The labour market
The economy in the medium run
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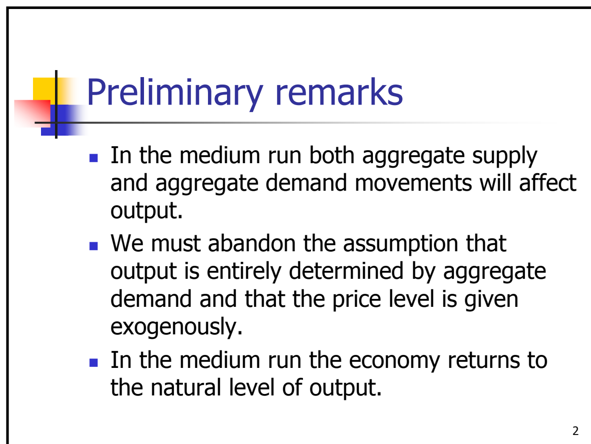
Preliminary remarks
In the medium run both aggregate supply and aggregate demand movements will affect output.
We must abandon the assumption that output is entirely determined by aggregate demand and that the price level is given exogenously.
In the medium run the economy returns to the natural level of output.
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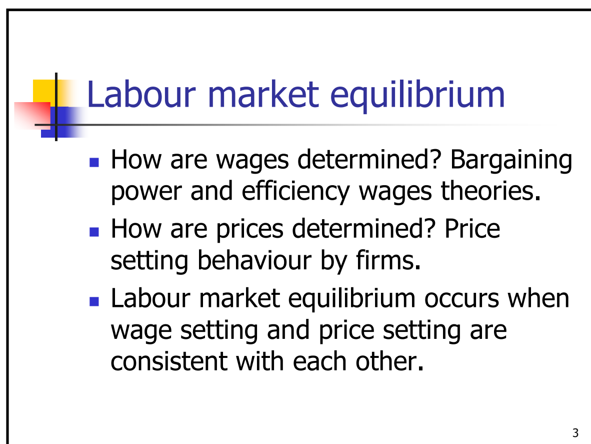
Labour market equilibrium
How are wages determined? Bargaining power and efficiency wages theories.
How are prices determined? Price setting behaviour by firms.
Labour market equilibrium occurs when wage setting and price setting are consistent with each other.
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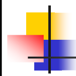

Wage determination

- Traditional approach: labour supply by workers, labour demand by firms. Labour market equilibrium requires labour supply to equal labour demand.
- Modern approach: the traditional approach is not a good description of labour relations. Modern views focus on bargaining power of workers, and efficiency wage considerations.

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Two sets of facts

- Workers are typically paid a wage that exceeds their reservation wage, the wage that would make them just indifferent between working or not.
- Wages typically depend on labour market conditions. The lower the rate of unemployment, the higher the wages will be.

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Bargaining power

- The nature of the job determines how costly it is for a firm to replace a worker. The higher the cost of replacing a worker, the more bargaining power the worker will have, and the higher wages will be.
- Labour market conditions also determine the cost of replacing a worker. Low unemployment means that it will be more difficult to find replacements, so workers have more bargaining power, and wages are higher.

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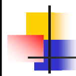

Efficiency wage theories

- Firms may want to pay an "efficiency" wage to workers in order to enhance their productivity.
- Certain types of firms such as the financial industry see employee morale and commitment as essential to the quality of work and they will pay more than other types of firms in sectors where workers face very routine activities.

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Efficiency wage theories (ctd)

- Labour market conditions also matter. A low unemployment rate means that workers will be able to find alternative jobs more easily. Thus, firms will be willing to pay higher wages in order to keep workers and to avoid significant quits.

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The wage setting equation

- The wage setting equation summarises the discussion about the determination of wages:

$$W = P^e F(u, z)$$

- The nominal wage rate depends on the expected price level, the rate of unemployment, and other factors.

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The expected price level

- Workers do not care about how many euros they get, but about how many goods they can buy with these euros.
- Workers care about real wages, not nominal wages. Any price increase will lead workers to ask for nominal wage compensation.

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The rate of unemployment

- The nominal wage rate is negatively related to labour market conditions.
- When unemployment is high, the bargaining power of workers is low and firms do not feel a need for high wages to avoid quits. Therefore, wages are relatively low.

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Other factors

- Unemployment insurance.
- Minimum wages.
- Employment protection.

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Price determination

- Prices are set by profit-maximising firms.
- The ability of setting prices requires market power, so the market is not perfectly competitive.
- In such a case, firms charge prices above their marginal costs. => Markup!

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The price setting equation

- The price setting equation is given by

$$P = (1+\mu)W$$

- Can we draw this graphically?

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Labour market equilibrium

- Wage setting equation:

$$\frac{W}{P} = F(u, z)$$

- Price setting equation:

$$\frac{W}{P} = \frac{1}{1+\mu}$$

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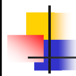

Labour market equilibrium

- Labour market equilibrium requires consistency of wage setting and price setting. Hence,

$$F(u, z) = \frac{1}{1+\mu}$$

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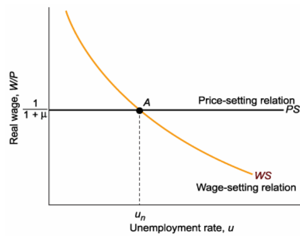
Labour market equilibrium



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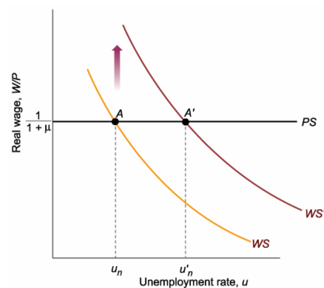
Greater unemployment benefits



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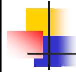
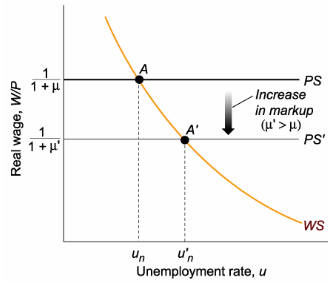
Weaker antitrust policy





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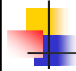
The natural rate of unemployment



- Labour market equilibrium yields the natural rate of unemployment. We can solve the equilibrium condition for u_n:

$$F(u_n, z) = \frac{1}{1+\mu}$$

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From unemployment to output

- Total labour force, L; total employment, N; total unemployment, U.

$$\frac{U}{L} = \frac{L}{L} - \frac{N}{L}$$

$$u = 1 - \frac{N}{L}$$

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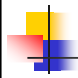

From unemployment to output

- Production function:

$$Y = N$$

- Aggregate supply curve:

$$F\left(1-\frac{Y_n}{L}, z\right) = \frac{1}{1+\mu}$$

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