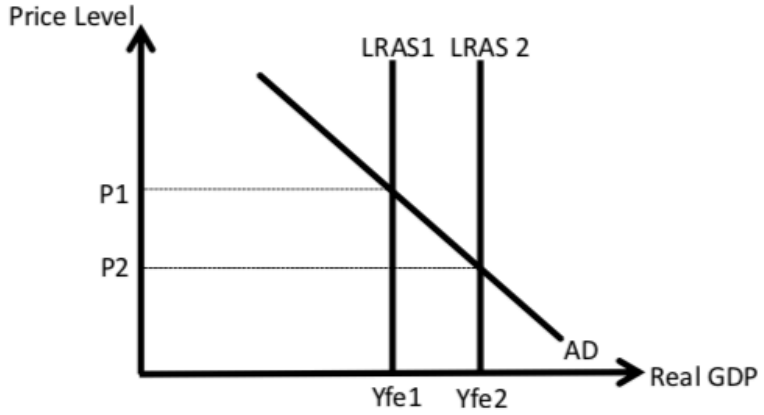
3.3 Interventionist Supply Side Policies

- **Interventionist Supply Side Policies – Government promoting policies that aim to shift LRAS to the right by increasing the economy's productive potential**

Interventionist Supply Side Policies (How they shift LRAS)



1) **Government spending on education and healthcare**. For example education spending on apprenticeship schemes, adult re-training, school curriculum reform and healthcare spending on health infrastructure and staff. If successful, this will improve the skills and productivity of the labour force, raising human capital, whilst also reducing structural unemployment by providing skills to fill job vacancies in the economy, increasing the quality of labour and thus LRAS from LRAS1 to LRAS2.

2) **Government spending on infrastructure.** This could include for example, spending on transport infrastructure, improving roads, building new roads, airports, ports, runways, train lines and rail electrification. This reduces costs of production for firms as transporting goods and services around the country and internationally becomes quicker, easier and more efficient. This increases productive efficiency whilst also boosting competitiveness increasing LRAS from LRAS1 to LRAS2.

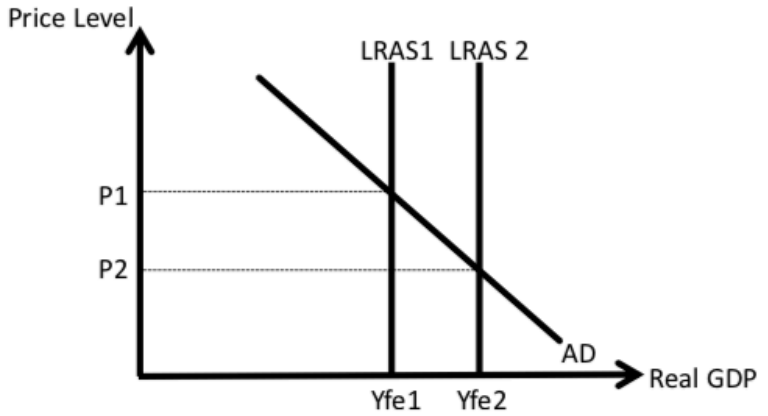
Government spending on infrastructure increases the quantity and quality of the capital stock of the economy for example by building new schools, hospitals, railway lines, roads and electricity infrastructure. This will increase LRAS from LRAS1 to LRAS2 and thus boost the productive potential of the economy.

3) **Governments offering subsidies or tax allowances to increase the incentive for firms to invest**. That is to spend on new capital, upgrading machinery, building a new factory, improving technology, engaging in research and development and spending on innovation. Such investment improves both the quantity and the quality of the capital stock in the economy whilst also improving productive efficiency, increasing LRAS from LRAS1 to LRAS2.

Market Based Supply Side Policies

- **Market Based Supply Side Policies – Policies reducing the role of government that aim to shift LRAS to the right by increasing the economy's productive potential**

Market Based Supply Side Policies – Tax Reform (How they shift LRAS)



1) **Reducing the marginal rate of income tax**. Reducing income taxes increases the incentive to work harder as less income will be taxed away when earned increasing the productivity of labour. Furthermore, lower income taxes provide an incentive for the economically inactive to start working and take available jobs, entering the labour force. These factors increase both the quantity and the quality of the labour force, increasing LRAS from LRAS1 to LRAS2.

2) **Reducing corporation tax.** Reducing corporation tax increases the incentive for firms to invest. Firms have a greater level of retained profit to fund investment, which involves spending on new capital, upgrading machinery, building a new factory, improving technology, engaging in research and development and spending on innovation. This investment improves both the quantity and the quality of the capital stock in the economy whilst also improving productive efficiency, increasing LRAS from LRAS1 to LRAS2.

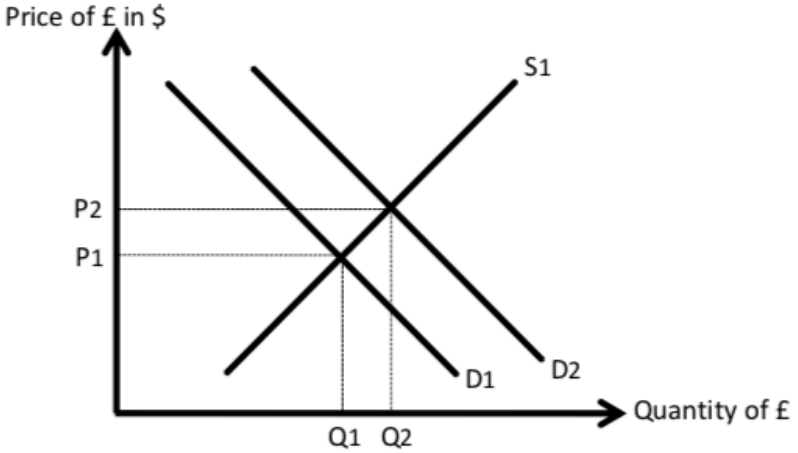
Market Based Supply Side Policies – Labour Market Reform (How they shift LRAS)

3) **Reducing the power of trade unions**. Reducing trade union power lowers long run costs of production for firms. This is because trade unions bargain for higher wages, longer worker breaks, longer worker holidays, longer maternity/paternity leave, all of which raise long run costs of production for firms. By limiting such action, efficiency in the labour market improves. This improves productive efficiency, increasing LRAS from LRAS1 to LRAS2.

Chapter 6 – Exchange Rates

- **Exchange Rate – The price of one currency in terms of another**
- **Floating Exchange Rate – When the price of one currency in terms of another is determined purely by the forces of demand and supply**
- **Fixed Exchange Rate – When the price of one currency in terms of another is set and maintained by central authorities**

6.1 Floating Exchange Rate - Causes of an Appreciation: ***Factors that shift demand for the pound to the right (D1 to D2)***



1) A relative rise in UK interest rates. As UK interest rates increase and are relatively higher than the rest of the world, investors looking for the best interest rate for their money are more likely to save their money in UK banks. Higher relative interest rates attract 'hot money' inflows into the UK economy, increasing the demand for the pound shifting the demand curve for the pound to the right from D1 to D2 causing it to appreciate from P1 to P2.

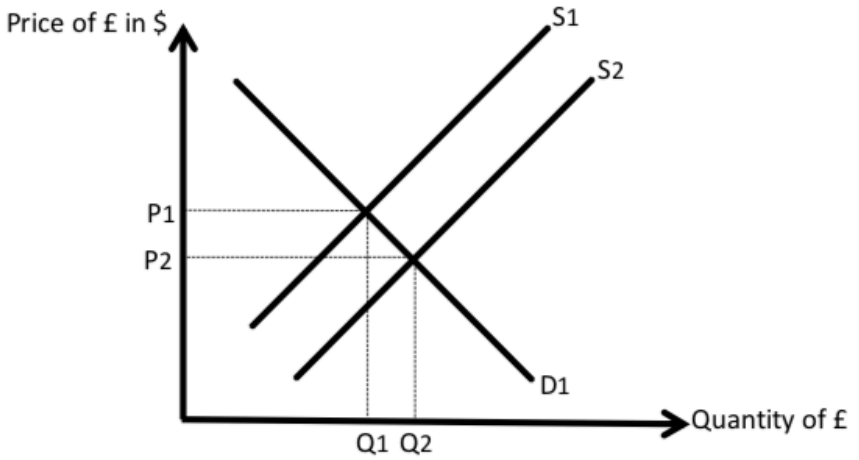
2) An increase in FDI in Britain. As more FDI enters Britain there will be higher demand for the pound as capital (machinery, vehicles, factories, buildings) will need to be bought by foreign businesses in pounds to operate in the UK. Furthermore, staff will need to be paid in pounds forcing an exchange of foreign currency into pounds, increasing the demand for pounds shifting the demand curve for the pound to the right from D1 to D2 causing it to appreciate from P1 to P2.

3) Speculators anticipating a rise in the pound. Speculators are currency traders who make trades based on their expectations of exchange rate changes in order to make money. If speculators anticipate a rise in the pound, they buy more pounds now, increasing the demand for it, and sell it when it increases thus making a profit on that trade. This shifts the demand curve for the pound to the right from D1 to D2 causing it to appreciate from P1 to P2.

4) Increase in export demand. This could be due to higher incomes abroad increasing the marginal propensity of foreigners to buy UK goods and services and/or improvements in international competitiveness due better labour productivity, investment and lower relative inflation rates. If UK exports become more price or non-price competitive, the demand for them will increase. As UK exports are bought in pounds, the demand for pounds will increase shifting the demand curve for the pound to the right from D1 to D2 causing it to appreciate from P1 to P2.

5) High investor confidence in the economy. If there is high confidence in the long term state of the UK economy with little economic volatility, investors will see the UK as a safe and reliable place to store/invest their money for a good rate of return. This will increase demand for the pound as more UK assets (both financial and non-financial in nature) are bought up shifting the demand curve for the pound to the right from D1 to D2 causing it to appreciate from P1 to P2.

Floating Exchange Rate - Causes of a Depreciation: ***Factors that shift supply for the pound to the right (S1 to S2)***



1) **A fall in relative interest rates and quantitative easing**. If relative UK interest rates fall, investors will move their money out of UK financial institutions in order to chase better interest rates elsewhere in the world. This implies there would be 'hot money' outflows from the UK shifting the supply curve of the pound to the right from S1 to S2 causing it to depreciate from P1 to P2. Quantitative easing is a direct increase in the money supply hence also shifting the supply curve to the right from S1 to S2.

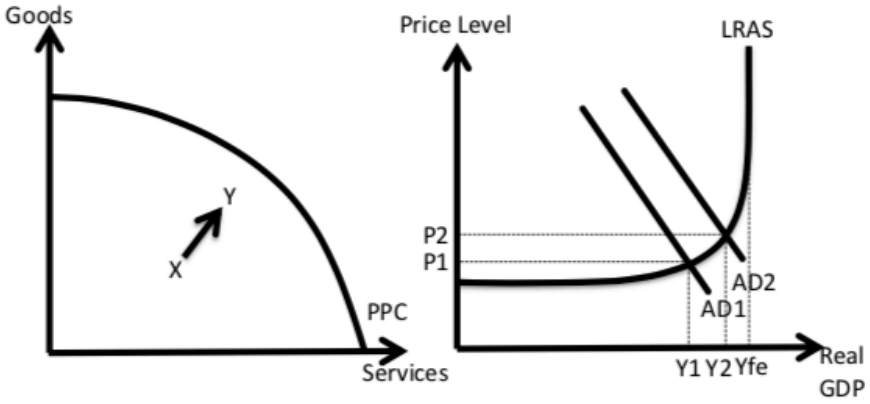
2) **Businesses investing abroad (outward direct investment).** If businesses decide to move their operations outside the UK, this will involve selling the pound in order to buy foreign exchange to invest in the country where they are locating. This shifts the supply curve of the pound to the right from S1 to S2 causing it to depreciate from P1 to P2.

3.4 Policies to Improve Macroeconomic Performance

- **Macroeconomic Performance – Consists of achieving all four key macroeconomic objectives of government including strong, sustained growth, low unemployment, low and stable inflation and a balanced trade position.**

Policies to Increase Short Term Economic Growth (Opposite for Decrease)

If a country is operating inside its PPC, therefore below the full employment level of output (i.e. there is a negative output gap), then expansionary fiscal and monetary policies are appropriate to increase **short term, actual economic growth**, for example:



1) **Expansionary Monetary Policy**. A cut in interest rates will **reduce the cost of borrowing**. This will make it cheaper for consumers to borrow, reducing the opportunity cost of doing so. Upon borrowing, the disposable income of consumers increases allowing them to spend on items such as houses, cars and furniture. This increases consumption in the AD equation shifting AD to the right from AD1 to AD2.

2) **Expansionary Monetary Policy.** A cut in interest rates **will reduce the cost of borrowing for firms** enabling them to reach their hurdle more easily (the required rate of return for investment projects to go ahead). This increases the marginal propensity for firms to invest increasing I in the AD equation shifting AD to the right from AD1 to AD2.

3) **Expansionary Fiscal Policy. Governments can boost their spending** in the economy for example by spending on infrastructure, education, healthcare, public sector wages etc. As G is a core component of AD, this will significantly increase AD from AD1 to AD2 and generate a large multiplier effect in the economy whereby an initial increase in spending (AD) will increase incomes in the economy facilitating further rounds of spending and income generation. The end result is an even greater final increase in AD.

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4) **Expansionary Fiscal Policy.** Governments could **reduce the marginal rate of income tax for those in lower income tax bands or increase the income tax free allowance**. This would increase the disposable income for those on lower incomes. As these consumers have a high marginal propensity to consume, consumption would increase in the economy increasing AD from AD1 to AD2.

Actual growth increases from Y1 to Y2. This is because with greater demand in the economy, firms respond by increasing output exhausting spare capacity; Y2 is now closer to the full employment level of output. This increase in output is an increase in real GDP, which is an increase in economic growth.

Policies to Increase Short Term Economic Growth Cons

1) **Inflation** in the economy is likely to increase from P1 to P2 as spare capacity in the economy is being exhausted therefore there is more competition for resources and pressure put on existing factors of production increasing the prices of them and costs for firms. This puts upward pressure on prices and causes demand pull inflation. Macroeconomics is about achieving all macro objectives simultaneously not having to sacrifice one in pursuit of another hence this conflict of objectives is a cause for concern.

2) **The deterioration of government finances**. Expansionary fiscal policies would cost the UK government billions of pounds where funding would carry a severe opportunity cost. If the money had to be borrowed, taxes in the future would have to rise to pay back debts gathered. If indirect, regressive taxes such as VAT or fuel duty increased to part fund this spending, the poor would suffer worsening income inequality going against a major macroeconomic objective. If the government funds these policies by cutting spending in other areas of the economy such as healthcare or education, once more the negative impacts will be suffered mostly by the poor. Furthermore, if the general population anticipate future tax increases or spending cuts, the problem of **Ricardian Equivalence** could surface whereby individuals save their disposable income from tax cuts instead of spending in preparation for tax increases in the future reducing the gains from expansionary fiscal policy and increases in AD.

Policies to Increase Short Term Economic Growth Evaluation

1) **The initial level of economic activity**. If the economy is initially operating with a large level of spare capacity (a large negative output gap), an increase in AD would most likely lead to a larger increase in output and decrease in unemployment. This is because with more spare capacity in the economy, it is relatively simple for firms to expand production by using up excess labour and capital that is unemployed in the economy. The lack of pressure on factors of production will also limit the rise in inflation, potentially with no demand pull inflationary effect at all, therefore avoiding the significant costs of higher inflation.

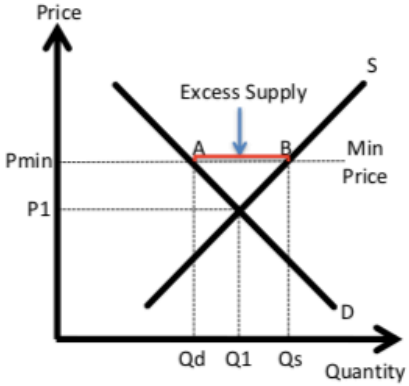
With low levels of spare capacity, the economy is close to fully utilising all available factors of production including labour and capital. It therefore becomes extremely difficult for firms to find new workers to increase production or to increase their level of capital to produce more. As a result the level of output and employment will not increase as much but the enormous pressure on the limited factors of production remaining will lead a much greater rise in inflation and the costs associated with higher inflation.

6.7 Price Controls and Market Failure

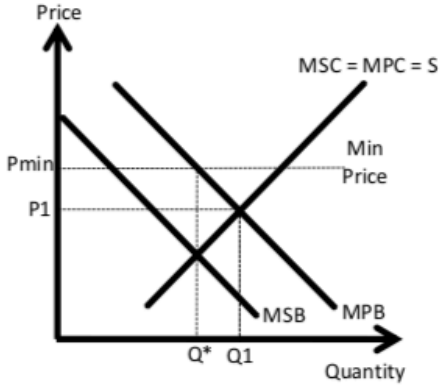
Minimum Price to Solve De-Merit Good and Price Volatility Market Failure

Minimum prices are price floors set above the equilibrium price in the market to **discourage consumption of de-merit goods.** For goods like alcoholic drinks, minimum prices can be used to raise the price above equilibrium levels from P1 to Pmin to internalise the negative externality and discourage consumption, solving over consumption issues and bringing the market to the allocative efficient production level from Q1 to Q* eradicating a prior misallocation of resources.

Minimum Price and Primary Commodities



Minimum Price and De-Merit Goods



Furthermore minimum prices can **protect producers** of primary commodities from price volatility. The demand and supply of primary commodities is highly price inelastic implying that when either the demand or the supply curve shifts, often due to changing weather conditions, price swings can be large, destabilising the income of agricultural producers. A minimum price at Pmin will provide a stable income for farmers allowing them to sustain their livelihoods and provide for their families especially when the free market price would otherwise be much lower, at P1 for example.

Minimum Price to Solve De-Merit Good Market Failure Cons/Evaluation

1) Demand for alcohol for example is **price inelastic**. This is because it is addictive and there aren't many good substitutes available. Therefore as price increases due to the minimum price, quantity will decrease due to the law of demand, but proportionately less than the price increase. The decrease in quantity will help to reduce the misallocation of resources but not by enough to fully solve the market failure if Q* is below the new quantity demanded and thus consumed in the market. In this sense, consumers are absorbing a large proportion of the price rise and not reducing consumption greatly. Any overconsumption and overproduction problems will remain.

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2) The poor will suffer proportionately more than the rich as minimum prices are **regressive**, meaning they take a greater proportion of the poor's income than they do of the rich, which could widen income inequality in society. Consumers are burdened even more if the **demand for the product is price inelastic** due to alcohol being addictive in nature.

3) There can be **unintended consequences** of imposing a minimum price on alcohol. For example, firms may shut down or leave the country causing unemployment. A black market may form where consumers can find an alternative supply at a lower price or consumers may switch to legal alternatives that are actually worse for them just because they are cheaper than the better quality but higher priced alcoholic drinks. This could be dangerous for the consumer as they do not know what is in the product they are consuming, worsening the extent of the negative externalities generated. Once more, the government has created a new market failure, which needs spending to police. Consumers may go across the border and smuggle alcohol where prices are lower. Unintended consequences are costs of the policy and if significant, can outweigh the benefits resulting in government failure.

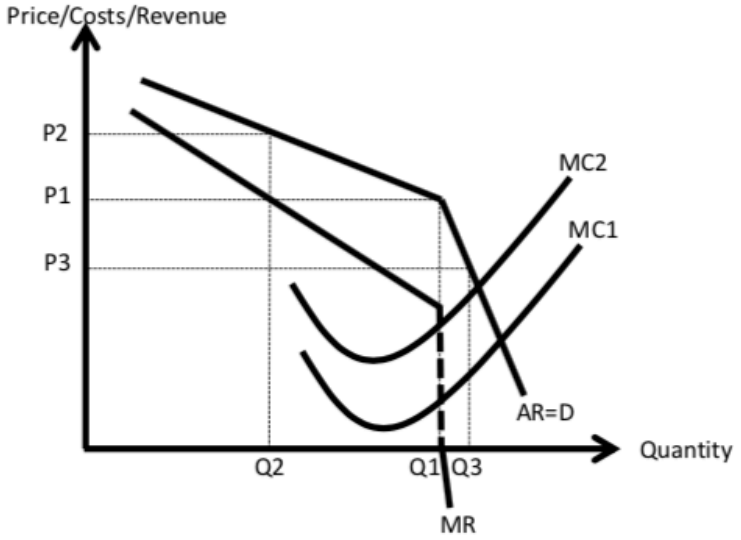
4) **Knowing the right level to set the minimum price is extremely difficult.** This is because putting an accurate value on the negative externalities generated is highly complex in reality. There are ways this can be done but not perfectly. As a consequence, the minimum price might be set too low where the externality is not internalised thus the price increase is not large enough to reduce quantity to the socially optimum level of output. If the minimum price is set too high the unintended consequences mentioned above can occur and lead to government failure. Other examples include firms shutting down or leaving the country causing unemployment.

5) Minimum prices negatively impact **individual freedom, liberty and choice.** This can occur when households feel that consumer decision making is solely individual responsibility and therefore heavy handed intervention is overly and unnecessarily paternalistic, more so if the government is lacking information when intervening. As a consequence, individuals who feel hurt by such intervention are likely to find a way around the minimum price, perhaps by accessing the black market or making their own alternatives or could protest aiming to reverse the policy action.

Minimum Price to Solve Price Volatility Market Failure Cons/Evaluation

1) The government having created an excess supply of AB must now buy it up which is **costly**; this is known as **intervention buying**. The first major issue is what happens with the excess stock. Destroying it would be highly wasteful, storing it very expensive and dumping it abroad politically sensitive given the impact dumping has on producers abroad. Furthermore the large financial cost of intervention buying needs to be funded perhaps by tax rises in the future or spending cuts to public services both of which will hurt consumers. It can be argued that in developing countries especially this is not an efficient use of government revenue, which could have been used more productively elsewhere in the economy to promote development.

2) The assumption that minimum prices will improve the living standards of primary commodity producers depends heavily on whether **intervention buying of the excess supply AB takes place**. In developing countries, governments may not be able to afford it leaving the producers to deal with storing or destroying the excess stock – a waste of resources and a hit to profitability for the producer going against the intentions of the policy.



2) **Firms perhaps do not need to change their price from P1**. This is because the corresponding marginal revenue curve possesses a vertical discontinuity and if costs of production increase in this vertical gap from MC1 to MC2 for example due to a rise in raw material prices or an increase in wages, a profit maximising oligopoly producing at MC=MR will continue to produce at output level Q1 and price of P1.

3) **Game theory** can also help explain the behaviour of oligopolists. Take the following prisoner's dilemma game and payoff matrix for example;

		Firm B	
		£20	**£19**
Firm A	**£20**	£25m, £25m	£5m, £30m
	£19	£30m, £5m	£15m, £15m

Two firms in oligopoly can either charge £19 or £20 for a product, always making the decision that maximises their payoff (the yearly profits in the cells). Decisions are based on the reactions of rivals.

For example if firm A charged £20 or £19, firm B should always charge £19 to maximise profits. If firm B charged £20 or £19, firm A should always charge £19. There clearly is a dominant strategy here for both firms to charge £19 with long term profits being made of £15million a year, an equilibrium that can be sustained over time. Interdependence leads both firms to always take the lower price option to avoid the sting of being undercut themselves. This is the Nash Equilibrium further explaining a reason for price rigidity in oligopoly despite this not being the most profitable outcome for both firms.

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4) If both firms are able to organise a situation whereby £20 is charged, greater profits can be made of £25million each. This is a cartel agreement or collusive oligopoly where firms join together to fix prices or quantities essentially becoming a monopoly in the market. The payoff matrix above also explains why collusion is unlikely to hold given the very strong incentive for a firm in a cartel to cheat on the agreement and lower the price charged to making higher profits of £30million. This will not last however as the rival will lower prices straight away resulting in the Nash Equilibrium of £19 being charged by both companies with a £15million profit share.

Oligopoly Performance – Potential Outcomes

1) Firms can **compete on price** despite the rationale of the kinked demand model. The aim of price reduction is to try and maximise market share in the long run by sacrificing profits in the short run. The end result will be a ferocious price war benefiting consumers with higher consumer surplus whilst harming producer revenue and profitability.

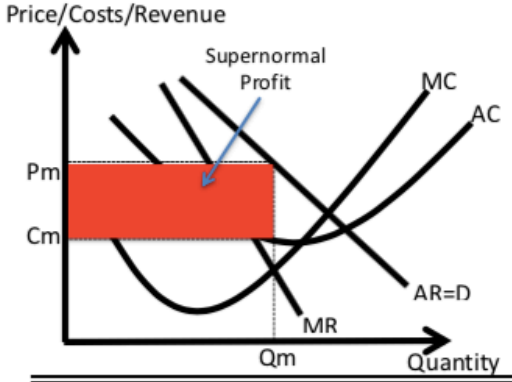
2) Firms can **compete on non-price factors** by strengthening advertising, developing brand loyalty, improving product and service quality. This again is in the interests of consumers and can lead to market share gains by producers if successful.

3) Firms can break interdependence by **colluding and forming a cartel**. A formal agreement to fix prices or quantities is **overt collusion** where the cartel acts as a monopolist, generating outcomes that are against the public interest. Such behaviour is illegal.

4) Firms can break interdependence by engaging in **tacit collusion or 'price leadership'**. This is where an informal agreement is made between firms not to engage in a price war or for firms to follow price changes made by the dominant firm in the industry. This prevents price competition going against the public interest but is harder to prove than overt collusion.

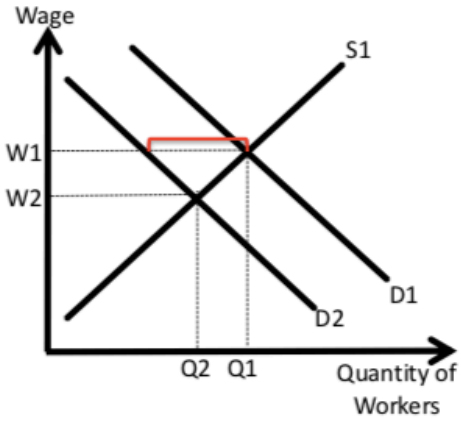
Oligopoly Performance Cons

Collusive oligopoly (cartel) promotes undesirable monopoly outcomes for society as the diagram shows.



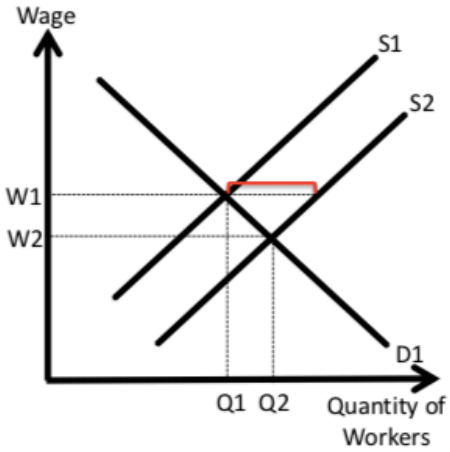
1) Cartels produce outcomes that are **allocatively inefficient**. This is because they exploit consumers by charging prices greater than marginal cost at the profit maximising level of output, Q1. At this point of production, resources are not allocated according to consumer demand with consumers getting a lower quantity than they desire. Consumer choice is restricted and prices are high reducing consumer surplus in the market. The quality of the product being sold may suffer too given the lack of competitive forces to meet the needs and wants of the consumer.

The Labour Market – Demand Shift Left



The market is initially in equilibrium with employment at Q1 and the wage rate at W1. The demand curve shifts to the left from D1 to D2 due to a decrease in labour productivity, decrease in demand for the final product or decrease in price for the final product. At the same wage rate of W1 there is excess supply of labour where more workers are willing and able to work than firms need putting downward pressure on wages from W1 to W2. Lower wages signal excess supply to firms and workers and the need for fewer labour resources in the market. Lower wages provide an incentive for workers to work fewer hours or to leave the market entirely shown via a contraction along the labour supply curve. Lower wages ration labour resources by encouraging greater demand as workers with lower MRPs now justify employment shown via an extension along the labour demand curve. A new equilibrium is formed at W2Q2 with a lower wage from W1 to W2 and less labour allocated to producing goods/services in this market from Q1 to Q2. This is a long term equilibrium without excess supply or excess demand – an efficient allocation of labour.

The Labour Market – Supply Shift Right



The market is initially in equilibrium with employment at Q1 and the wage rate at W1. The supply curve shifts to the right from S1 to S2 due to a decrease in the wage of substitute occupations etc. At the same wage rate of W1 there is excess supply of labour where more workers are willing and able to work than firms need putting downward pressure on wages from W1 to W2. Lower wages signal excess supply to firms and workers and the need for fewer labour resources in the market. Lower wages provide an incentive for workers to work fewer hours or to leave the market entirely shown via a contraction along the labour supply curve. Lower wages ration labour resources by encouraging greater demand as workers with lower MRPs now justify employment shown via an extension along the labour demand curve. A new equilibrium is formed at W2Q2 with a lower wage from W1 to W2 and more labour allocated to producing goods/services in this market from Q1 to Q2. This is a long term equilibrium without excess supply or excess demand – an efficient allocation of labour.

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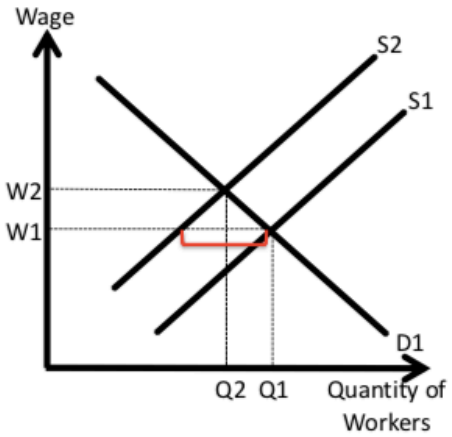
The Labour Market – Supply Shift Left



The market is initially in equilibrium with employment at Q1 and the wage rate at W1. The supply curve shifts to the left from S1 to S2 due to an increase in the wage of substitute occupations, higher barriers to entry, a reduction in non-monetary benefits etc. At the same wage rate of W1 there is excess demand for labour; fewer workers are willing and able to work than firms are demanding. This puts upward pressure on wages from W1 to W2. Higher wages signal excess demand to firms and workers and the need for more labour resources in the market. There is an incentive at higher wages for workers to work longer hours and for more workers to enter the market shown via an extension along the labour supply curve. Higher wages ration labour resources by discouraging demand for labour as now only workers with a high enough MRP will justify employment shown via a contraction along the labour demand curve. A new equilibrium is formed at W2Q2 with a higher wage from W1 to W2 and less labour allocated to producing goods/services in this market from Q1 to Q2. This is a long term equilibrium without excess supply or excess demand – an efficient allocation of labour.

Perfectly Competitive Labour Market Characteristics

1) There are **many (infinite) individual suppliers of labour (workers) to the market and many individual buyers of workers (employers).** This implies that firms must compete with one another to offer wages that attract workers they need and that workers do not have excessive bargaining power via a trade union to push up wages as there is alternative and individual competing supply.

2) All workers in the industry are **homogenous** with identical skill sets. Together with there being many workers and employers, firms are **wage takers** with no ability to exercise power in the market by setting their own wages. It makes no sense for firms to offer a wage higher than the equilibrium market wage as all workers are homogenous and so firms will be paying a higher wage unnecessarily reducing profit, when other workers could have been hired at a lower wage. Offering a lower than equilibrium wage, firms will not be able to attract workers to work for them as workers will move to substitute employer who offers the higher equilibrium wage. Therefore **the marginal cost and average cost for a firm operating in a perfectly competitive firm is equal to the wage**, drawn horizontally.

3) There are **no barriers to entry** into the profession such as training periods, skills and qualifications required. There are also **no barriers to exit** a profession such as notice periods or redundancy payments for employers. Therefore movement into and out of a labour market is free and costless for both workers and employers.