MACROECONOMICS and NATIONAL ACCOUNS

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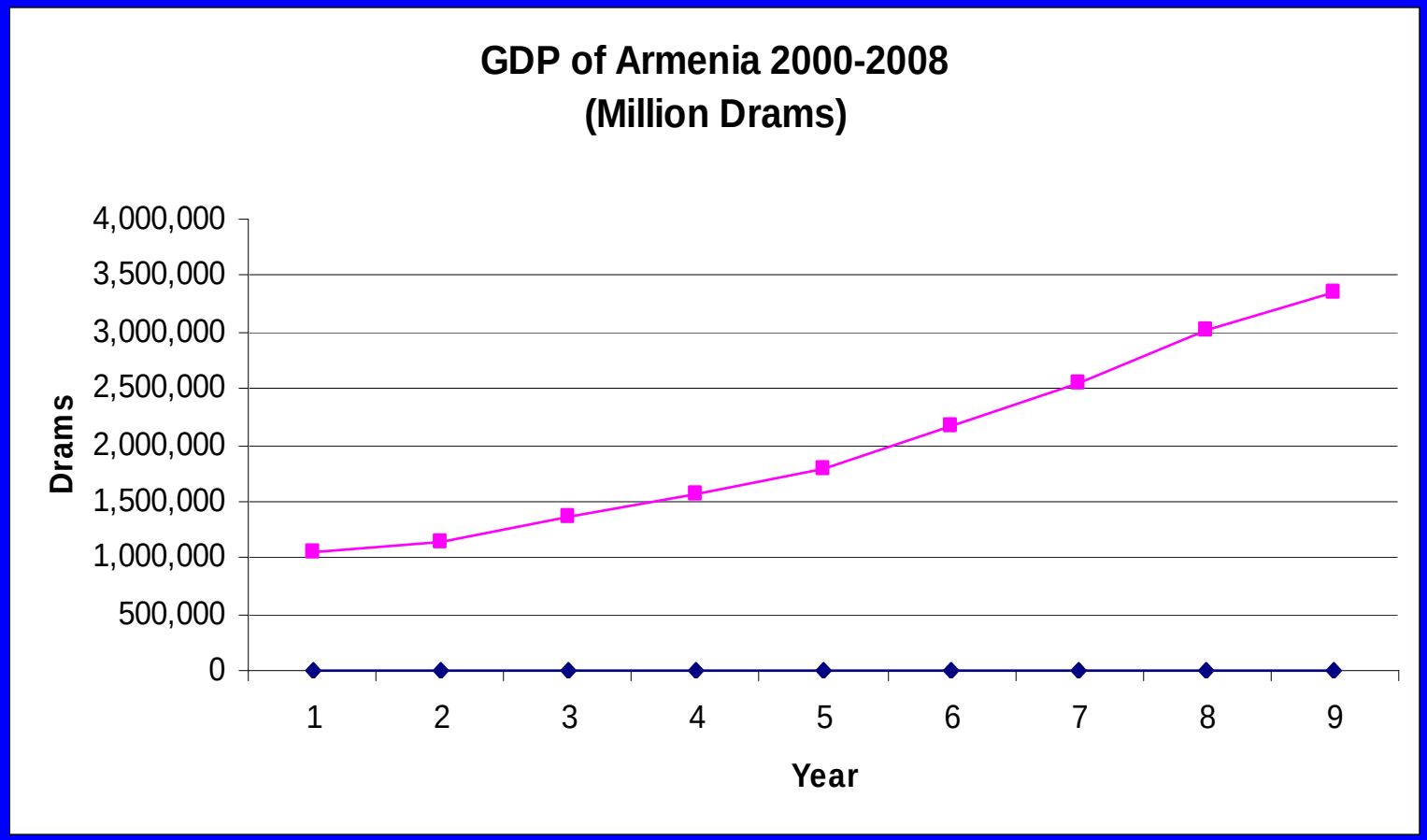
A Measure of Total Output in Armenia: Annual Gross Domestic Product (GDP)



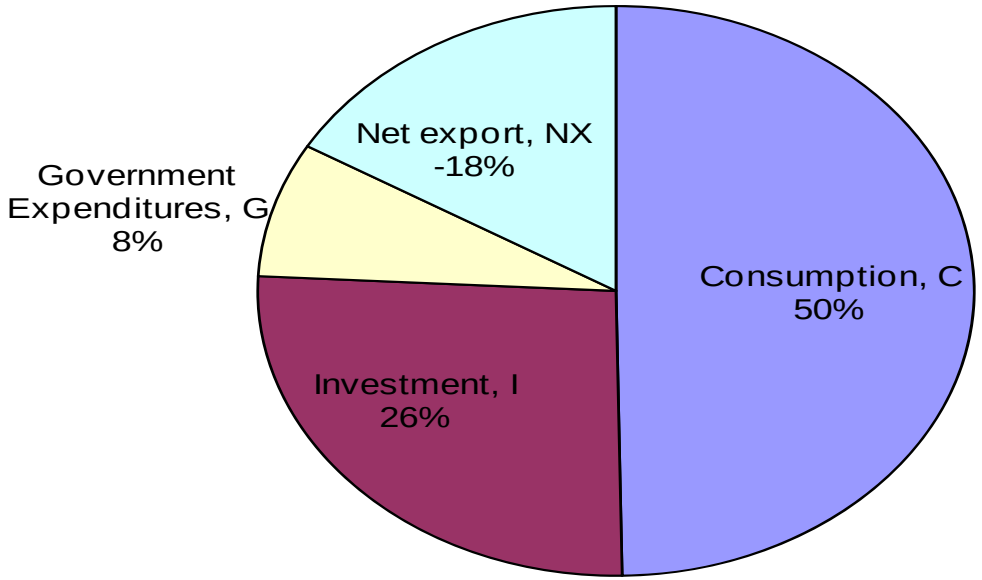
Components of GDP & Accounting Identity

- GDP is total market value of all final goods and services produced in an economy during a particular time period (e.g., within one year, one quarter, or one month).
- Observed Supply (GDP or Y) is the sum of four major Demand aggregates:

$$Y \equiv C + I + G + NX$$

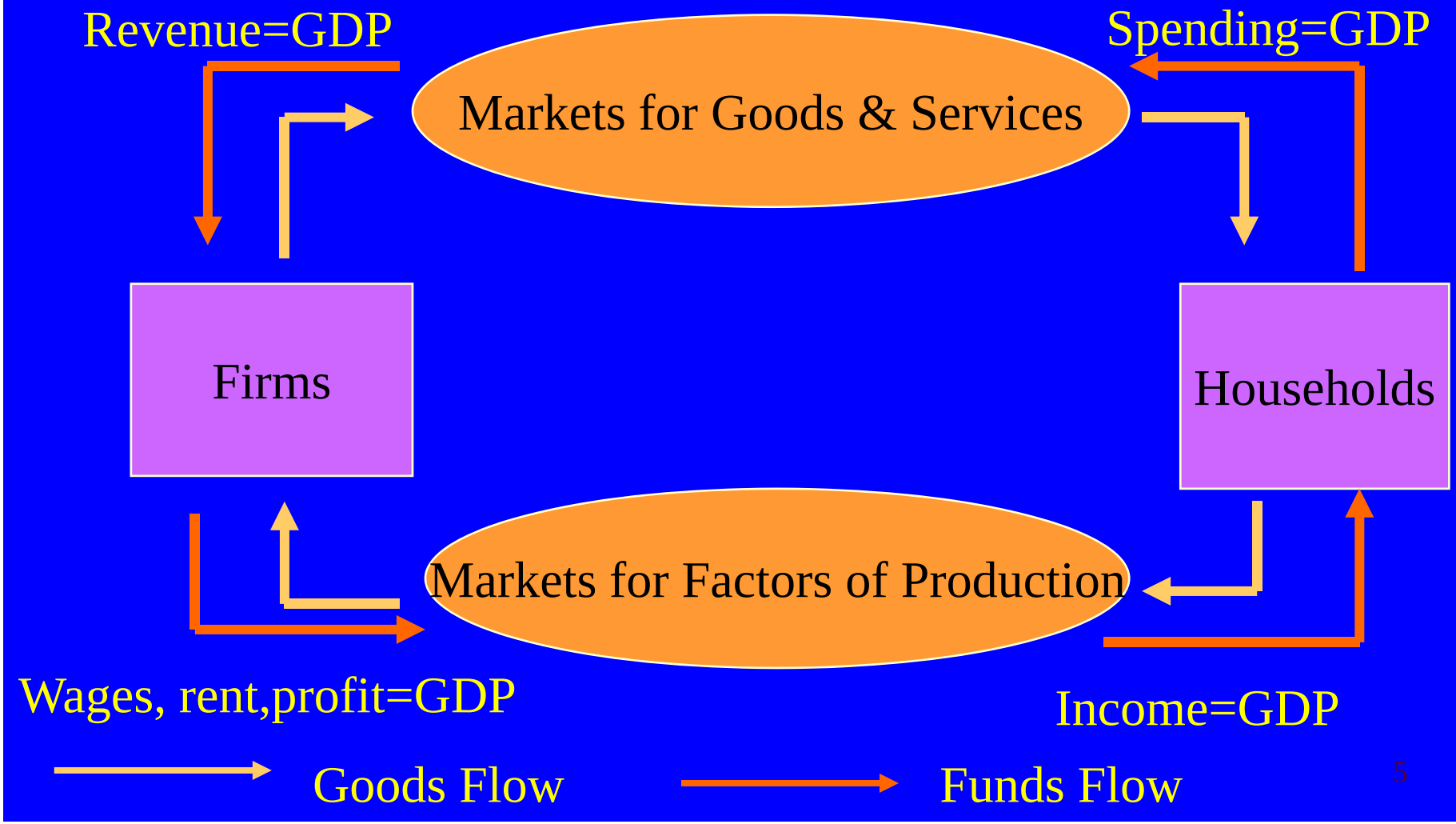
- Consumption Expenditure "C"
- Investment Expenditure "I"
- Government Expenditure "G"
- Net exports (Exports – Imports) "NX"

COMPONENTS OF GDP –2008



Circular Flow of Macroeconomic Fund (Closed Economy with no Government)

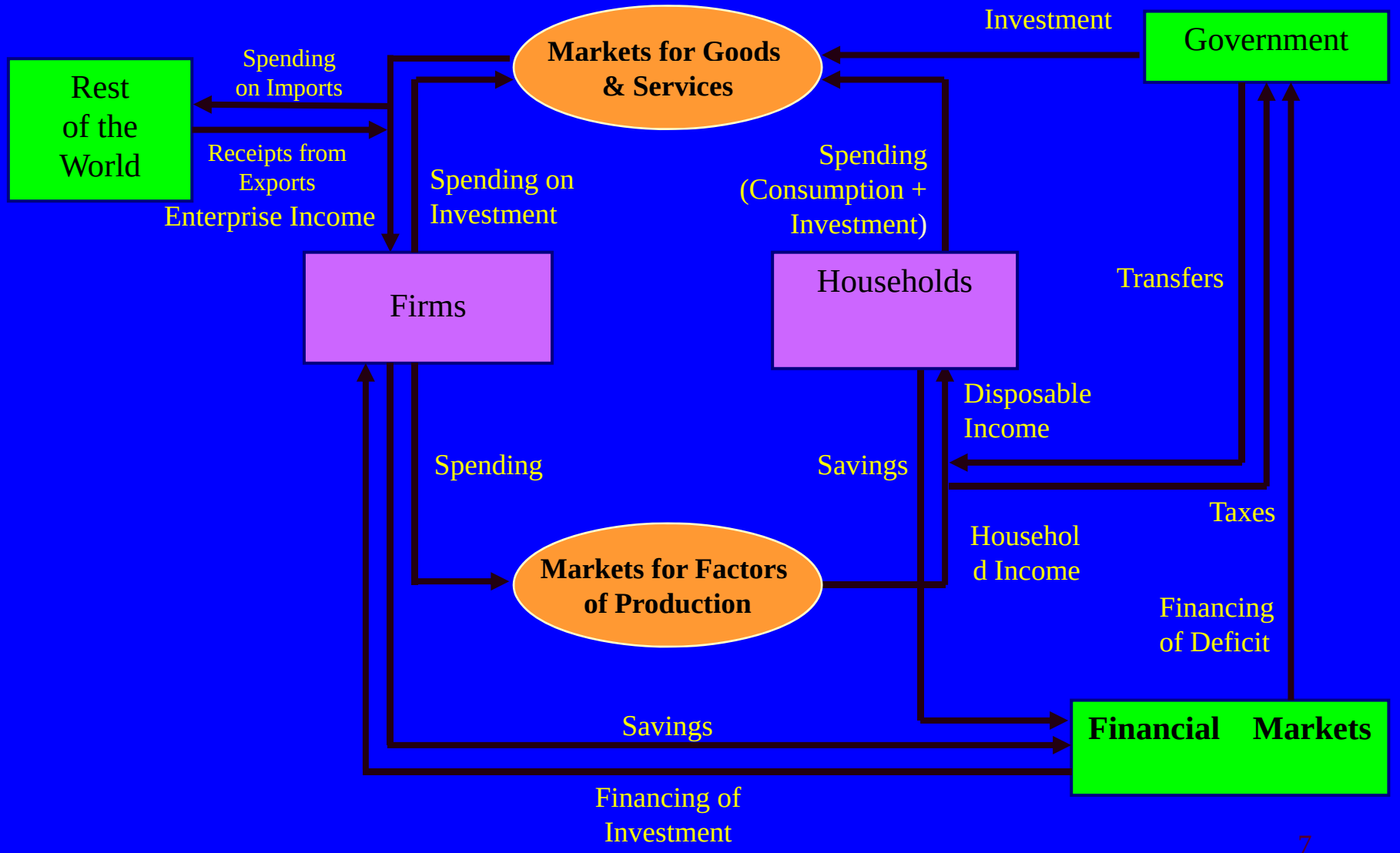
The equality of income and expenditure is shown below.



Circular Flow of Macroeconomic Fund

- The circular-flow diagram shows four economic sectors.
- The diagram shows that households bought goods and services from firms in the market for goods and services, and firms use their revenue from sales to pay wages to workers in the market for factors of production, rent to landowners and profit to firm owners.
- But real economy is more complex than this diagram.

Circular Flow of Macroeconomic Fund (with Government and Foreign Trade)



Circular Flow of Macroeconomic Fund

- There are three other economic sectors:
- Financial sectors work as financial intermediaries, such as banking system, and pension funds.
- Government creates regulatory and legal framework, provides public goods, such as education, taxes and government expenditures
- The rest of the world are countries with which our country transacts. (import & export)

REAL VERSUS NOMINAL GDP

- When studying changes in the economy over time, it is is useful to separate these two effects.
- In particular, for studying the economy, a measure is required that is not affected by changes in the prices of goods an services.
- This measure is called *real GDP*.
- Real GDP answers the hypothetical question: What would be the value of goods and services produces this year if we valued these goods and services at prices that prevailed in some specific year.

REAL VERSUS NOMINAL GDP

Year	Price Lavash	Quantity Lavash	Price Khorovats	Quantity Khorovats
2006	10 drams	100	20 drams	50
2007	20	150	30	100
2008	30	200	40	150

Calculating Nominal GDP

2006 : (10 drams x 100 Lavash) + (20 drams x 50 Khorovats) = 2,000 drams

2007 : (20 drams x 150 Lavash) + (30 drams x 100 Khorovats) = 6,000 drams

2008: (30 drams x 200 Lavash) + (40 drams x 150 Khorovats) = 12,000 drams

Calculating Real GDP

2006 : (10 drams x 100 Lavash) + (20 drams x 50 Khorovats) = 2,000 drams

2007: (10 drams x 150 Lavash) + (20 drams x 100 Khorovats) = 3,500 drams

2008: (10 drams x 200 Lavash) + (20 drams x 150 Khorovats) = 5,000 drams

REAL VERSUS NOMINAL GDP

- To Summarize nominal and real GDP calculations:
- Nominal GDP uses current prices to place a value on the economy's production of goods and services;
- Real GDP uses constant base year prices to place a value on the economy's production of goods and services.
- Because real GDP is not affected by changes in prices, changes in real GDP reflect only changes in the amounts produced, this real GDP is a measure of the economy's production of goods.

GDP DEFLATOR

- Using the previous numerical example

Calculating Nominal GDP

2006 (10 drams x 100 lavash) + (20 drams x 50 Khorovats) = 2,000 drams

2007 (20 drams x 150 lavash) + (30 drams x 100 Khorovats) = 6,000 drams

2008 (30 drams x 200 lavash) + (40 drams x 150 Khorovats) = 12,000 drams

Calculating Real GDP

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Calculating GDP Deflator

2006 (2,000/2,000) x 100 = 100
2007 (6,000/3,500) x 100 = 171.4
2008 (12,000/5,000) x 100 = 240

GDP AND ECONOMIC WELL BEING

- GDP does not measure the health of children, the quality of education, intelligence, the beauty of the country, the qualities of its citizens, etc.
- Further, GDP leaves out the quality of the environment and such important issues as leisure and quality of life.
- On the other hand, countries with larger real GDP per person, possess the capacity to provide better health care, education, and social services.
- Finally, in reality is there a correlation between GDP and quality of life ?