# Essay 2010 Q1 – Market Failures

**Question 1**

**Compare and distinguish between positive and negative externalities. (8)**

**Introduction**

Externalities are the effects produced by individuals as a result of production or consumption of goods and services affecting the third party who are not involved in the production or consumption. These effects can be divided into positive and negative externalities. While positive externalities have beneficial effects that enhance the interest of the society such as community immunization from mass inoculation, negative externalities have harmful effects that are detrimental to the society, such as pollution occurred in the course of production. These two forms of externalities are similar and different in many ways.

**Mainbody**

Both forms of externalities will **affect the value of cost and benefit calculation**. Positive externalities will contribute to external benefit, which means that the social marginal benefit will be higher than the private marginal, As for negative externalities, it will incur external cost, which raises the social marginal cost as it adds onto the private marginal cost.

As a result in the increase in social and marginal cost and benefit**, both forms of externalities will re-define the social optimal level of production or consumption**, where the society will maximize its welfare gain. Without the presence of externalities, the society will produce at the level of production where PMC = SMB (private marginal cost = social marginal benefit) or PMB = SMC (private marginal benefit = social marginal cost). However, with externalities, the social optimal level of production will be at SMC’ (PMC + EMC) = SMB’ (PMB + EMB).

**This also implies that externalities will disable the society to optimise its welfare**. In the case of positive externalities, the society will be producing below its optimal level of output. AS for negative externalities, it will be producing above social optimal level of production. Nonetheless, both forms of externalities will cause the society to incur deadweight loss if externalities are not taken into consideration**. For positive externalities, DWL will be seen in term of the external benefit the society fails to reap and for negative externalities, DWL will be seen in term of the external cost the society needs to pay.**

In sum, it can be seen the manner of the effects of both forms of externalities may differ but the economic effects on the society are quite the same. This will imply that approaches used to rectify them may differ so as to ensure that its detrimental effects are effectively eliminated.

# Essay 2010 Q2 – Market Failures – Set A

**Question 2**

**2a. Discuss whether a socially optimal level of pollution imply zero level of pollution? [8]**

A socially optimal level of pollution occurs when the level of production occurs at social efficient level of production where the social marginal cost is equal to the social marginal benefit. When this occurs, the production is at the level whereby the total social net benefit gain is maximum and the absence of DWL. However, it does not mean that the production level has zero level of pollution.

Mainbody

**1) Explain how the presence of pollution will disrupt the social optimal level of production.**

With the presence of pollution, these will be negative externalities which give rises to external marginal cost. This will contribute to the divergence of the PMC and SMC, contributing to the rise of DWL as the social equilibrium level of output is at Qs which is above the market equilibrium level at Qm. This is because the SMC is greater than the SMB at Qm due to the presence of EMC caused by the rise in pollution.

**Draw diagram and description of diagram**

**2) Explain why social optimal level of pollution is not at zero.**

To achieve social optimal level of pollution, the production level has to be at SMC = SMB whereby SMC = PMC + EMC. At this level of production, the total social net benefit is maximum. As **for zero pollution,** the production will be at zero and there is no social net benefit to be gained. Thus the social optimal level of pollution is not at zero but at the level where the SMC = SMB (SMC = PMC + EMC).

Conclusion

The understanding of the above situation will mean that there is a need to maintain production level will be at social equilibrium level to maximise total net social gain.