



AL-FARABI KAZAKH NATIONAL UNIVERSITY

## Lecture 11. Labor Market



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# The labor market

The labor market is where the demand and supply of labor interact.

In this market, businesses demand labor services offered by households. As compensation, they pay salaries or other forms of benefits such as insurance and pension plans.





# What are the types of the labor market?

- The labor market can be a primary market or a secondary market.
  - The primary market is for permanent full-time workers.
  - The secondary market is for temporary or part-time workers.
- The supply of labor can come from internal or external to the organization.
  - Internal market is common for large or multinational companies. In this case, supply and demand take place within an organization. Companies move employees from one business unit to another.
  - External markets occur in open markets, where businesses compete with each other (including competitors) for labor.



# How does the labor market work

The labor market works similar to the goods market.

It's just that the roles of business and household are reversed.

Economists use price as the primary determinant of the quantity supplied and the quantity demanded of a good. In the labor market, wages represent labor services' price and determine the demand and supply of labor.

In the labor market, businesses and households meet to transact labor services. Firms represent the demand side, and households represent the supply side.

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# The labor market

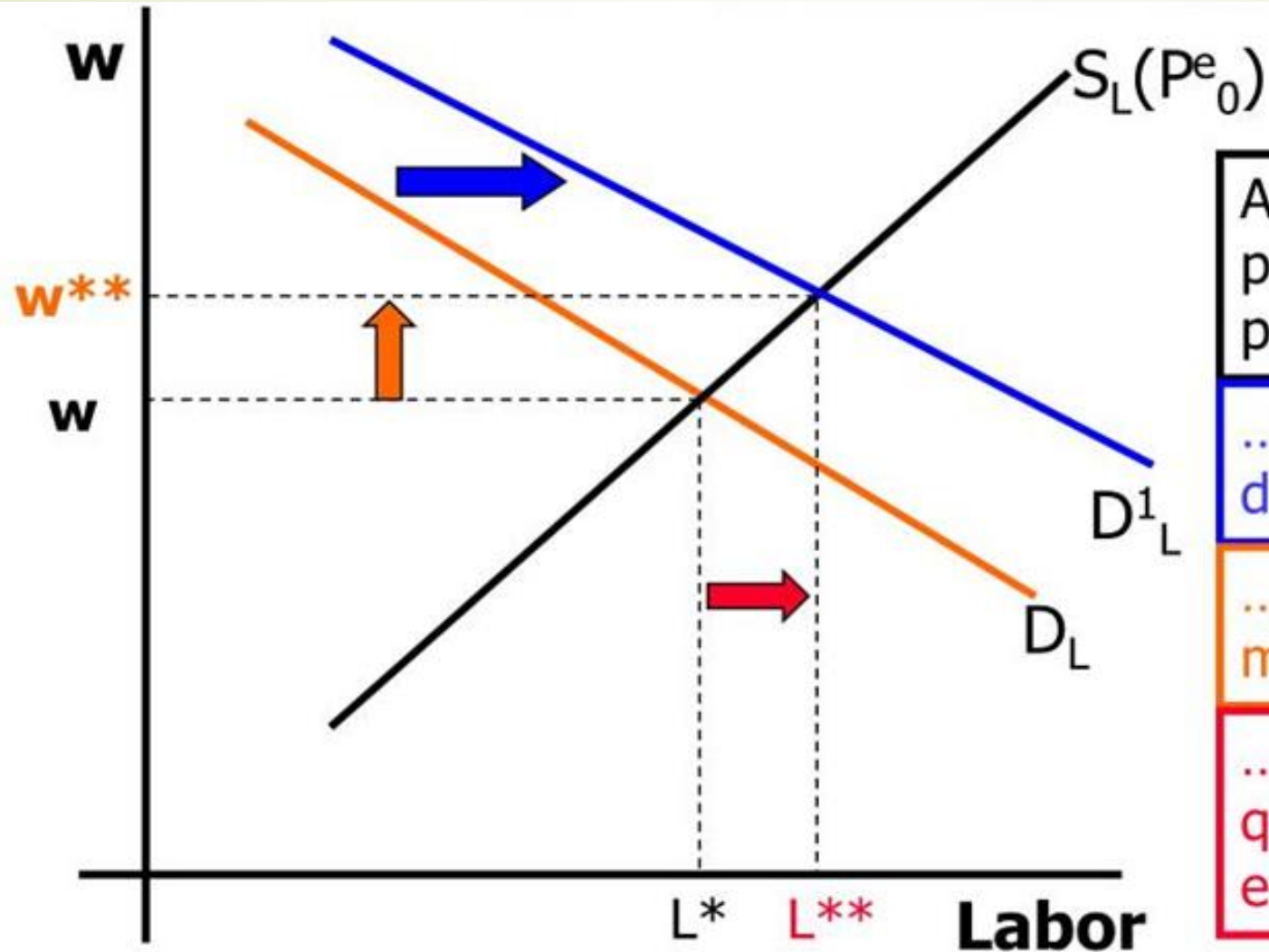
The labor market is an example of a factor market



- **Supply of labor** – those people seeking employment (employees)
- **Demand for labor** – from employers
  - A ‘Derived Demand’ – not wanted for its own sake but for what it can contribute to production
  - Demand for labor related to productivity of labor and the level of demand for the product
  - Elasticity of demand for labor related to the elasticity of demand for the product



# Equilibrium in the labor market



An increase in productivity or product prices...

...increases the demand for labor...

...increasing the market wage...

...and increasing the quantity of labor employed.

# Equilibrium in the labor market

Factors that influence the supply of labor are:

- **Population growth**, including factors such as birth and death rates. Higher population growth means greater the potential labor supply.
- **Age distribution**. The supply increases if the population is mostly composed of people of productive age.
- **Labor mobility**, including geographic mobility and occupational mobility. The first is related to the ease with which workers can move locations, which is influenced by factors such as wages, transportation networks, housing (housing), and career opportunities. The second term is related to movement from one position to another, which is influenced by factors such as education and skills.
- **Net immigration** is the difference between people who come to a country (immigrants) and people who leave the country (emigrants).
- **Globalization** increases labor mobility between countries.
- **Availability of education and training centers** affects the supply of qualified workers.

# Equilibrium in the labor market

The demand for labor depends on factors such as:

- **Business profits** are usually related to the conditions of the business cycle. The demand for labor decreases during an economic recession. In this period, business profits fall because aggregate demand decreases. Businesses stop hiring and choose to rationalize workers as they cut production. Conversely, the demand for labor increases during economic expansion.
- **Minimum wages**. Some companies offer low wages to support low operating costs. But, because the government imposes a minimum wage, they cannot do it. Hence, the minimum wage limits their demand to recruit workers.
- **Wage subsidies**. For example, the government provides incentives or wage subsidies for companies that employ or retain older workers. The purpose of subsidies is to compensate for the gap between wages and productivity of older workers.
- **Policy on the recruitment of local labor**. It affects demand because it reduces the flexibility of firms in choosing workers.
- **Production processes and technological advances**. Automation, for example, reduces the need for labor to operate production machines.
- **Quality of human resources**. Some jobs require more professional qualifications, so when the quality of local human resources does not meet the criteria, domestic labor demand is also low.
- **Number of companies**. More companies mean more demand for labor.

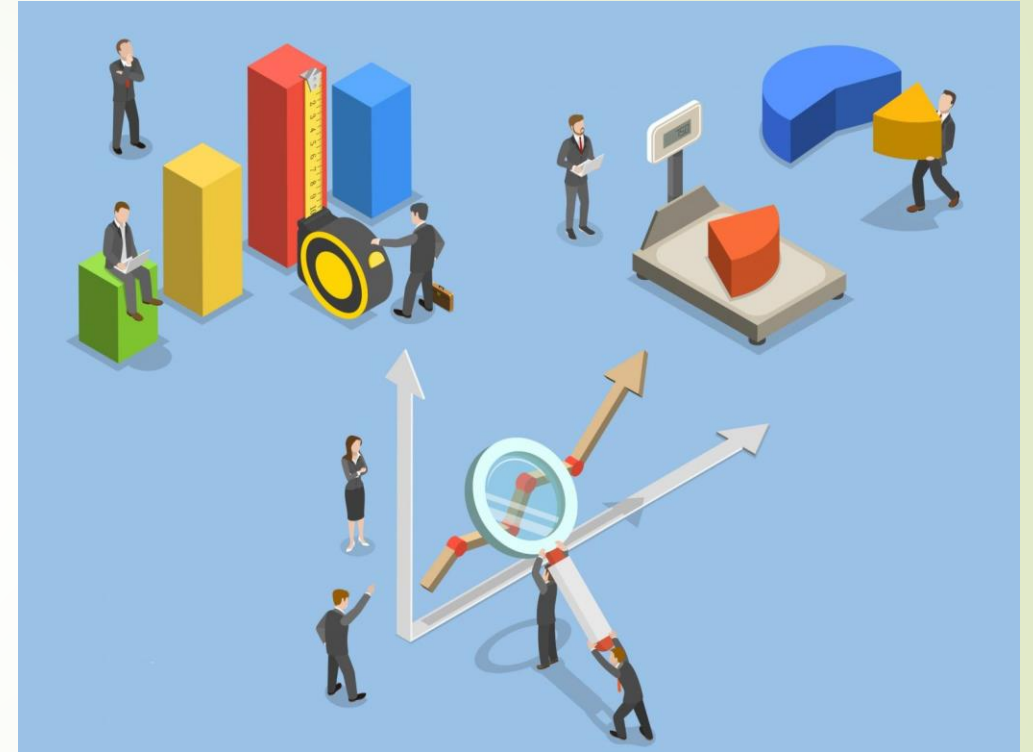


# What are the labor market indicators

- **Unemployment rate** is the ratio of the number of unemployed people to the total labor force. The numbers go up during a recession and fall during an economic expansion. Changes in the unemployment rate affect aggregate demand because it impacts the income and consumption of goods and services by the household sector.
- **Labor force** is the number of people who have jobs or are actively looking for work. Its growth can be used to measure a country's potential GDP.
- **Labor force participation rate.** You can calculate this by dividing the labor force by the total working-age population. Together with the unemployment data, we can figure out how many people are actually unemployed.
- **Labor productivity** measures how much output a worker can produce in an hour. For aggregate figures, you can calculate this by dividing GDP by the aggregate number of hours worked. Like the growth of the labor force, increasing productivity can also increase a country's potential GDP.
- **Average weekly hours in manufacturing.** These statistics often move up and down before the economy changes direction. Early in a recession, businesses are more likely to cut overtime than laying off their labor. That's because the recruitment cost is more expensive. But, if the recession is still going on, and maybe getting worse, they have more confidence to cut their workforce.

# The labor market

- ➔ At higher wage rates the demand for labor will be less than at lower wage rates
- ➔ Reason linked to **Marginal Productivity Theory**



The demand for labor is highly dependent on the productivity of the worker – the more the worker adds to revenue, the higher the demand.

# Marginal Revenue Productivity

- Productivity refers to the amount produced per worker per period of time
- MRP = the addition to total revenue (TR) received from the sale of an additional unit of output
  - Worker instrumental in producing that output
- Marginal Physical Product (MPP) – the addition to total product as a result of the employment of one additional unit of labor

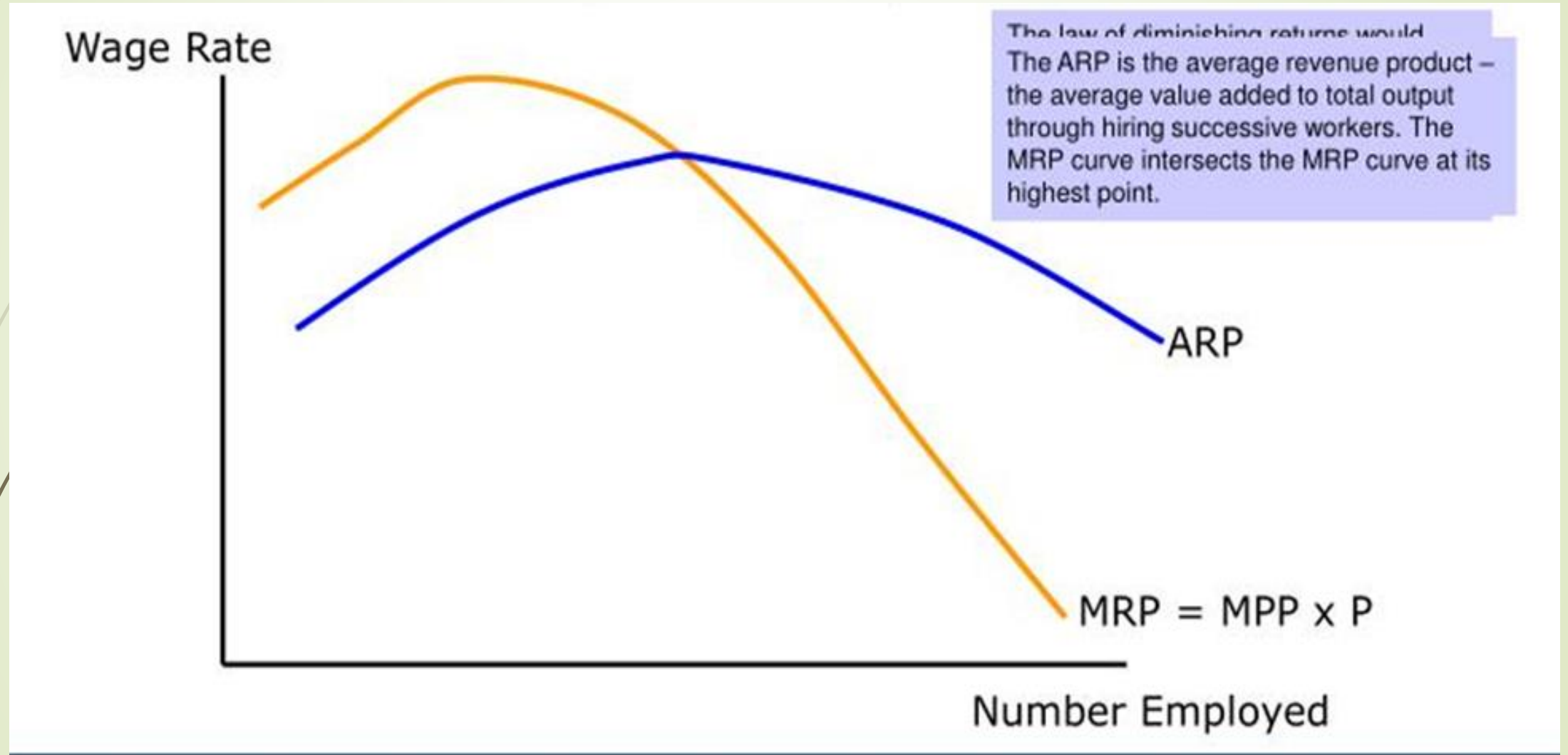
$$\text{MRP} = \text{MPP} \times P$$

- If a good sells for £1.00 and a worker produces 300 per day, the MRP of that unit of labor is £300 per day



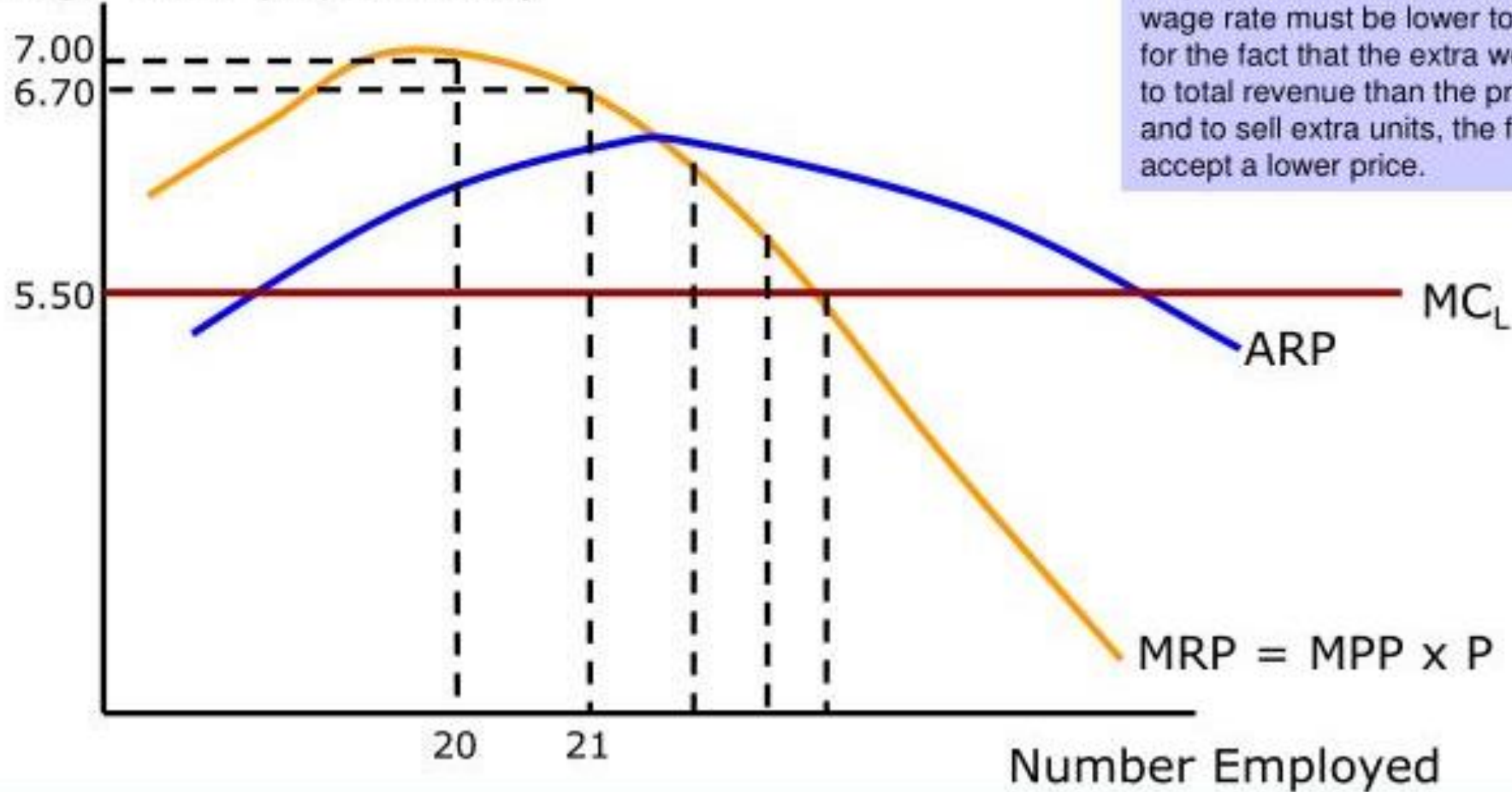


# The labor market



# The labor market

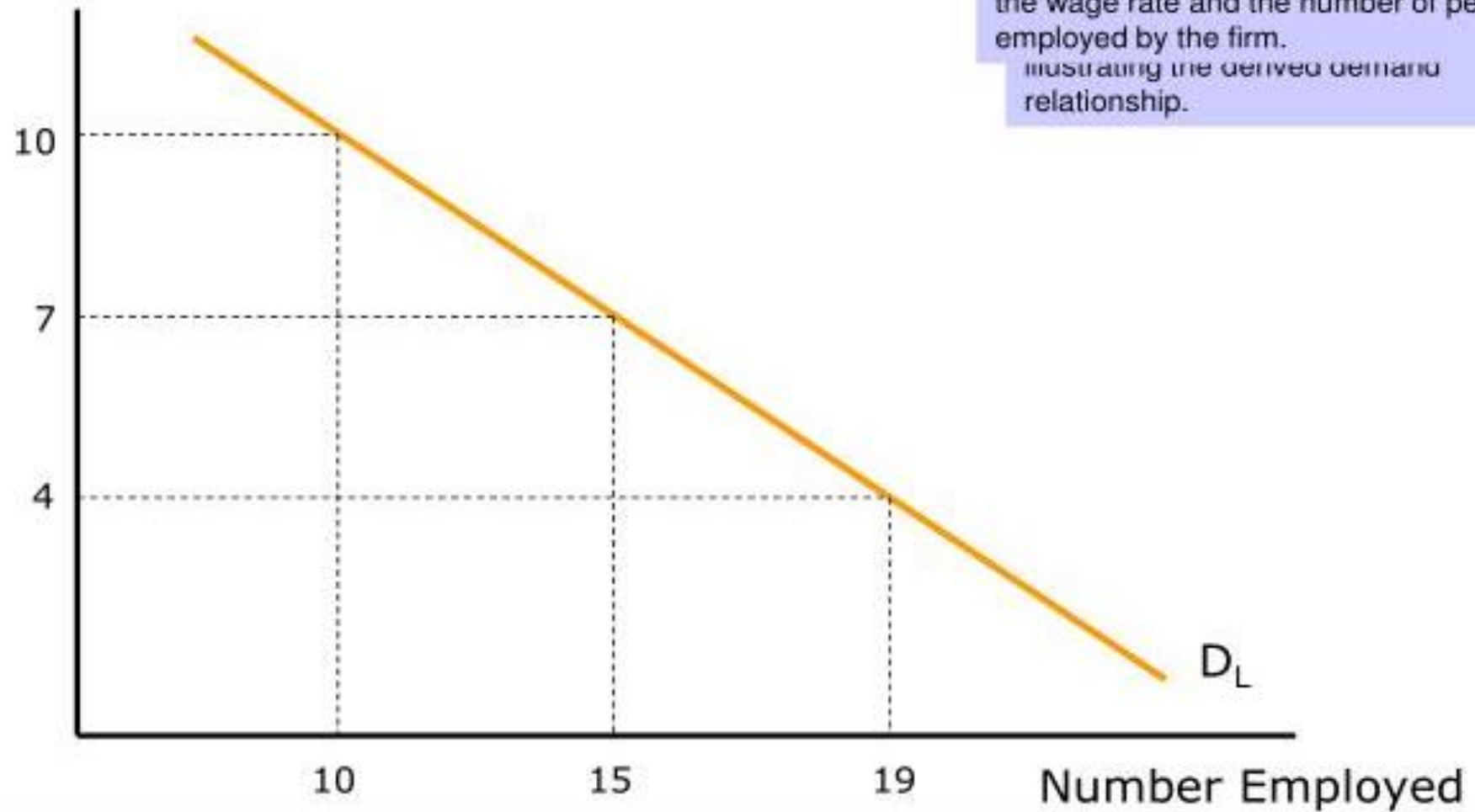
Wage Rate (£ per hour)



For the employer to be persuaded to employ additional workers, therefore, the wage rate must be lower to compensate for the fact that the extra worker adds less to total revenue than the previous one and to sell extra units, the firm must accept a lower price.

# The labor market

Wage Rate (£ per hour)



There is an inverse relationship between the wage rate and the number of people employed by the firm, illustrating the derived demand relationship.



# The labor market

- The Supply of Labor
- The amount of people offering their labor at different wage rates.
  - Involves an opportunity cost – work v. leisure
  - Wage rate must be sufficient to overcome the opportunity cost of leisure



# The labor market



## ➤ Income effect of a rise in wages:

- As wages rise, people feel better off and therefore may not feel a need to work as many hours

## ➤ Substitution effect of a rise in wages:

- As wages rise, the opportunity cost of leisure rises (the cost of every extra hour taken in leisure rises). As wages rise, the substitution effect may lead to more hours being worked.

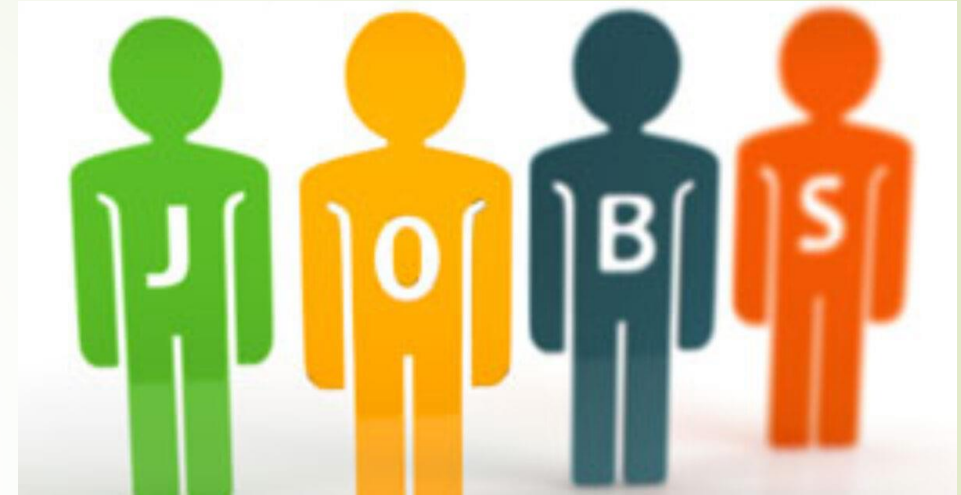
➤ The net effect depends on the relative strength of the income and substitution effects

# The labor market

The elasticity of supply of labor depends upon:

## **Geographical mobility of labor:**

- The willingness of people to move
- The cost and availability of housing in different areas
- The extent of social, cultural and family ties
- The amount of information available to workers about jobs in other areas
- The cost of re-location
- Anxiety of the idea of re-location





# The labor market

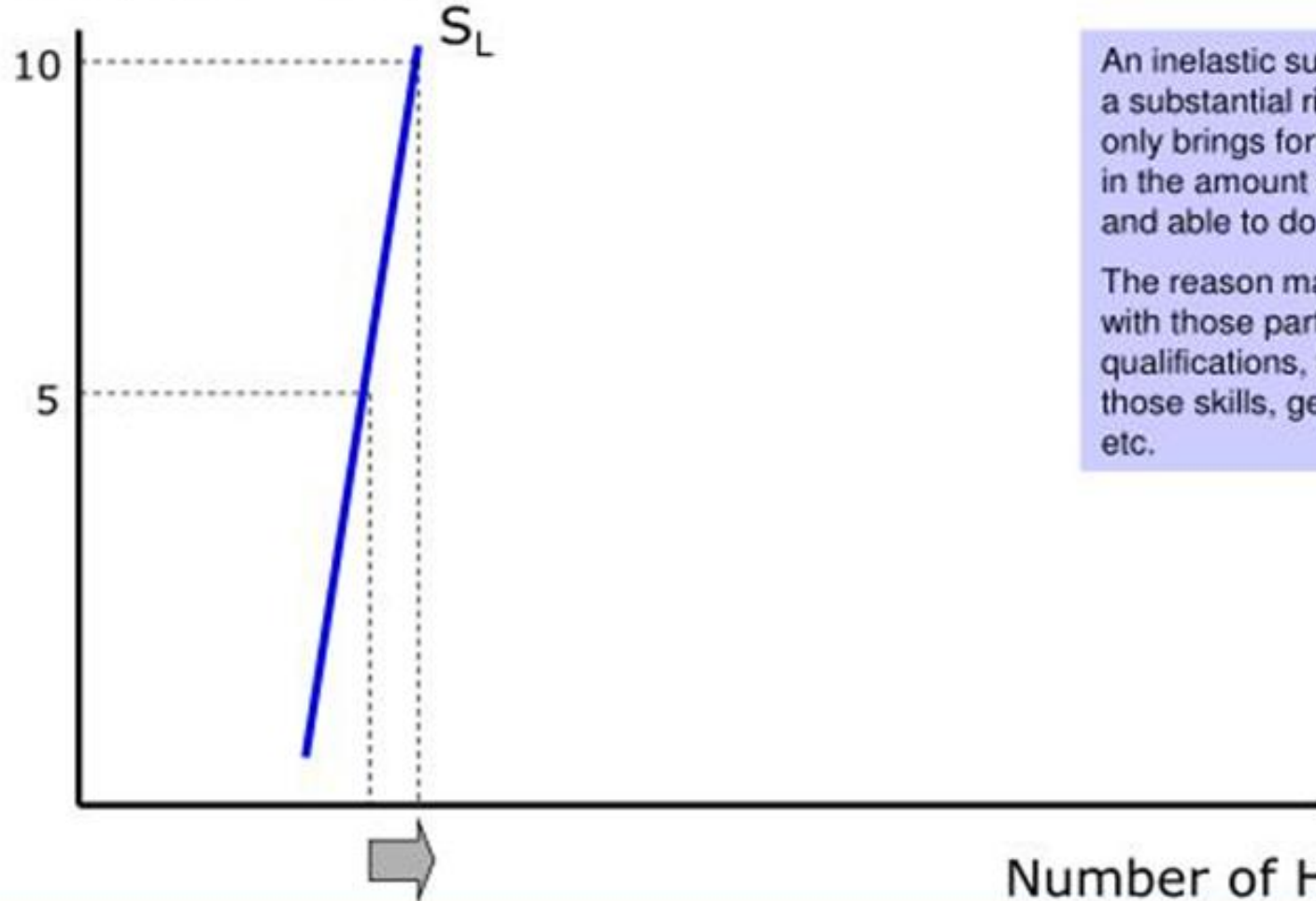


## Occupational Mobility of Labor:

- Lack of information of available jobs in other occupations
- Extent and quality of remuneration packages
- Extent of skills and qualifications to do the job
- Anxiety at changing jobs

# The labor market

Wage Rate (£ per hour)



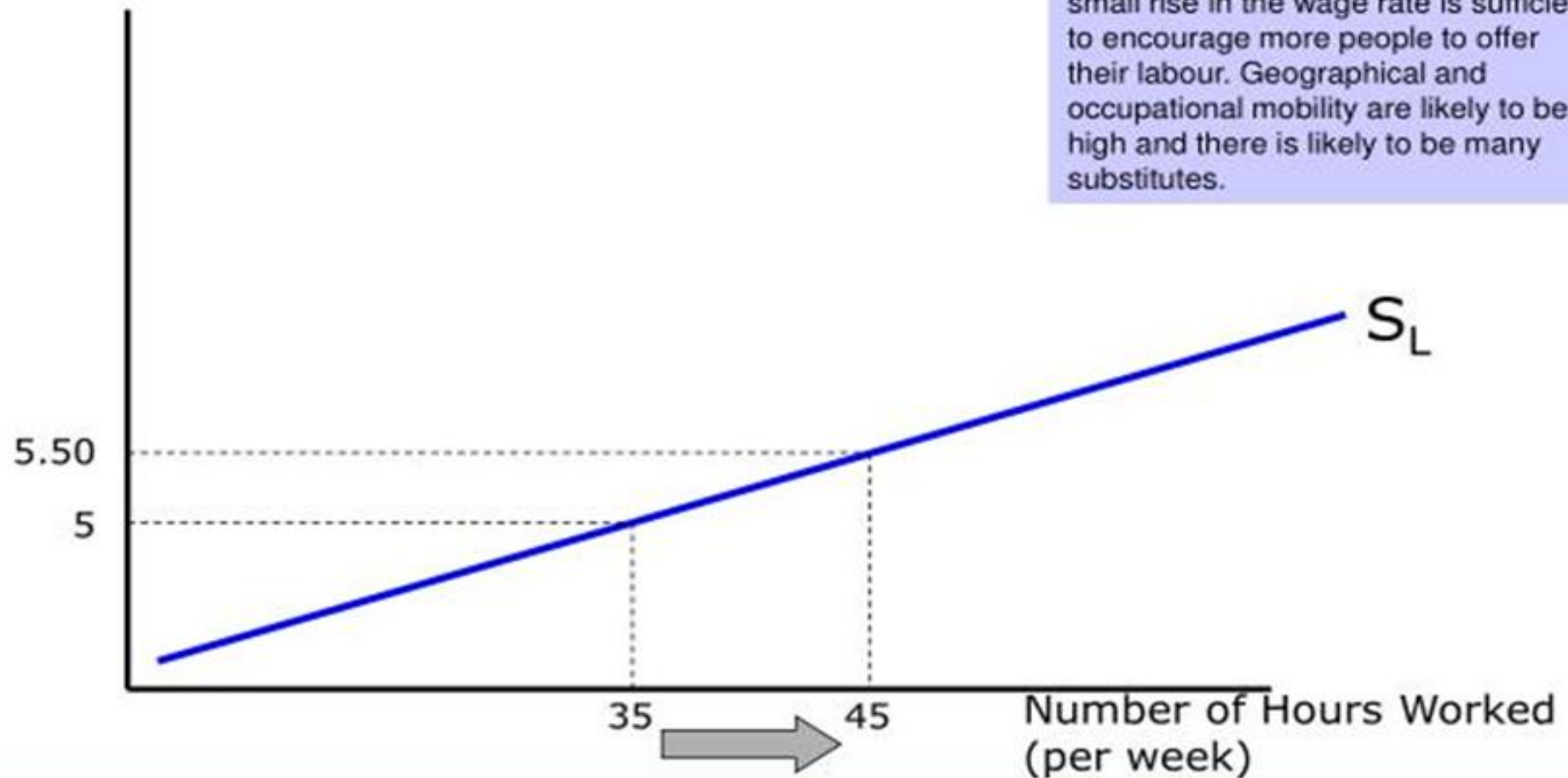
An inelastic supply of labour – a substantial rise in the wage rate only brings forth a small increase in the amount of people willing and able to do such work.

The reason may be the number with those particular skills and qualifications, the time it takes to get those skills, geographical immobility etc.

Number of Hours Worked

# The labor market

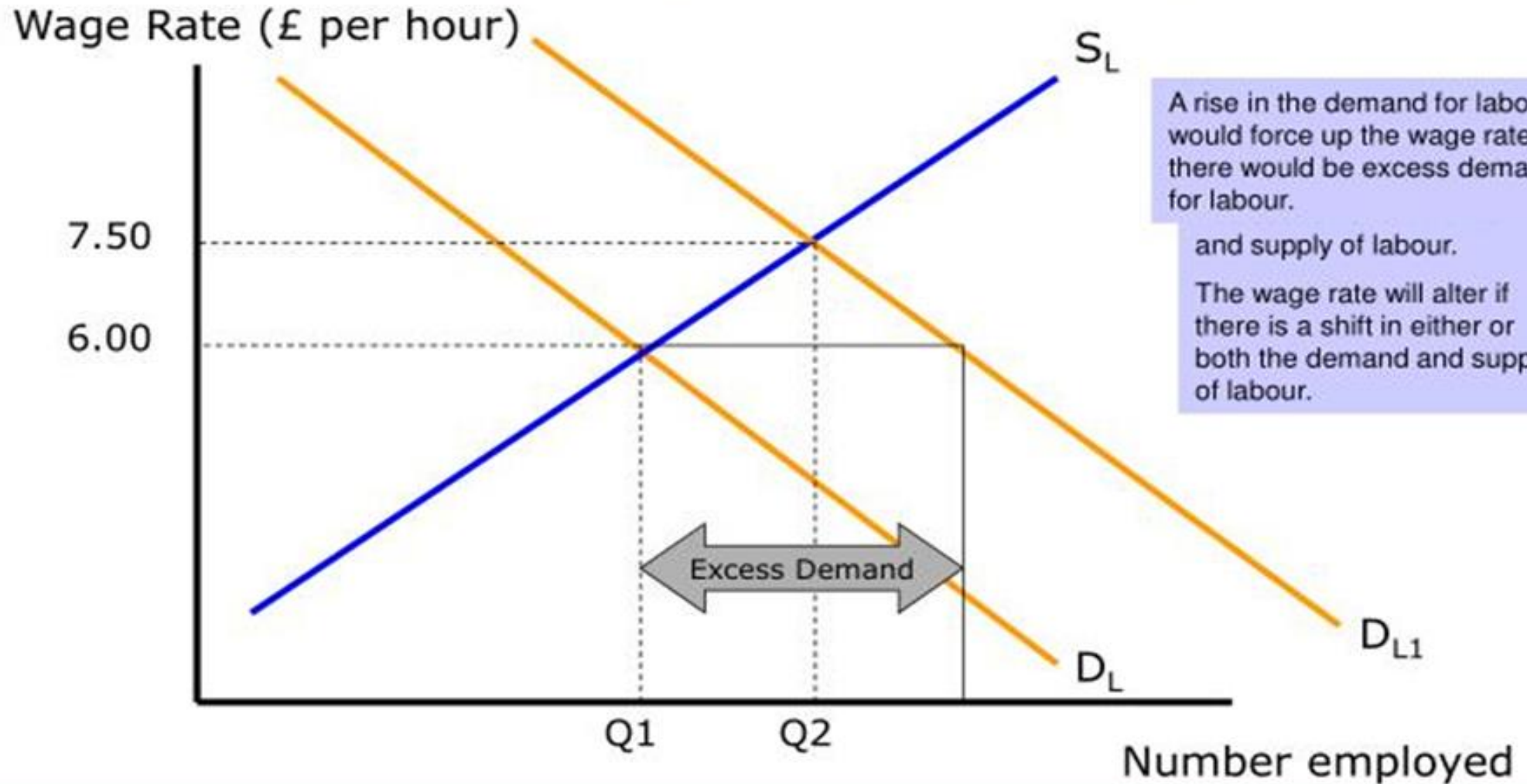
Wage Rate (£ per hour)



If the supply of labour is elastic, a small rise in the wage rate is sufficient to encourage more people to offer their labour. Geographical and occupational mobility are likely to be high and there is likely to be many substitutes.



# The labor market

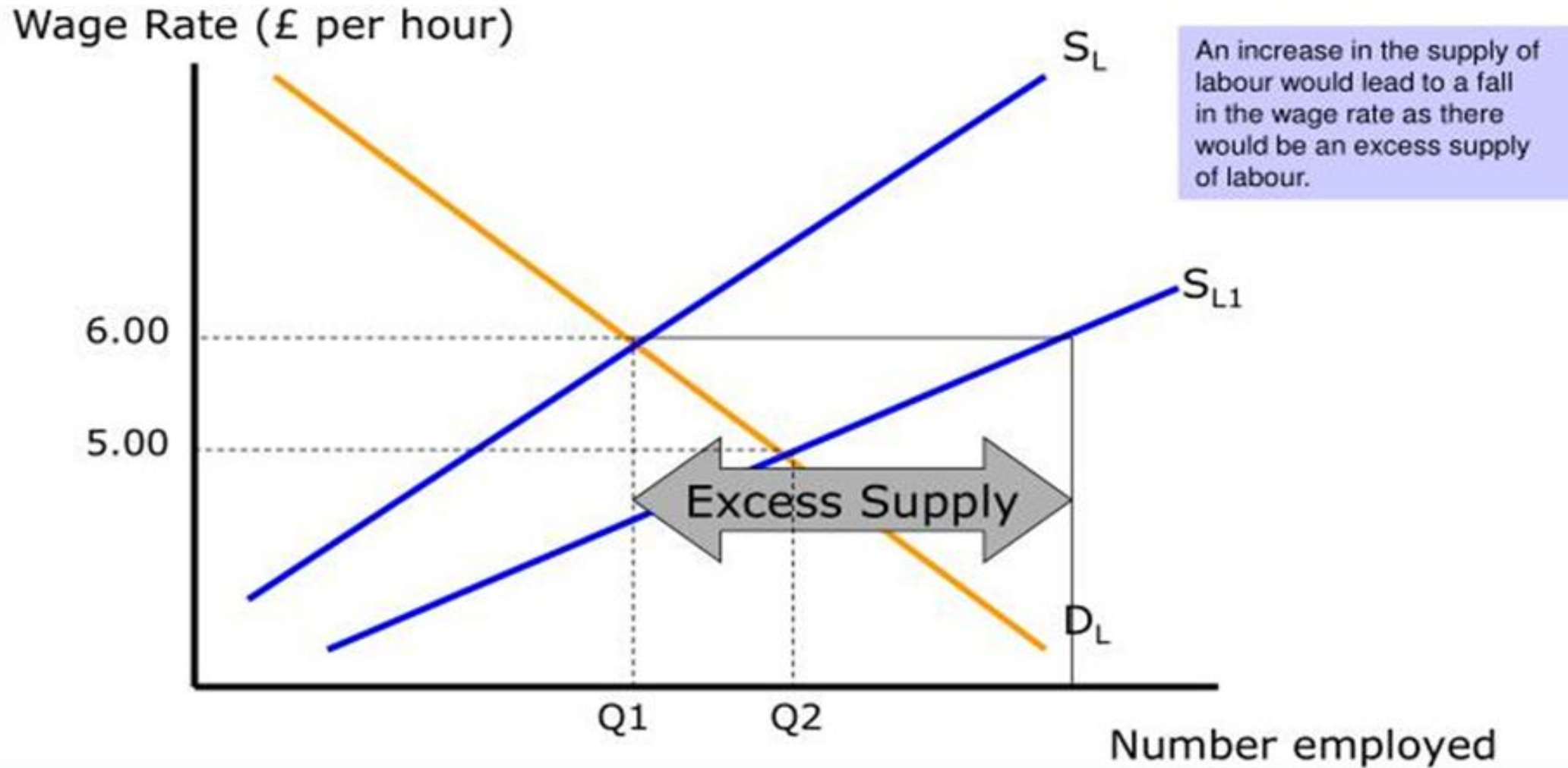


A rise in the demand for labour would force up the wage rate as there would be excess demand for labour.

and supply of labour.

The wage rate will alter if there is a shift in either or both the demand and supply of labour.

# The labor market



# The labor market

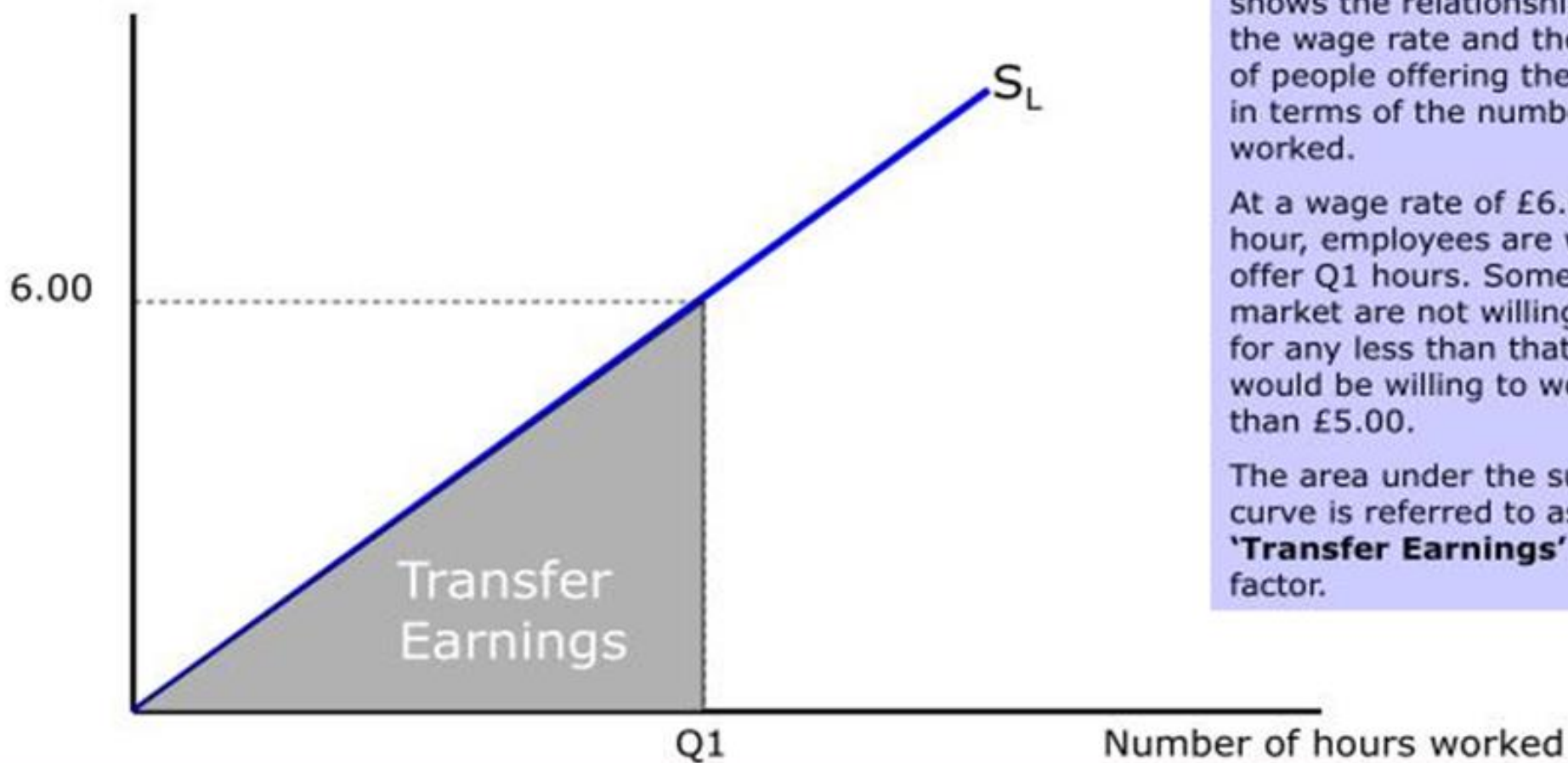
- **Economic Rent** The value of the wage earned over and above that necessary to keep a factor in its current employment





# Economic Rent

Wage Rate (£ per hour)



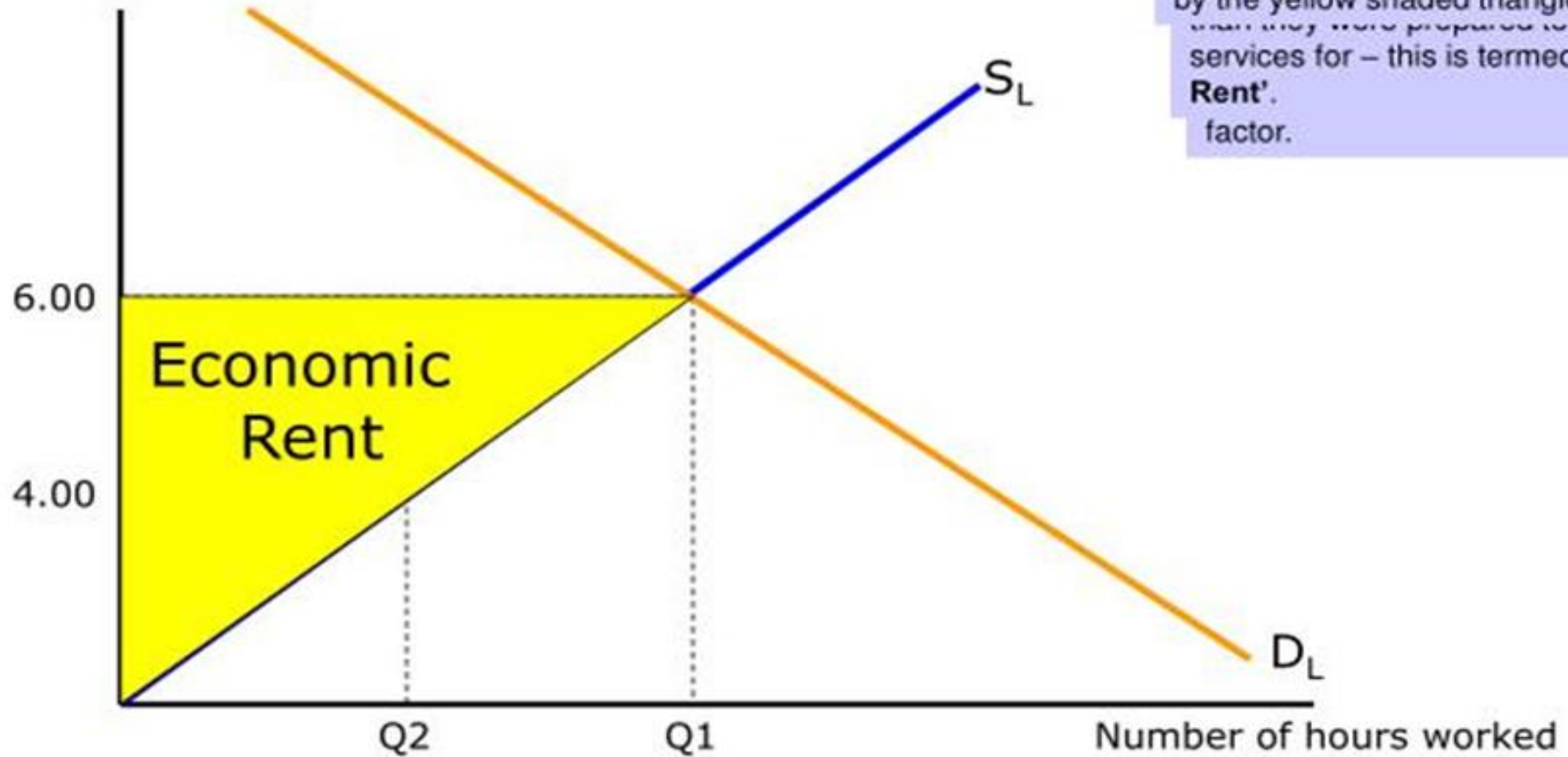
The supply of labour curve shows the relationship between the wage rate and the number of people offering their labour in terms of the number of hours worked.

At a wage rate of £6.00 per hour, employees are willing to offer  $Q_1$  hours. Some in the market are not willing to work for any less than that and some would be willing to work for less than £5.00.

The area under the supply curve is referred to as the '**Transfer Earnings**' of the factor.

# Economic Rent

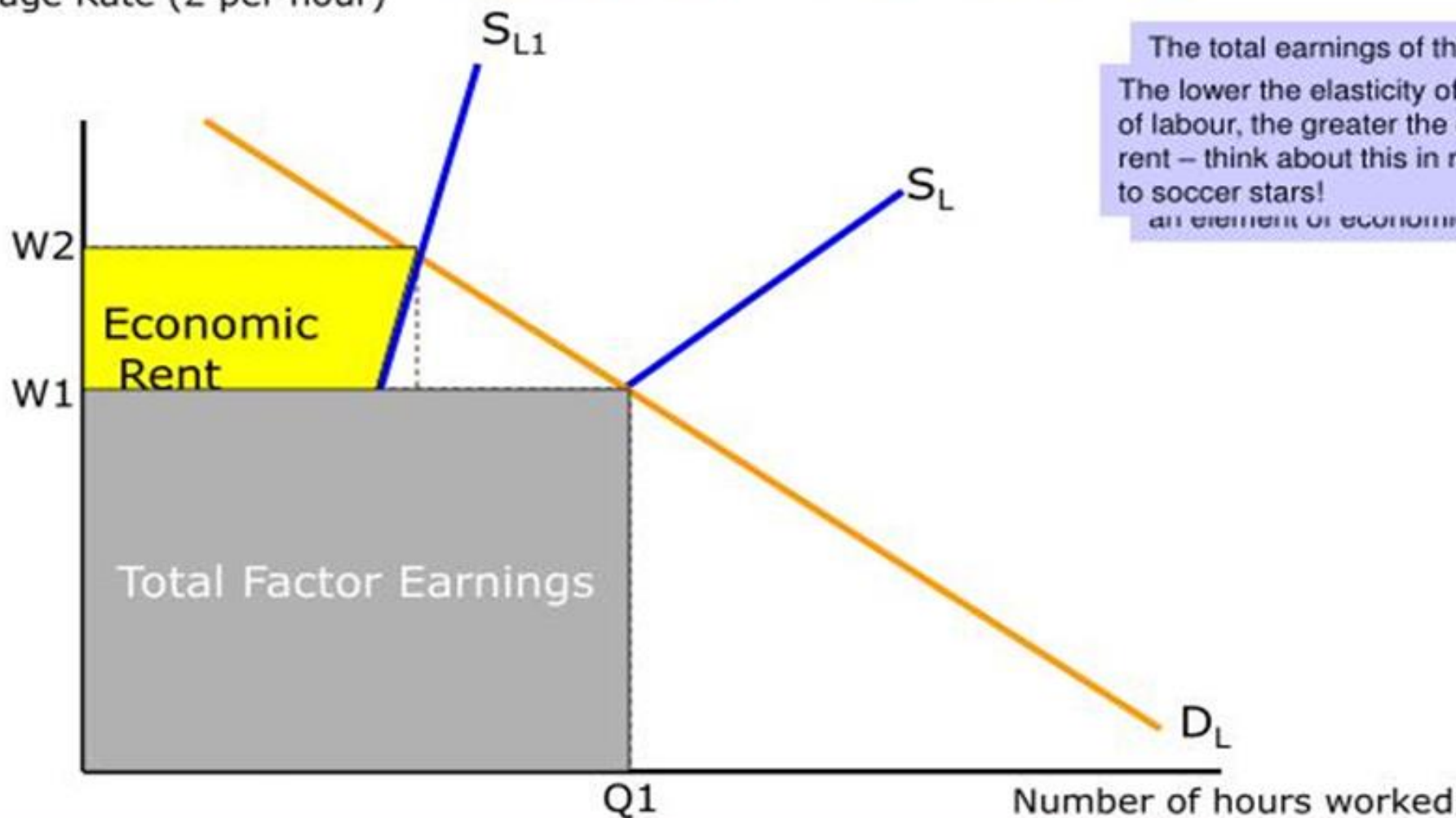
Wage Rate (£ per hour)



The total value of economic rent is shown by the yellow shaded triangle, which represents the extra value that workers receive from their services for – this is termed '**Economic Rent**'.  
factor.

# Economic Rent

Wage Rate (£ per hour)



The total earnings of the factor is  
The lower the elasticity of supply  
of labour, the greater the economic  
rent – think about this in relation  
to soccer stars!  
an element of economic rent.



**THANKS FOR ATTENTION!**

