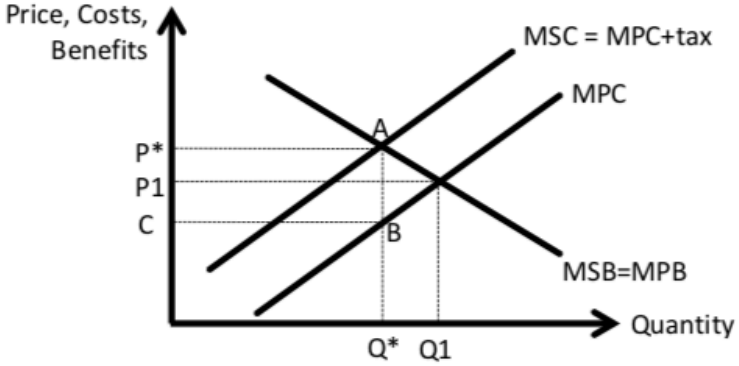
Chapter 6 – Policies to Solve Market Failure

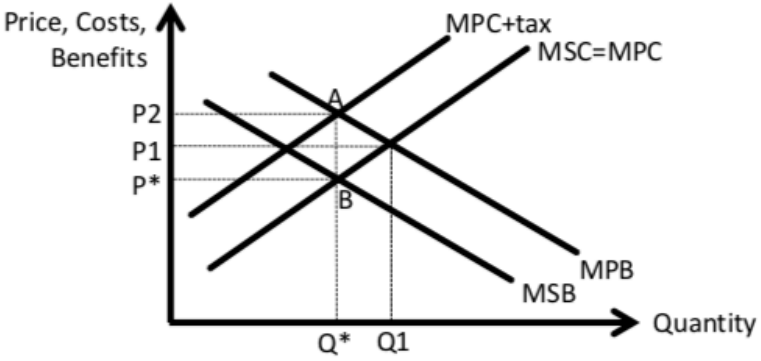
6.1 Indirect Taxation and Market Failure

Indirect Taxation to Solve Negative Externality in Production Market Failure



An indirect tax such as a carbon tax will increase the costs of production for polluting firms shifting the MPC curve upwards from MPC to MPC+tax, now equal to MSC. The price increases in the market from P1 to P* with quantity decreasing from Q1 to Q*, the socially optimum level of output. The externality has now been fully internalised with the price reflecting the full social cost of production hence the polluter is now paying the full cost of their actions. The overproduction and overconsumption that existed in the market is now solved with resources allocated efficiently at Q*. There is no longer a misallocation of resources with welfare maximised due to this intervention.

Indirect Taxation to Solve Negative Externality in Consumption/De-Merit Good Market Failure

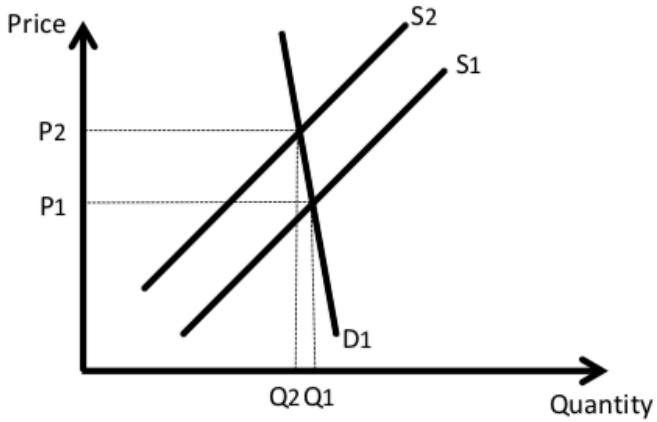


An indirect tax such as a cigarette, alcohol or sugar tax will increase the costs of production for firms shifting the MPC curve upwards from MPC to MPC+tax. The price increases in the market from P1 to P2 and due to the law of demand, consumption is discouraged, decreasing quantity from Q1 to Q*, the socially optimum level of output. The externality has now been fully internalised with the overconsumption and overproduction issues now solved. There is no longer a misallocation of resources with resources allocated efficiently at Q*. Welfare is now maximised due to this intervention.

An indirect tax also generates **government revenue** (P*ABC and P2ABP* in the above diagrams), which can be used to further solve the existing market failure for example by subsidising better alternatives, funding advertising campaigns, providing education or funding alternative/complimenting policies. This wider benefit can justify the use of indirect taxation even if the tax itself is ineffective in fully reducing quantity to the socially optimum level.

Indirect Tax to Solve Market Failure Cons/Evaluation

1) Demand for cigarettes, alcohol, sugar and fuel is **price inelastic**. This is because they are either necessities, addictive or there aren't many good substitutes available. Therefore as price increases, quantity decreases from Q1 to Q2 due to the law of demand, but proportionately less than the price increase from P1 to P2. 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 Q2. 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.



2) Knowing the **correct level of taxation to set is extremely difficult** for the government. 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 tax 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.

Evaluation 2) The deadweight welfare loss argument is reduced if the **government has solved a market failure given a pre-existing misallocation of resources**; for example due to the under consumption and under production of merit goods. In this sense, the government in increasing quantity in the market and improving the affordability of key merit goods like education and healthcare will have increased society surplus improving welfare in the market and the allocation of resources. The benefit of intervention may outweigh the costs.

4.3 Minimum Price (Price Floor)

➢ **Minimum Price – A price floor normally set above the equilibrium market price**

Why do Governments Impose Minimum Prices?

1) **Protect producers** of primary commodities in particular from price volatility. The demand and supply of primary commodities is highly price inelastic implying that when either the demand or the supply shifts, often due to changing weather conditions, price swings can be large, destabilising the income of agricultural producers. A minimum price 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, allowing the industry to survive in a country.

2) **Discourage consumption of de-merit goods.** For goods like alcoholic drinks, minimum prices can be used to raise the price above the free market price to internalise the negative externality and discourage consumption solving over consumption issues and bringing the market to the allocative efficient production level eradicating a prior misallocation of resources.

3) **Reduce income inequality and protect workers in the labour market.** A minimum wage in this case would reduce income inequality by protecting workers from extreme low pay and discrimination that might exist in the labour market. Low wages can prevent a decent standard of living promoting poverty, overcome if the government sets a minimum wage above the free market equilibrium wage guaranteeing those in employment with low skills, on the lower end of the pay spectrum, an increase in pay with an improvement in their standards of living. The gap between the rich and poor in society will decrease reducing income inequality.

Impact of a Minimum Price (Price Floor)

A minimum price or price floor is set above the free market equilibrium price, increasing prices from P1 to P2. As a result there is an extension of supply to Qs and a contraction of demand to Qd causing an excess supply (a surplus) of AB to exist in the market.

1) **Consumers.** Consumers lose out when a minimum price is implemented. This is because they must now pay higher prices from P1 to P2, which reduces their consumer surplus. The poor will suffer proportionately more than the rich however as they 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.

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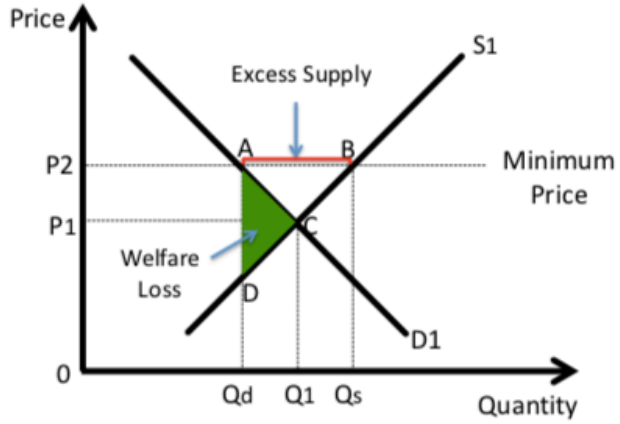

Evaluation 1) Consumers may instead like the fact that their own **domestic producers are remaining in the industry** providing them local produce rather non-home produced imports. They may be willing to pay a higher price to buy local produce and thus not suffer as the theory suggests.

Evaluation 2) In the primary commodity sector there is usually some form of **intervention buying** of the excess supply produced. This comes at a cost to the government which could mean future tax rises burdening consumers or it could mean cuts to public services in the future. In this sense consumers lose out in both the short run and long run.

2) **Producers.** Producers benefit from a minimum price especially if there is intervention buying of the excess supply produced. The demand and supply of primary commodities is highly price inelastic implying that when either the demand or the supply shifts often due to changing weather conditions, price swings can be highly volatile, destabilising the income of agricultural producers. A minimum price 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, allowing the industry to survive in a country. Furthermore with intervention buying, revenues for the producer increases from P1CQ10 to P2BQs0.

Evaluation 1) This beneficial impact on the producer depends heavily on **whether intervention buying actually 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.

Evaluation 2) If the minimum price is used to solve de-merit good market failure however, there would be no buying up of the excess stocks thus producers are more likely to suffer if excess stock is produced. However if there is inelastic demand for the product being sold and producers do not produce the excess supply knowing it will simply be left unsold, producers will still see an increase in their revenues and profitability as less is being produced now.