

3(a) Explain how the price mechanism may allocate resources efficiently. [10]

Suggested Detail Essay Outline

Step 1: Explain the price mechanism

- Define price mechanism, demand and supply

The price mechanism is a system where demand and supply interacts with each other to determine the equilibrium price and quantity of goods and services sold in markets.

The demand shows the willingness and ability of consumers to purchase a particular good/service at various prices.

The supply shows the willingness and ability of producers to produce a particular good/service at various prices.

- Explain the role of price mechanism in a free market

In a free market, economic agents such as producers and consumers are assumed to act rationally and governed by their self-interest. Producers would aim to maximise profits while consumers would aim to maximise satisfaction.

The price mechanism uses price to act as a signal to producers and consumers on how to allocate their resources in order to maximise their own satisfaction.

Step 2: Explain how the price mechanism allow producers and consumers to make decision on the allocation of their resource

- Explain how the price mechanism address the 3 basic questions on resource allocation what and how to produce and for whom to produce

- Basic concept: price mechanism → use price as signalling (what to produce & how to produce) and rationing role (for whom to produce)

What and How much to produce?

In the price mechanism, consumers decide what is to be produced (consumer sovereignty) by exercising their 'dollar votes'. Producers then respond to the desire of the consumers by producing those goods and services that the consumers demand to maximise their profits. As such, producers then address how much to produce by looking at the prices consumers are willing and able to pay.

How to produce?

In order to maximise profits, firms will use the least cost method of production to produce the goods for the consumers.

For whom to produce?

The price mechanism also plays a rationing role in the sense that only consumers who are willing and able to pay for the good/service get to consume it eventually. As such, only consumers with the highest dollar vote get to enjoy these goods/services.

Step 3: Explain how the price mechanism always try to reach equilibrium and why the equilibrium is allocative efficient

- Explain how the price mechanism allocates resources to achieve equilibrium when there is a shortage or surplus.

[Using the case of shortage]: The price mechanism in, using price as a signalling and rationing role in the market economy, will automatically adjust to reach equilibrium. For example, if the price of a good is currently too low such that quantity demanded exceeds quantity supplied, resulting in a shortage, consumers and producers will begin to respond to the shortage. Due to the shortage, consumers will begin to bid up the price so that they can get the good/service. As the price increase, some consumers will not be willing or able to pay for it and hence quantity demanded falls. Concurrently, as the price rises, producers find it more profitable and will increase their quantity supplied. The price will continue to rise until quantity demanded equals quantity supplied. This is where equilibrium quantity and price is attained. At this point, consumer and producer surpluses are maximised and hence it is allocative efficient.

L3	Clear and well developed explanation on the processes in which price mechanism allocates resources and how that equilibrium reached is efficient. There was diagrammatic analysis of the price mechanism. Concepts and economic terms were used accurately.	7-10
L2	There was underdeveloped explanation of the price mechanism in terms of how resources are being allocated due to lack of explanation on how the three basic allocation questions were being addressed. There is largely accurate usage of terms and concepts.	5-6
L1	There was a lack of coherence in the explanation and instead a list of unconnected points was given. There were some understanding of the price mechanism but the allocation process was inadequately explained.	1-4

(b) Discuss the view that government intervention in situations when the market fails will always result in more efficient outcomes. [15]

INTRODUCTION

- Define market failure in relation to allocative efficiency.

- Explain briefly the various situations in which the markets may fail (in the case of public good, merit good or demerit good, externalities) and hence it is allocative inefficient

Market failure occurs when the price mechanism is unable to allocate resources efficiently on its own; as such government intervention is necessary to improve the allocation of resources. In situation such as public good, merit and demerit goods or when the production or consumption of goods and services causes positive or negative externalities, the price mechanism will allocate resources inefficiently on its own, resulting in market failure.

BODY

- By giving two situations (question said situations), explain how government intervention may result in an outcome in the market that is more allocative efficient or less efficient outcomes as compared to free market outcomes due to government failures. The explanation should be linked to general limitations of government intervention as well as limitations of specific government measures used.
- The quality of the examples would depend on the appropriateness of the examples, whether students use real life examples on why market fails to show application skills and the quality of the explanation coupled with economic analysis. You should choose two from either public good; merit good or positive externality; demerit good or negative externality. The examples should be connected in both thesis and anti-thesis.

Market Failure Situation 1:

- Explain the market failure, the thesis, anti-thesis then mini-conclusion

One situation of market failure would be education where it is deemed as a merit good by our society due to its positive externality. Positive externality refers to external benefits on third parties not involved in the consumption of the service. In the case of education, the positive externalities would be the external benefits in terms of a more educated and productive workforce driving our economic growth as well as a more civilised and refined society.

When consumption of education has positive externality, this will cause its marginal social benefits (MSB) to be higher than the marginal private benefit (MPB). Since there are no negative externalities, marginal private (MPC) = marginal social cost (MSC). Individuals will consume education up to $MPC/MSC = MPB$. However, the society will prefer consumption to be at $MSB = MSC/MPC$ where it is allocative efficient. Since MSB is higher than MPB, from the society's point of view, there is under consumption of education which results in deadweight loss.

Thesis: Government intervention in market failure will result in more efficient outcomes.

In Singapore, a large part of our education is provided by the government directly. Primary school education is free while the rest are heavily subsidized. Consumers receiving the subsidies will internalise the benefits. This increases their MPB of consuming education which leads to greater consumption of education. Consuming more education towards the socially optimal consumption will allow us to tap more of the positive externalities. The deadweight loss will be smaller.

Anti-thesis: Government intervention in market failure may not result in more efficient outcomes.

One limitation is that the provision of free and subsidized education would require large funds which may imply higher income tax on our workforce. This may also drain resources away from other areas of development in the country. Hence it may not lead to more efficient outcomes as a whole for the country. Over subsidise leads to wastage of money. Another limitation is that because education is largely provided by the government, the variety and diversity of our education is limited and so while it encourages consumption, consumer choice may be limited.

Mini-conclusion:

Given the importance of an educated labour force to Singapore's economy, the large amount of money spent on education is justified because of the huge external benefits to our economy. However, the long term outcomes of education are always uncertain and this is a risk that our government have to take in the provision of education for all our young.

Market Failure Situation 2:

- Explain the market failure, the thesis, anti-thesis then mini-conclusion

In the case of the public good where they are non-rival and non-excludable such as the case of national defence in Singapore, government intervention is needed. National defence is non-rival because the consumption of it does not lower the quality and quantity of defence to other people in Singapore. We are all protected together. It is non-excludable because non-payers are being protected as well. This creates the problem of free ridership and hence producers are not able to get price signal from consumers to pay for the service. As a result, no private producer is willing to provide national defence.

Thesis: Government intervention in market failure will result in more efficient outcomes.

The Singapore government provides national defence to the entire country due to the nature of it being a public good as well as for national security reason. Singapore's National Defence is provided through two ways. First, we have regulars who work in Ministry of National Defence (MINDEF) as their occupations. Secondly, we have conscription of males Singaporeans and Permanent Residents who are required by law to serve National Service for two years. As such, our National Defence is provided by the government through both regulars and our citizens and PRs. This allows our small nation with a small population to provides a large army that is adequate to provide national defence to our country as compare to no provision if left to private sector.

Anti-thesis: Government intervention in market failure may not result in more efficient outcomes.

While Singapore is able to provide adequate national defence, it does incur high opportunity cost. One of the limitations of our government policy with regards to National Defence is that young males adults who have to serve National Service will only be able to contribute economically two years later, hence the potential economic output of our NSmen is lost. Secondly, the government would have to spend huge amount of the budget to provide for the large army that we have. In the real world, the government do not really have the information on what is the optimal amount of national defence it should provides. Over provision of national defence would result in efficient use of resources.

Mini-conclusion:

The Singapore government has sufficient funds to provide for National Defence and while MINDEF is given the largest proportion of budget each year, the government does cater funds to other areas of development in Singapore. National defence do have positive effects on our country as well given that it helps to provide a stable environment for our economy to

thrive. Hence, in this case I feel that the government intervention results in more efficient outcome.

CONCLUSION

- *Weigh the thesis and anti-thesis to carve out the criteria which tips the argument to either one.*

- *A conclusion and judgement on the view in the question.*

Overall, whether government intervention leads to more efficient outcomes than the market really depends on the type of policies chosen by the government based on its financial and political ability. In the case of Singapore, due to the adequate amount of financial resources that they have, they are able to carry out policies effectively to deal with the various market failures without compromising other areas of development in the country. However, the same cannot be said for all countries. For governments with limited resources, they may not be able to come out with effective policies to deal with market failure due to the high opportunity costs incurred.

Knowledge, Comprehension, Application and Analysis		
L3	Clear and well explained balanced answer on how government intervention may or may not lead to more efficient outcomes. The answer was well analysed in terms of examining the limitations of the government intervention. Market failure examples were well explained and substantiated with real life examples.	9-11
L2	Underdeveloped explanation on how government intervention may or may not lead to more efficient outcomes. Limitations of the government intervention were briefly stated. Market failure examples were explained with some attempt to use real life examples superficially.	6-8
L1	Mere listing or description of various government interventions. Explanation of market failures is generic without using any specific examples of market failures or government intervention.	1-5

Evaluation		
L2	A well-reasoned conclusion that is supported by economic analysis and is formed to address the question.	3-4
L1	An unjustified conclusion that is not supported by economic analysis.	1-2