

# ECO111 : Lecture 30

24 October 2024

## UNIT 8 - THE LABOUR MARKET & THE PRODUCT MARKET: UNEMPLOYMENT & INEQUALITY

*Source: Economy, Society, and Public Policy*

# Introduction

- Combining the labor and the product market to study unemployment and inequality.
- The wage setting and price setting curve together determines the amount of structural unemployment.
- Structural unemployment arise because of the mismatch between skills and job availability.
- Public policy can be used to alter structural unemployment.
- Changes in the product and the labor market can alter the level of inequality in the economy.
- Try to answer over long periods of time unemployment rates differ across countries.

# What is unemployment

- Unemployment is a situation in which a person who is able and willing to work cannot find a job in a particular reference period.
- The **population of working group** by convention consists of all people aged 15-64 years of age.
- The population of working group is divided into the **labor force** and **inactive population**.
- Labor force is the number of people in the population of working age who are, or wish to be, in work outside the household. They are either employed (including self employed) or unemployed.
- Inactive population are the people in the population of working age who are neither employed nor actively looking for paid work.

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$$\begin{aligned} \textit{Participation rate} &= \frac{\textit{labor force}}{\textit{population of working age}} \\ &= \frac{\textit{employed} + \textit{unemployed}}{\textit{population of working age}} \end{aligned}$$



$$\textit{Unemployment rate} = \frac{\textit{unemployed}}{\textit{labor force}}$$

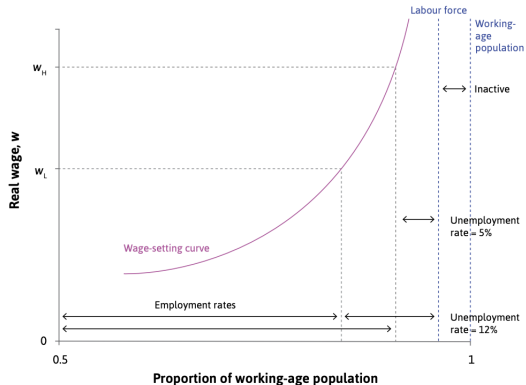


$$\textit{Employment rate} = \frac{\textit{employed}}{\textit{population of working age}}$$

# The Wage-Setting / Price-Setting Model

- Model for an entire economy known as the aggregate economy.
- The model of the aggregate economy has two parts here :
  - 1 The labor market and the wage setting curve
  - 2 The product market and the price setting curve
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# The Wage Setting Curve

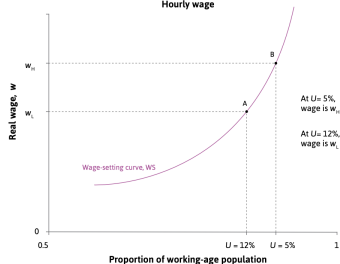
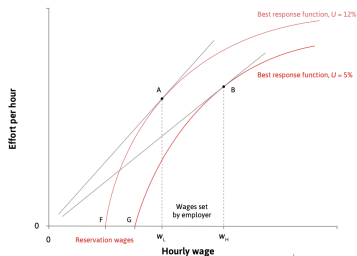


# Contd...

- The labour force is the vertical line furthest to the right: It has a value less than 1, depending on the participation rate.
- Inactive workers are to the right of the labour force line.
- The employment rate is the vertical line to the left of the labour force, indicating the share of the population who are actually working.
- The unemployment rate is the proportion of those in the labour force who are not employed: that is, those workers in between the employment rate line and the labour force line.
- The upward-sloping line is called the wage-setting (WS) curve.
- The wage-setting curve for the whole economy is based directly on the employer's wage-setting decision and the employee's effort decision.



# Best response of workers to wage setting



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- A higher unemployment rate decreases the reservation wage of workers, shifting the best response curve outside.
- The employer's profit maximizing point at 12% unemployment rate is A, with wage equal to  $W_L$ .
- For an unemployment rate equal to 5% the profit maximizing point for the employer is at B, with wage being  $W_H$ .
- In the lower panel, the points A and B are plotted on the wage-setting curve.
- Assumed that there is a fixed size for the labor force.
- As employment increases to the right, the unemployment rate falls.
- The wage setting curve has been derived from the Labor discipline model.
- The employer sets the nominal wages ( $W$ ) in the Labor discipline model.
- The workers however care about their purchasing power or real wages ( $w = \frac{W}{P}$ ), where  $P$  is the price level in the economy.

# Shifts in the wage setting curve

- Consider two categories of workers for simplification of the wage setting model.
  - 1 *Working*: providing the level of effort that the firm's owners and managers have set as sufficient
  - 2 *Shirking*: providing no effort at all.
- Given an unemployment rate, an increase in employment rent shifts the best response curve of the worker outside with the reservation remaining the same.
- For a given level of effort, lower hourly wage is charged and hence the real wage declines for the same amount of unemployment. Or rather the employee works now rather than shirking
- This implies that the wage setting curve shifts down.