

Unemployment, Inflation, CPI

SSEMA1: The student will illustrate the means by which economic activity is measured.

- a. Define GDP, economic growth, unemployment, CPI, inflation, stagflation, and aggregate supply and demand.
- b. Explain how economic growth, inflation, and unemployment are calculated.
- c. Identify structural, cyclical, and frictional unemployment.

Labor Force

- Labor force: total number of employed and unemployed adult workers
 - Complete pool of US workers
- Who qualifies for the labor force? Adult non-institutionalized civilian population
 - Over the age of 16
 - Not in the military
 - Not in jail or prison
 - Not living permanently in nursing homes or in another 'institution'

- Who is not in the labor force?
 - Children under 16
 - Full-time students
 - Homemakers
 - Retired
 - Jailed or imprisoned
 - Military personnel

Employed

- Employed: number of adult civilians who are working and on a payroll of some type
 - Full-time and part-time workers
 - Business owners (entrepreneurs, sole proprietors)
 - Unpaid workers in a family business
 - People on leave of absence (maternity, illness, etc.)

Unemployed

- Unemployed: adults that are not working but are actively seeking work
 - Looking for work within the past 4 weeks

Types of Unemployment

- 1. Frictional unemployment: caused by movement in the economy
 - Always present in the economy
 - Resulting from temporary transitions made by workers and employers
 - When people move in order to find a job
 - Someone graduates and looks for a job
 - Stay at home parent goes back to work

- 2. Seasonal unemployment: occurs as a result of seasonal change or when industries slow or shut down for a season
 - White Water lifeguard
 - Retail workers during holiday season

- 3. Structural Unemployment: jobs that are permanently lost; workers skill do not match the jobs that are available or in demand
 - Jobs that no longer exist and are not coming back
 - Building a new economic structure
 - Machines replacing workers
 - Jobs sent to other countries (outsourcing)

- 4. Cyclical Unemployment: rises during economic downturns and falls when the economy improves
 - Caused by changes in the business cycle
 - Contractions=unemployment rises
 - Expansions=unemployment falls

Natural Rate of Unemployment

- Natural rate of unemployment: unemployment rate of 5% to 6% is considered a normal/healthy economy
 - July 2008—5.8%
 - The unemployment rate in the US was reported as 7.4% in September 2013
 - From 1948 until 2010 the US unemployment rate averaged 5.7%

Full Employment

- Full employment is at the natural rate of unemployment (5-6%)
- Zero unemployment is not an achievable goal
 - Unemployment rate in the early 2000s of 3.8% was indication of economy dealing with inflationary conditions; over-performing economy

Underemployed and Discouraged Workers

- Underemployed workers: working for a job for which one is overqualified or working part-time when full-time work is desired
- Discouraged workers: a person who wants a job but has given up looking (do not count against unemployment rate)
 - Dropped out of the labor force

Unemployment Examples

1. Is your retired grandfather unemployed?
 1. No, not working, not looking for work
2. Is a woman that stays home with her kids unemployed?
 2. No. Not looking for work
3. A thief serving time prison lost his job when he was convicted. Is he unemployed?
 3. No. Not counted in adult population
4. An aunt serving in the Armed Forces is posted in Iraq. Is she unemployed?
 4. No. Not in civilian labor force
5. Is a full-time college student who is looking for a job unemployed?
 5. Yes. They are actively seeking a job
6. Are you unemployed?

- Labor Force = employed + unemployed
 - January 2012
 - Employed: 141.2 million
 - Unemployed: 12.8 million
 - $141.2 + 12.8 = 154$ million
- Unemployment Rate = number of unemployed divided by the labor force multiplied by 100
 - $\frac{\text{Unemployed}}{\text{Labor Force}} \times 100$ Jan 2012: $\frac{12.8}{154} \times 100 = 8.3\%$
- Labor force participation rate—percentage of adult population that is participating in the labor force
 - $\frac{\text{Labor Force}}{\text{Adult population}} \times 100$
 - January 2012: $\frac{154}{243} \times 100 = 64\%$

Calculating the Unemployment Rate

- Use the following formula to calculate the unemployment rate:
 - $\frac{\text{Number of people unemployed}}{\text{labor force}} \times 100$
- 1. 2006, number of people unemployed = 9.4 million
Number of people in the labor force = 147.1million
$$\frac{9.4}{14.7} \times 100 = 6.4\%$$
- 2. In 2012, unemployed= 11.5 million
labor force=154 million
$$\frac{11.5}{154} \times 100 = 7.4\%$$

Review—Unemployment Statistics

- The country of Maraland has collected the following information:
 - Adult population: 240,000
 - Employed: 180,000
 - Unemployed: 30,000
- Determine the following:
 1. Labor force = $\frac{180,000}{210,000} + \frac{30,000}{210,000} = \frac{210,000}{210,000}$
 2. Unemployment rate = $\frac{30,000}{210,000} \times 100 = 14.3\%$
 3. Labor-force participation rate = $\frac{210,000}{240,000} \times 100 = 87.5\%$

Inflation

- Inflation: a general and sustained increase in prices, causes money to hold less value
- Inflation rate: percentage change in the price level from the previous period or base year
 - Normal, “healthy” rate is about 2-3%
 - From 1914 until 2010, the average inflation rate in US was 3.38%

Causes of Inflation

- Quantity Theory: too much money in the economy causes inflation
 - Ideally, the money supply should increase at the same rate of growth in GDP
 - Ducktown/Germany between the wars
- Demand-Pull theory: inflation occurs when demand for goods and services exceeds existing supplies
- Cost-Push theory: inflation occurs when producers raise prices in order to meet increasing costs of inputs

Consumer Price Index (CPI)

- Consumer Price Index: an index used to measure inflation; measures the overall cost of goods and services bought by the typical urban consumer
 - Computed each month by the Bureau of Labor Statistics (BLS), part of the Department of Labor
- Market basket: metaphorical object to represent the collection of goods and services purchased by an urban consumer on a monthly basis
 - The BLS fixes the basket of goods and services to compare prices
 - Derived of more than 200 sub-categories arranged into eight major groups
 - What would be in your market basket?

Determining CPI

- $\text{CPI} = \frac{\text{price of basket of goods and services in current year}}{\text{price of basket in base year period}} \times 100$
- Base period is between 1983-1984: \$1,792
- Market basket 2012: \$4,114.32
- $\frac{4114.32}{1792} \times 100 = 229.59$
- $229.59 - 100 = 129.59\%$
- Prices have inflated 129.59% since (1982-1984)

Determining Inflation Rate

- Inflation rate = $\frac{\text{CPI Current Year} - \text{CPI Previous Year}}{\text{CPI Previous Year}} \times 100$
- 2012 CPI – 229.59
- 2007 CPI – 207.34
- $\frac{229.59 - 207.34}{207.34} \times 100 = 10.73\%$
- Prices have inflated by 10.73% from 2007 to 2012
- 2008 CPI – 215.30
- 2007 CPI – 207.34
- $\frac{215.30 - 207.34}{207.34} \times 100 = 3.84\%$
- Prices have inflated by 3.84% from 2007 to 2008

Purchasing Power and Inflation

- Purchasing power: the number of goods/services that can be purchased with a unit of currency
- If you receive a 10% increase in pay from last year but prices have increased by 15%, what is the result?
- You are 5% worse off
- Nominal wage increase of 10%
- Real wage decrease of 5%
- Your salary has to keep up with inflation or you are losing purchasing power
- Think about Duck Tales and Germany between the wars