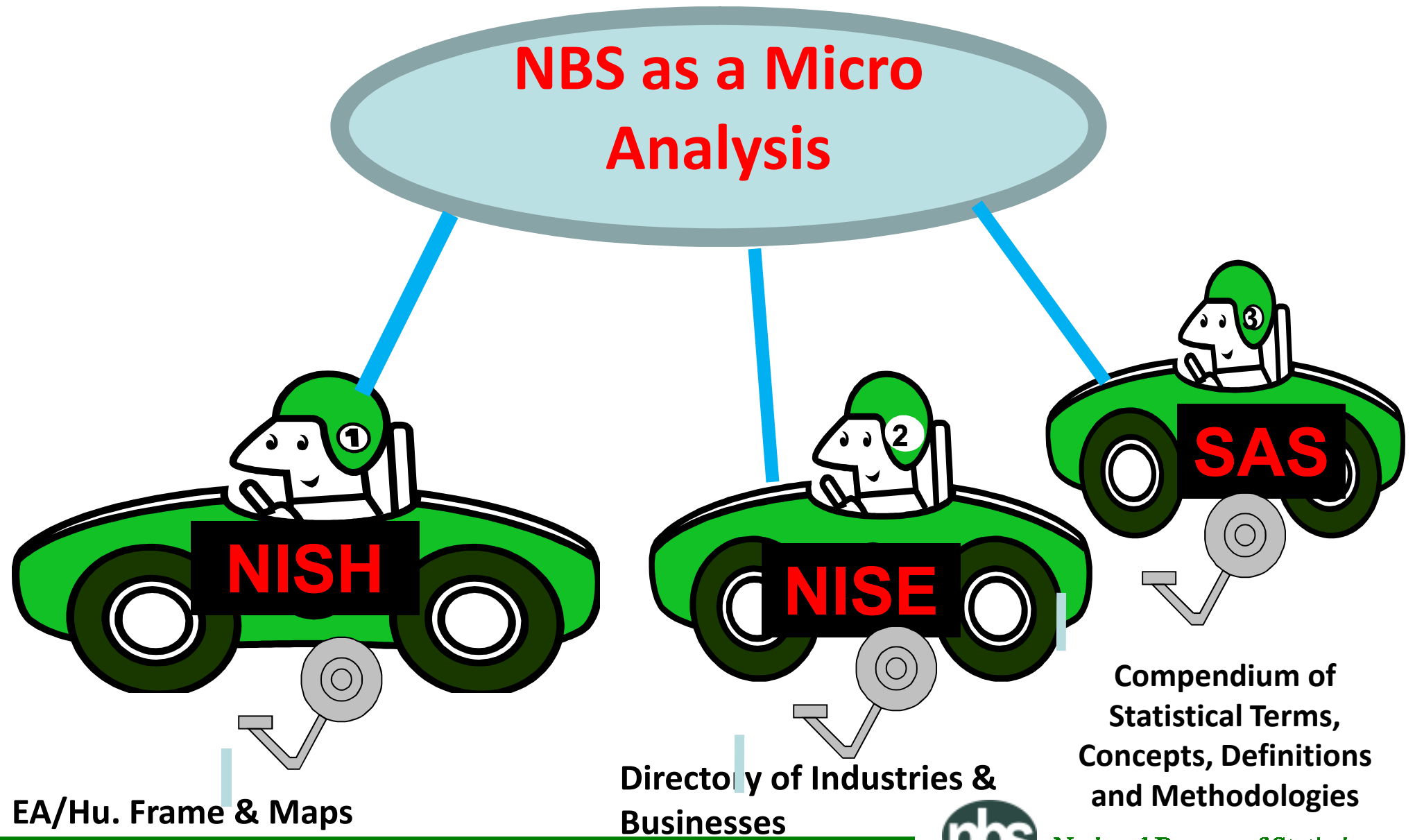
- ✓ **Estimation Method in national accounts which is purely;-**
 - **Balancing item method**
 - **Commodity flow method**
 - **Benchmark ratio method**



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Source of Data



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□ **GROSS DOMESTIC PRODUCT (GDP).....**

- **FRAME:** The frame is the list of establishments (industries) or households from which a census or a survey is conducted. The Frame plays an important role in deriving the national estimates especially when the investigation is a sample survey.
 - ✓ the Survey Frame
 - ✓ Quality sources would lead to quality GDP and other national accounts estimates.



□ GROSS DOMESTIC PRODUCT (GDP).....

▪ Estimating procedure (Compilation Approaches)

✓ GDP

○ Production approach

- GDP = Sum of VA across all sectors

○ Income approach

- GDP = Sum of Income generated by resident producers

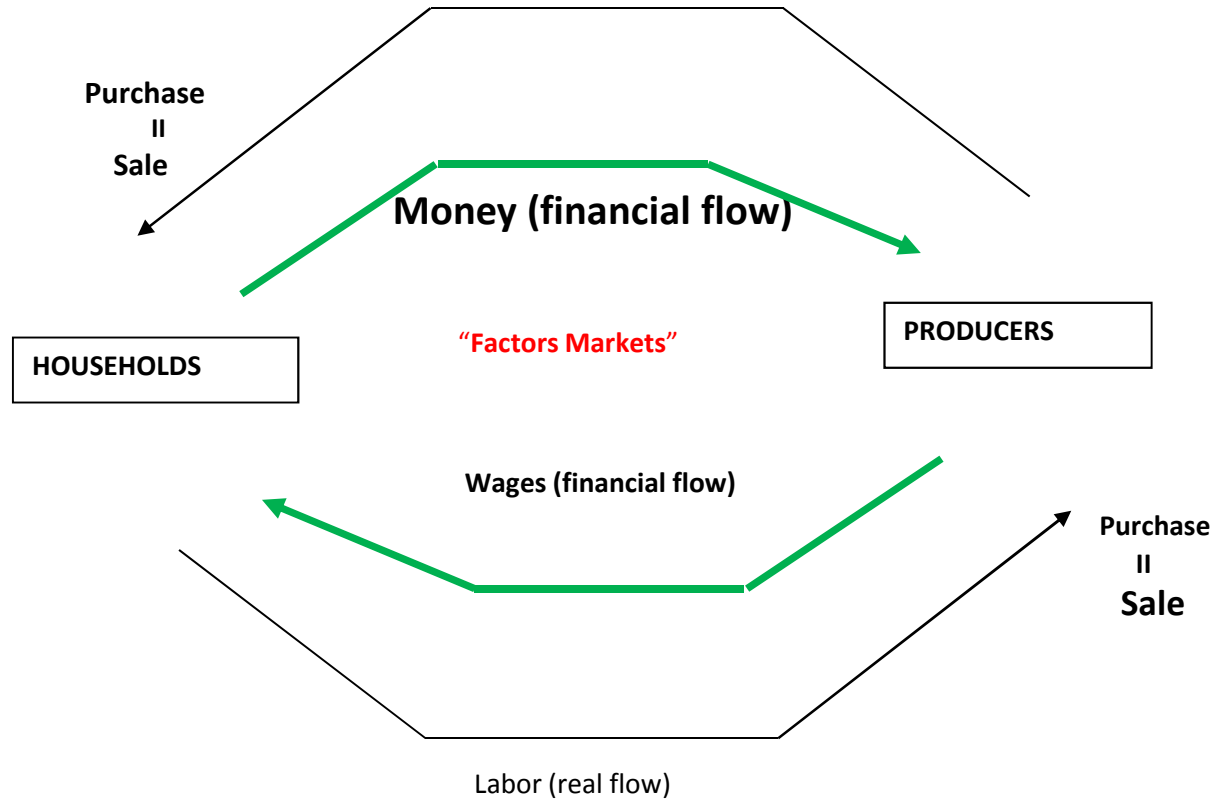
○ Expenditure approach

- GDP = Sum of its final uses



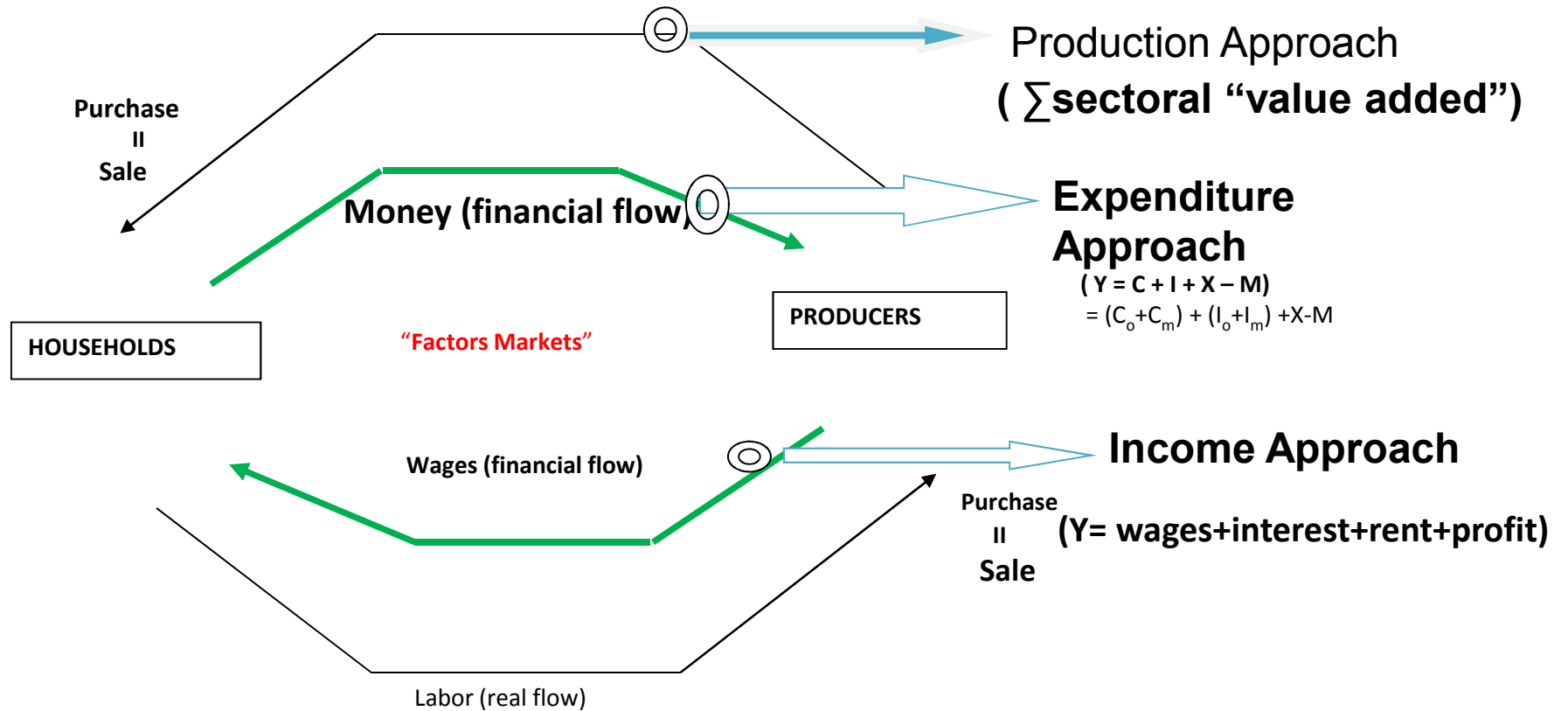
□ GROSS DOMESTIC PRODUCT (GDP).....

Goods and services (real flow)



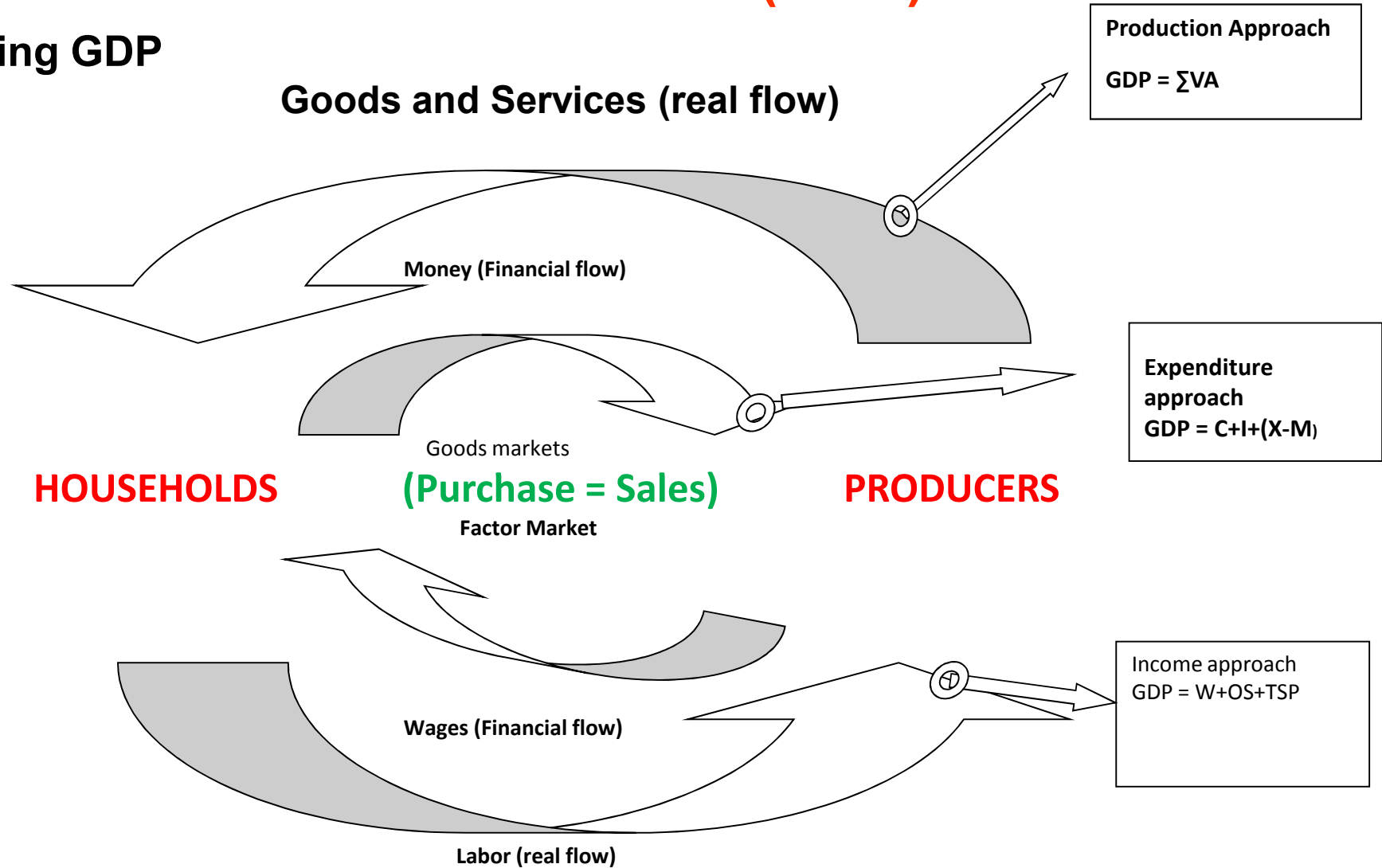
□ GROSS DOMESTIC PRODUCT (GDP).....

Goods and services (real flow)



□ GROSS DOMESTIC PRODUCT (GDP).....

Estimating GDP



□ GROSS DOMESTIC PRODUCT (GDP).....

- Other Standard aggregates
- Gross national income (GNI)
 - $GNI = GDP + Y_f$
- Gross national disposable income (GNDI)
 - $GNDI = GNI + TR_f$
- Gross national saving (s)
 - $S = GNDI - C$



□ GROSS DOMESTIC PRODUCT (GDP).....

✓ Income, absorption, and CAB

- $GDP = C + I + (X - M) = A + (X - M)$
- $GNI = GDP + Y_f = A + (X - M + Y_f)$
- $GNDI = GNI + TR_f = A + (X - M + Y_f + TR_f)$



Current Account Balance

- **GNDI - A + CAB**



□ GROSS DOMESTIC PRODUCT (GDP).....

✓ Saving, Investment, and CAB

- $GNDI = A + CAB = C + I + CAB$

- $S = GNDI - C = I + CAB$

- $S - I = CAB$

- $S > I \longrightarrow$ Current account surplus

- $S < I \longrightarrow$ Current account deficit



□ GROSS DOMESTIC PRODUCT (GDP).....

✓ Resource gap

- Private & government sectors

- $S = S_p + S_G$

- $C = C_p + C^G$

- $I = I_p + I_G$

GNDI – A = CAB

- $(GNDI_p - A_p) + (GNDI_G - A_G) = CAB$

S – I = CAB

- $(S_p - I_p) + (S_G - I_G) = CAB$



□ GROSS DOMESTIC PRODUCT (GDP).....

✓ Nominal and Real GDP

▪ Nominal GDP

- Measure the value of an economy's output at current prices

▪ Real GDP

- Measure the value of an economy's output using the prices of a fixed base year



□ GROSS DOMESTIC PRODUCT (GDP).....

✓ Implicit GDP deflator

- Index that measures the average price level of an economy's output relative to the base year

✓ GDP DEFLATOR

- GDP Deflator = $\frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

✓ GDP Deflator = 100 in the base year

✓ Percentage change in GDP deflator measure the rate of price increase for all goods service in the economy



□ GROSS DOMESTIC PRODUCT (GDP).....

✓ Rates of Growth

- Value = Price x Quantity

So

- $1 + \% \Delta \text{ Value} = (1 + \% \Delta \text{ Price}) \times (1 + \% \Delta \text{ Quantity})$

Or

- $\% \Delta \text{ Value} = (1 + \% \Delta \text{ Quantity}) - 1$

Approximation if changes are small

$\% \Delta \text{ Value} \approx \% \Delta \text{ Price} + \% \Delta \text{ Quantity}$



□ GROSS DOMESTIC PRODUCT (GDP).....

Example : Real and Nominal Growth

Suppose: real GDP grows by 10% prices increase by 50%

$$\% \Delta \text{ Value} = (1 + 0.10) \times (1 + 0.50) - 1 = 0.65$$

→ Nominal GDP grows by 65%



□ KEY ISSUE AND CHALLENGES

- ✓ **GDP as a measure is however flawed in the sense that it does not capture Economic activities that are difficult to measure, such as the activities, housewives, domestic servants and volunteers**
- ✓ **It dose not also take into account the negative cost of nuisance output like pollutants**
- ✓ **The issue of direct taxes and invisible traders makes GDP as a complex phenomenon to measure and conceptualise.**
- ✓ **Apathy on the part of the respondents.**



□ KEY ISSUE AND CHALLENGES.....

- ✓ **Adequate fund to maintain regular surveys.**
- ✓ **Annual reporting by corporation either on fiscal or calendar year basis.**
- ✓ **The continuous process of birth and death of establishment and enterprises.**
- ✓ **Some data (VAT) might not be designed with statistical objective in mind. So problems of timeliness, tax exemptions, industry classification, unit effect of rebates, or backdated assessments etc,**



❑ CONCLUSION

- ✓ In spite of the shortcoming, GDP compilation remains inevitable. Efforts should be geared towards improving on the methodology especially on data collection.
- ✓ The advantage of present sophistication in the ICT should be explored.
- ✓ This will improve the accuracy, reliability and timeliness of the data, hence improve the quality and frequency of the aggregate as GDP remains the only credible indicator for measuring economic performance of any administrative entity.



THANK YOU



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