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Principles of
Economics
Sixth Edition

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Measuring a Nation's
Income

*Premium
PowerPoint
Slides by
Ron Cronovich*

**In this chapter,
look for the answers to these questions:**

- What is Gross Domestic Product (GDP)?
- How is GDP related to a nation's total income and spending?
- What are the components of GDP?
- How is GDP corrected for inflation?
- Does GDP measure society's well-being?

1

Micro vs. Macro

§ *Microeconomics*:

§ *Macroeconomics*:

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Income and Expenditure

§ **Gross Domestic Product (GDP)**

§ GDP also measures

For the economy as a whole,

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The Circular-Flow Diagram

§ a simple depiction of the macroeconomy

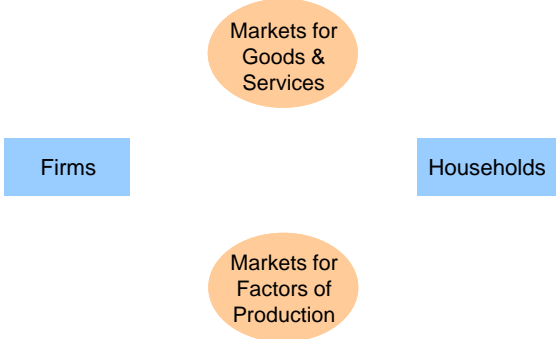§ illustrates GDP as spending, revenue, factor payments, and income

§ Preliminaries:

  § **Factors of production**

  § **Factor payments**

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The Circular-Flow Diagram

Markets for Goods & Services

Firms

Households

Markets for Factors of Production

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What This Diagram Omits

§ The government
§ collects taxes, buys g&s

§ The financial system
§ matches savers' supply of funds with borrowers' demand for loans

§ The foreign sector
§ trades g&s, financial assets, and currencies with the country's residents

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Gross Domestic Product (GDP) Is...

…the <u>market value</u> of all final goods & services produced within a country in a given period of time.

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Gross Domestic Product (GDP) Is...

…the market value of all <u>final</u> goods & services produced within a country in a given period of time.

Final goods:

Intermediate goods:

GDP only includes

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Gross Domestic Product (GDP) Is…

…the market value of all final <u>goods</u> & <u>services</u> produced within a country in a given period of time.

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Gross Domestic Product (GDP) Is…

…the market value of all final goods & services <u>produced</u> within a country in a given period of time.

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Gross Domestic Product (GDP) Is…

…the market value of all final goods & services produced <u>within a country</u> in a given period of time.

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Gross Domestic Product (GDP) Is…

…the market value of all final goods &
services produced within a country
<u>in a given period of time</u>.

Usually a year or a quarter (3 months)

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The Components of GDP

§ Recall: GDP is total spending.

§ Four components:

§ These components add up to GDP (denoted **Y**):

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Consumption (C)

§

§ Note on housing costs:

   § For renters, consumption includes

   § For homeowners, consumption includes

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Investment (I)

§

§ includes spending on

16

Government Purchases (G)

§

§ G excludes **transfer payments**,

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Net Exports (NX)

§ NX =

§ Exports represent

§ Imports are

§ Adding up all the components of GDP gives:

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U.S. GDP and Its Components, 2010

	billions	% of GDP	per capita
Y	$14,745	100.0	$47,459
C	10,366	70.3	33,365
I	1,907	12.9	6,139
G	3,022	20.5	9,727
NX	−550	−3.7	−1,772

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ACTIVE LEARNING **1**

GDP and its components

In each of the following cases, determine how much GDP and each of its components is affected (if at all).

A. Debbie spends $200 to buy her husband dinner at the finest restaurant in Boston.

B. Sarah spends $1800 on a new laptop to use in her publishing business. The laptop was built in China.

C. Jane spends $1200 on a computer to use in her editing business. She got last year's model on sale for a great price from a local manufacturer.

D. General Motors builds $500 million worth of cars, but consumers only buy $470 million worth of them.

ACTIVE LEARNING **1**

Answers

A.

B.

C.

D.

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Real versus Nominal GDP

§ Inflation can distort economic variables like GDP, so we have two versions of GDP:

§ **Nominal GDP**

§ **Real GDP**

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EXAMPLE:

	Pizza		Latte	
year	*P*	*Q*	*P*	*Q*
2011	$10	400	$2.00	1000
2012	$11	500	$2.50	1100
2013	$12	600	$3.00	1200

Compute nominal GDP in each year:

Increase:

2011:

2012:

2013:

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EXAMPLE:

	Pizza		Latte	
year	P	Q	P	Q
2011	$10	400	$2.00	1000
2012	$11	500	$2.50	1100
2013	$12	600	$3.00	1200

Compute real GDP in each year,
using 2011 as the base year:
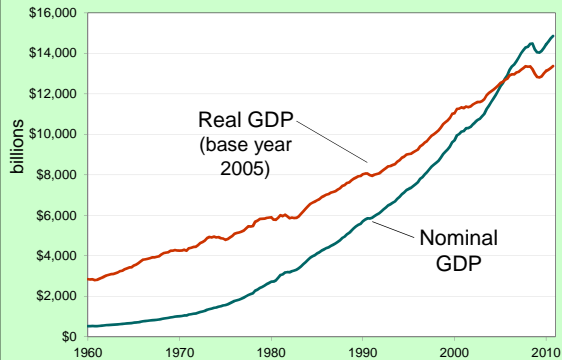
Increase:

2011:

2012:

2013:

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EXAMPLE:

year	*Nominal GDP*	*Real GDP*
2011		
2012		
2013		

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Nominal and Real GDP in the U.S., 1965–2010

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The GDP Deflator

§ The GDP deflator is a measure of the overall level of prices.

§ Definition:

§ One way to measure the economy's **inflation rate** is

EXAMPLE:

year	Nominal GDP	Real GDP	GDP Deflator
2011	$6000	$6000	
2012	$8250	$7200	
2013	$10,800	$8400	

Compute the GDP deflator in each year:

2011:

2012:

2013:

ACTIVE LEARNING **2**
Computing GDP

	2011 (base yr)		2012		2013	
	P	Q	P	Q	P	Q
Good A	$30	900	$31	1000	$36	1050
Good B	$100	192	$102	200	$100	205

Use the above data to solve these problems:

A. Compute nominal GDP in 2011.

B. Compute real GDP in 2012.

C. Compute the GDP deflator in 2013.

Answers

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GDP and Economic Well-Being

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§ But GDP is not a perfect measure of well-being.

§ Robert Kennedy issued a very eloquent yet harsh criticism of GDP:

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Gross Domestic Product…

"… does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials.

It measures neither our courage, nor our wisdom, nor our devotion to our country. It measures everything, in short, except that which makes life worthwhile, and it can tell us everything about America except why we are proud that we are Americans."

- Senator Robert Kennedy, 1968

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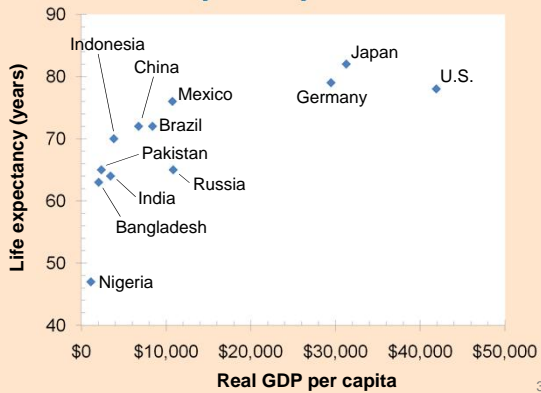_____

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GDP Does Not Value:

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Then Why Do We Care About GDP?

§ Having a large GDP enables a country to afford better schools, a cleaner environment, health care, etc.

§ Many indicators of the quality of life are positively correlated with GDP. For example…

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GDP and Life Expectancy in 12 countries

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GDP and Literacy in 12 countries

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GDP and Internet Usage in 12 countries

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