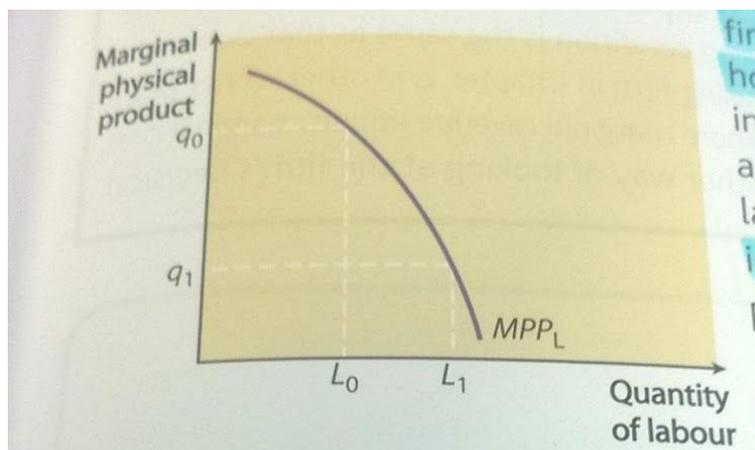


Labour Markets

The demand curve for labour

Firms need workers to produce goods and services. The demand curve for labour shows how many workers will be hired at any given wage rate over a particular time period. Labour is a **derived demand**. This means that it is not demanded for its own sake, but for what it produces. Therefore, the first factor that will determine the demand for labour is the demand for the output that the labour will produce.

Due to the law of diminishing marginal returns, the additional output of labour produced as more labour is used will diminish. This is because capital will become scarcer if more workers are hired without a rise in capital. The **marginal physical product of labour** is the amount of additional output produced if the firm increases its labour input by 1 unit (e.g. adding 1 more person-hour), with capital staying the same. This is shown below:



When labour input is low at L_0 , the additional output produced by an extra unit of labour is relatively high at q_0 . As more labour is added, the MPP_L falls, so at L_1 , the MPP is only q_1 .

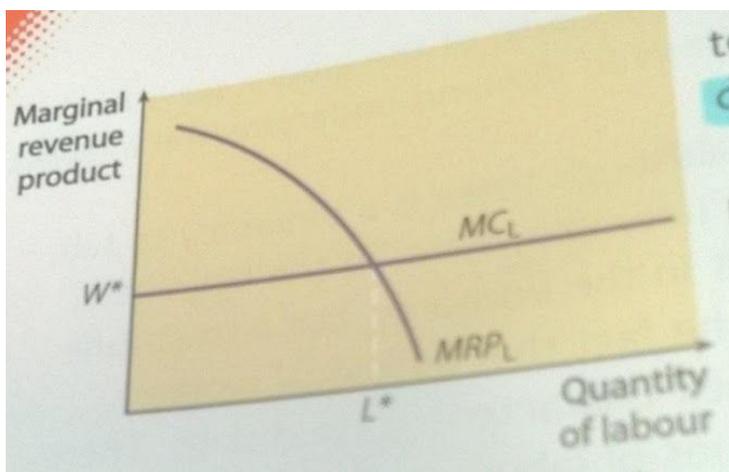
What really matters to the firm is the revenue it will receive from selling the additional output produced. When deciding the profit maximising amount of labour to employ, the firm needs to consider the $MPP \times$ marginal revenue received from selling the extra output. This is called the **marginal revenue product of labour (MRPL)**.

If the firm is operating under perfect competition, the marginal revenue and the price are the same. This means that $MRPL$ is $MPP_L \times$ price. If there is a downward sloping demand curve, the firm will have to reduce their selling price so they can sell the

additional output. Marginal revenue is then lower than price, as the firm must lower the price on **all** of the output that it sells, not just on the last unit sold.

The main cost of using labour is the wage cost. Assuming a perfectly competitive labour market (meaning the firm can't influence the market wage and can obtain as much labour as it wants at the going wage rate, the wage is the **marginal cost of labour (MCL)**).

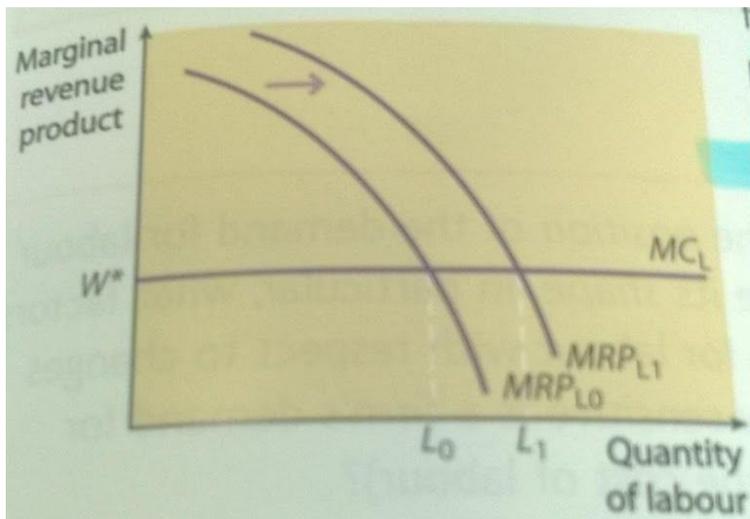
If the marginal revenue received by the firm from selling the output produced by the extra labour (the **MRPL**) is higher than the wage, then hiring more labour will add to profits. If it is lower than the wage, then the firm is hiring too much labour. Thus, if the wage is W^* , the firm will be maximising profits at L^* . The **MRPL** curve thus represents the firm's demand for labour curve. This approach is known as **marginal productivity theory**. Marginal productivity theory = a theory which argues that the demand for labour depends on balancing the revenue that a firm gains from employing an additional unit of labour against the marginal cost of that unit of labour.



The higher the price of labour, the less labour firms will hire. This is because firms will be more likely to substitute machines for workers in the long run. In the short run, firms have an existing stock of capital (e.g. factory space and machinery). The more workers that are added to this fixed stock of capital, the less likely it is that the last worker employed will be as productive as existing employees. Hence, the wage rate would have to fall to encourage the firm to take on another worker. Therefore, the demand curve for labour is likely to be downward sloping. The demand for labour when the wage rate changes is shown by a shift along the demand curve for labour.

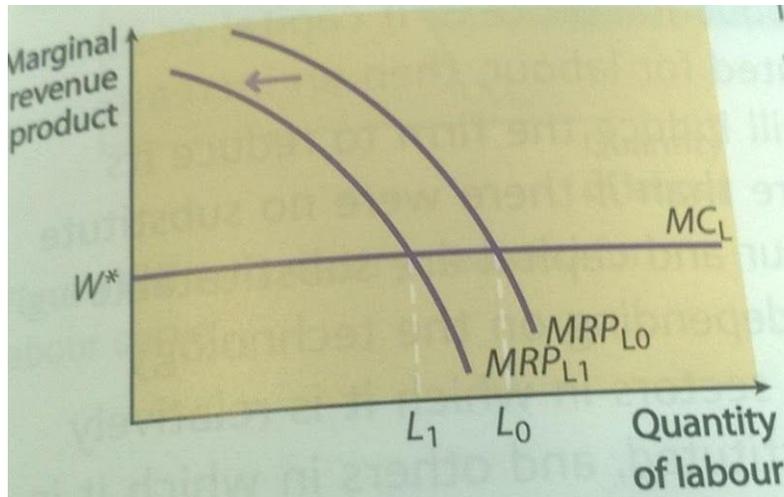
Factors affecting the position of the demand for labour curve

Anything that affects the MPPL will also affect the MRPL. For example, new technology will raise the productivity of labour.



Initially, demand is at MRP_{L0} , but the increased technology shifts the curve outwards. If the wage rate is W^* , the quantity of labour demanded increases from L_0 to L_1 .

A change in the price of the product (e.g. caused by changes in income etc) will also affect labour demand.



Initially, L_0 labour was demanded, but the fall in demand for the product led to a fall in MRP from MRP_{L0} to MRP_{L1} . Only L_1 labour is now demanded at the wage rate W^* . This is because the demand for labour is a derived demand.

Determinants of the wage elasticity of demand of labour

The elasticity of demand for labour is a measure of the responsiveness of the quantity demanded of labour to changes in the price of labour (the wage rate). For example, if the elasticity of demand for labour was 2 and wage rates increased by 10% then, all other things being equal, the demand for labour would fall by 20%. The wage elasticity of demand for labour influences the shape of the demand curve for labour.

The influences on the elasticity of demand of labour are:

- **Time.** The longer the time period, the easier it is to substitute labour for other factors of production (e.g. capital - machinery) or vice versa. In a short time period, the firm may have to keep employing the same number of workers even if wage rates rise by a large proportion.
- **The availability of substitutes, e.g. machinery**
- **The elasticity of demand for the product being produced.** As labour is a derived demand, if there is a collapse in demand for a product (e.g. due to changes in price or incomes), then there will also be a collapse in demand for the workers who produce that product. The more price elastic demand for the product is, the more sensitive the firm will be to a change in the wage rate, as they know that they won't be able to pass the increase in wage in the form of higher prices

- **The proportion of labour cost to total cost.** If labour is a significant share of total costs, firms will be sensitive to changes in the cost of labour.

Labour Supply

The **labour supply** is the number of hours people are willing and able to supply at a given wage rate, or the number of workers willing and able to work in a particular job or industry for a given wage

Industry labour supply

So far, we have modelled the effects of changes in labour demand by using a flat labour supply curve. However, the labour supply curve for any industry will be upward sloping. This is because, as wages rise, other workers enter this industry attracted by the incentive of higher rewards. They may have moved from other industries or they may not have previously held a job, such as housewives or the unemployed.

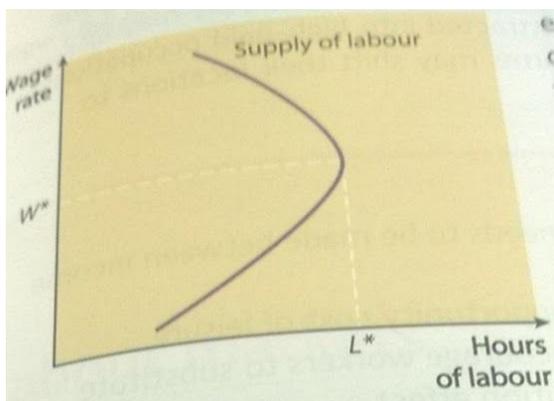
Individual labour supply

Consider a worker who is deciding how many hours of labour to supply. The wage rate is the opportunity cost of leisure. It is the income that a worker has to sacrifice in order to enjoy leisure time.

A rise in the wage rate will have the following effects:

- Raising the opportunity cost for leisure. As leisure becomes more costly, there will be a substitution effect against leisure, and workers will be motivated to work longer hours
- The level of real income rises. This encourages the consumption of normal goods, including leisure.

These effects work against each other, and the net effect could go either way. It may be the case that the substitution effect may be stronger at low wage rates, and get weaker as the wage rate rises. The individual labour curve will then be backward bending, where an increase in the wage rate above W^* makes the worker want to supply fewer hours of work to enjoy more leisure time.



Decisions about labour supply may also be influenced by job satisfaction. A worker who enjoys their work may be prepared to accept a lower wage rate, and non-financial (non-pecuniary) benefits like pensions and training may be offered. These benefits being offered may shift the supply curve of labour in their industry to the right, as workers are prepared to supply more labour at any given wage rate.

The wage elasticity of supply for an industry

The extent to which a rise in the wage for an occupation leads to an expansion in the supply of labour depends on the elasticity of labour supply. The factors affecting labour supply to a particular industry are:

- **The real wage rate on offer in the industry.** Higher wages raise the prospect of increased rewards and should boost the number of people willing and able to work. Remember that the "real wage" is the nominal wage divided by the price level.
- **The real wage rate on offer in substitute occupations.** For example an increase in the earnings available to trained plumbers and electricians may cause some people to switch their jobs
- **Barriers to entry to an occupation.** Limits to an industry's labour supply (e.g. through the introduction of minimum entry requirements) can restrict labour supply and force pay levels higher - this is the case in professions such as legal services and medicine where there are strict entry criteria
- **Improvements in the occupational mobility of labour.** For example if more people are trained with the necessary skills required to work in a particular occupation.
- **Net migration of labour (immigration-emigration).** A rising number of people seeking work in the UK is making labour migration an important factor in determining the supply of labour available to many industries, whether to relieve shortages of skilled labour in the NHS or education, or to meet the seasonal demand for workers in agriculture and the construction industry.

We can also consider what could affect the wage elasticity of supply for the economy as a whole. If there is unemployment, supply of labour will be more elastic. However, the effect will depend on the skills of workers, and the area where the vacancies are. Labour supply may therefore be relatively inelastic in the short term.

Determinants of the wage elasticity of supply of labour

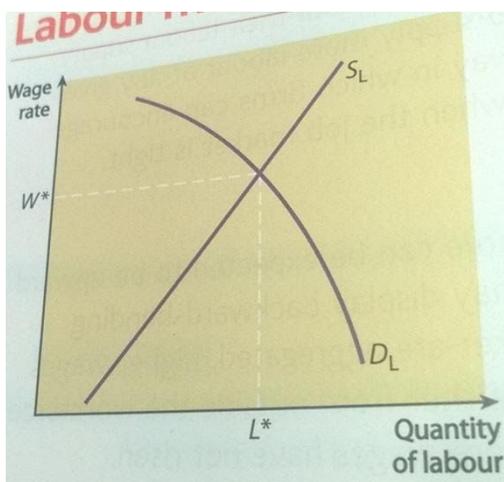
The elasticity of supply of labour depends on:

- **The availability of substitute labour in other industries.** For example, industries who need unskilled labour could use unskilled labourers from other industries. On the other hand, lawyers can't be substituted for doctors.
- **Time.** Elasticity of supply is lower in the short run than in the long run. For example, the NHS may struggle to recruit lots of new doctors today. However, supply could be expanded over a longer time period by increasing places in medical schools
- **The extent of under-employment and unemployment.** If unemployment is high, then the elasticity of supply will be higher. Firms are more likely to be able to recruit workers at the existing real wage rate from the pool of the unemployed. Underemployment includes highly skilled workers in low paid jobs, as well as workers working part-time who would prefer to be full-time. The higher the rate of underemployment, the higher the elasticity of supply for labour. For example, if there are lots of qualified teachers working as classroom assistants, then it will be

easy to increase the supply of teachers by drawing on the pool of classroom assistants.

Labour market equilibrium

The price of labour, the real wage rate, is determined by the demand for and the supply of labour. The diagram below shows how the wage rate for workers in a particular industry is determined:



If the wage is lower than W^* , employers will not be able to fill all of their vacancies. If it is higher, there will be an excess supply of labour, and the wage will drift down to W^* .

The demand and supply curves for labour can shift, and this leads to new equilibrium real wage rates and levels of employment in the industry.

The demand curve for labour in a particular industry will shift to the right if:

- Productivity of the workers in that industry improves and output per worker therefore rises. This could be caused by factors such as improved technology
- There is a rise in the selling price of the product being made, as this increases the value of the output of each worker
- The price of capital (e.g. machinery) rises, as this means that firms will substitute labour for capital.

The supply curve for labour in an industry will shift to the right if:

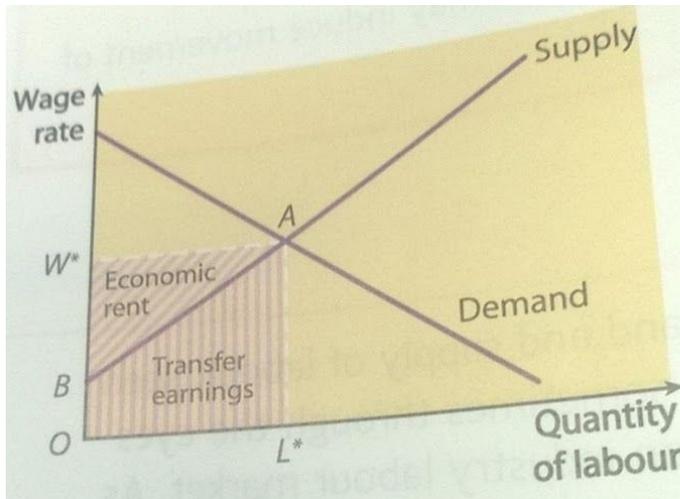
- There is an increase in the number of workers in the population as a whole, e.g. due to changing demographic trends or benefit changes
- Wages or conditions of work deteriorate in **other** industries, making working conditions more attractive in this industry

Remember, a change in the wage rate in **this** industry will cause a movement **along** the demand and supply curves, not a shift of the curves!

Labour markets

Transfer earnings are the minimum payment required to keep a factor of production in its present use. For example, the minimum payment required to keep a worker in their current job. This will vary from worker to worker. Even if all workers earn the same, some of these workers will earn a wage in excess of their transfer earnings. This excess of payment to a factor over and above what is required to keep it in its present use is called **economic rent**.

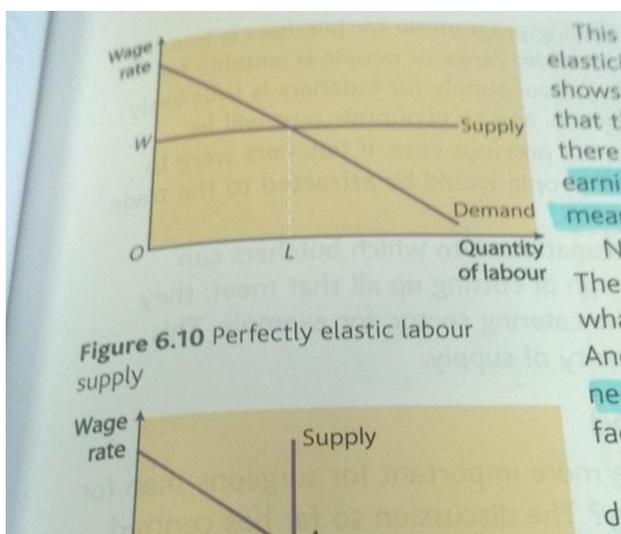
The total payments to a factor are therefore made up of transfer earnings and economic rent.



The equilibrium wage rate is W^* and the equilibrium quantity of labour L^* . At the wage rate of W^* , there is a worker who is supplying labour at the margin. If the wage rate was to fall even slightly below, the worker would withdraw their labour. W^* is the transfer earnings of the marginal worker.

This means that the area under the supply curve up to the equilibrium point represents the transfer earnings of workers in this labour market. This is the area $OBAL^*$. Total earnings are given by the wage rate multiplied by the quantity of labour supplied ($OWAL^*$). Economic rent is that part of total earnings that is not transfer earnings. This is area BW^*A . This represents the total excess that workers receive by being paid W^* , a wage that is above the minimum required to keep them employed in this market.

Look at the following diagrams:



The first diagram shows a situation where labour supply is perfectly elastic. There is a limitless supply of labour at wage rate W . There is no economic rent to be gained from labour supply, and all earnings are transfer earnings. If wages fall below W , all workers will leave the market.

In the second diagram, labour supply is perfectly inelastic, and remains the same no matter what the wage rate is. There is no minimum payment needed to keep labour in its present use. The entire earnings are made up of economic rent (area $OWAL$).

The more inelastic supply is, the higher the proportion of total earnings that is made up of economic rent. However, demand for labour is also important. If there is no demand for a particular occupation, then workers can't earn high economic rent.

Wage differentials

Wage rates differ between jobs. A manager in a firm will be paid more than a cleaner. There are several reasons for this:

- The manager will add more value to the organisation due to her education, skills and work experience

- The supply of managers is lower than the supply of cleaners. More workers in the workforce could be cleaners than could be managers.

Greater demand and lower supply lead to higher wage rates for managers than cleaners.

Another reason why wage rates differ is because workers do not necessarily seek to maximise wages. Wages are only part of the net benefit that workers gain from employment. Workers whose jobs are unpleasant, dangerous or tedious may seek higher wages than workers with more pleasant jobs. Market forces will tend to lead not to equality of wage rates, but to equality of net benefits to workers.

Another reason is that labour is not perfectly mobile. This means that there can be unemployment and low wages in the North of England while employers offering much higher wages can't fill vacancies in London. Labour may not be mobile because workers in the North are unaware of these vacancies, and they may also be unable to move because of community ties or the cost of moving.

Workers doing the same job may also see wage differentials. This may be because some of the workers have more qualifications and experience (e.g. a consultant doctor earns more than a junior). It could also be because some workers are more skilled and hard working, and therefore more productive (e.g. a sales person who works longer hours may gain more commission), or because of discrimination for reasons such as gender.

Investment in human capital (the stock of skills and expertise that contribute to a worker's productivity) will lead to higher wages. When choosing a job, individuals may respond to market signals. If the wage for computer programmers rises, then people may enter this labour market. Graduates tend to earn more. However, we can't say that a university education necessarily increases productivity, as it may be the case that those who go to university may tend to be more able anyway. This is the "signalling" view of education - that the degree isn't so much about what is learned, but that it signals to the employer the graduate was capable of doing it.

Education also has positive externalities from consumption, and too little would be demanded in a free market.

The implications of wage differentials

Wage differentials between industries may encourage workers to enter occupations where more labour is needed, by acting as signals. For example, if there is a shortage

of dentists, then the government may raise the wages of NHS dentists. This will encourage more people to enter dentistry, and will solve the shortage. However, this depends on the price elasticity of supply, as dentists take a long time to train.

Wage differentials for individuals in the same industry can also act as an incentive to become more qualified or to work harder, and this increases the productivity of labour. For example, a fully qualified accountant will be paid more than a partially qualified one, even if they are both doing the same job in a firm.

Some jobs, such as waitressing and shop work, only attract low wages. If left to the free market, this may mean that people in these jobs live in poverty. This may mean that there is less incentive to work, and their standards of living will be low. Therefore, the government may intervene by topping up the wages with benefits, or by introducing a national minimum wage.

The **working population** are people aged between 16 and 65. The people in the working population range have to support those who are young or old. The **dependency ratio** shows the ratio of dependents to the working population. Having a high dependency ratio can put pressure on the health system or the education system.

Not all of the working population are **economically active**. Those who are economically active include the employed, self-employed and the unemployed. Some people over 65 still work, so the dependency ratio may not be accurate.

The **participation rate** shows the percentage of the population in a given age group who are economically active. People may be economically inactive because they are students, sick, looking after family members, or are "discouraged workers".

One of the key features in the balance of employment is the fact that there has been a decline in people employed in the manufacturing sector, and an increase in people employed in the service sector. This reflects the fact that incomes have risen, and people are demanding more leisure items. Patterns of international trade have also changed, and the UK focuses on the service sector and imports manufactured goods.

In most years before the recession, earnings rose more rapidly than prices. This may reflect the rising productivity of labour. This can lead to rising standards of living, although not all workers may have shared the benefits. Also, quality of life isn't just about income - factors such as the environment are also important.

There is still a gender gap in wages, and there are also differences between different ethnic groups. This could reflect discrimination, or it could reflect the fact that different genders and ethnic groups choose different jobs. For example, more than half of Indians are self-employed.

The relative cost of labour in different countries is important, as this influences how competitive UK goods are, as it influences the prices that can be charged. It is important to consider **unit labour costs**. These are the wages, salaries and other costs of using labour, divided by output per worker. UK unit labour costs have risen more rapidly than other EU countries in recent years, leading to a loss of competitiveness.

Labour productivity is a measure of output per worker, or output per hour worked. Different countries show differences in this, although some of these differences may be because data hasn't been collected in the same way, or may reflect different working practices. For example, working hours may be longer in some countries, so if we measure GDP per head then this may be an inaccurate comparison. GDP per hour worked may be more accurate.

Total factor productivity considers the average productivity of all the factors, measured by the total output divided by the total amount of inputs used. This takes into account the use of capital as well as labour. However, the measurement of capital stock is very prone to error.

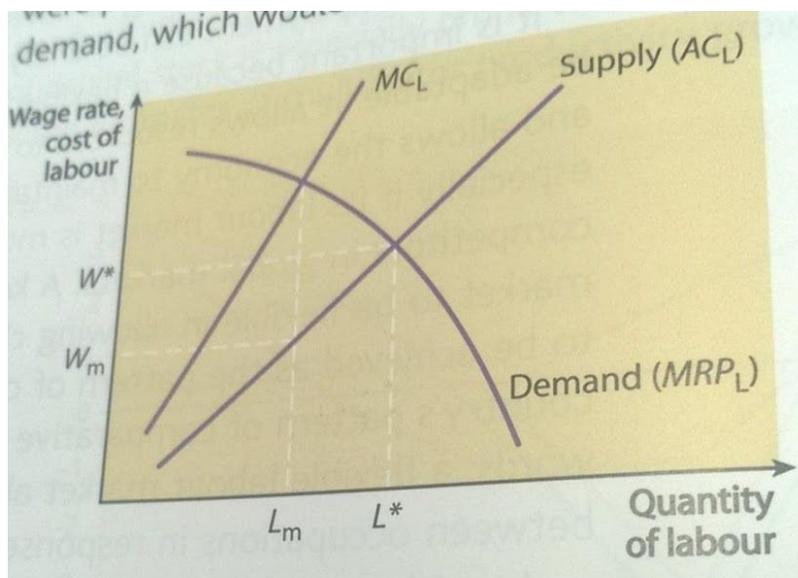
Flexibility and market failure in the labour market

Labour market flexibility refers to the willingness and ability of labour to respond to changes in market conditions, including changes in the demand for labour and the wage rate. A flexible workforce will increase the supply side performance of the economy, and allow the economy to be internationally competitive. In a flexible labour market, workers can switch between occupations in response to changes in demand.

Monopsony

One type of market failure that can occur is when there is a single buyer of a good, service or factor of production. This is called **monopsony**. Here, we are going to consider what happens when there is a sole user of labour.

As we can see below, the monopsonist's demand curve for labour is its **MRP** curve. The supply curve for labour is the market supply curve. This is seen by the firm as the average cost curve of labour. If the market was perfectly competitive, the wage would be W^* and L^* labour would be supplied.

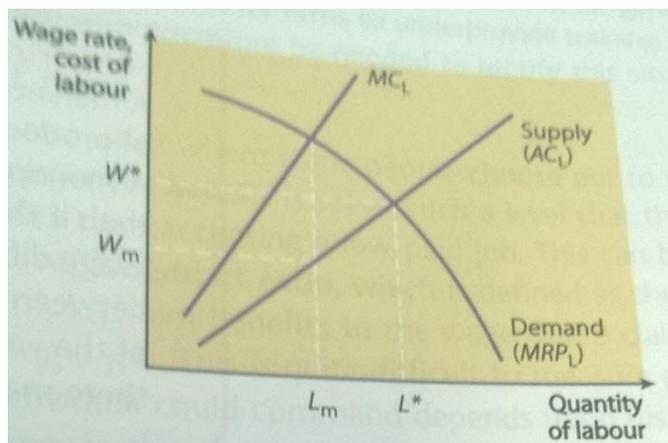


If the monopsonist wants to hire more labour, it has to offer a higher wage. However, they would have to offer this higher wage to all of their workers, so the marginal cost of hiring the extra worker is not just the wage paid to that worker, but the increased wage paid to all the other workers too.

If the monopsonist wants to maximise profit, it will hire labour up to the point where the marginal cost of labour is equal to the marginal revenue product of labour. This is at L_m . They will only need to pay W_m , as the ACL curve is the supply curve for labour.

Therefore, a monopsonist will use less labour and pay a lower wage than a firm operating under perfect competition.

A **bilateral monopoly** is where there is a monopoly trade union seller of labour as well as a firm that is a monopsony buyer of labour. This is shown below:



If this was just a monopsony, the firm would offer W_m and use L_m labour. However, the union has negotiated a higher wage rate. The market will move back to the perfectly competitive level (wage W^* and quantity L^*) because both the firm and the trade union are powerful. The final position will lie between L_m and L^* , depending on the negotiating skills of the firm and the union.

Discrimination

Not all wage differentials can be explained by differences in marginal revenue productivity. The gender gap for full-time workers has narrowed since 1975, but the gap for part-time workers has not. Opportunities for ethnic minorities are still not equal.

The fact that there is inequality doesn't always mean there is discrimination, as it could be due to different choices regarding education or taking time for childcare.

Unemployment

Frictional unemployment arises when workers switch between jobs. The labour market needs to be flexible to allow workers to transfer between firms and industries.

Structural unemployment occurs when sectors decline, and workers may need to be

retrained to make the transfer. Structural unemployment means that there is some inflexibility in labour markets, slowing the process by which workers move between jobs

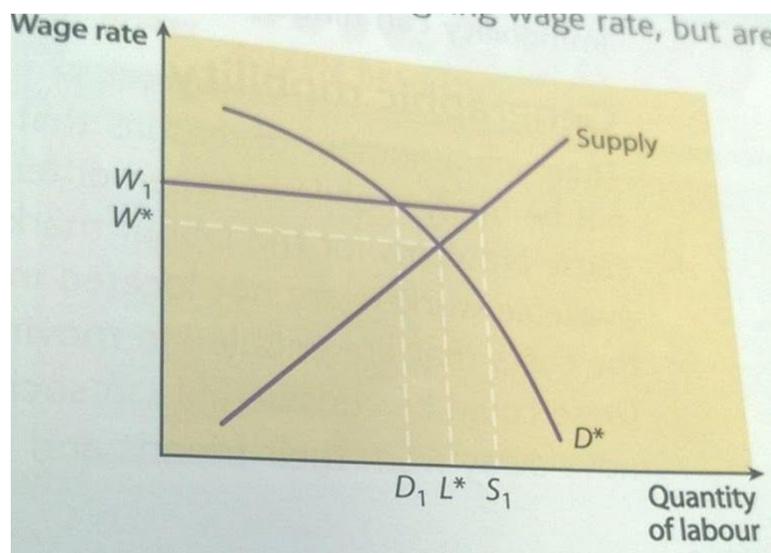
One cause of structural employment may be because firms are not providing sufficient training. Training helps workers to be more productive, but it is costly. Firms may decide not to train, and to poach workers trained by other employers.

Unemployment may also arise when people choose not to work due to being better off on benefits than accepting a low paid job. This can be monitored through the **replacement ratio**. This is the ratio of unemployment benefits to the wage that a claimant could receive in employment. This is difficult to measure, as different people can command different wages.

The government has to provide protection for people who are unable to find work. However, if benefits are too generous, the **unemployment trap** may occur. This is when people choose to be unemployed because the level of unemployment benefit is high relative to the wage available in low-paid occupations. This is **voluntary unemployment**.

Disequilibrium unemployment

A wage that is set above the equilibrium rate (e.g. due to the minimum wage, or a trade union influencing the wage) can cause unemployment in a labour market.



The equilibrium wage is W^* , and L^* labour is employed. As the wage is W_1 , $(S_1 - D_1)$ workers are unemployed as the supply of workers exceeds the demand for them.

Sticky wage adjustment

This can also cause unemployment. If the price of a product falls, the marginal revenue product of labour falls. The firm would want to employ fewer people and pay lower wages. However, if the wages don't adjust straight away, there could be unemployment as workers will want to supply the same amount of labour, but demand for labour has fallen.

Labour mobility

A lack of labour mobility also makes labour markets inflexible. This could be geographic or occupational immobility.

Workers may not move to areas where jobs are available because of the costs of moving, social ties, house price differences, or a lack of information about vacancies.

Occupational immobility may occur because of a lack of training. In a free market, training is often underprovided. There could also be a lack of information meaning workers can't judge the benefits of switching occupations.

Market Failure in the Labour Market

The effect of the statutory national minimum wage on labour markets

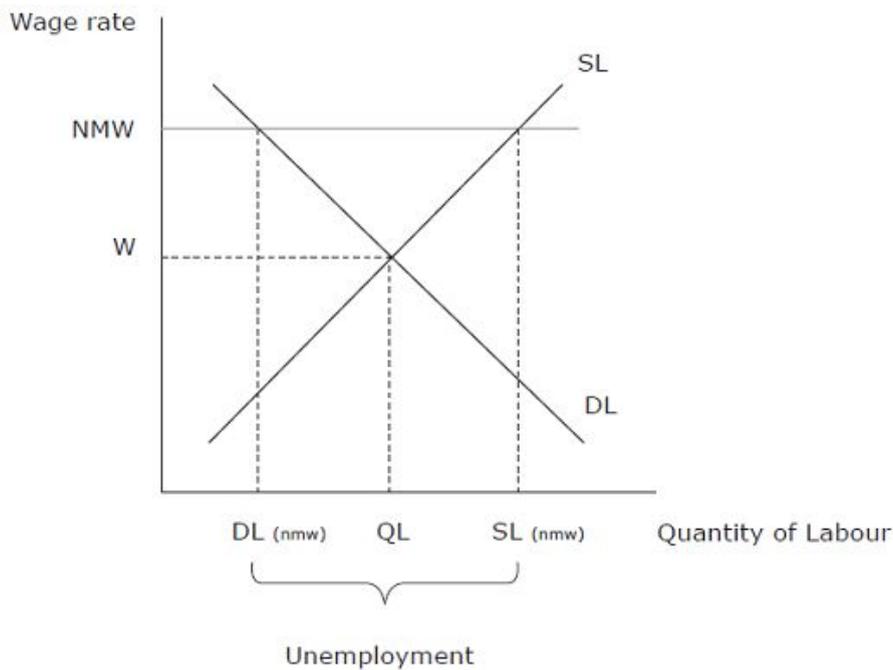
The national minimum wage is legislation under which firms are not allowed to pay a wage below a threshold set by the government. This helps to reduce poverty by creating a floor for wages. This reduces inequality. The effect of this will depend on the level of the minimum wage which is set. This can also create an incentive to work, as it means that there is more of a differential between what someone can earn in work and what they can claim in benefits (providing, of course, that the benefits level doesn't exceed the minimum wage). The taxpayer will also gain, as fewer benefits will need to be paid to top up the low wages of these workers.

There are also arguments against having a minimum wage. Minimum wages can create unemployment if firms can't afford to pay the higher wage rate, although the effect on unemployment will depend on how high above the market wage the minimum wage is set. Some of the unemployment will also be created by firms deciding to relocate abroad, so the level of unemployment will depend on how the UK minimum wage compares to wage rates in other countries. Businesses may also find ways to exploit their workers, for example by paying a piecework rate. It may not be focused in reducing poverty, as some of those who earn low wages may not be the only wage earner in their household, so may not be poor.

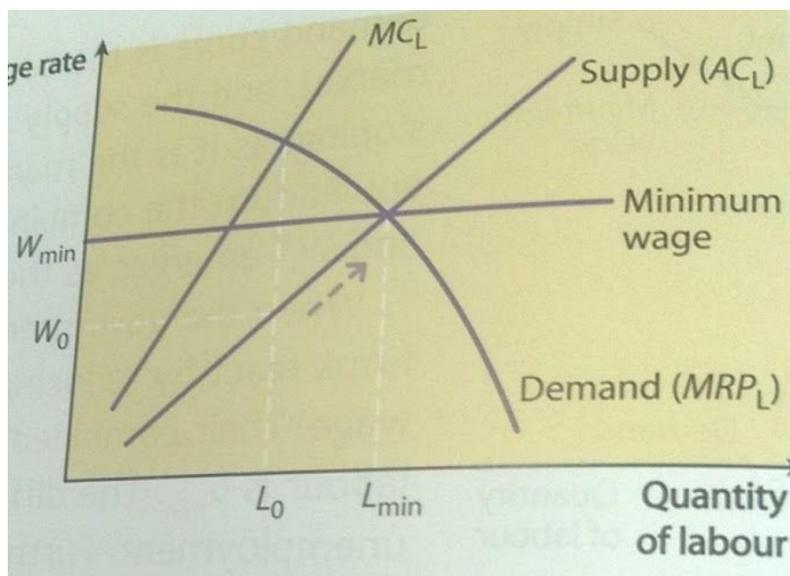
We should also remember that a minimum wage will have different effects in different areas, due to costs of living.

In the diagram below, we can see that the market wage rate is W , and the quantity of labour demanded and supplied is QL . When the minimum wage of NMW is introduced, SL labour is supplied due to the incentive to work, but only DL labour is demanded. There is involuntary unemployment of $SL-DL$.

(QL-DL) workers who used to be employed have lost their jobs. (SL-QL) workers want to work but are unable to.



A minimum wage will not lead to unemployment if the labour market is a monopsony.



Without a minimum wage, the firm hires L_0 workers at a wage of W_0 . The minimum wage means that the firm hires L_{min} workers at the minimum wage. This takes the market back to a perfectly competitive outcome.

The minimum wage will not be effective if it is set **below** the equilibrium wage, and this is difficult to decide.

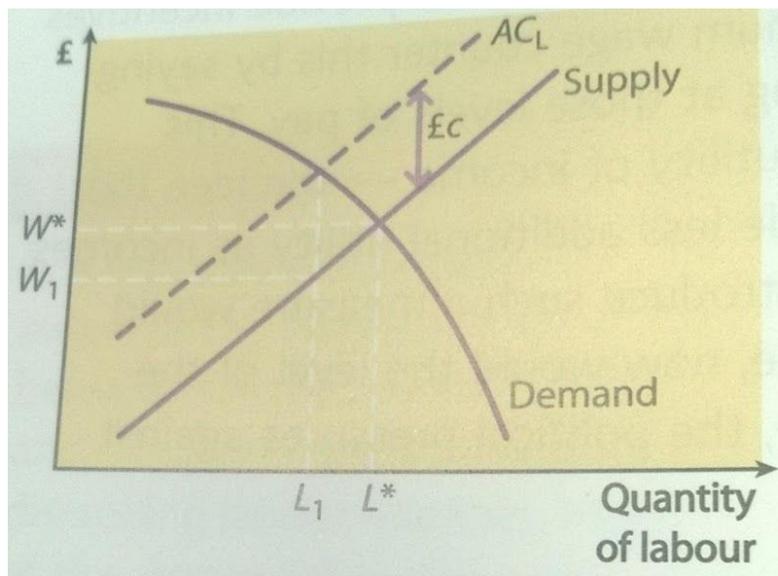
A recent development has been the concept of a **living wage**. This pays according to an estimate of how much income households need to afford an acceptable standard of living. This isn't legally binding, but some firms have chosen to abide by it.

Maximum wages

Some people argue that we should have a maximum wage - a ceiling on wages. Others are against this as high salaries are needed to provide incentives for effort in industries like banking. However, others argue that incentive effects are weak at this level of pay, as income has a diminishing marginal utility. It would be difficult to set the level of the maximum wage.

Health and safety regulation

There are many laws to protect workers, for example the Working Time Directive. These regulations raise the cost to firms of hiring labour.



The graph above shows the industry as a whole. Without the regulation, L^* of labour is employed at W^* . The regulation adds a constant amount ($£c$) onto the firms' cost of labour per unit. The average cost of labour is then higher at ACL . The industry will employ labour up to the point where the average cost of labour = marginal revenue product. This is because this is a perfectly competitive labour market, so each individual firm sees the average cost of labour as its marginal cost. L_1 labour is employed, and the wage is W_1 as this is the wage needed to attract L_1 workers into the market.

Health and safety laws are needed due to the merit good argument - workers don't take health and safety laws sufficiently into account when deciding how much labour to supply, so governments need to protect them. However, if ϵ_c is set too high, there could be lower employment than is optimal.

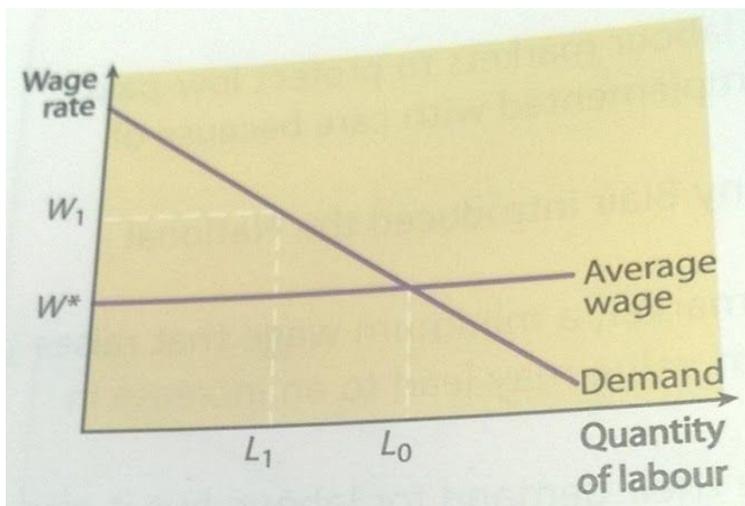
Trade Unions

Trade unions are associations of workers that negotiate with employers on pay and working conditions. They have three objectives - wage bargaining, the improvement of working conditions and the security of employment of their members.

It is important to consider whether they exploit market power and interfere with the functioning of the labour market, and also whether they are a necessary balance to the power of employers.

Restricting labour supply

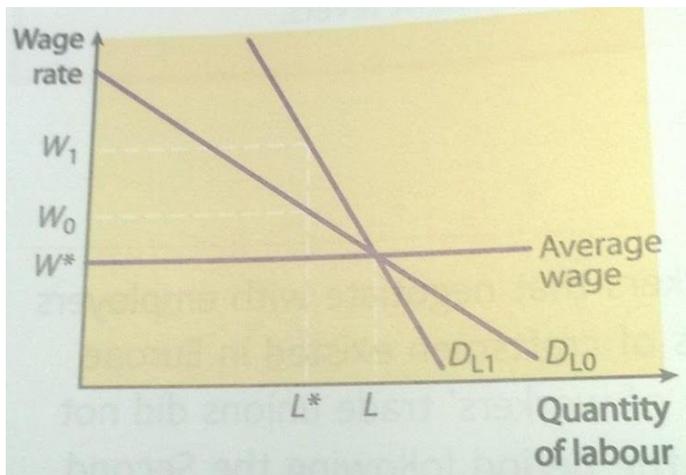
Trade unions can restrict labour supply into a firm or an industry.



For this firm, the average wage is W^* . At this wage, the firm is prepared to employ L_0 labour. If the trade union limits the amount of labour available to L_1 , this pushes the wage rate to W_1 . This could be done if the union sets up a **closed shop**. This is where a firm can only employ members of the union, and the union can then control how many workers can work in that industry.

In this situation, the union is trading off higher wages for their members against a lower level of employment. This unemployment has costs for society.

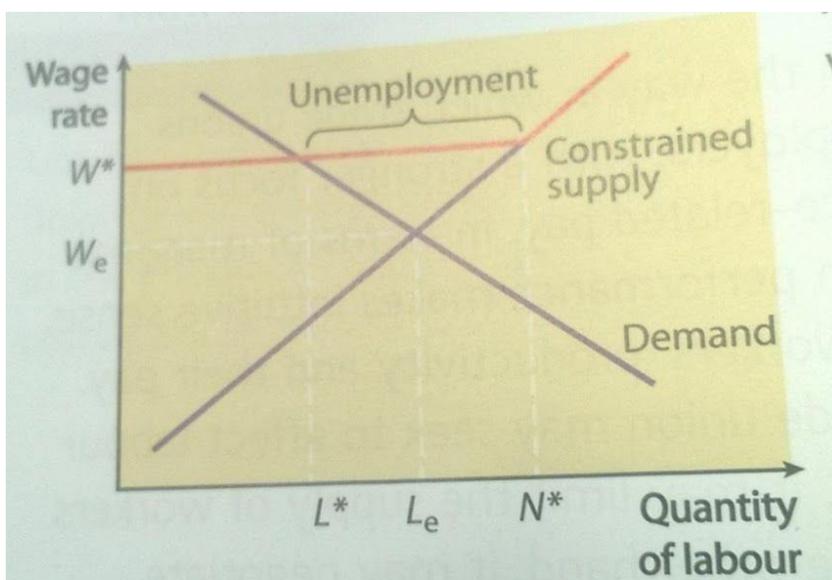
The extent of the trade-off depends on the price elasticity of demand for labour. When the demand is more elastic (at D_{L0}), the wage paid rises to W_0 . If demand is more inelastic (D_{L1}), the wage rises by more to W_1 .



The reason for this is because the elasticity of demand for labour is likely to be low if firms can't substitute capital for labour, if labour forms a small share of total costs and where the PED for the actual product is low. These factors mean that the firm is likely to give in and agree to higher wages as the workers can't be replaced by machines, and because the business can pass the higher costs on in the form of higher prices.

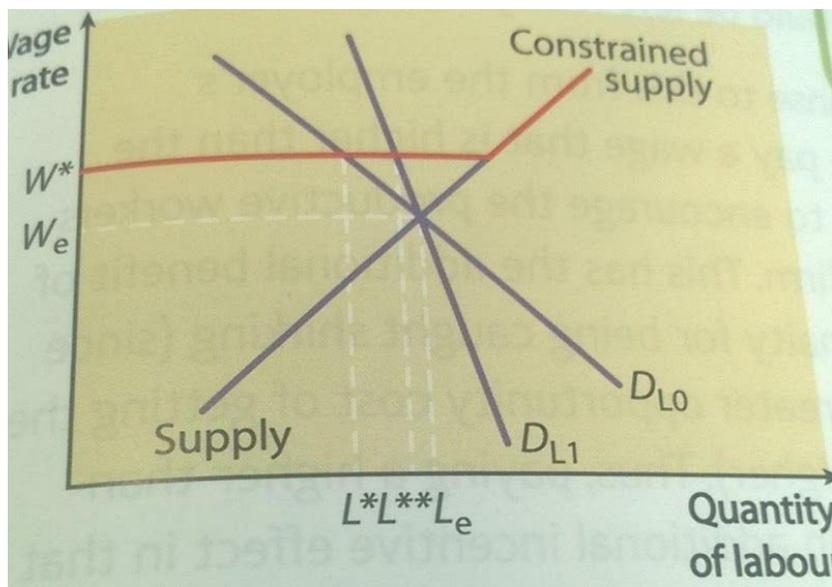
Negotiating wages

Another function of a trade union is to negotiate higher wages.



This firm hires L_e labour at a wage of W_e . The trade union negotiates a wage of W^* , and the new labour supply curve is shown by the kinked red line. Only L^* labour is employed, and unemployment is $N^* - L^*$. The reason why the supply curve is kinked is because, if the business wants to hire more than N^* workers, they will have to pay more than W^* .

Again, if the elasticity of demand for labour is more inelastic, the effect on the quantity of labour employed is much less than if it was more elastic:



One problem with trade union intervention in wages is that it may prevent wages from acting as reliable signals to workers and firms, and may lead to a sub-optimal use of resources.

Job security

Unions help to ensure that workers' jobs are more secure. This may benefit businesses, as workers may be more productive, and more willing to accept changes in working practices like automation. Therefore, sometimes unions can make firms more efficient.

Labour market flexibility

Unions can make labour markets less flexible, e.g. by limiting the entry of workers into a market.

The impact of migration on labour markets

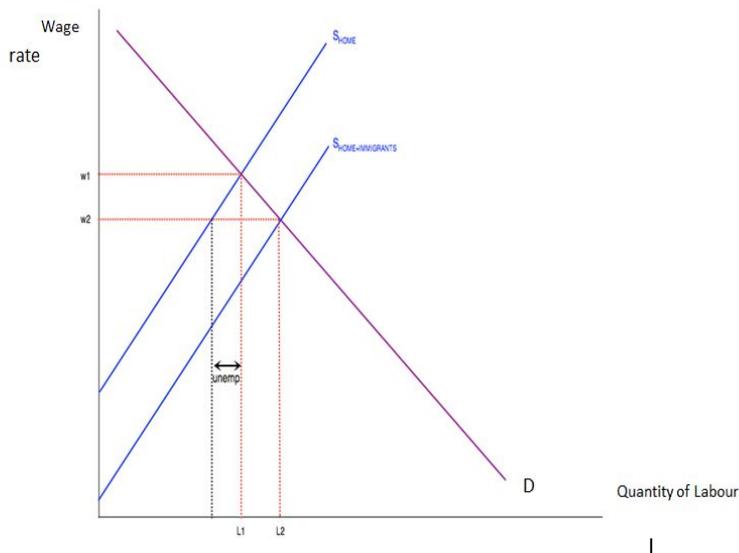
Net migration is the difference between immigration and emigration. If it is positive, it means that more people enter the country than leave to live abroad.

There are benefits to having positive net migration:

- **Net migration can drive innovation and entrepreneurship:** Inward migration can be a driver of technological change and a fresh source of entrepreneurs. Much innovation comes from the work of teams of people who have different perspectives and experiences. Inward migration also leads to the spread of technology.
- **Reducing skilled-labour shortages and expanding the labour supply:** Migration can help to solve labour shortages and help to control wage inflation.

However, there are also disadvantages of inward migration on labour markets. If the supply of labour rises, then the wage rate will fall. This means that domestic workers may suffer from lower wages although, if there is a minimum wage, then the wages can't fall below this. (at least, not legally!). Some of the migrant workers may also displace domestic workers, meaning that domestic workers become unemployed.

The effect of net migration on the labour market for a country can be seen below:



Positive net migration has led to a rise in the supply of labour from S_{Home} to $S_{Home+immigrants}$. This has led to a fall in the wage rate from w_1 to w_2 . Businesses will benefit from this as their costs of production will reduce, although domestic workers will see a fall in standards of living. The quantity of labour demanded and supplied has risen from L_1 to L_2 . However, as some of migrants have displaced UK workers, there has been a rise in unemployment among the UK workers.

There are also effects on the migrant's home country. Every immigrant is also an emigrant. Some of these effects can be positive, for example the government having to pay fewer benefits if the migrant was unemployed in their home country. However, a "brain drain" can also occur. A brain drain (or human capital flight) means the movement of highly skilled people from their own country to another country where they can earn more money. This can lead to the home country suffering, as they lose some of their most highly skilled workers, leading to skills shortages. These are often the workers who pay high amounts of tax, so the government can suffer from a fall in tax revenues.

If a country, like the UK, has positive net migration, the overall effects of this on the UK will depend on:

1. The skills, age and work ethic of the migrants - are they willing and able to work? Are they filling a skills shortage, or displacing UK workers?
2. Whether government policy allows the migrants to work straight away
3. Whether the migrants stay in the UK temporarily or permanently.

Labour Market Flexibility

Flexibility and unemployment

A flexible labour market is where workers can transfer readily between activities to allow resource allocation to change through time. Workers need information about available jobs, and what skills are needed for the jobs. Employers need to be able to identify workers with the skills and talents that they need. Periods of prolonged unemployment may be evidence of a slow adjustment to equilibrium because the labour market is not flexible.

The problem of a lack of flexibility is more serious now, due to more jobs requiring higher skills. Often, low skilled work is outsourced abroad. Therefore, workers must ensure that they have the right skills.

Informal labour markets

This means economic activity that is not registered or recorded, and so is not part of the formal labour market. People undertake informal work to cope with low pay or unemployment. However, these people may evade paying taxes and may not follow

regulations. In less developed countries, informal labour markets are very large compared to GDP.

If the government formalises these activities, it will ensure that tax is paid, and it may also ensure that the rights of vulnerable workers are protected. However, informal employment does encourage enterprise.

Ways to improve the flexibility of labour markets

- **Providing training, skills and information to the unemployed.** For example, the government can train workers who don't have the skills to work in expanding sectors. They can also provide them with information about available jobs, or give them subsidised employment. This will help the businesses to have clearer information about the potential of those workers, rather than just an interview
- **Trade union reform.** As we have seen, trade unions trade off higher wages for lower levels of employment. Unions have become less powerful over recent years. Some of this has been due to changes in industrial structure (unions are more powerful in heavy industry than the service sector). However, unions have also become less powerful due to governments eroding their powers.
- **Regional policy.** There are differences in average incomes and unemployment rates between different regions of the UK. For example, due to structural change. There are two ways to deal with this - persuade workers to move to regions where there are more jobs, or persuade firms to move to areas where there is unemployment. However, it is costly for either firms or individuals to relocate. EU funding has helped with this, through Regional Development Agencies.

Technology and Unemployment

As long as labour markets are flexible, new technology and expansion in capital stock can have beneficial effects. The new technology will raise the marginal revenue productivity of labour. This raises the demand for labour. The wage rate will rise, and the quantity of labour employed will also rise.

However, it could be the case that workers may not have the skills necessary to enter expanding sectors. Even though it is good news from the perspective of the efficient use of resources (through comparative advantage), it can have harmful effects on communities if the structure of industry changes, for example the movement away from heavy industry.

Inequality of income and wealth

We have already seen why incomes may differ. Income is the flow of wages and other income in a period, whereas wealth is the stock of accumulated assets. If someone saves, this accumulates as wealth. However, wealth comes from other sources too, such as inheritance. Differences in wealth can also lead to differences in income, as wealth generates a flow of income in the form of interest. Inequalities in income and wealth may be significant if they become too excessive.