# AP Macroeconomics

## Gross Domestic Product

# Gross Domestic Product (GDP)

- **GDP is the market value of all final goods and services produced within a nation in a year (***Dodge, 2005***).**

- **GDP measures Aggregate Spending, Income and Output.**


Turkey
Tunisia
Ecuador
Norway
Dominican Rep.
Moroco
Israel
Bangladesh
Ukraine
Croatia
So. Africa
Belgium
Brazil
Uzbekistan
Argentina
Vietnam
Czech Republic
Venezuela
Netherlands
Greece
Ireland
Russia
Peru
Australia
Romania
Mexico
Denmark
Finland
Malaysia
Algeria
Hong Kong
France
Austria
Poland
Portugal
New Zealand
Sweden
Philippines
Saudi Arabia
Thailand
Pakistan
Singapore
Hungary
Chile
Iran
Switzerland
Canada
Indonesia
Korea Republic
Nigeria
Belarus

# Counted or Not Counted?

- GDP counts all final, domestic production for which there is a market transaction in that year.
- Used and intermediate goods are not counted in order to avoid double-counting.
- Non-market production is not counted.
- Underground or ‘black market’ activity is not counted.

# Counted or Not Counted?

- **Which of the following are counted or not counted in U.S. GDP and why?**
  - **New U.S. manufactured Goodyear tire sold to the General Motors Corporation**
  - **New U.S. manufactured Goodyear tire sold to Mr. Mayer**
  - **Child care services provided by my daughter for the neighbor's kid**
  - **A new Airbus A380 (I made that # up)**
  - **A new Boeing 787**
  - **New Tundra pick-up truck manufactured in San Antonio by Japanese firm Toyota.**

# Aggregate Spending

- $GDP = C + I_G + G + X_N$

- C = Consumption
- $I_G$ = Gross Private Investment
- G = Government Spending
- $X_N$= Net Exports

  = Exports (X) – Imports (M)

# Consumption

- Consumer spending on
  - Durable goods (cars, appliances…)
  - Non-durable goods (food, clothing…)
  - Services (plumbing, college…)
- Consumer spending is the largest component of U.S. GDP.

# Gross Private Investment

- Spending in order to increase future output or productivity
  - Business spending on capital
  - New construction
  - Change in unsold inventories

# Government Spending

- All levels of government spending on final goods and services and infrastructure count toward GDP.
- Government transfer payments do not count toward GDP.

# Net Exports

- Exports – Imports
- X – M
- Exports create a flow of money to the United States in exchange for domestic production.
- Imports create a flow of money away from the United States in exchange for foreign production.

# Aggregate Income

- GDP measures spending and income.
- Income = r + w + i + p = factor payments
- r = rent (payment for natural resources)
- w = wages (payment for labor)
- i = interest (payment for capital)
- p = profits (payment for entrepreneurship)

# Nominal v. Real GDP

- Nominal GDP is current GDP measured at current market prices
  – Nominal GDP may overstate the value of production because of the effects of inflation
- Real GDP is current GDP measured with a fixed dollar
  – Real GDP holds the value of the dollar constant and is useful for making year to year comparisons
- Real GDP is the IMPORTANT ONE!!!

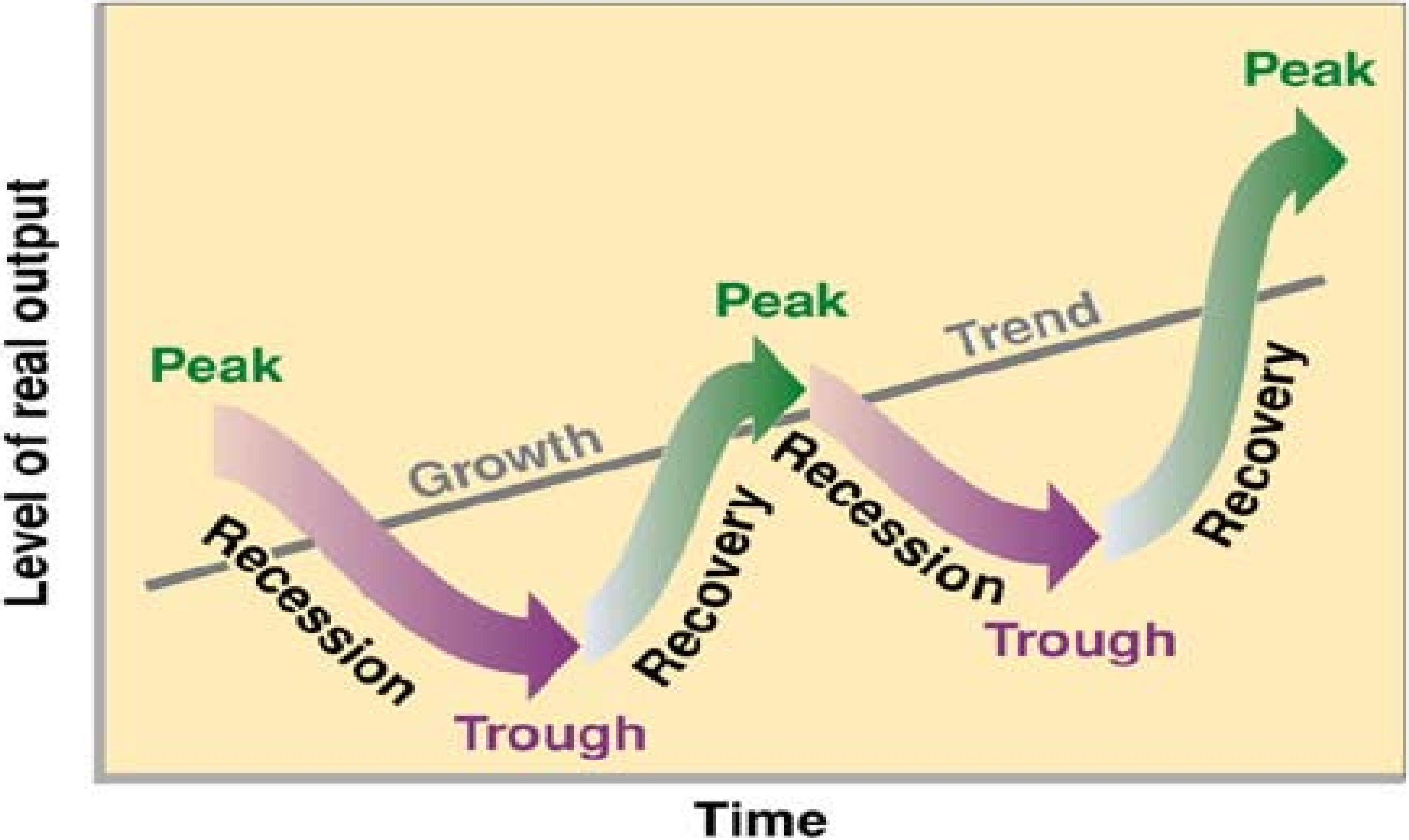
# Changes in GDP

- GDP is a measure of a nation's prosperity and economic growth
- As GDP grows the burden of scarcity is lessened for a society
- GDP per capita provides a better measure of individual well-being than GDP

# The Business Cycle

- The United States’ GDP is not constant from year to year.
- Instead, the GDP grows most years and then shrinks in some years.
- The ups and downs in GDP over time is referred to as the business cycle.

# The Business Cycle Illustrated:



# The Business Cycle Illustrated:

- **Peak**
  - temporary maximum in Real GDP. At this point the unemployment rate (u%) is probably below the natural rate of unemployment, and the inflation rate (π%) is probably increasing.
- **Recession**
  - The contractionary phase of the business cycle. A period of decline in Real GDP accompanied by an increase in u%. To be classified as a recession, the economic decline must be at least 6 months long.
- **Trough**
  - The bottom of the business cycle. The u% is probably high and π% is probably low.
- **Recovery**
  - The phase of the business cycle where the economy is returning to full employment.

# The Business Cycle Illustrated:

- **Important note**
  - **The various phases of the business cycle last for different amounts of time.**
  - **In recent history, expansions have lasted years longer than have recessions.**
  - **The Great Depression is the most notable example of a long recession/trough**

# The Business Cycle Illustrated:

- Causes
  - Irregularity of Investment
  - Changes in productivity
  - Changes in total spending (aggregate demand)
- Durable goods manufacturing is most susceptible to the effects of the business cycle
- Business cycle has become less severe because of technological advancements in supply-chain management and structural changes in U.S. economy.