# Measuring the Aggregate Output and Aggregate Income Econ 202 Lecture 1.1.

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08 Jan. 2009

## Outline

1 What is GDP?

2 How is GDP measured?

3 Limitations of the GDP concept

## Motivation

Before we can understand how the economy works we must know what it looks like:

- GDP
- national income
- consumption expenditure
- prices
- interest rates
- ...?

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- national income
- consumption expenditure
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- ...? inflation, unemployment...

## What Is GDP?

Gross Domestic Product (GDP) is the most basic measure of how an economy is performing.

#### Gross Domestic Product

The total market value of a country's output. It is the market value of all final goods and services produced in a country during a calendar year

GDP	GDP (PPP)
\$175.3 billion	\$251 billion
\$1.29 trillion	\$2.097 trillion
\$3.25 trillion	\$7.099 trillion
\$13.84 trillion	\$13.78 trillion
	\$175.3 billion \$1.29 trillion \$3.25 trillion

Source: CIA World Factbook 2008

Table: The GDP in 4 countries of interest

# GDP-related concepts

#### Final Goods and Services

Those goods and services that are **not** produced for either resale or for use in the production of other goods; produced for consumption.

#### Intermediate Goods and Services

Those goods and services that are produced by one firm for use by another firm to produce a final good (or another intermediate good); produced for further production.

## Value added (VA)

The difference between the value of the total goods and services and the value of the intermediate goods.

## How is GDP measured?

#### 2 main approaches:

- The Expenditure Approach: adds together 4 components of spending
  - Personal Consumption Expenditures (C) are expenditures by consumers on final goods and services.
  - Investment (I) is the purchase of new capital goods.
  - Government Consumption (G) includes expenditures by all levels of government (federal, state, and local) for final goods and services.
  - Net Exports (EX-IM) is the difference between exports and imports.
- The Income Approach: adds up the incomes of the national economy participants
  - wages and salaries,
  - rent,
  - interest, and
  - profits, ...

## Nominal VS. Real GDP

#### Nominal GDP

The GDP measured in current dollars (euro, Czech crowns), the prices paid for goods and services *today*.

But... prices may go up without changing production.

#### Real GDP

The Nominal GDP adjusted for changes in the price level.

#### **GDP** Deflator

The tool economists use to convert Nominal into Real GDP. It measures the overall price level in an economy compared to some previous year.

## Limitations of the GDP concept

GDP measures how well the economy is performing but does not tell us anything about the people who live in this economy.

GDP and social welfare:

- 1 what is the health status of the population
- how long do the people in a given economy live
- war (does G spending on weapons improve your life)
- what kinds of goods the economy produces
- GDP does not measure the grey (underground) economy
- o how clean is the environment you live in

## GDP per capita

A country's GDP divided by its population.