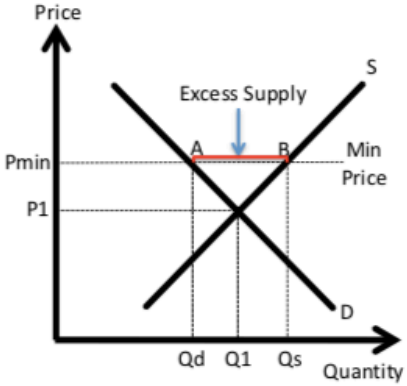
6.7 Price Controls and Market Failure

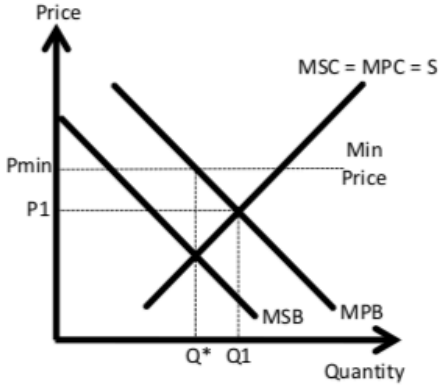
Minimum Price to Solve De-Merit Good and Price Volatility Market Failure

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.

Chapter 4 – Indirect Taxes, Subsidies and Price Controls

4.1 Indirect Taxation

- **Indirect Tax – An expenditure tax that increase a firm's cost of production but can be transferred to consumers via higher prices**

Why do Governments Levy Taxes?

1) **To raise revenue to fund essential public expenditure and transfer payments**. Governments need to raise finance for their expenditure programmes. They can borrow a limited amount of money for this but most must come from taxation to avoid inflation and excessive increases in national debt over time.

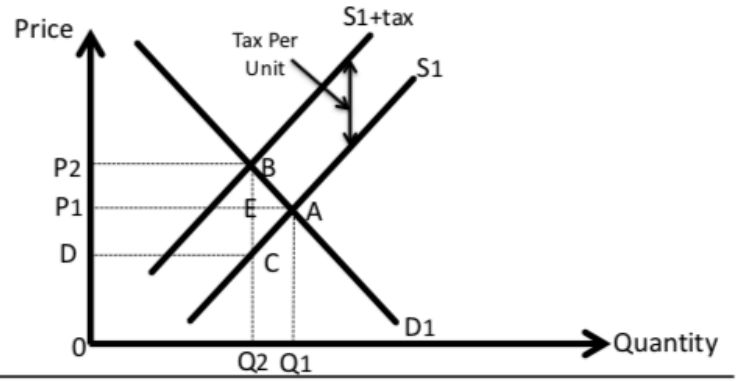
2) **To redistribute income**. If the government argues that the distribution of income is inequitable, to redistribute income, it may impose or increase progressive taxation to reduce the income of some groups in society and use the money collected to increase the income of other groups.

3) **To correct market failures.** Governments can intervene in markets by introducing or raising cigarette taxes, carbon taxes, alcohol taxes etc to reduce consumption and production. In this way taxation can be used to reach allocatively efficient outcomes in failing markets.

4) **To manage the macroeconomy**. Taxation can have an important influence on the macro-economic performance of the economy. Governments may change tax rates in order to influence variables such as growth, inflation, unemployment and the current account.

5) **To protect domestic firms from foreign competition.** Tariffs are taxes on imports that raise the price of imports. This reduces the level of imports into a country allowing domestic firms to survive and grow.

Impact of Indirect Taxation



1) Supply Curve: Shifts to the left from S1 to S1+tax

2) Price & Quantity: Price increases from P1 to P2 and Quantity decreases from Q1 to Q2

3) Producer Revenue: Decreases from P1AQ10 to DCQ20

4) Government Revenue: P2BCD

5) Consumer Burden: P1P2BE

6) Producer Burden: P1ECD

7) Welfare Loss: ABC

An indirect tax is an expenditure tax that increases a firm's costs of production but can be transferred to consumers via higher prices. An indirect tax will therefore shift the supply curve in the market to the left from S1 to S1+tax as it increases the cost of production for firms. The vertical distance between the two supply curves reflects the value of the tax. This increases the price of the product from P1 to P2 and due to the law of demand, where a higher price discourages consumption, quantity falls from Q1 to Q2.

1) **Consumers.** Consumers suffer as a result of the indirect tax, paying a share of the tax P1P2BE due to higher prices from P1 to P2, reducing their consumer surplus. The poor will suffer proportionately more than the rich however as indirect taxes 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.

Evaluation 1) Consumers are burdened even more if the **demand for the product is price inelastic** due to the good being addictive in nature perhaps. In this sense, producers know that they can transfer more of tax onto consumers with there being a proportionately smaller decrease in quantity demanded burdening low income consumers the most. The opposite is true where demand is price elastic. In this case, the burden of the tax will fall more heavily on producers knowing that increases in price would lead to large falls in total revenue.

Evaluation 2) Consumers suffer short term pain from this tax but **there may be a long term gain** if such taxes generate enough revenue for there to be greater spending on social goods and services in the economy such as education, healthcare and infrastructure which would improve the lives of poor in particular who rely more heavily on these services.

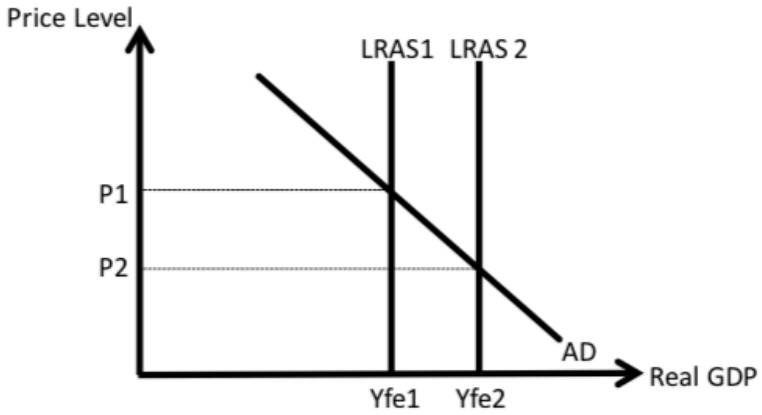
Evaluation 3) If the government is looking to **discourage consumption of a de-merit good**, in this sense solving a market failure, it can be argued that burdening consumers is a weak argument as this is the exact intention of the policy. Reducing consumption, production and thus quantity in the market from Q1 to Q2 could well be reaching the socially optimum level of output increasing welfare in the market and not generating a welfare loss as the diagram suggests.

2) **Producers and Workers.** Producers suffer as this tax raises their costs of production where they have to pay a share of the tax to the government indicated by the rectangle P1ECD, leading to a fall in revenue from P1AQ10 to CDQ20. This could mean reducing the size of their workforces due to the lower quantity produced in the market to reduce their costs and remain profitable impacting on workers by increasing unemployment.

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.

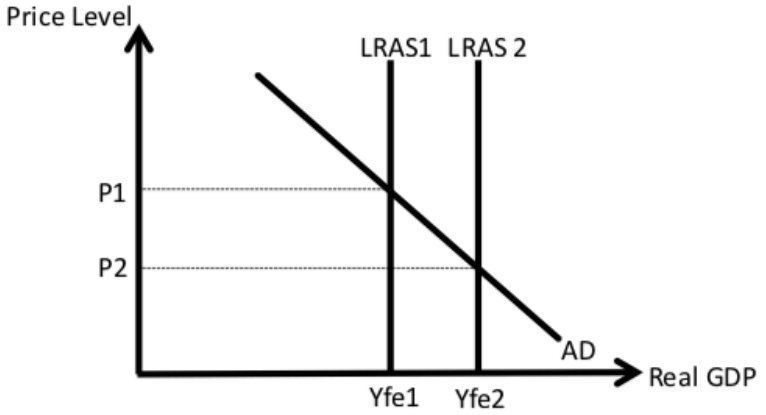
Government spending on infrastructure increases the quantity and quality of the capital stock of the economy for example by building new schools, hospitals, railway lines, roads and electricity infrastructure. This will increase LRAS from LRAS1 to LRAS2 and thus boost the productive potential of the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

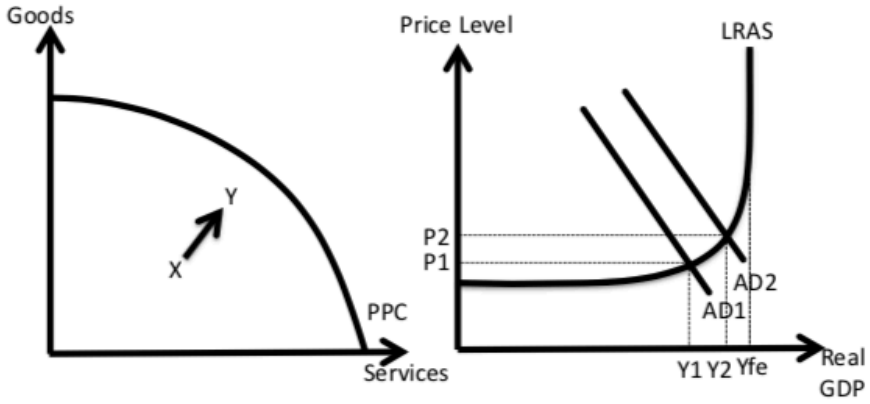
3) **Reducing the power of trade unions**. Reducing trade union power lowers long run costs of production for firms. This is because trade unions bargain for higher wages, longer worker breaks, longer worker holidays, longer maternity/paternity leave, all of which raise long run costs of production for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

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.