

# Measuring a Nation's Income

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- Microeconomics
  - *Microeconomics* is the study of how individual households and firms make decisions and how they interact with one another in markets.
- Macroeconomics
  - *Macroeconomics* is the study of the economy as a whole.
  - Its goal is to explain the economic changes that affect many households, firms, and markets at once.

# The Macro Economy

## DETERMINANTS

Internal market forces

External shocks

Policy levers



## OUTCOMES



Jobs



Prices



Growth



Output



International  
balances

# Measuring a Nation's Income

- Macroeconomics answers questions like the following:
  - Why is average income high in some countries and low in others?
  - Why do prices rise rapidly in some time periods while they are more stable in others?
  - Why do production and employment expand in some years and contract in others?

# THE ECONOMY'S INCOME AND EXPENDITURE

- When judging whether the economy is doing well or poorly, it is natural to look at the total income that everyone in the economy is earning.

# THE ECONOMY'S INCOME AND EXPENDITURE

- For an economy as a whole, income must equal expenditure because:
  - Every transaction has a buyer and a seller.
  - Every dollar of spending by some buyer is a dollar of income for some seller.

# THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

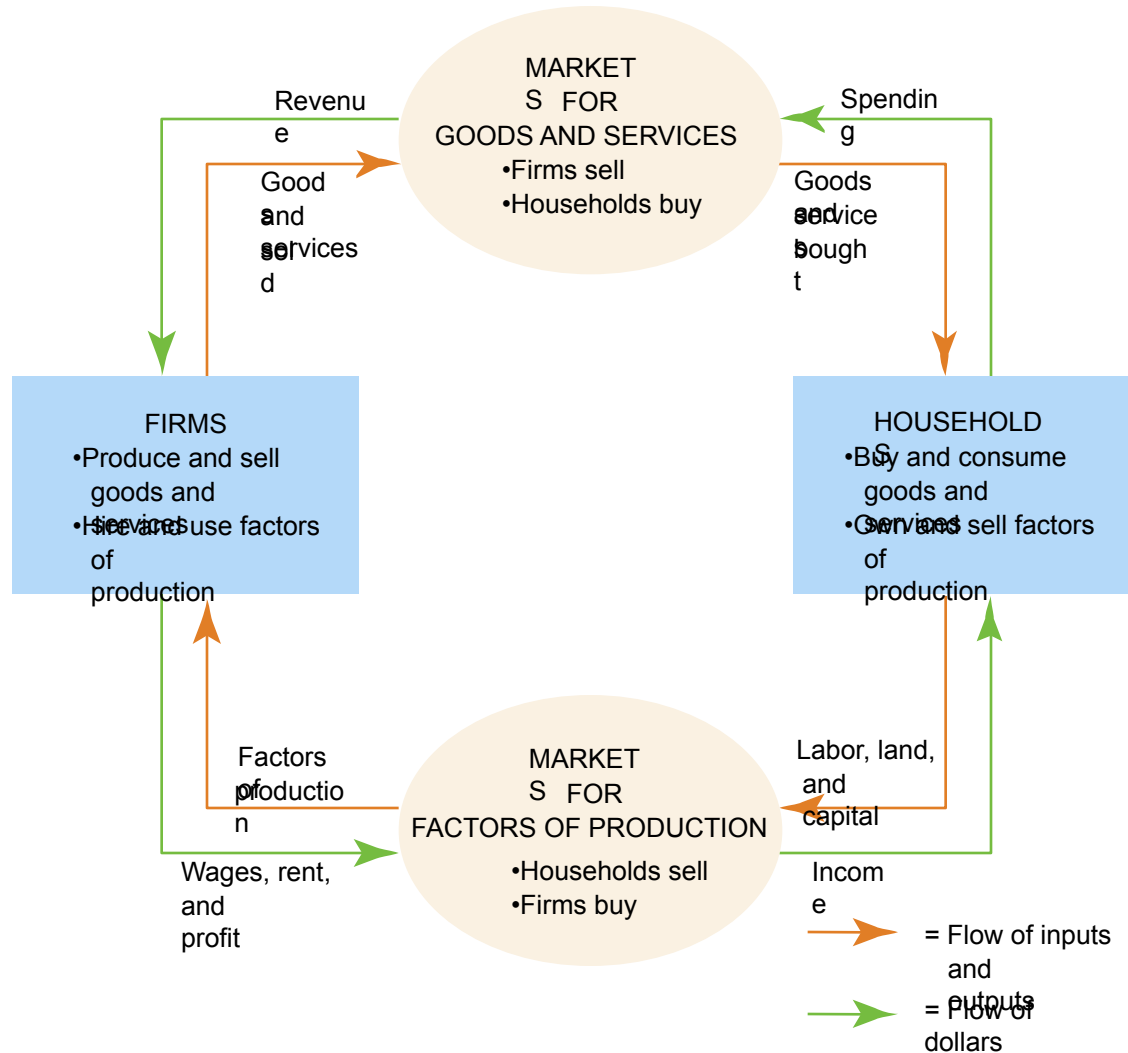
- *Gross domestic product (GDP)* is a measure of the income and expenditures of an economy.
- It is the total market value of all final goods and services produced within a country in a given period of time.

# THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- The equality of income and expenditure can be illustrated with the circular-flow diagram.



# The Circular-Flow Diagram



# THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- GDP is the market value of all final goods and services produced within a country in a given period of time.

# THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- “GDP is the Market Value . . . .”
  - Output is valued at market prices.
- “. . . Of All Final . . . .”
  - It records only the value of final goods, not intermediate goods (the value is counted only once).
- “. . . Goods and Services . . . .”
  - It includes both tangible goods (food, clothing, cars) and intangible services (haircuts, housecleaning, doctor visits).

# THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- “. . . Produced . . .”
  - It includes goods and services currently produced, not transactions involving goods produced in the past.
- “. . . Within a Country . . .”
  - It measures the value of production within the geographic confines of a country.

# THE MEASUREMENT OF GROSS DOMESTIC PRODUCT

- “. . . In a Given Period of Time.”
  - It measures the value of production that takes place within a specific interval of time, usually a year or a quarter (three months).

# THE COMPONENTS OF GDP

- GDP includes all items produced in the economy and sold *legally* in markets.

# THE COMPONENTS OF GDP

- What Is Not Counted in GDP?
  - GDP excludes most items that are produced and consumed at home and that never enter the marketplace.
  - It excludes items produced and sold illicitly, such as illegal drugs.

# THE COMPONENTS OF GDP

- GDP ( $Y$ ) is the sum of the following:
  - Consumption ( $C$ )
  - Investment ( $I$ )
  - Government Purchases ( $G$ )
  - Net Exports ( $NX$ )

$$Y = C + I + G + NX$$



# THE COMPONENTS OF GDP

- ***Consumption (C):***
  - The spending by households on goods and services, with the exception of purchases of new housing.
- ***Investment (I):***
  - The spending on capital equipment, inventories, and structures, including new housing.

# THE COMPONENTS OF GDP

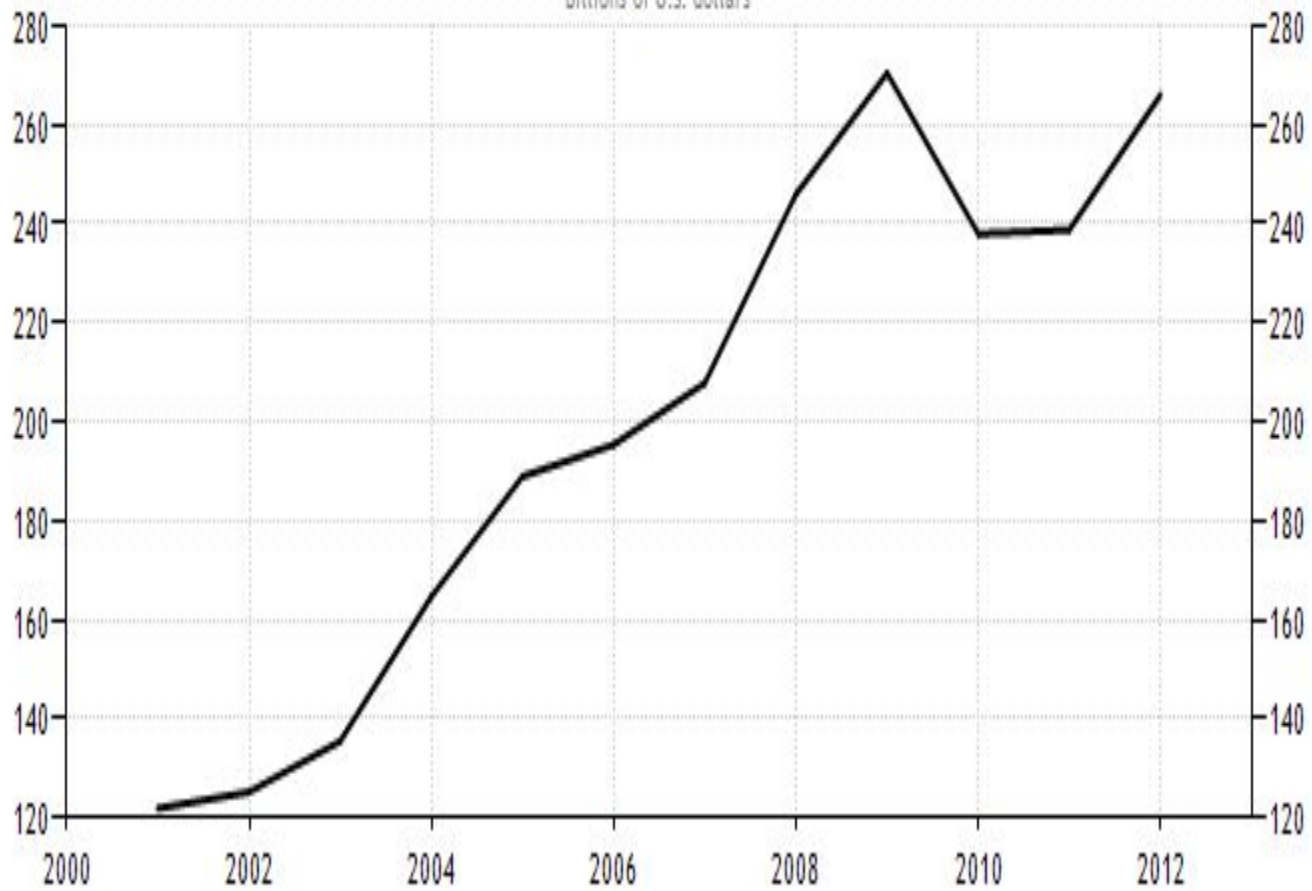
- ***Government Purchases (G):***
  - The spending on goods and services by local, state, and federal governments.
  - Does *not* include transfer payments because they are not made in exchange for currently produced goods or services.
- ***Net Exports (NX):***
  - Exports minus imports.

# GDP and Its Components (An example)

	<b>Total (in billions of dollars)</b>	<b>Per Person (in dollars)</b>	<b>Percent of Total</b>
Gross domestic product, $Y$	\$10,082	\$35,375	100%
Consumption, $C$	6,987	24,516	69
Investment, $I$	1,586	5,565	16
Government purchases, $G$	1,858	6,519	18
Net exports, $NX$	-349	-1,225	-3

# FINLAND GDP

Billions of U.S. dollars



SOURCE: [WWW.TRADINGECONOMICS.COM](http://WWW.TRADINGECONOMICS.COM) | THE WORLD BANK GROUP

# GDP AND ECONOMIC WELL-BEING

- GDP is the best single measure of the economic well-being of a society.
- GDP per person tells us the income and expenditure of the average person in the economy.

# GDP AND ECONOMIC WELL-BEING

- Higher GDP per person indicates a higher standard of living.
- GDP is not a perfect measure of the happiness or quality of life, however.

# GDP AND ECONOMIC WELL-BEING

- Some things that contribute to well-being are not included in GDP.
  - The value of leisure.
  - The value of a clean environment.
  - The value of almost all activity that takes place outside of markets, such as the value of the time parents spend with their children and the value of volunteer work.

# GDP, Life Expectancy, and Literacy

<b>Country</b>	<b>Real GDP per Person (1999)</b>	<b>Life Expectancy</b>	<b>Adult Literacy</b>
United States	\$31,872	77 years	99%
Japan	24,898	81	99
Germany	23,742	78	99
Mexico	8,297	72	91
Russia	7,473	66	99
Brazil	7,037	67	85
China	3,617	70	83
Indonesia	2,857	66	86
India	2,248	63	56
Pakistan	1,834	60	45
Bangladesh	1,483	59	41
Nigeria	853	52	63



# Summary

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- Because every transaction has a buyer and a seller, the total expenditure in the economy must equal the total income in the economy.
- Gross Domestic Product (GDP) measures an economy's total expenditure on newly produced goods and services and the total income earned from the production of these goods and services.

# Summary

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- GDP is the market value of all final goods and services produced within a country in a given period of time.
- GDP is divided among four components of expenditure: consumption, investment, government purchases, and net exports.

# Summary

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- GDP is a good measure of economic well-being because people prefer higher to lower incomes.
- It is not a perfect measure of well-being because some things, such as leisure time and a clean environment, aren't measured by GDP.