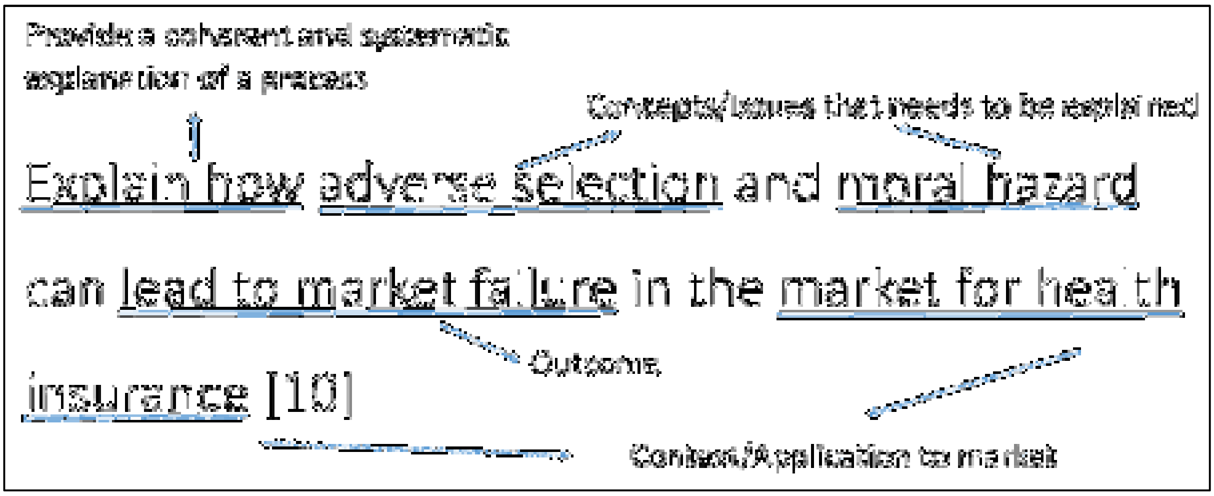
3) **MediShield Life, a basic health insurance scheme, covers all Singapore Citizens and Permanent Residents, even those with pre-existing conditions. Health insurance is insurance that covers the whole or a part of the risk of a person incurring medical expenses, spreading the risk over a large number of persons. Compulsory enrolment addresses the issue of adverse selection while features such as maximum claim limit, deductible and co-payment limit the extent of moral hazard.**

   a) **Explain how adverse selection and moral hazard can lead to market failure in the market for health insurance. [10]**

   b) **Assess the extent to which adverse selection and moral hazard, rather than any other potential market failure, is the major cause of government intervention in the market for health insurance in Singapore. [15]**

Question Dissection



Question Interpretation

- What are adverse selection and moral hazard?
- How do the issues of adverse selection and moral hazard arise in the market for health insurance?
- How do the issues of adverse selection and moral hazard result in market failure in the market for health insurance?

Schematic Plan

Asymmetric information is a special case of imperfect information, and is the situation in which a buyer and a seller possess different information about a transaction. The issues of adverse selection and moral hazard arise and may lead to market failure.

Adverse selection is a situation where one party in a transaction knows something about its own characteristic that the other party does not know.

Explain how the problem of adverse selection exists in the market for health insurance.

Explain how this may lead to market failure in the market for health insurance.

Moral hazard arises when a person does not bear the full costs of his actions because the cost is being borne someone else. This then alters the person's behaviour.

Explain how the problem of moral hazard exists in the market for health insurance.

Explain how this may lead to market failure in the market for health insurance.

Introduction

Asymmetric information is a special case of imperfect information, and is the situation in which a buyer and a seller possess different information about a transaction. Specifically, it occurs when a buyer or seller enters an exchange with another party who has more information. Similar to markets with imperfect information, asymmetric information interferes with the efficient function of a market and makes it extremely difficult to make accurate decisions when conducting transactions. This essay part examines the problems of asymmetric information, in particular, adverse selection and moral hazard, and how they lead to market failure.

Body 1: Adverse selection

Adverse selection is a situation where one party in a transaction knows something about its own characteristic that the other party does not know. Adverse selection is often referred to as a hidden information problem in a market, where for example sellers may know more about a product than a customer in product markets. In other words, adverse selection is the process by which "undesirable" members of a population of buyers or sellers are more likely to participate in a voluntary exchange.

People who buy insurance usually know much more about their general health than any insurance company can hope to know, even if it insists on medical examinations. As a result, adverse selection arises. If health insurance rates are set at the same level for everyone, then health insurance is a better deal for those who are unhealthy than for those who are healthy and likely never to have a claim. Because unhealthy people are more likely to want insurance, the proportion of unhealthy people in the pool of insured people increases. This forces the price of insurance to rise, and more healthy people, aware of their low risks, elect not to be insured. This further increases the proportion of unhealthy people among the insured, which forces the price of insurance up more. This process continues until nearly all the people who want to buy insurance are unhealthy to a certain extent. At that point, selling insurance becomes unprofitable so the insurance market collapses, resulting in what economists call a 'missing market'. Even though health insurance can generate much welfare for society, the absence of such a good means that total market failure has occurred.

Body 2: Moral Hazard

Another problem associated with asymmetric information is the problem moral hazard, which arises when a person does not bear the full costs of his actions because the cost is being borne someone else. The person therefore has a tendency to engage in behaviours which he otherwise would not have engaged in, thus raising the probability of an adverse outcome which is detrimental to society.

Moral hazard arises in health insurance as the incentive to lead a healthy lifestyle is reduced when the medical bills of the insured is fully covered by the insurer. Also the insured is likely demand a higher quantity and quality of healthcare than if he was uninsured as he does not have to incur any out-of-pocket payments for such treatments. Such behaviour inevitably raises the cost and lowers the profits for insurance companies. In addition, health insurance companies cannot ascertain which of its potential clients will engage in such adverse behaviours and the extent that they will engage in. If they could, insurers would charge higher premiums for those who are more susceptible to moral hazard. In contrast, buyers of insurance will definitely know their own tendency for moral hazard. Thus insurance policies tend to attract people who are more susceptible to moral hazard, which in the long run could lead to escalating premiums and potentially missing markets and total market failure, which are problems that are similar to those associated with adverse selection.

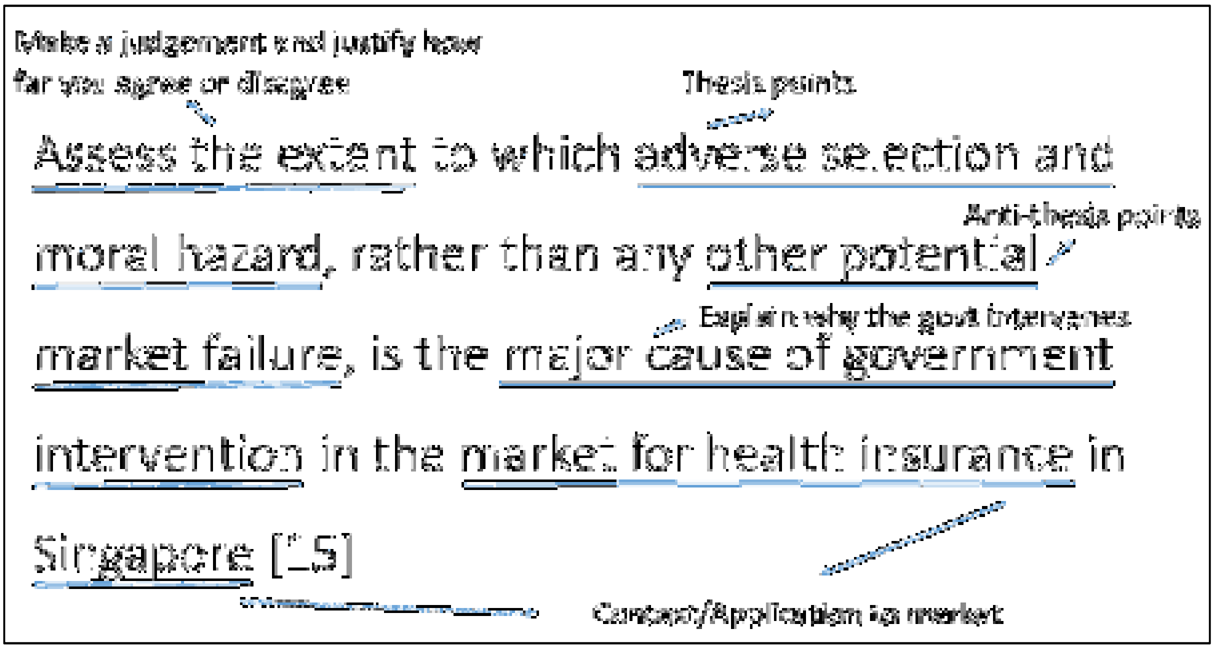
Conclusion

The next part of the essay examines whether the issues of adverse selection and moral hazard justify government intervention in the market for health insurance in Singapore

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	For answers that exhibit rigorous and clear explanation about possible reasons why adverse selection and moral hazard can lead to market failure with application to the health insurance market.	8 – 10 (9)
L2	Answers that have insufficient economic rigour in explaining why adverse selection and moral hazard can lead to market failure with application to the health insurance market. *Theoretical explanation of moral hazard and adverse selection with minimal application to the health insurance market will be capped at 5 marks.*	5 – 7 (6)
L1	Descriptive and superficial answers that mainly describes how adverse selection and moral hazard can lead to market failure. *Answers with no application to the health insurance market will be capped at 4 marks.*	1 – 4 (3)

b) Assess the extent to which adverse selection and moral hazard, rather than any other potential market failure, is the major cause of government intervention in the market for health insurance in Singapore. [15]

Question Dissection



Question Interpretation

- How does the government intervene in the market for health insurance in Singapore to deal with adverse selection and moral hazard?
- What are other reasons for government intervention in the market for health insurance in Singapore?
- To what extent government intervention in the market for health insurance in Singapore is due to adverse selection and moral hazard?

Schematic Plan

Government intervention in the market for health insurance in Singapore is possibly due to multiple reasons.

<u>Thesis 1: How government intervention addressed adverse selection</u>

By providing insurance for all Singapore Citizens and Permanent Residents through MediShield Life and making enrolment compulsory, the government eliminates the problem of adverse selection.

<u>Thesis 2: How government intervention addressed moral hazard</u>

MediShield Life incorporates features of maximum claim limit, deductible and co-payment reduces the extent of moral hazard.

<u>Anti-thesis 1: Government intervention is due to other sources of market failure → Imperfect information</u>

A person may decide not to purchase health insurance because he is too optimistic about his future health or is ignorant of how expensive medical treatments can be should he really fall seriously ill.

<u>Anti-thesis 2: Government intervention is due to other sources of market failure → Positive externalities</u>

An individual who is insured will receive healthcare financing protection and when illness episodes occur, the insured and his or her family members will not be burdened by costly healthcare bills.

<u>Anti-thesis 3: Government intervention is due to other sources of market failure → Equity</u>

Health insurance benefits individuals as it provides protection against having to pay large medical bills. This is more beneficial for the poor as they may not have the ability to pay for such hefty medical bills out-of-pocket.

<u>Evaluative conclusion:</u> Government intervention is possibly due to other sources instead of problems of adverse selection and moral hazard given no evidence of ‘missing markets’ in the market for health insurance in Singapore.

Introduction

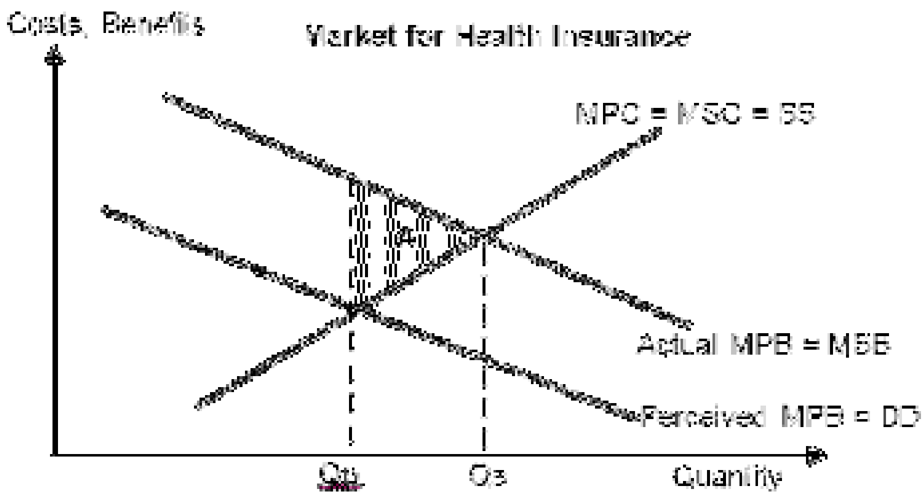
As explained in part a, the issues of adverse selection and moral hazard could result in total market failure in the market for health insurance. This suggest a need for government intervention in the market for health insurance in Singapore. This essay part first examines the method the Singapore government has intervened in the market for health insurance and how it addresses the issues of moral hazard and adverse selection before suggesting other potential sources of market failure in the market for health insurance that could be the causes of government intervention.

Body 1: Thesis – How Singapore government intervention addresses the issues of moral hazard and adverse selection

By providing insurance for all Singapore Citizens and Permanent Residents through MediShield Life and making enrolment compulsory, the government eliminates the problem of adverse selection. Higher-risk individuals are unable to self-select and enrol in insurance schemes and lower-risk individuals are also mandated to remain in the scheme. MediShield Life incorporates features of maximum claim limit, deductible and co-payment. A maximum claim limit prevents exploitation of the scheme through incurring exceptionally large medical bills. A deductible is the amount an individual has to pay out-of-pocket before the insurance kicks in. It reduces the extent of moral hazard for less costly small illness episodes but once the insured is aware that his or her medical bill has exceeded the stipulated deductible amount, it is totally ineffective in addressing the issue of moral hazard. A co-payment is a percentage of the total medical an insured has to pay out-of-pocket and this ensures the marginal cost of consuming healthcare services is not zero. While mechanisms of maximum claim limit, deductible and co-payment reduce the extent of moral hazard, it does not totally eliminate the issue.

Body 2: Anti-thesis – Other reasons for intervention: Imperfect information

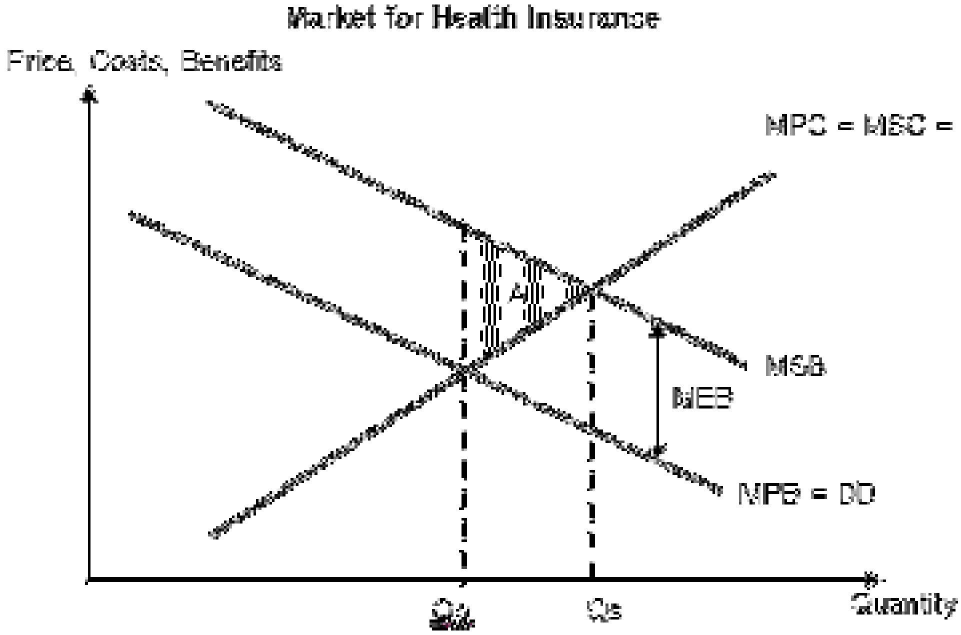
There are other reasons that explains government intervention in the market for health insurance in Singapore. Firstly there could be imperfect information about the benefits of health insurance. In such a scenario, health insurance will be under-consumed if left to the free market because some individuals are unable to factor in the full private benefits of consumption. In other words, the perceived marginal private benefit is less than the actual marginal private benefit. A person may decide not to purchase health insurance because he is too optimistic about his future health or is ignorant of how expensive medical treatments can be should he really fall seriously ill.



In the above, the market demand DD is the perceived MPB. However the actual MPB, which is also the MSB, lies above the perceived MPB. The private outcome is Qp where perceived MPB = MPC, whereas the social outcome is Qs where MSB = MSC. Between Qp and Qs, as MSB > MSC, the loss in potential welfare of area A (deadweight loss) can be recovered if output were raised from Qp to Qs. Since Qp < Qs, the good is under consumed. This will then warrant government in the market for health insurance in Singapore perhaps in the form of creating awareness and education campaigns.

Body 3: Anti-thesis – Other reasons for intervention: Positive externalities from consumption

Secondly, positive externalities can arise from consumption from health insurance. Positive externalities refer to the benefits enjoyed by third parties from the consumption or production of a good. An individual who is insured will receive healthcare financing protection and when illness episodes occur, the insured and his or her family members will not be burdened by costly healthcare bills.



Marginal External Benefits (MEB) is the additional benefits enjoyed by third parties from the consumption of health insurance. When there are positive externalities, the full benefit to society includes both the private and external benefits. Marginal Social Benefit is therefore the sum of both Marginal Private Benefits and Marginal External Benefits. In the above figure, positive externalities results in MSB exceeding MPB by the amount equal to MEB. Assuming that there are no negative externalities, the market supply curve SS, the MPC and the MSC are identical. Without government intervention, the private equilibrium is at output Qp where MPB = MPC. The social equilibrium is however at output Qs, where MSB = MSC. Between Qp and Qs, as MSB > MSC, the loss in potential welfare of area A can be recovered if output were raised from Qp to Qs. Since Qp < Qs, health insurance is said to be under-consumed. This will then warrant government in the market for health insurance in Singapore perhaps in the form of providing subsidies for consumption of health insurance.

Body 4: Anti-thesis - Other reasons for intervention: Equity

Equity refers to an outcome where society's welfare is distributed fairly and evenly. When income and wealth are distributed across households in a very unequal manner, the rich would be consuming the majority of the society's resources, and often in a very wasteful manner, while the poor would end up with not just unfulfilled wants, but also unfulfilled needs. If some of the consumption can be reallocated from the rich to the poor, then the poor would definitely be made much better off while the welfare of the rich may only fall marginally if at all. Seen in this light, a society with a very uneven distribution of income and wealth must be in a situation where total social welfare is lower than what is possible. Thus income and wealth inequality can be seen as a source of market failure.

Health insurance benefits individuals as it provides protection against having to pay large medical bills. This is even more beneficial for the poor as they may not have the ability to pay for such hefty medical bills out-of-pocket. Singapore government intervening in the provision of basic health insurance can be also be deemed as benefiting the poor more than the rich as the rich will likely have existing insurance coverage. Furthermore, taking into consideration the possible waiver of premiums for the poor, there results in some form of redistribution of income.

Evaluative Conclusion

The issues of adverse selection and moral hazard can potentially lead to total market failure of a missing market in the market for health insurance. In reality, the occurrence of it is however far and few. Furthermore, the existence a thriving private health insurance market in Singapore supports the view that the likelihood of a total market failure is perpetually zero, thus the issues of adverse selection and moral hazard clearly are not the major cause of government intervention in the market for health insurance.

As for imperfect information about the benefits of health insurance, the extent of imperfect information differs from individual to individual. Offering compulsory basic health insurance in the form of MediShield while does not address the root cause, mandatory enrolment in the scheme ensures an increase in consumption of health insurance, albeit basic coverage. A more targeted method of government intervention could be through awareness campaigns aimed at the less educated.

As for the case for intervention due to positive externalities arising from consumption from health insurance, the likelihood of it being the main reason for government intervention depends on the extent of MEB. Should the extent of MEB be small, perhaps the government will not intervene in the market. Given that most Singaporeans have a compulsory medical savings account in the form of Medisave, the positive externalities arising from consumption from health insurance is arguably small.

Given growing income inequality in Singapore, perhaps ensuring equity is the major cause of government intervention for the market for health insurance in Singapore. Alternatively, non-economic reasons such as gaining political popularity given growing concerns over the cost of healthcare in Singapore could part explain government intervention for the market for health insurance in Singapore.

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	For answers that exhibit <u>rigorous</u> explanation of how Singapore government intervention addresses the issues of moral hazard and adverse selection and the other reasons for government intervention in the health insurance market in Singapore. Answers are <u>well organised</u>, use <u>appropriate economic diagrams</u> and include <u>application to Singapore's context</u> in analysis	8 – 10 (9)

L2	Answers which do not rigorously explain how Singapore government intervention addresses the issues of moral hazard and adverse selection and the other reasons for government intervention in the health insurance market in Singapore. OR Answers which rigorously explain how Singapore government intervention addresses the issues of moral hazard and adverse selection but inadequately addresses the other reasons for government intervention in the health insurance market in Singapore. OR Answers which rigorously explain the other reasons for government intervention in the health insurance market in Singapore but does not explain how Singapore government intervention addresses the issues of moral hazard and adverse selection. *An answer which has no application to Singapore's context will be capped at 7 marks (excluding evaluation marks).*	5 – 7 (6)
L1	Descriptive and superficial answers that mainly states the reasons for government intervention in the health insurance market in Singapore.	1 – 4 (3)
Level	**Evaluation, Synthesis**	**Marks**
E3	Conclusion / judgement on which is the major cause of government intervention in the health insurance market in Singapore based on criteria. (E.g. Elimination, Priorities of the government)	4 - 5
E2	Attempted judgement on which is the major cause of government intervention in the health insurance market in Singapore based on criteria. (E.g. Elimination, Priorities of the government). There are however some logical flaws and inaccuracies.	2 - 3
E1	For an answer that gives a statement with limited justification on which is the major cause of government intervention in the health insurance market in Singapore.	1