Lecture 6: The Labor Market, part 2

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EC566 | Macroeconomics for Business

Last Lecture

- We have learned the definitions of
  - labor force participation rate
  - unemployment rate
  - employment rate
- We derived the wage-setting curve
- We derived the price-setting curve
- We characterized the labor market equilibrium using the above two

This lecture

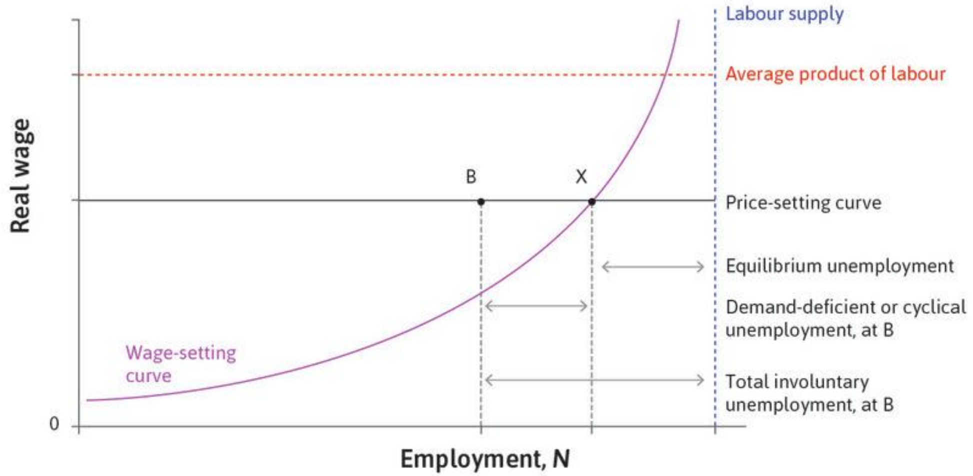
We will put our model to use

Using our model, we will

- characterize distribution of output
- learn effects of a reduction in aggreage demand on the economy
    - demand-deficit unemployment
    - automatic adjustment process of the economy
    - goverment policies to counter the reduction in demand
- learn the effects of labor unions on the economy
- learn the effects of various labor market policies on the economy

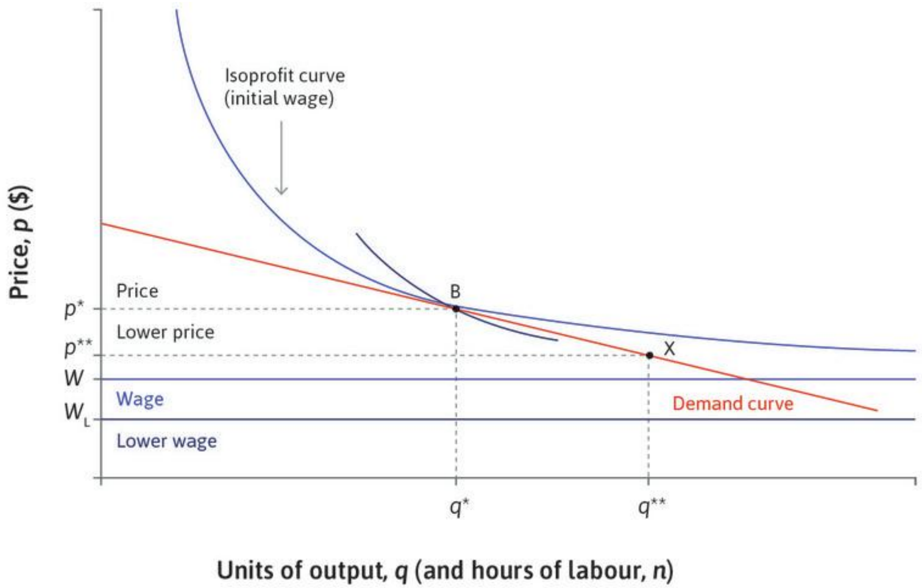
Reduction in aggregate demand

- **Aggregate demand**: sum of demand by all agents in the economy, such as
    - consumers,
    - firms,
    - governments,
    - agents from other countries
- Suppose there is a reduction in the aggregete demand
- Equilibrium point will be B.
    - Unemployment increases
- **Cyclical unemployment:** the rise in unemployment as a result of reduction in aggregate demand
    - Also known as **demand-deficient unemployment**



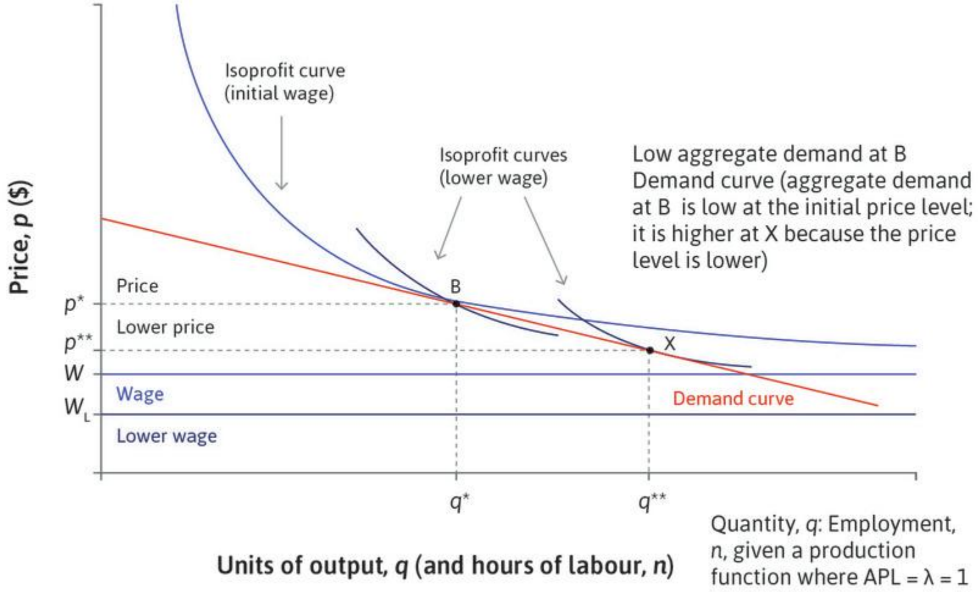
Adjustment process of the economy

- After the reduction in demand, the economy is at the point B.
    - Notice that, there is no change in the real wage
    - There is no change in the nominal wage yet
    - There is no change in the prices yet
    - Given the wage rate, p^* is the optimal price for the firm
- Then HR department lowers wages thinking that with higher unemployment, lower wages will still motivate workers to exert enough effort
- Isoprot curves become steeper
    - The slope of the isoprofit curve is $\frac{P - W/\lambda}{Q}$
    - As W decreases, isoprofit curve becomes steeper



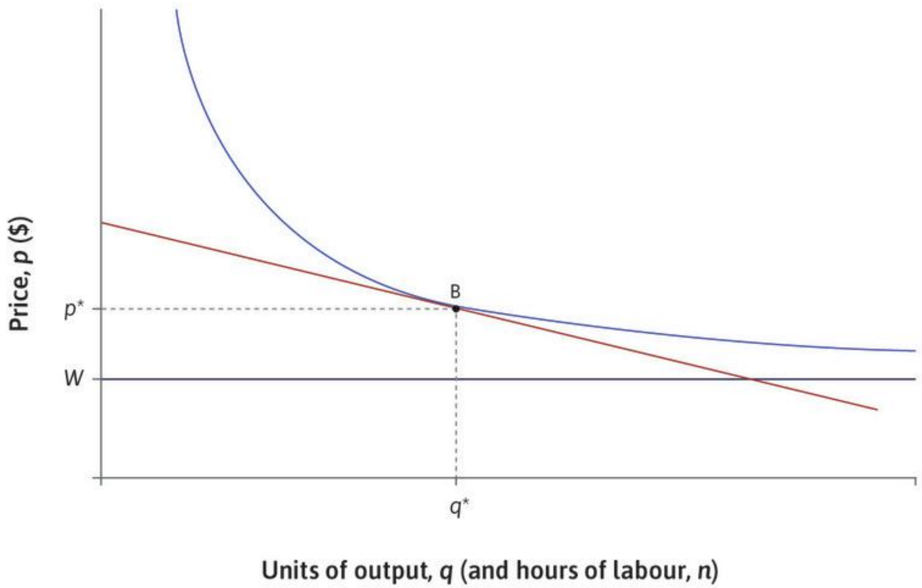
Adjustment process of the economy, cont'd

- With the reduced wage, B is no longer the profit maximizing point
- The firm chooses point X to maximize profit
  - Price goes down to p^{**}
  - Lower prices leads to higher quantity demanded, q^{**}
- At the new equilibrium
  - real wage is still unchanged
  - unemployment is unchanged
  - wage and prices are lower



Adjustment process of the economy, cont'd (2)

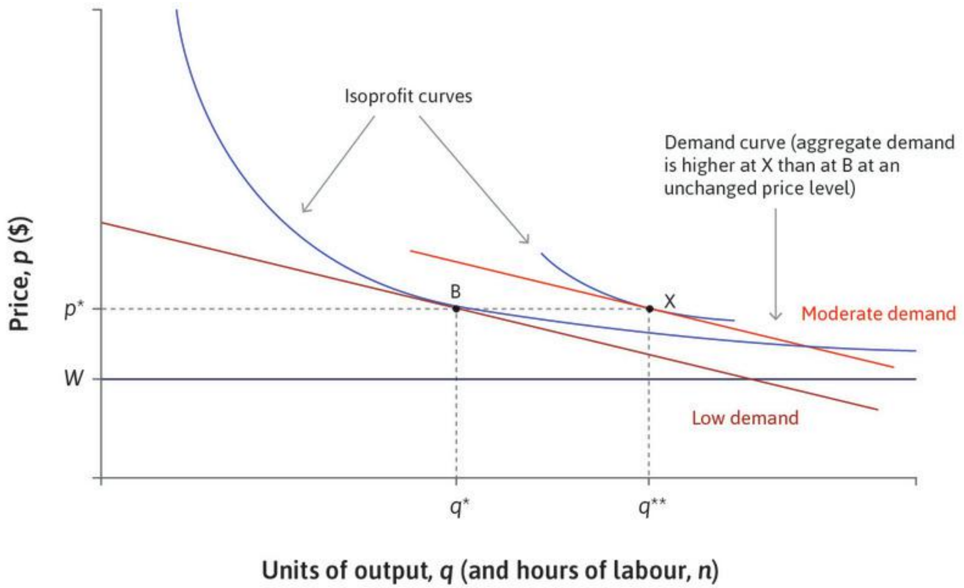
- The adjustment process described in the previous slided may not work as smoothly.
  - Resistance from the workers
  - If consumers anticipate price decline, they may postpone their purchases, which reduces demand.



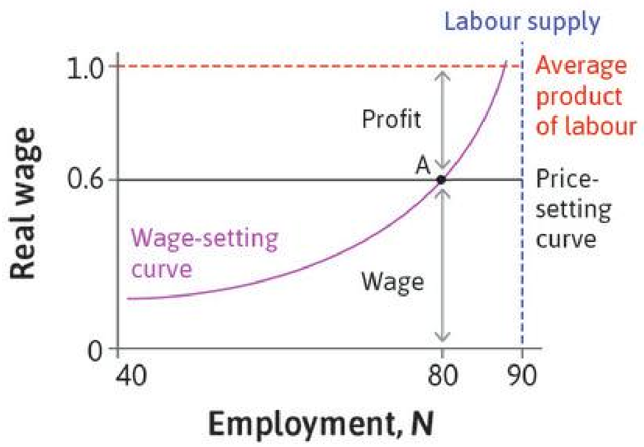
Government intervention

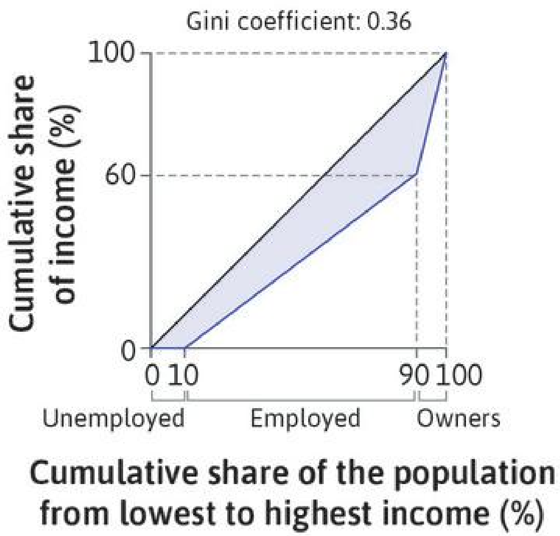
Governmensts can react to reduction in demand by

- fiscal policy
  - increasing spending or reducing taxes
- monetary policy
  - reducing interest rates to promote investment and durable goods consumption
- These policies will shift up the demand
- More on these topics in later lectures



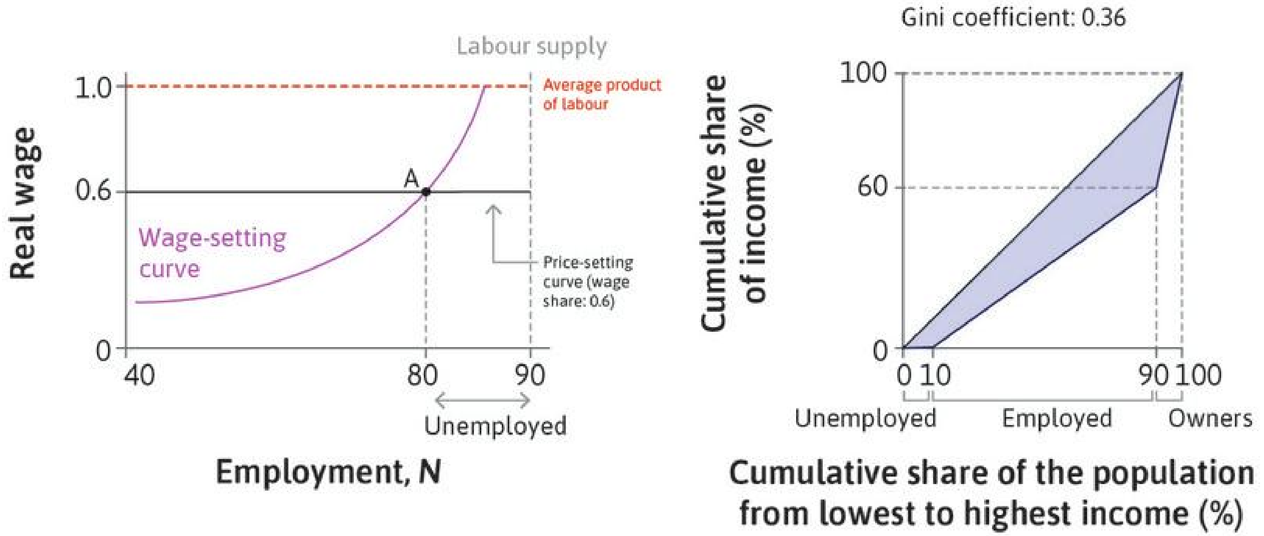
Distribution of income





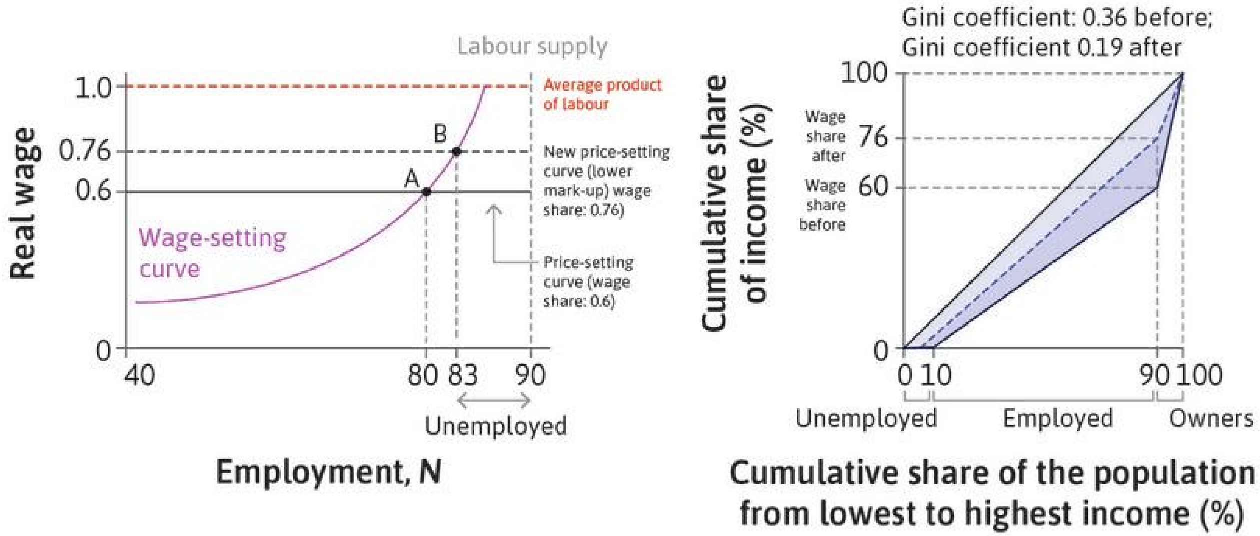
- This model has implications on the distribution of income in the economy.
- There are there groups:
  - unemployed: 10% and earn nothing
  - employed: 80% and earn 60% of total income
  - firm owners: 10% and earn 40% of total income
- Share of income going to emloyees is determined by the real wage over productivity ratio: $\frac{\frac{W}{P}}{\lambda}$

Measuring inequality



- We can draw lorenz curve and calculate the gini coefficient.
- Read Unit 5.12 Measuring income inequality

The effect on real wage increase on inquality

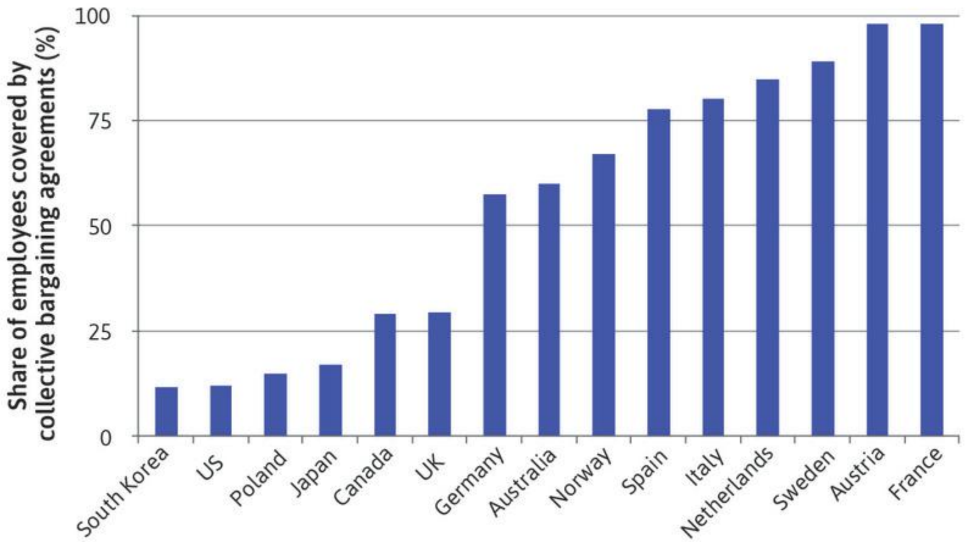


- Suppose real wages increase and the equilibrium moves to point B
  - Less unemployed
  - Workers earn more
  - Owners earn less
- Inequality decreases

Labor Unions

Labour union:

- an organization formed by employees
- negotiates pay and work conditions with employers

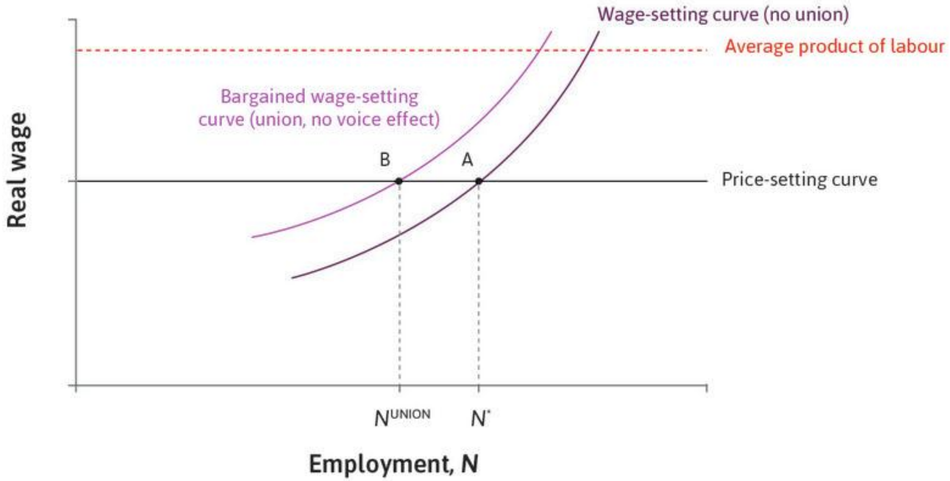


Source: Jelle Visser, 2015 ICTWSS Data base, Version 5.0

Data from late 2010s.

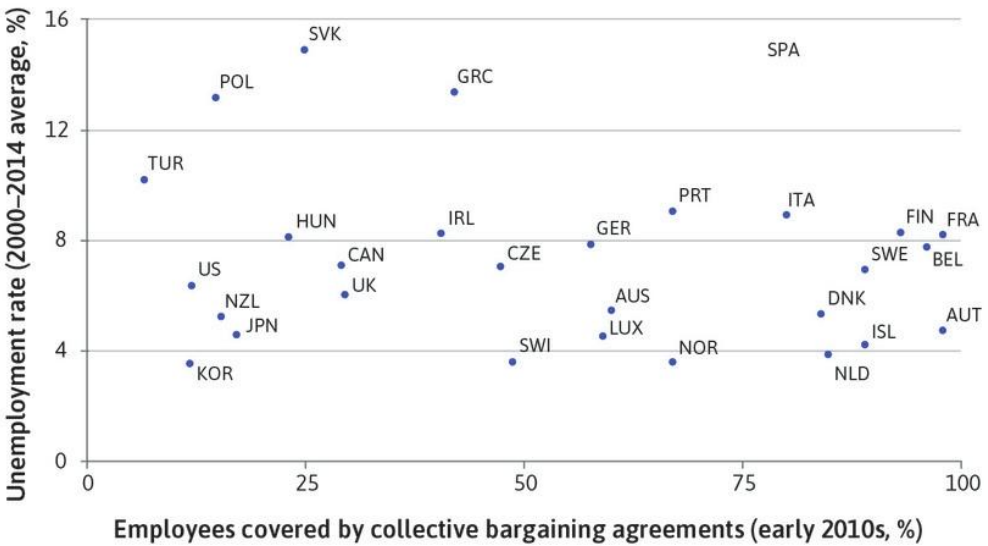
The effect of wage bargaining on the economy

- With strong unions, the wage is a result of negotiations between the firm and the union.
- The bargained wage-setting curve can be above the wage-setting curve
- No impact on real-wages
- Employment is lower



The effect of wage bargaining on the economy, cont'd

- In equilibrium
  - wage is unchanged
  - employment and firm's profits are lower.
- Data does not support the implications of the model



Labor market policies

- Shifts in the price-setting curve:
  - Education & training: labor productivity $\uparrow$
  - Wage subsidy: Production costs and prices $\downarrow$
- Shifts in the wage-setting curve:
  - Lower unemployment benefit: reservation wage $\downarrow$
- Shifts in labour supply curve:
  - immigration policies: labour supply $\uparrow$
  - childcare provision: female labour participation $\uparrow$

Next week

- The credit market
  - Read Unit 10 - Banks, Money, and the Credit Market