Lesson 1 GDP

What is Macroeconomics?

Macroeconomics is the study of the large economy as a whole. It is the study of the big picture.

- **Instead of analyzing one consumer, we analyze everyone.**
- **Instead of one firm we study all firms.**

Why study the whole economy?

- **Macro was created to:**
  1. **Measure the health of the whole economy.**
  2. **Guide government policies to fix problems.**

Goals in macroeconomics

For all countries there are three major economic goals:

1. Promote Economic Growth
2. Limit Unemployment
3. Keep Prices Stable (Limit Inflation)

In this course we will analyze each of them.

Concept of GDP

How do we know how well the economy is doing?

- **Economists collect statistics.**
- **GDP, CPI, Unemployment rates...**

The most important measure of growth is GDP.

Gross Domestic Product (GDP) is the market value of all final goods and services produced within a country's borders in one year.

- **Market value- GDP is measured in dollars.**
- **Final Goods-GDP does not include the value of intermediate goods. Intermediate goods are goods used in the production of final goods and services.**
- **Within a country's borders**
- **One Year-GDP measures annual economic performance.**

What is NOT included in GDP?

1. **Intermediate Goods**
   - **No Multiple Counting, Only Final Goods**
     - **EX: Price of finished car, not the radio, tire, etc.**
2. **Nonproduction Transactions**
   - **Financial Transactions (nothing produced)**
     - **Ex: Stocks, bonds, Real estate**
   - **Used Goods**
     - **Ex: Old cars, used clothes**
3. **Non-Market (Illegal) Activities**
     - **Ex: Illegal drugs, unpaid work**

Nominal GDP & Real GDP

The Problem with GDP

If a country's GDP increased from $4 Billion to $5 Billion in one year, is the country experiencing economic growth?

Did the country definitely produce 25% more products?

EX: If apples are the only thing being produced

Year 1: 10 apples at $1 each; GDP = $10

Year 2: 10 apples x $1.25; GDP = $12.50

GDP's rising, but the country is no better off!

Real vs. Nominal GDP

Nominal GDP is GDP measured in current prices. It does not account for price changes from year to year.

Real GDP is GDP expressed in constant, or unchanging, dollars.

REAL GDP IS THE BEST MEASURE OF ECONOMIC GROWTH!

Real vs. Nominal GDP Example

2008

10 cars at $15,000 each = $150,000
10 trucks at $20,000 each = $200,000
Nominal GDP = $350,000

2009

10 cars at $16,000 each = $160,000
10 trucks at $21,000 each= $210,000
Nominal GDP = $370,000

2009

10 cars at $15,000 each = $150,000
10 trucks at $20,000 each= $200,000
REAL GDP = $350,000

The GDP in year 2008 shows the dollar value of all final goods produced.

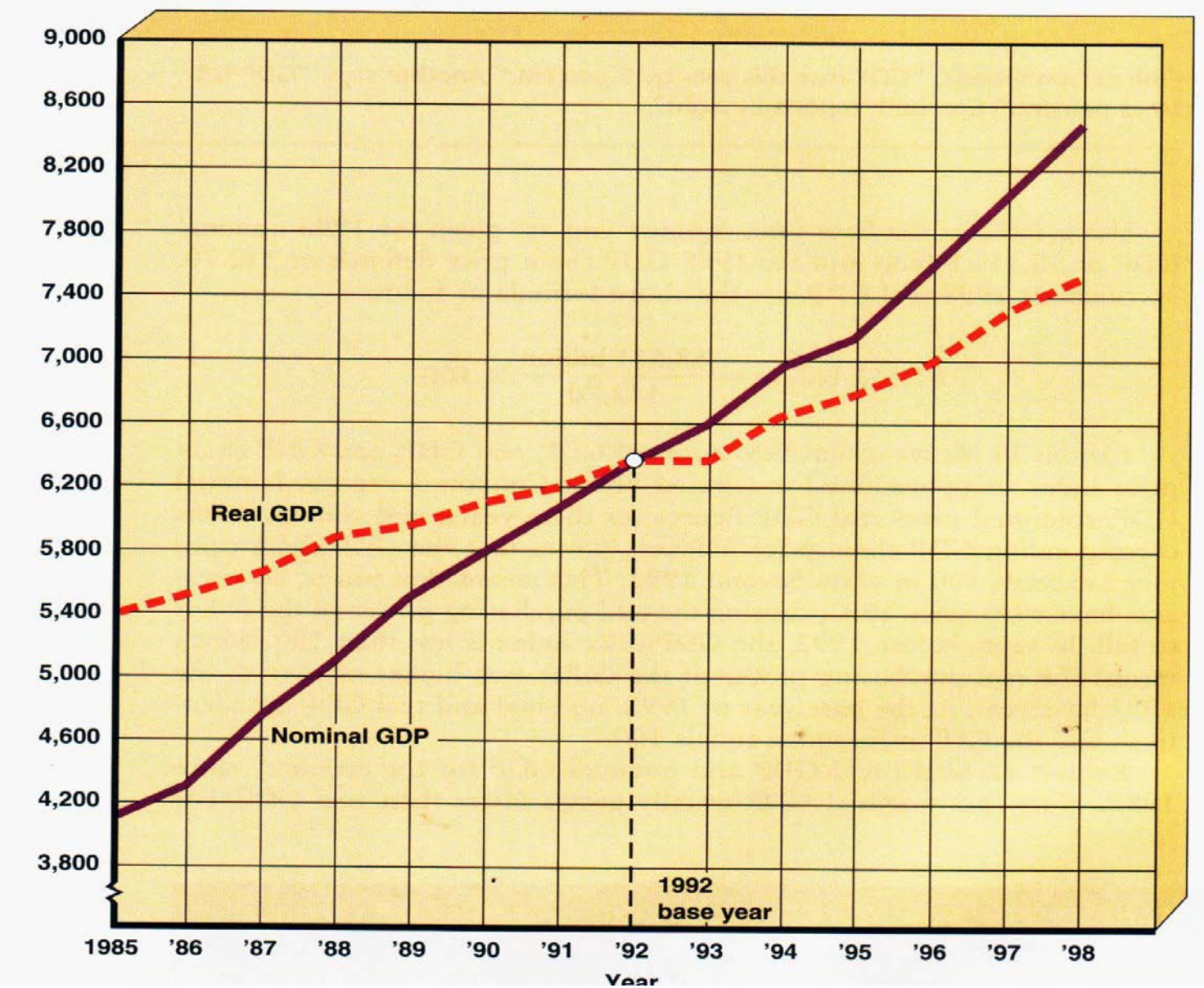
The nominal GDP in year 2009 is higher which suggests that the economy is improving.

But how much is the REAL GDP? How do you get it?

Use 2008 Prices.

The Real GDP for 2009 is the same as 2008 after we adjust for price change.

Real GDP is adjusted from nominal GDP in terms of a base year's prices.



Real versus Nominal GDP

An accurate view of the economy requires adjusting nominal to real GDP by using the GDP deflator.

GDP Deflator

- The GDP deflator measures the current level of prices relative to the level of prices in the base year.
- It tells us the rise in nominal GDP that is attributable to a rise in prices rather than a rise in the quantities produced.

GDP Deflator

The GDP deflator is calculated as follows:

$$\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

Converting Nominal GDP to Real GDP

Nominal GDP is converted to real GDP as follows:

$$\text{Real GDP}_{20xx} = \frac{(\text{Nominal GDP}_{20xx})}{(\text{GDP deflator}_{20xx})} \times 100$$

Real and Nominal GDP

Year	Price of Hot dogs	Quantity of Hot dogs	Price of Hamburgers	Quantity of Hamburgers
2001	$1	100	$2	50
2002	$2	150	$3	100
2003	$3	200	$4	150

Real and Nominal GDP

Calculating Nominal GDP:	
2001	($1 per hot dog x 100 hot dogs) + ($2 per hamburger x 50 hamburgers) = **$200**
2002	($2 per hot dog x 150 hot dogs) + ($3 per hamburger x 100 hamburgers) = **$600**
2003	($3 per hot dog x 200 hot dogs) + ($4 per hamburger x 150 hamburgers) = **$1200**

Real and Nominal GDP

Calculating Real GDP (base year 2001):	
2001	($1 per hot dog x 100 hot dogs) + ($2 per hamburger x 50 hamburgers) = **$200**
2002	($1 per hot dog x 150 hot dogs) + ($2 per hamburger x 100 hamburgers) = **$350**
2003	($1 per hot dog x 200 hot dogs) + ($2 per hamburger x 150 hamburgers) = **$500**

Real and Nominal GDP

Calculating the GDP Deflator:	
2001	($200/$200) x 100 = **100**
2002	($600/$350) x 100 = **171**
2003	($1200/$500) x 100 = **240**

Disadvantages of GDP

GDP does NOT measure:

1. health
2. infant mortality
3. morbidity
4. suicide rates
5. crime
6. poverty
7. environmental health/decay and destruction of the natural environment
8. infrastructure such as highways and bridges
9. family breakdown
10. loss of leisure time
11. cost of commuting to work
12. lack of civility in communities
13. lack of concern for future generations
14. income gap (women/men; poor/wealthy)

……

Does GDP accurately measure standard of living?

Standard of living (or quality of life) can be measured, in part, by how well the economy is doing…

But it needs to be adjusted to reflect the size of the nation's population.

Real GDP per capita (per person)

- **Real GDP per capita is** real GDP divided by the total population. It identifies on average how many products each person makes.

Real GDP per capita is the best measure of a nation's standard of living.

What is Economic Growth?

1. **An increase in real GDP over time**
2. **An increase in real GDP per capita over time (usually used to determine standard of living)**

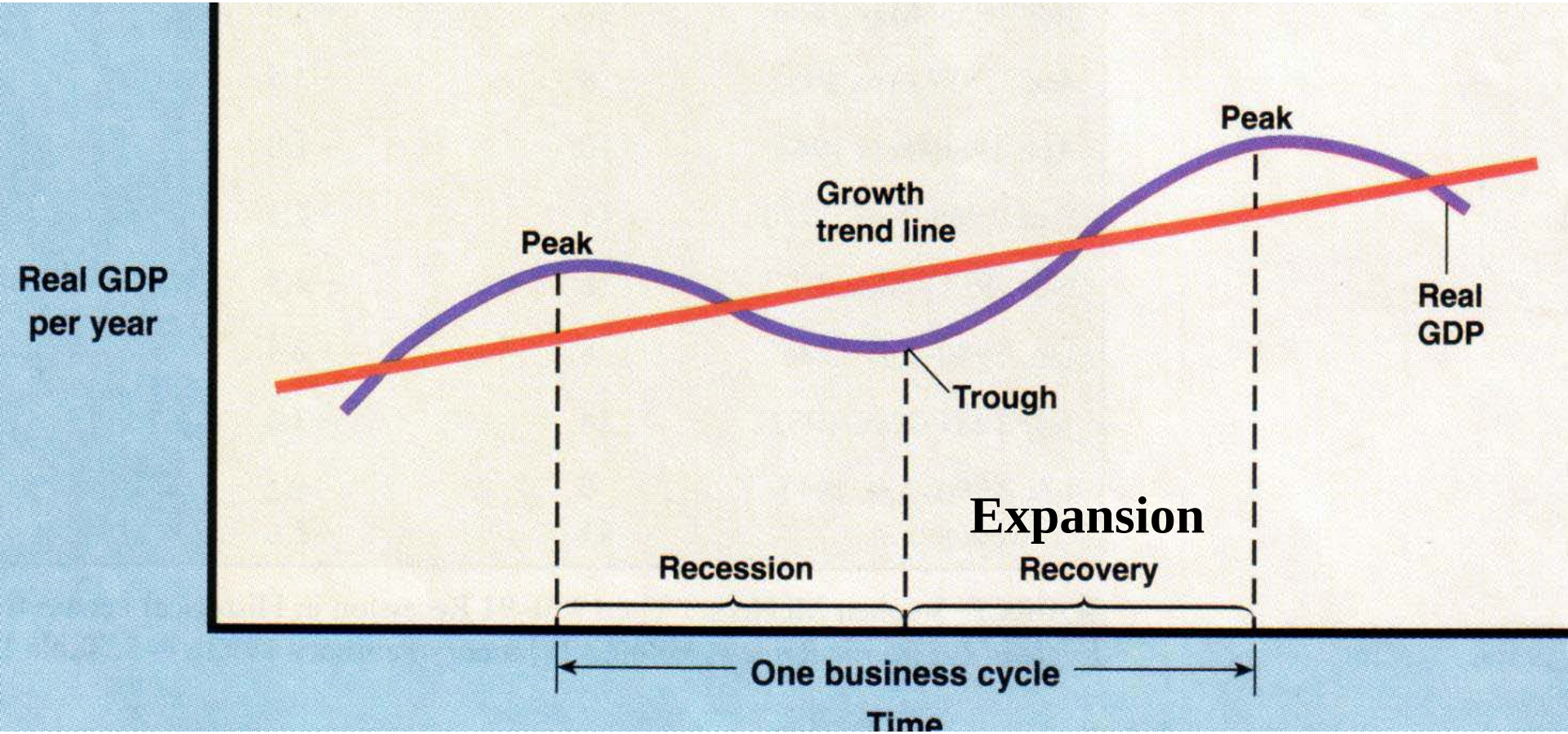
Why is economic growth the goal of every society?

- **Provides better goods and services**
- **Increases wages and standard of living**
- **Allows more leisure time**
- **Economy can better meet wants**

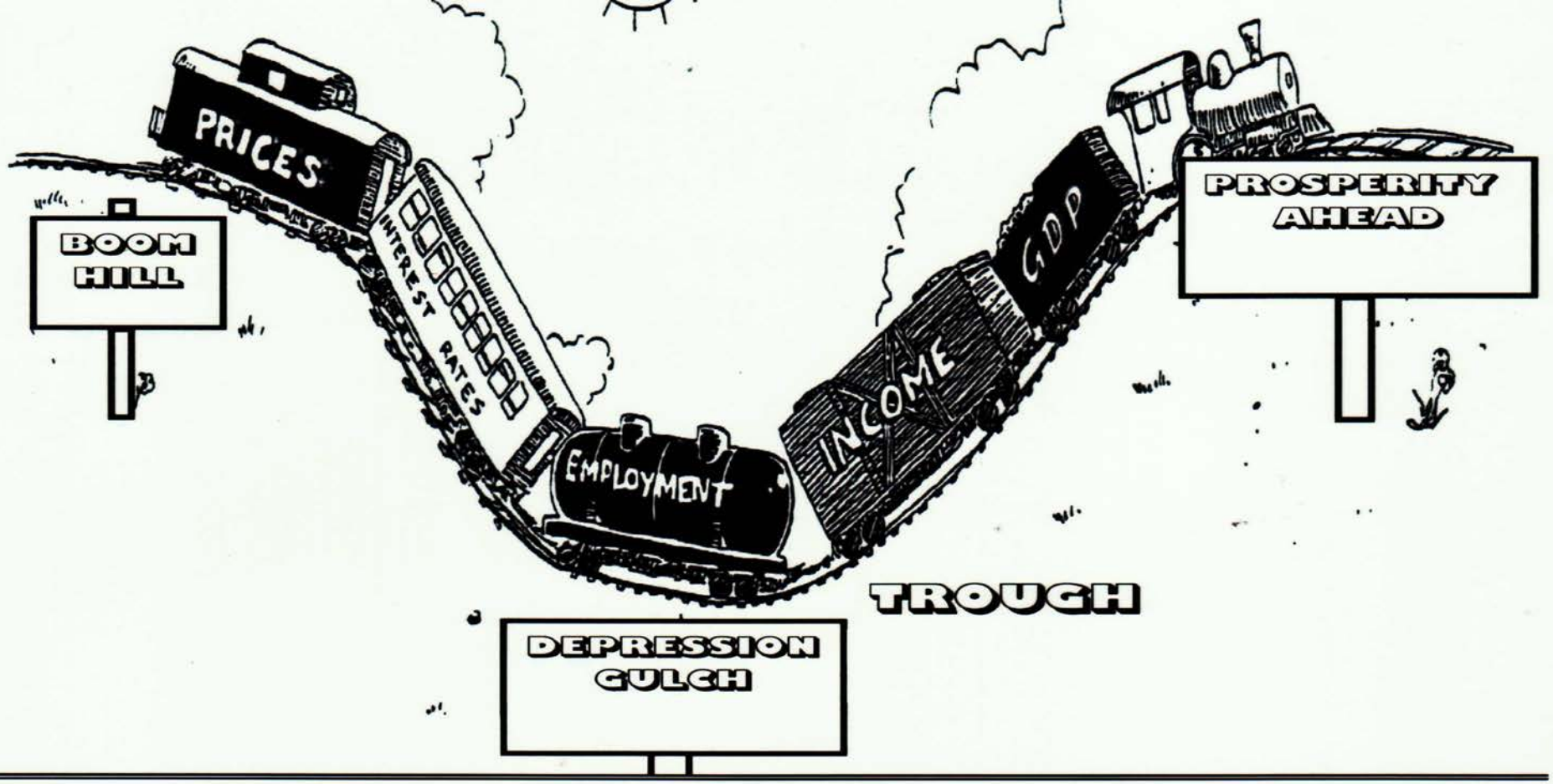
Economic cycle

THE BUSINESS CYCLE

The national economy fluctuates resulting in periods of boom and bust.



A Recession is 6 month period of decline in output, income, employment, and trade. (If really bad…then depression)



Characteristics of Expansions and Recessions

Expansions

1. Less unemployment
2. Increase in real GDP
3. Rapid job growth
4. Increasing interest rates
5. Increasing prices
6. Fewer social problems
   [alcoholism, domestic violence, divorce, and suicides]

Recessions

1. More unemployment
2. Decrease in Real GDP
3. Reduced job growth
4. Lower interest rates
5. Decreasing prices
6. More social problems
   [alcoholism, domestic violence, divorce, and suicides]