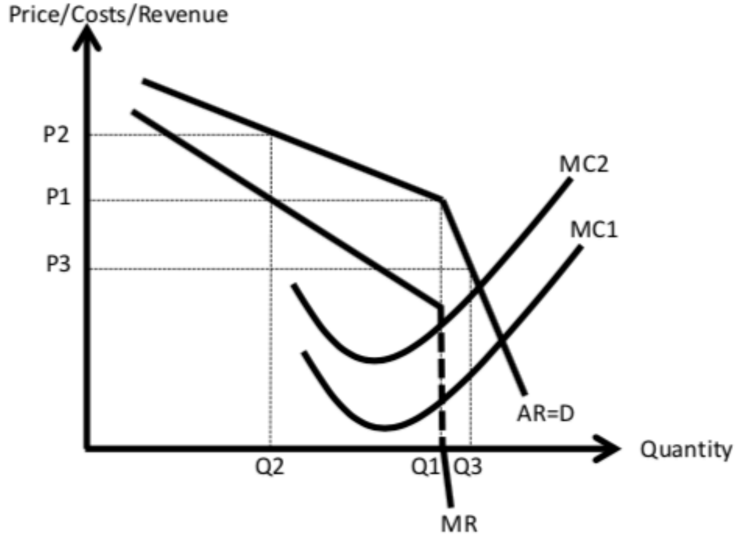


2) **Firms perhaps do not need to change their price from P1**. This is because the corresponding marginal revenue curve possesses a vertical discontinuity and if costs of production increase in this vertical gap from MC1 to MC2 for example due to a rise in raw material prices or an increase in wages, 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.

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.

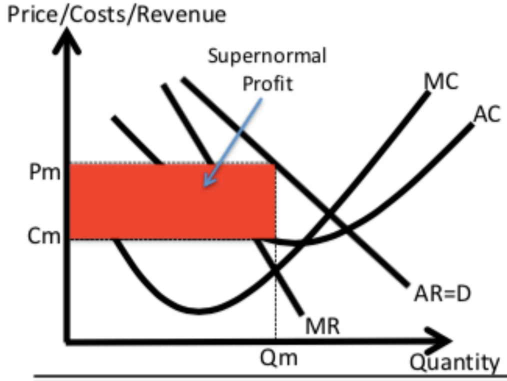
2) Firms can **compete on non-price factors** by strengthening advertising, developing brand loyalty, improving product and service quality. This again is in the interests of consumers and can lead to market share gains by producers if successful.

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.

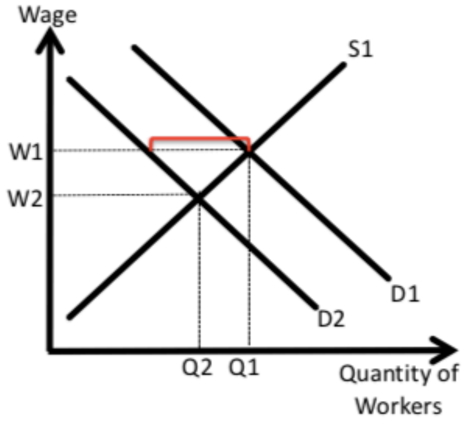
Oligopoly Performance Cons

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



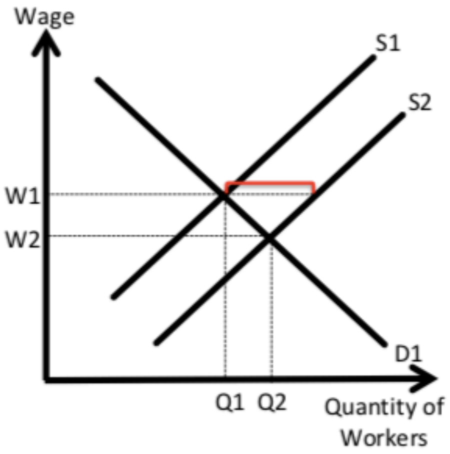
1) Cartels produce outcomes that are **allocatively inefficient**. This is because they exploit consumers by charging prices greater than marginal cost at the profit maximising level of output, Q1. At this point of production, resources are not allocated according to consumer demand with consumers getting 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



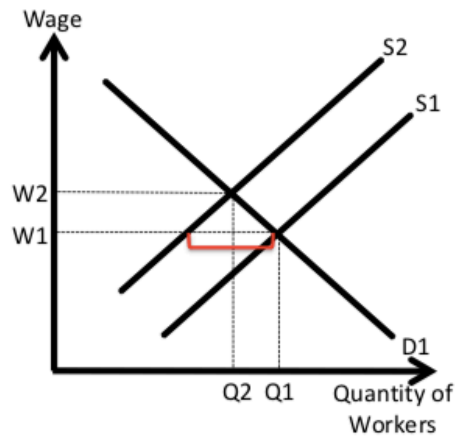
The market is initially in equilibrium with employment at Q1 and the wage rate at W1. The demand curve shifts to the left from D1 to D2 due to a decrease in labour productivity, decrease in demand for the final product or decrease in price for the final product. At the same wage rate of W1 there is excess 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.

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.

Chapter 2 – Balance of Payments

2.1 The Current Account of the Balance of Payments

- **Balance of Payments – Record of all international transactions between one country and the rest of the world**
- **Current Account – Measures the total value of export revenue and import expenditure of trade in goods & services, investment income and current transfers**

Demand Side Causes of a Current Account Deficit (Opposite for a Surplus)

1) **Strong domestic growth (higher incomes at home).** If real disposable incomes are high at home due to a boom for example, the marginal propensity to import will increase. There will be a greater 'sucking in' of imports effect, increasing demand and thus the expenditure on imports. Ceteris paribus, this will worsen the trade balance of the current account causing a current account deficit.

2) **Recession abroad (low incomes abroad).** If real disposable incomes fall abroad in the economies of major trading partners due to a recession for example, the demand for domestic exports will decrease, leading to a fall in the revenue generated from exports which ceteris paribus will worsen the trade balance of the current account causing a current account deficit.

3) **A strong exchange rate** makes exports dearer and imports cheaper. Economic theory suggests that the demand for imports and therefore the expenditure on imports will rise whereas the demand for exports and therefore the revenue generated by exports will decrease. Both effects will worsen the trade balance of the current account causing a current account deficit.

Supply Side Causes of a Current Account Deficit (Opposite for a Surplus)

1) **Low labour productivity**. Low labour productivity means output per hour worked is low relative to competitor countries around the world. This increases unit labour costs, a major cost of production for firms who will reflect such costs in higher prices charged, reducing the price competitiveness of a country's exports. This will reduce the demand and thus revenue generated from exports, worsening the trade balance of the current account causing a current account deficit.

2) **High minimum wages**. High minimum wages relative to competitor countries, who either do not have minimum wages or whose minimum wage is much lower, will increase unit labour costs; a major cost of production for firms, who will reflect such costs in higher prices charged reducing the price competitiveness of a country's exports. This will reduce the demand and thus revenue generated from exports, worsening the trade balance of the current account causing a current account deficit.

3) **Poor Investment**. Poor investment implies that capital machinery is outdated, depreciating, inefficient and costly to maintain. This means that costs of production are relatively higher than competitor countries whose capital machinery is more productive, with firms reflecting higher costs in higher prices charged reducing the price competitiveness of a country's exports. Once more, non-price competitiveness of exports will fall as the final quality of goods produced is likely to be lower. These two factors will reduce the demand and thus revenue generated from exports, worsening the trade balance of the current account causing a current account deficit.

4) **Higher Relative Inflation.** If a country has higher inflation rates relative to competitor countries, the price competitiveness of exports will be lower. This will reduce the demand and thus revenue generated from exports, worsening the trade balance of the current account causing a current account deficit.

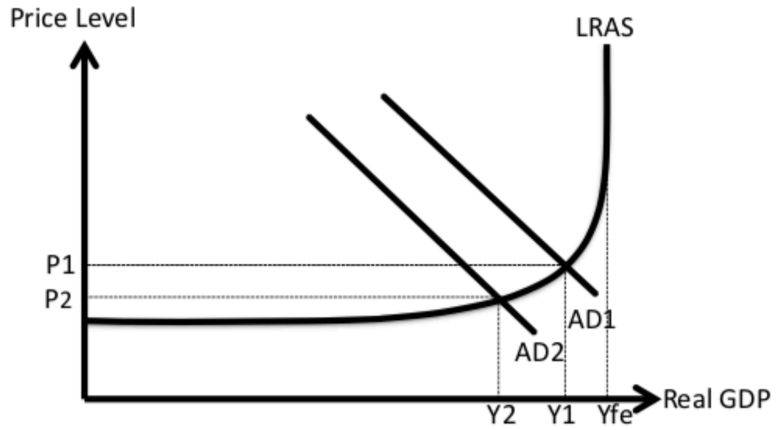
5) **Government restrictions on free trade.** If foreign governments increase or impose new trade barriers on domestic exports, such as tariffs, quotas and non-tariff barriers, it will be harder to access international markets. This will reduce the revenue generated by a country's exports worsening the trade balance of the current account causing a current account deficit.

6) **Loss of comparative advantage.** If one country loses their comparative advantage, perhaps due to skills improvements, lower wages or better access to raw materials in another country, industries will go into decline where large export revenues were previously being generated. Losing this export revenue will worsen the trade balance of the current account causing a current account deficit.

7) **Resource Depletion.** This is a strong argument in the case of developing countries in particular where extraction/mining laws and regulations do not exist or are not enforced. Self-interested, profit maximising firms will ignore the long term repercussions of their actions and continue to exploit natural resources eventually leading to depletion of the resource. Primary commodity export revenue is the major source of export revenue for these countries therefore depleting such resources will drastically reduce export revenue worsening the trade balance of the current account causing a current account deficit.

2.2 Consequences of a Current Account Deficit

1) A country with a current account deficit is very likely to have a trade deficit given that the trade balance accounts for a much greater share of the current account than the income balance. As a result, import expenditure on goods and services exceeds export revenue generated from goods and services which **reduces the value of (X-M) in the AD equation, causing AD to decrease from AD1 to AD2**:



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8) **Empowerment of Women.** If women are empowered with access to the same opportunities as men in society, development progress could rapidly increase. When women become active in the workforce, economic growth increases raising incomes and living standards for all. Women themselves earning income can drastically alleviate poverty and improve health and education given that women will prioritise family well being through immunisation, ensuring access to education and using appropriate kitchen and sanitation equipment. Education of women can also help control birth rates through greater understanding of contraception and can prevent the spread of disease.

Barrier to Development – Income Inequality

i) Income inequality can **reduce the amount of savings and thus investment**. This is because the poor have a higher marginal propensity to consume income earned to maintain the living standards of their family. Given their low incomes, this leaves very little income for saving and thus a lack of funds for financial institutions to lend for business investment purposes.

ii) The rich tend to save their money abroad due to higher rates of interest and more stable foreign currency providing a more lucrative return than saving domestically. This outward flow of money is known as **capital flight** reducing the chance of these funds being used to promote development outcomes domestically.

iii) The **rich tend to dominate both politics and the economy** whereby policy decisions focus more on improving their own positions and wealth rather than improving the outcomes of those in extreme poverty. In this sense development progress can stagnate and income inequality worsens over time.

6.5 Microfinance and Development

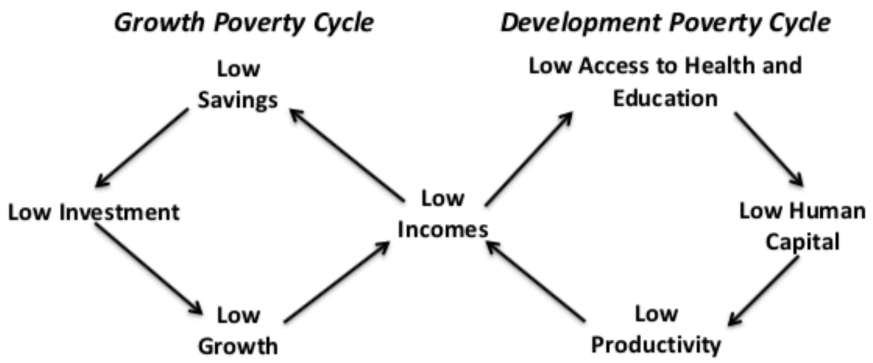
> **Microfinance or Microcredit – The provision of loans at low interest to small scale entrepreneurs in a developing country**

Microfinance and Development Pros

1) Microfinance can **break the growth and development poverty cycles** in developing countries by increasing investment and also increasing profits and therefore incomes of small scale entrepreneurs; income which can then be used to increase both material and non-material living standards with the ability to access health and education.

The poverty cycles below show how microfinance can fill the savings gap in developing countries, providing a means to gain finance for small businesses to grow and become more productive by buying capital machinery. Profitability therefore increases which increases incomes allowing families to access better standards of education and healthcare, increasing development.

EconplusDal's Analysis and Evaluation Pack
Year 2 Microeconomics and Macroeconomics



2) Microfinance can **alleviate poverty and create jobs for others**. This is because as profits and incomes rise for individual entrepreneurs, the need to hire more workers increases, a derived demand from the growth of their business. Therefore not only is income rising and poverty alleviated for the entrepreneur and their family but as jobs are given to others in the community, other family livelihoods improve and widespread poverty can be alleviated.

3) Microfinance provides a **means to access finance** where official lenders may reject riskier small scale entrepreneurs allowing a road side stall for example to increase in size and use more capital machinery to boost productivity. Crucially however such loans are given **at low interest**, which can be paid back over a longer period of time. As a consequence, individuals can spend the money on capital (longer term investment) knowing that breathing space exists before a return needs to be made allowing for maximum profit and income growth without the pressure of having to pay back debts within a short space of time.

4) Microfinance schemes can **empower women**. This is because many small scale business ventures are fronted by women who need finance to grow and develop their business. Consequently by receiving these funds for business investment, women make profits and earn incomes becoming leaders in their community inspiring more women to do the same. Furthermore adding a second income into a family can rapidly improve the living standards of the whole family where improvements in schooling and health outcomes accelerate.

Microfinance and Development Cons/Evaluation

1) The presumption of microfinance schemes is that every business venture will be successful but this is certainly not the case. No matter how impressive the entrepreneur might be, **running a successful business is difficult and full of risk**. As a consequence if businesses do fail, individuals with very low incomes will have debts to repay which they cannot afford trapping themselves and their families in poverty.