**Test 1 - Essay Question 3**

**Alcohol was not a direct cause of the riot, the Committee of Inquiry said. “However, it was a major contributory factor, among others, to the nature and escalation of the Little India riot. “**

1. Explain why the amount of drinks a rational consumer decides to have often differs from what the regulator deems to be rational. [10]
2. Discuss whether banning alcohol consumption should be implemented given the decision of consumers differs from that of the regulators. [15]

Part (a)

The decision of a consumer or a regulator is said to be rational if the decision is made based on the marginalist principle, that is comparing the benefits and costs of small incremental adjustments to an existing plan on action, which in this case refers to an extra unit of drinks. Although the decisions for both the consumer and regulator is based on the marginalist principle, the benefits and costs from the consumer’s point of view might differs, hence the amount of drinks the rational consumer to decide often differs from what the regulator deems to be rational.

For the consumer, the private benefit of an extra unit of drinks is the additional satisfaction he derived from consuming this extra unit of drinks. This amount of satisfaction can be inferred from the demand curve. However, the benefits derived from the consumption of each successive unit falls as more units are consumed due to the law of diminishing marginal utility.

The opportunity cost for the consumer is the benefits of the next best alternative forgone. That is, if a consumer spends an extra dollar on drinks, he would have to forgo the goods that could have been bought with that one dollar as well as his ability to exercise control over oneself. Although the price he has to pay for an extra unit of drinks is constant, the increasing inability to control oneself increases as more drinks is consumed.

The rational consumer decides how much to consume by comparing his marginal private benefits and costs. For example, with reference to Fig 1, for Q1th unit of drinks, the private benefits and costs are depicted by P2 and P1 respectively. Since the marginal private benefit is greater than the marginal private cost for this unit, the rational consumer should consume this unit but such a level of output is not at the maximized level of output or the efficient resource level of resource utilization.

P2

P1

Qe

Q2

0 Q1

MPB

MPC

 $

Quantity

Figure 1

In fact, up to Qe unit, the marginal private benefits surpass the marginal private costs. As such, the rational consumer should consumer up Qe. It is irrational for him to consume beyond that as the marginal private costs surpass the marginal private benefits. For instance, for Q2 unit, the marginal costs surpass the marginal private benefits. Hence, consuming this unit only decreases his net benefits. Therefore, the optimal level of consumption is Qe where the marginal net benefit where marginal private benefit gain is equal to marginal private costs and there will be maximization of net private benefit gain., indicating efficient resource location in the alcohol market.

However, this amount of drinks the rational consumer has decided to have is irrational from the regulator’s point of view. This is because, to the regulator, the consumer has underestimated his private cost and disregard the external costs.

The external costs, in this case, refers to the adverse side effects of consumption on the third parties. As highlighted above, when the consumer consumes more, he is increasingly losing his ability to control oneself. And this inability to control oneself often leads to him puking on the streets, shouting, driving recklessly or resorting to violence, causing him to be a public nuisance or cause harm to pedestrians or family members. As such, the true marginal cost to the regulator consists not only the consumer’s private costs but also the costs to the third parties which demand the regulator to impose administration cost to interfere to clear up the public disturbance to the society.

Qe

0 Qs

MPB

MPC

 $

Quantity

Figure 2

D

MSC = MPC + MEC

A

P3



B

C

P4

F

With reference to Fig 2, the amount of drinks the rational consumer decides to have, Qe, given by the intersection of MPB and MPC, is considered irrational from the regulator’s point of view as the marginal social cost P3 exceeds the marginal private benefit P4. The presence of external cost contributes to the divergent pivotal shift of the MPC to MSC where MSC=MPC+MEC and this contributes to over-consumption as the social equilibrium at Qs is higher than the market equilibrium at Qe. This implies that MSC is greater MPB= MSB, giving rise to deadweight loss represented by ABC. Consequently, the regulator sees the consumption level at Qe an irrational choice as it gives rise to welfare loss in this industry.

Hence, it can be shown that the rational level of consumption chosen by the consumer is likely to differ from the regulator’s view of the rational level of consumption. The different level of consumption is justifiable as there is the rise of deadweight loss and the regulator will impose solutions to convert the consumer’s level of output to the regulator’s output level that is considered efficient resource level of allocation, preventing market failures.

**Part (b)**

As shown in part a, the level of alcohol consumption, if left to the market, is not socially optimal and there is market failure. As such, it requires government to regulate. One form of regulation is to ban alcohol consumption. This, however, should be considered for implementation only if it improves societal welfare. Otherwise, less drastic measures should be recommended.

With reference to Fig 2, the welfare loss as a result of the decision of consumer is given by area CAB. Banning alcohol consumption will reduce the level of consumption to zero. However, for units up to Qs, the marginal social benefit is higher than the marginal social cost. Not allowing the consumption of these units implies a welfare loss given by the area FDA. Hence, banning alcohol consumption totally can lead to a bigger welfare loss.

In fact, only in very rare case where the MSB is higher than MSB for all levels of output or when the extent of the costs is not yet known like the case of production of toxic chemicals, banning the production or consumption is usually not rational from the perspective of the society and hence is usually not implemented.

Having said that, it may still be recommended to ban alcohol consumption to some degree. For instance, a ban can be implemented for those below a certain age. For example, in Singapore, the legal minimum age is 18. Another form of banning alcohol consumption could be in the form of restricting the hours for which alcohol can be purchased. For example, with effect from 1st April 2016, between 10.30pm to 7am, drinking is prohibited in public places and retailers are prohibited to sell alcohol.Other form of banning alcohol consumption can be in terms of designated areas in a country. In Singapore, Liquor Control Zones, places associated with excessive drinking and hence higher risk of having public disorder, have been drawn to ban alcohol consumption.

Besides the consideration of welfare loss, there are other reasons for regulator not to ban the product. Banning a product that is habitually consumed good may cause public outcry. It can also further tarnish Singapore’s reputation given critics have regard her to be a country with little rights. But more importantly, it can result in an important source of government revenue as high taxes tend to be associated with demerit goods. In addition, banning the consumption requires strict enforcement for it to be successful, which may require a lot of resources to be channeled into it.

Besides banning alcohol consumption, the next option is to regulate the consumption of the good. This includes moral suasion and taxes, which the objective is to shift either the MPC to the left to coincide with MSC or the MPB to the left, so that the market level of output will fall to the optimal level.

Draw diagram and description of diagram

The type of regulation ultimately chosen will then depend on the extent of effectiveness of each regulatory measure based on grounds of efficiency, revenue generation and the costs involved in carrying out these regulations. Even if the government has chosen an effective measure, the outcome depends on whether the government is able to estimate the amount of MEC correctly.

First, the government can take on the role of an information provider to persuade people to change their drinking habits. For example, posters and advertisements seek to inform and heighten consumers’ awareness on the costs of drink-driving in Singapore and to advise the population to stay away from alcohol if they are driving. However, the effectiveness of these initiatives has been mixed. This is because campaigns are passive in nature as whether consumers are receptive to advice in the advertisements is strictly voluntary, and so there might only be minimum impact on the level of consumption.

Second, the government can also impose on producers a tax equal to level of MEC at the socially optimal level. Because of the imposition of this tax, producers will reduce supply and pass on part of this increase in costs to consumers, which will result in a higher price of alcohol. This will shift the MPC upwards, causing the external cost to be internalised, thereby reducing the level of consumption to the socially optimal level. Compared to the case of moral suasion, the impact is more certain and hence more effective. Nonetheless, the effectiveness depends on the government ability to estimate the level of MEC at the socially optimal level of output. Too high a tax can result in greater welfare loss while too low a tax may not have significant impact on reducing the level of consumption. Moreover, the impact may not be effective on addicts as their demand for these goods are relatively price inelastic unless a high tax is imposed. For a country where drinking tends to be a lifestyle, imposing a high tax can be a political backlash.

Third, taxation creates source of revenue that increases the coffer of the government where the moral suasion and banning cannot achieve. Given that the government’s need to correct the level of consumption and make disincentive to the consumption of alcohol to the optimal level of consumption. This benefit of tax is beneficial to the country and a good way to correct the bad habits of the society without enforcing the consumption level to desired level.

In conclusion, some degree of banning can be helpful in reducing external costs and removing consumers who would grossly underestimate their private costs from the market. These measures, however, should be supplemented with both moral suasion and indirect tax to better deal with market failure problem especially given that there is no one measure that is most superior.