Lecture 2: Basic Definitions

- GDP
- Inflation Rate
- Unemployment Rate
- Trade and Budget Deficits

Gross Domestic Product

- First thing we look at (its rate of growth)
- Aggregate output: Not easy!
  - Sum of apples and oranges
  - Double-counting
- Example

A Simple Economy

- ## Steel Company
  - Revenue from sales $100
  - Expenses (wages)   80
  - Profit   20

- ## Car Company
  - Revenue from sales $210
  - Expenses
    - Wages $70
    - Steel purchases   100
  - Profit   40

- ## What is this economy's GDP?

Calculating GDP

- Method 1: GDP is the value of the *final goods and services* produced by the economy during a *given period*

- Method 2: GDP is the sum of *valued added* produced….

- Method 3: GDP is the sum of *incomes* in the economy...

Nominal vs Real GDP

- Nominal GDP: sum of final goods produced times their *current price*
  - Growth due to quantity (production)
  - Growth due to prices
- Real GDP: … times their *base year price*
- Example (next trp.)
- GDP Growth: $(Y(t)-Y(t-1))/Y(t-1)$

Nominal vs Real GDP

Year 0

	Q	P	Value
Potatoes	100,000	$1	100,000
Cars	10	$10,000	100,000
Nominal GDP			**200,000**

Year 1

	Q	P	Value
Potatoes	100,000	$1.2	120,000
Cars	11	$10,000	110,000
Nominal GDP			**230,000**

The Inflation Rate

- More than one…. (P(t)-P(t-1))/P(t-1)
- GDP deflator and CPI
- GDP deflator = Nominal GDP / GDP
  - P0 = 1
  - P1 = 230,000/210,000 = 1.1 (approx.)
- NGDP growth = GDPg + Inflation (defl)
-        15   5   10
- Why do we care?

The Unemployment Rate

- Labor force (L) = Empl. (N) + Unemployed (U)
- Unemployment Rate (u) = U/L
- Willing to work? Looking for work?   L < Pop.
  - Not in the labor force
  - Discouraged workers (recessions)
- High unemployment often comes hand on hand with low *participation rate* :
  - L/Pop of working age
- U.S. (u = 4%, pr = 80%)   France (u=13%, pr = 65%)
- Why do we care? Too high and…. too low??

Deficits

- Expenditure > Income
- Trade Deficit :
  - Imports > Exports
  - U.S. today (FED, Treasury, Japan)
- Budget deficit
  - Gov. Expenditure > Gov. Revenue
- Why do we care? Smoothing; Argentina… the US

First Model: The Goods Market