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Subject: H2 Economics

Topic: Market Failure

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*Explain how smoking may be viewed as a source of market failure, and evaluate the policy measures that Singapore government currently adopts to correct market failure caused by smoking.*

Market failure occurs when the free market, when left on its own is unable to attain socially efficient equilibrium because of the lack of price signals, the inability of the market to capture the full cost and benefits of transactions or inherent imperfections in the real-world markets. This results in the loss of social welfare, which could be re-captured through government intervention in these markets.

Smoking is viewed as a source of market failure as it produces negative externalities not captured within the free market system. While the consumer of cigarette enhance his welfare when he enjoys a puff, the act of smoking presents an external cost to the society as it pollutes the air directly, and worsens the health conditions of people surrounding the smoker as they take in the second-hand smoke. The free market is unable to account for this external marginal cost and as a result, there's overproduction of cigarettes, and thus smoking if the market were to be left on its own.

[Negative Externality Diagram, showing the social marginal cost to be higher than the private marginal cost for every unit quantity of cigarette smoked/Welfare loss shaded]

As seen from the figure above, the free market, which ignores the deviation between social and private cost would only produce at the market equilibrium quantity of cigarette smoked, which is much higher than the socially efficient equilibrium. This result in the welfare loss shaded in the diagram as the society at large suffers higher incidence of respiratory problems related to second-hand smoke.

In order to correct the negative externality presented by smoking, the government can intervene by setting a tax that is equals to the external marginal cost in order to internalize the externality and allow the market to continue with its provision of cigarettes. By setting the tax equals to the external marginal cost of smoking, the new market equilibrium would be identical to that of the socially efficient point and welfare loss due to the negative externality is re-captured.

In Singapore, the government adopts a wide array of policy measures to correct the market failure caused by smoking in order to balance both the long term and the short term cost and benefit of smoking. Singapore applies excise duties on cigarettes, bans smoking in most public places, enforce regulations that require dinning outlets to divide their dinning area for smokers and non-smokers. The government also embarks on a long term campaign against smoking, promoting public education to demonstrate the harms caused by smoking and inhaling second-hand cigarette smoke. In general, Singapore has pursued a very balanced approach towards the problem of smoking.

Firstly, by applying excise tax on cigarettes, the government has helped to shift the private marginal cost above what it originally is if a free market prevailed. As we are trying to discourage the consumption of cigarette (ie. Smoking), the government also ban smoking in public places in order to restrict the consumption and the negative effects of smoking on public health. This would have the effect of lowering the social marginal cost since preventing smoking in most public places would reduce the impact of the negative externality and bridge

the deviation between social and private cost of smoking. This two-prong approach works both on the side of the producers (excise tax raise their cost of business and lowers their demand) as well as the consumers (inability to smoke in many places) to minimize the market failure.

Taxation on cigarette is merely a very short term solution to the problem of smoking as smokers gets addicted to cigarette and the price elasticity of demand would be very inelastic for them. This would mean that the tax incidence on consumers would be very much higher than the producers. It also implies that the reduction in production of cigarettes after taxes is applied in very minimal, and it'll be infeasible for the government to keep raising taxes when people become insensitive to the high prices. Black markets may also emerge and cigarette smuggling may become more attractive with rising taxes on cigarettes.

Worst, penalizing the consumers may distort the income distribution as lower income smokers lose their incomes to their addiction while the rich smokers have no problem getting a puff. As such, long term public education campaigns against smoking are necessary to reduce the private demand for smoking in the first place. More importantly, preventing people from taking up the habit of smoking would mean that they do not fall into the trap of being insensitive to cigarette prices and thus education campaign would work better than taxes in minimizing the negative impacts of smoking in long run.

The Singapore government enforced regulations to ensure that cigarette packets are 'labeled' with disgusting images of infected windpipes, tarred lungs and inner bleeding in the brain as a means of informing the smokers about the hazards smoking poses to their own lives. Advertisements on screen and print seek to inform people of the smoking-related deaths and nicotine chewing gum has been given special permission to be sold in Singapore to help smokers quit smoking. These long term policy measures helps keep the number of smokers low so that the negative cost of smoking imposed on the public is minimized in long run where taxation policies does little to help correct the market failure. Thus, Singapore's mixture of regulation, taxation and long term campaigns presents an excellent multi-prong policy to correct the market failure of smoking.