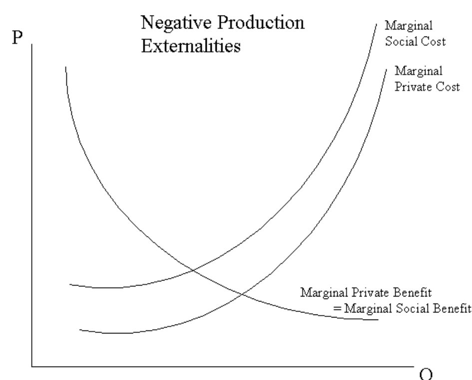
Explain the meaning and significance of externalities, how they arise and to what extent they can be corrected by government intervention.

This essay evaluates the importance and essentialness of government intervention in relation to externalities. The essay discusses, defines and analyses the significance of externalities with reference to real life situations and all the forms that externalities can arise, in addition it shall argue the main principles and characteristics of government intervention on externalities. In this essay it will demonstrate how business organisations have been effected by externalities.
Externalities has been defined as 'An economic side effect, externalities are costs or benefits arising from an economic activity that affect somebody other than the people engaged in the economic activity and are not reflected fully in prices'[1] Externalities arise in four forms, from production or consumption and they can be either negative externality or positive externalities. If it is negative then it will impose an external cost, if it is positive then it will provide an external benefit.

- Negative production externalities occur when production has a detrimental effect in other markets in the economy. The negative effects could be felt by other firms or by consumers. The most common example of negative production externalities involves pollution or other environmental effects. For example when a factory emits smoke into the air, the pollution will reduce the well being of all of the individuals who must breathe the polluted air. The polluted air will also likely require more frequent cleaning by businesses and households, raising the cost incurred by them.



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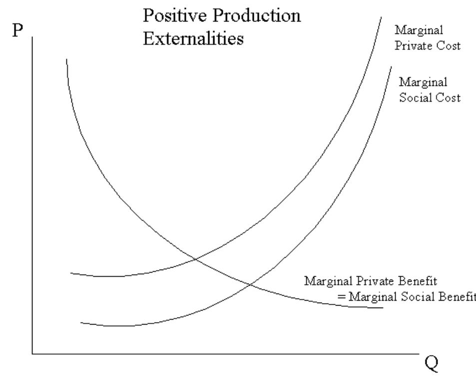
- Positive production externalities occur when production has a beneficial effect in other markets in the economy. Most examples of positive production externalities incorporate some type of learning effect. For example when a firm does research and development, its researchers learn valuable things about production, which in turn are transmitted through the rest of the economy and have positive impacts on other products or production processes.

[1] Pocket Economist, published by Profile Books



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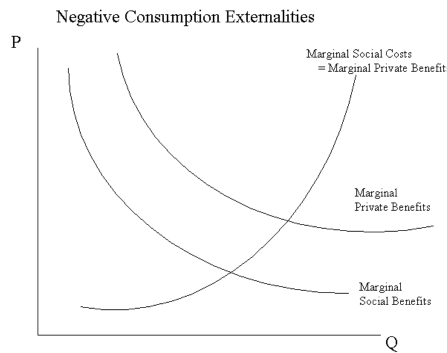
- Negative consumption externalities occur when consumption has a detrimental effect in other markets in the economy. Most examples of negative consumption externalities involve some type of dangerous behaviour. For example a drunk driver places other drivers at increased risk. In the worst outcome the drunk driver causes the death of another. A smoker may also put others at risk if second-hand smoke causes negative health effects. At the least though, cigarette smoke does bother non-smokers when smoking occurs in public enclosed areas.



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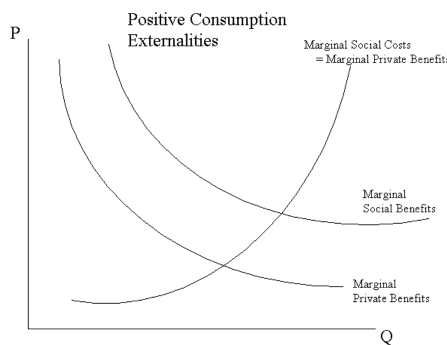
- Positive consumption externalities occur when consumption has a beneficial effect in other markets in the economy. Most examples of positive consumption externalities involve some type of aesthetic effect. For example a healthy lifestyle has positive external effects on others by reducing societal costs. A more healthy person would reduce the likelihood of expensive medical treatment and lower the cost of insurance premiums or the liability of the government in state-funded healthcare programs.



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The significance of externalities is that whether it's positive or negative it effects and can be created by everybody in everyday life, from a large cooperate company producing pollution, reducing the well being of all of the individuals who must breathe the polluted air to someone renovating their house therefore he and his neighbour may benefit in a increase in house value. I will now discus the forms of government intervention how they try to correct positive and negative externalities and to what extent they succeed.

The existence of externalities necessarily means that the free market is unable to deal with it, resulting in inefficient allocation of scarce resources and deadweight losses. Thus, the implication is that governments must come in and help the free market to achieve efficiency. There are two solutions to negative externalities, public solution or private solution. Public solution - Negative externalities represent or reflect market failure. This market failure can be a persuasive reason for government intervention. It's believed therefore that government intervention is surely justified, but how and how far can this rationale for government intervention be taken?

Government responses to negative externalities generally include rules, negotiations or legal enforcement of property rights, taxes and subsidies, internalization and assignment of property rights and creation of a market. The OECD introduced the environmental tax in 1972; the tax went by the principle of 'the polluter pays'. This meant that the polluter would pay towards the cost of the measures taken to reduce pollution, a fee that is decided by the public authorities. Problem with environmental taxes is if taxation is too high, in part a result of the problem of assigning accurate monetary values to the external costs created by producers and consumers, the result can be the expansion of grey markets where producers and consumers try to avoid the taxes. It is also hard to pinpoint precisely who is causing the pollution, in the case of pollution along rivers where several industrial plants might be emitting effluents. Should producers be subject to a consistent tax regime when some are more at risk of polluting than others? A further problem with using taxes to control externalities is that some taxes have a regressive effect on people on low incomes. Good examples to use would be the increased real level of duty on cigarettes and alcohol and the impact this has on households on below average incomes. Private solution – The Coase theorem is the proposition that if private parties can bargain without cost over the allocation of resources, they can solve the problem of externalities on their own this suggests that spill over costs and benefits will not occur and government intervention is not necessary when property rights are clearly defined, the number of people involved is small, and bargaining costs are negligible.

In the case of a positive externality, the government can help the free market reach the socially desirable output by giving a subsidy equal to the external marginal benefit. Then through government intervention, the socially efficient output can be obtained. The government uses four devices to achieve this they are public provision - The production of a good or service by a public authority that receives the bulk of its revenue from the government. An example of this would be universities, colleges, and schools. Private subsidy - A payment that the government makes to private producers that depends on the level of output, private decision makers can be induce by the government to consider external benefits. Vouchers - A token that the government provides to households that can be used to buy specified goods or services. An example for this is food stamps that can only be used to purchase healthy food to improve the health and diet of poor families. Patents and copyrights – a government sanction exclusive right granted to the inventor of a good, service, or productive process to produce, use and sell the invention for a given number of years. A patent enables the developer of a new idea to prevent others from benefiting freely from an invention for a limited number of years. (Parkin, M. 2003).

Presence of negative externality is indicated by divergence between private cost and social cost, or private benefit and social benefit. Activities with negative externalities will be carried out at a level,

which is too high from a social point of view. Negative externalities represent or reflect 'market failure'. This market failure can be a persuasive reason for government intervention. When it comes to negative externalities such as environmental issues they can be corrected to a certain extent with the aid of government intervention. The government imposing rules, negotiations or legal enforcement of property rights, taxes and subsidies, internalization and assignment of property rights have made the producers of the negative externalities reduce the amount negative externalities produced so to limit their cost on taxes paid. In the presence of positive externalities when firms produce external or social benefits government intervention can reward the firms by the means of subsidies. For example it has been argued that railway decreases road congestion therefore generating social benefits by the means of easing urban congestion, pollution and traffic accidents. This was a factor in enticing the government foe subsidizing British rail through the passenger service obligation grant which in the mid 1990 equalled to around £1bn. A negative externality imposes a cost on third parties. A factory polluting your air or water supply is a typical example of one. Many economists use the idea of externalities as the basis for public policy recommendations: a tax or subsidy to "make up" the external costs. In fact, most government functions at one time or another have been justified on the basis of externalities.

To conclude government intervention on externalities can help to a certain extent when it is in the interest of the public. Perhaps the question of whether externalities warrant government intervention must be decided on the specific circumstances. “The greatest economic lesson of this decade is that except in textbooks, government failure is broader, more damaging, and more threatening to individual liberty than market failure (‘The Economist’). Bearing this in mind, externalities (which are forms of market failure) must only warrant intervention when deemed absolutely necessary, not at any time, any place, or anyhow. Positive externalities can be subjective, as different people may well view costs and benefits differently. They occur in the natural course of economic activity and there is little need for any sort of governmental intervention to correct them. Nor is there any certainty that the government could accomplish this. If the actions that create the externality are actions taken in a free environment and in good faith, then the indirect benefits to others are not unjust to those that bear the cost. As long as those who bear the costs reap the benefits they wanted, their investment is a worthwhile one to them.

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