

RVHS Q3

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. “

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

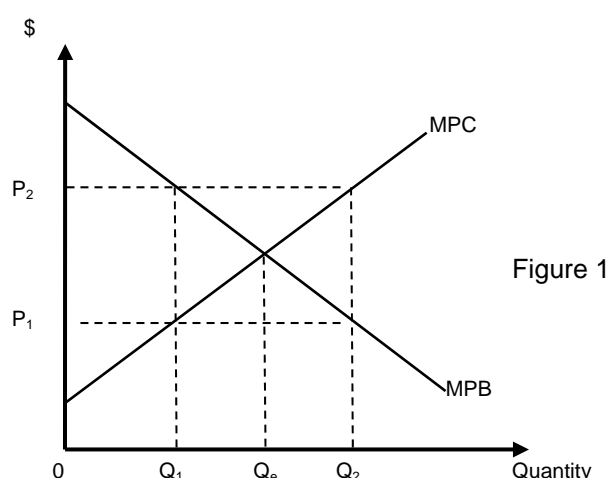
Part (a)

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 differ, 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 are consumed.

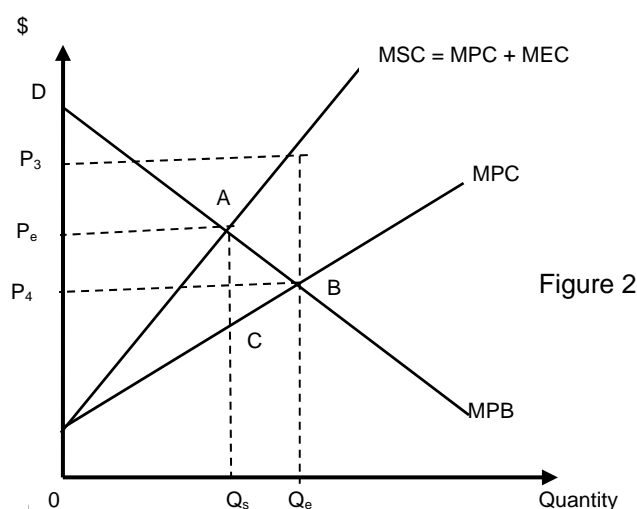
The rational consumer decides how much to consume by comparing his marginal private benefits and costs. For example, with reference to Fig 1, for Q_1^{th} unit of drinks, the private benefits and costs are depicted by P_2 and P_1 respectively. Since the marginal private benefit is greater than the marginal private cost for this unit, the rational consumer should consume this unit.



In fact, up to Q_e unit, the marginal benefits surpass the costs. As such, the rational consumer should consumer up Q_e . It is irrational for him to consume beyond that as the marginal costs surpass the benefits. For instance, for Q_2 unit, the marginal costs surpass the marginal benefits. Hence, consuming this unit only decreases his net benefits.

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.



With reference to Fig 2, the amount of drinks the rational consumer decides to have, Q_e , given by the intersection of MPB and MPC, is considered irrational from the regulator's point of view as the marginal social cost P_3 exceeds the marginal private benefit P_4 .

Alternative answers: underestimation of the private cost.

Level of Response Marking Scheme (LORMS)		
L3	Developed explanation on how marginalist principle is used by economic agents, either consumers or the government, to make decisions AND the underestimation of private costs or the disregard of external costs in giving rise to the difference in perspectives of consumers and governments.	8 – 10m

L2	<p>Undeveloped explanation on how marginalist principle is used by economic agents, either consumers or the government, to make decisions AND the underestimation of private costs or the disregard of external costs in giving rise to the difference in perspectives of consumers and governments.</p> <p>Developed explanation on how marginalist principle is used by economic agents, either consumers or the government, to make decisions OR the underestimation of private costs or the disregard of external costs in giving rise to the difference in perspectives of consumers and governments. (cap at 5m)</p>	5 – 7m
L1	Smattering of valid points	1 – 4m

Part (b)

As shown in part a, the level of alcohol consumption, if left to the market, is not socially optimal. 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 Q_s , 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 MSC 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.

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.

Firstly, 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.

Secondly, 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.

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.

L3	Developed explanation of why some degree of ban rather than a total ban should not be implemented. Answers should also acknowledge the existence of other policies, their benefits and shortfall.	9-11
L2	Developed explanation why a total ban should not be implemented and consider the existence of other policies, their benefits and shortfalls.	5-8
L1	Smattering of valid points.	1-4
E2	For an evaluative assessment based on economic analysis.	3-4
E1	For an unexplained assessment or one that is not supported by analysis.	1-2

