**Market Failures – Set A**

1. Compare and distinguish between positive and negative externalities. (8)

2a. Discuss a socially optimal level of pollution imply zero pollution? [8]

b. Assess the effectiveness of alternative policies to overcome the problem of

pollution in your country. [17]

3. “Beyond a certain level of road usage, traffic congestion increases and eventually leads to sub-optimal utilization of the road network. It also undermines the environment, quality of life and overall efficiency of the economy.” *Adapted from LTA news release 27 May 2005*

1. In light of the comment above, explain whether traffic congestion should be eliminated completely. (12)
2. Evaluate the measures taken by the government to curb traffic congestion in your country. (13)

4. It is unrealistic to rely on the price mechanism to achieve in resource allocation. Discuss. (25)

# Essay 2010 Q1 – Market Failures

**Question 1**

**Compare and distinguish between positive and negative externalities. (8)**

**Introduction**

Externalities are the effects produced by individuals as a result of production or consumption of goods and services affecting the third party who are not involved in the production or consumption. These effects can be divided into positive and negative externalities. While positive externalities have beneficial effects that enhance the interest of the society such as community immunization from mass inoculation, negative externalities have harmful effects that are detrimental to the society, such as pollution occurred in the course of production. These two forms of externalities are similar and different in many ways.

**Main body**

Both forms of externalities will **affect the value of cost and benefit calculation**. Positive externalities will contribute to external benefit, which means that the social marginal benefit will be higher than the private marginal, As for negative externalities, it will incur external cost, which raises the social marginal cost as it adds onto the private marginal cost.

As a result in the increase in social and marginal cost and benefit**, both forms of externalities will re-define the social optimal level of production or consumption**, where the society will maximize its welfare gain. Without the presence of externalities, the society will produce at the level of production where PMC = SMB (private marginal cost = social marginal benefit) or PMB = SMC (private marginal benefit = social marginal cost). However, with externalities, the social optimal level of production will be at SMC’ (PMC + EMC) = SMB’ (PMB + EMB).

**This also implies that externalities will disable the society to optimise its welfare**. In the case of positive externalities, the society will be producing below its optimal level of output. AS for negative externalities, it will be producing above social optimal level of production. Nonetheless, both forms of externalities will cause the society to incur deadweight loss if externalities are not taken into consideration**. For positive externalities, DWL will be seen in term of the external benefit the society fails to reap and for negative externalities, DWL will be seen in term of the external cost the society needs to pay.**

In sum, it can be seen the manner of the effects of both forms of externalities may differ but the economic effects on the society are quite the same. This will imply that approaches used to rectify them may differ so as to ensure that its detrimental effects are effectively eliminated.

# Essay 2010 Q2 – Market Failures – Set A

**Question 2**

**2a. Discuss whether a socially optimal level of pollution imply zero level of pollution? [8]**

A socially optimal level of pollution occurs when the level of production occurs at social efficient level of production where the social marginal cost is equal to the social marginal benefit. When this occurs, the production is at the level whereby the total social net benefit gain is maximum and the absence of DWL. However, it does not mean that the production level has zero level of pollution.

Mainbody

**1) Explain how the presence of pollution will disrupt the social optimal level of production.**

With the presence of pollution, these will be negative externalities which give rises to external marginal cost. This will contribute to the divergence of the PMC and SMC, contributing to the rise of DWL as the social equilibrium level of output is at Qs which is above the market equilibrium level at Qm. This is because the SMC is greater than the SMB at Qm due to the presence of EMC caused by the rise in pollution.

**Draw diagram and description of diagram**

**2) Explain why social optimal level of pollution is not at zero.**

To achieve social optimal level of pollution, the production level has to be at SMC = SMB whereby SMC = PMC + EMC. At this level of production, the total social net benefit is maximum. As **for zero pollution,** the production will be at zero and there is no social net benefit to be gained. Thus the social optimal level of pollution is not at zero but at the level where the SMC = SMB (SMC = PMC + EMC).

Conclusion

The understanding of the above situation will mean that there is a need to maintain production level will be at social equilibrium level to maximise total net social gain.

**2b. Assess the effectiveness of alternative policies to overcome the problem of pollution in your country. [17]**

Introduction

As pollution will disruption the economy from attaining social efficient level of production, it is imperative for the government to introduce policies to adjust production level from the market equilibrium level to the social efficiency level.

Main body

1) The use of taxation – will internalize the external cost of pollution as part of the cost of production by raising the price of the goods and thus reduce the market equilibrium to the socially efficient level. In the course, the DWL is eradicated and maximization for the society is attained

### Advantages of solution

Force the consumers and producers to take into consideration of the external cost of pollution

Will encourage the market to adopt method of consumption or production with less pollution that will create negative externalities

May provide revenue for the government to improve the public project to minimize the effects of externalities.

### Disadvantages of solution

Taxation may not be a favourable policy to adopt

It may increase cost of living

May not be easy to rectify the problem of externalities since it is not easy to identify and measure the negative externalities

2)The use of rules and legislation – the use of rules to ban or control the amount of consumption such that negative externalities will not occur

### Advantages

Forceful and direct – can ensure the result is attained

Easy to administer

### Disadvantages

Cost of administration tages may lead to inefficient administration

Corruption may surface the efficiency of the system

Excessive regulation may undermine the functioning of the economy

Is banning effective? (depends on the value of DWL and Net Private Benefit Gain)

3) The sale of permit – Sale of the rights to produce the goods to exclusive producers so as to regulate them more effectively (carbon emission permits)

### Advantages

Can collect revenue

Can effectively identify and control the source of negative ext.

### Disadvantages

May lead to corruption – poor management will make the matter worse – excessive production than before

**May create temporary market power – control of emission permits – control of the rights of pollution is indirectly the control of market production**

4) Nationalization or Direct Provision by the government

Advantages

Government can directly regulate and control the problem

### Disadvantages

The government may incur more expenditures as price level is low

May not have the technology to produce the goods

May lead more wastages if the good is provided free as it will encourage excessive consumption

5) Negotiation (Coarse Theorem)

Determine the property rights – so as to set terms for those who are affected by the –ve externalities and those who cause it – It will be measured in accordance to opportunity cost to assess whether the production should continue or not.

Advantages

Ensure the problem is resolved with the acceptance by all parties

Disadvantages

Difficult to assess property rights

Conclusion

# Essay 2010 Q3 – Market Failures – Set A

**Question 3**

**“Beyond a certain level of road usage, traffic congestion increases and eventually leads to sub-optimal utilization of the road network. It also undermines the environment, quality of life and overall efficiency of the economy.” *Adapted from LTA news release 27 May 2005***

1. **In light of the comment above, explain whether traffic congestion should be eliminated completely. (12)**
2. **Evaluate the measures taken by the government to curb traffic congestion in your country. (13)**

a) Introduction

**Outline:**

**a) Explain how traffic congestion will lead to market failures as it is a form of negative externality**

* The presence of traffic congestion as a result of excessive usage of road usage beyond the social optimal level as traffic congestion is a form of negative externality.

Road congestion occurs when too many vehicles try to use the limited amount of road space available. (demerit good)

Traffic congestion 🡪 slowing down the movement of vehicles on the road, hence, an additional vehicle impose costs on other vehicles by slowing down the traffic flow. Commuters need to spend more time on the road. (negative externality)

Traffic congestion 🡪 raise business costs / negative impact on foreign investment. Externa; cost / DWL)

Traffic congestion – a form of negative externality.

Chart, diagram, radar chart

Description automatically generated

b) **Description of the diagram**

**c) Assess whether banning is the effective solution to solve market failures due to traffic congestion.**

* + A ban on private means of transport to provide a smoother traffic flow 🡺

do not allow any private vehicles to use the roads. This may be a drastic measure to adopt.

Chart, radar chart

Description automatically generated

Amount of private vehicles on the road

* Area A: welfare loss due to the reduction of traffic congestion to zero level MSB > MSC
* Area B: welfare loss due to overly congested roads. (DWL)
* If Area A > Area B: NOT advisable to ban traffic congestion to zero
* Area A = welfare loss includes the inconvenience encountered by commuters if private transport is banned + the loss which firms may suffer if delivery vans / lorries are not allowed to travel along the roads.
* A reduction in traffic congestion to zero level should only be used as the last resort if the welfare loss due to the ban (Area A) is < than the welfare loss resulting from congestion (Area B)

Conclusion

The proposition to ban traffic completely may be economically wise as some form of negative externality at the social optimal level may be better than banning it as this will reduce the social net benefit gain. It is therefore critical for government.

b) Evaluate the measures taken by the government to curb traffic congestion in your country. (13)

Introduction

a. Electronic Road Pricing on busy roads, such as the CBD and the expressways during peak hours, such as in the morning. The aim of road pricing is to make drivers internalize part of the external cost they incur on the roads, namely the traffic congestion. Hence, this will increase the private costs of the usage of the cars and so reduces the number of cars on expressways and the CBD. This has reduced the number of cars on the affected roads during the peak periods and a rise of traffic speed by 22%. Road pricing also can overcome the problem of free rider problem of foreign cars using our expressways during the peak periods. Although other external costs such as noise and air pollution still exist, such road pricing has actually reduced the external costs of the Singapore roads.

However, such policy has caused other forms of external costs to exist. The road pricing has caused cars to resort to other routes to go to work in the morning, causing congestion in the alternative routes during peak period. Furthermore, the funds used by the government to implement the electronic road pricing incurred by the government could have been used for other economic development. It may also raise the cost of living and production in the economy.

b. High taxes and certificate of entitlement.

Such taxes increase the private costs of owning cars by more than two-folds. This policy has greatly reduced the number of new cars on the Singapore roads. Not only are the owners of vehicles to internalize the external cost of road congestion, but also part of pollution. (Explain this using diagram 1)

Furthermore, the COE system has allowed the government to actually control and monitor the number of cars on the road (i.e. supply of cars). The quota set changes the supply curve to be perfectly inelastic. Hence, with an unchanged demand curve, the price of cars is increased (refer to diagram 2). This allows the government to be able to make plans for the transport and road systems of the country.

However, the introduction of COE prices has distorted the market prices of cars greatly in the country, causing large fluctuations in the prices of cars. Such policy has also allowed speculations in the sale of car. The COE prices have also led to higher nation-wide transport costs. Therefore, not only is the private transport expensive, the prices, or fares, of the public transport have also increased.

c. High taxes on petrol.

This causes high petrol prices and hence, a high private costs of cars. Again the private cars are made to internalise some of the external costs on the Singapore roads. Although this has not greatly affected the number if cars in the road, it has actually help reducing of air pollution.

d. Improve public transport

By encouraging the public transport such as public buses, taxis and transit train to be more reliable and comfortable, the government thus help to reduce the demand for private cars, hence less cars on the road. This is because the reliable public transport providing comfortable journeys now has changed the image of public transport from an inferior good to a normal one. In other words, the public transport has become better substitutes to private cars. However, despite the attempts to make the public transport a better substitute to private cars, e cross elasticity of between public transport to the price of cars is still inelastic, as many drivers still consider private cars much better substitute to public transport. Hence, the number of cars on Singapore road is still high despite its good public transport system.

Conclusion:

The success of the various policies made by the government to curb traffic congestion is very much limited by the relatively inelastic income and cross elasticity of demand of many Singaporeans, especially those in the middle and upper middle income group. The change in the price and disposable income level will not influence the usage of cars on the road. However, it is critical for the government to introduce policies to achieve social optimization in road usage.

# Essay 2010 Q4 – Market Failures – Set A

**Question 4**

It is unrealistic to rely on the price mechanism to achieve social optimization in resource allocation. Discuss.(25)

**Introduction**

**Definition of social optimization in resource allocation**

**Definition of price mechanism**

**State the link -**

**Main Body**

**1) Explain how price mechanism solve the three fundamental economic problems to conduct resource allocation**

**2) Evaluate the effectiveness**

**a) Strength of the market mechanism to justify the efficiency**

**b) weaknesses of Price mechanism**

**c) Why they fail to conduct efficient resource allocation because of causes of market failures.**

**Conclusion**

# Essay Question 1

**a)** Explain how imperfect and asymmetric information can lead to market failure in the markets for healthcare services and healthcare insurance.

**[10]**

**(b)** Discuss whether joint provision is the most appropriate policy to correct the market failure in Singapore’s healthcare services.

**[15]**

# Question Requirement:

* Explain how imperfect information exists in 1) healthcare services market and asymmetric information in the 2) healthcare insurance market
* Explain how the sources can lead to market failures.
* Use of diagram(s) should help in explanation but not compulsory.

# Introduction:

Market failure exists when resources are not allocated efficiently, therefore leading to welfare loss in the society. Imperfect information exists when the economic agents do not have perfect information about the product/service. Asymmetric information is when one party has more information than the other. There is imperfect information in the market for healthcare services and asymmetric information in the market for healthcare insurance. Therefore, without any form of government intervention, both markets fail.

# Point 1: Imperfect information leads to under-consumption of healthcare services.

Economic agents may have **under-estimated the true private benefits** for themselves in the consumption of healthcare services, such as vaccinations, doctor consultations. For example, they may not see the doctor when they are sick if they under- estimate the seriousness of their illness. As a result, the virus may spread to other healthy people close to the patient. In other times, the sick person may also over-estimated the costs of consuming the healthcare services, thereby refusing treatments and/or consultations. As rational economic agents, they will only consume healthcare services up to a point when their perceived marginal private benefit is equal to their marginal private cost. However, due to imperfect information, the true private benefits of the consumption of healthcare services is higher than the estimated marginal private benefit, there will be an **under-consumption of healthcare services, leading to market failure.**



Benefits / Costs

Welfare loss

C

MPC

P

AE

A

P

M

B

MPB (actual)

MPB (perceived)

0

Q

M

Q

s

Quantity of health check-ups

As seen from the diagram above, the socially optimal level of consumption of healthcare services should be where the marginal private benefits (actual) equal to the marginal private cost, Qs. However, because of imperfect information, the market level of consumption is only at Qm, where the marginal private benefit (perceived) equals to the marginal private cost. As Qm is lower than Qs, there is under-consumption of healthcare services, therefore the market for healthcare services fails.

# Point 2: Asymmetric information leads to market failure in the healthcare insurance market (adverse selection and moral hazard).

In the health insurance market, consumers have to pay insurance premiums when they purchase health insurance. These premiums are often linked to their health status/conditions. The better the health condition, the lower the insurance premium. Therefore, **some consumers may hide certain bad habits such as smoking or their true physical medical conditions from the health insurers, when paying lower premiums.** Without any form of intervention, health insurance companies may not be able to ascertain whether the information provided by the consumers are factual or not. Therein, this means that the consumers will have more knowledge about their own medical conditions than the health insurers.

As a result of such asymmetric information, the **health insurers may charge higher premiums for all consumers, therefore squeezing out the consumers who indeed have healthy medical status,** as they are less willing to pay for such high premiums since they are healthy. It is likely that the market may be left with those who have poor medical health, who are willing to pay the higher premiums if they view that the premiums can be offset by the sum they are insured of. This is a situation of **adverse selection**.

On top of that, after the consumption of health insurance, some consumers may be **more reckless in their consumption habits**, since they know they are insured. As a result, they may engage in more risky behaviour such as drinking and binge eating, as their medical costs can be claimed from the insurance companies. Insurance companies may end up having to fork out more insured payments, as a result of this moral hazard. This leads to wastage of resources.

# Conclusion:

In conclusion, there is market failure in both markets for healthcare services and market for health insurance. The government will have to implement appropriate measures to reduce the imperfect information and asymmetric information in these markets, so as to achieve maximum social welfare and a socially optimal level of resource allocation.

# Things to note:

* It is possible that students may explain asymmetric information in the consumption of medical services, where doctors have more information than the patients, hence leading to over-consumption of prescribed but not necessary treatments.

# However, please take note that the focus of asymmetric information is still the result of adverse selection and moral hazard, therefore, it is still crucial for students to explain this in their answers.

* In economics, the concept ***“imperfect information”* entails BOTH under/over estimation of benefits/costs AND asymmetric information** (where one party has more/less info than the other party).

**Suggested approach to (b)**

**(b)** Discuss whether joint provision is the most appropriate policy to correct the market failure in Singapore’s healthcare services.

**[15]**

Question requirement:

* Explain what it means by joint provision, in the context of Singapore’s market for healthcare services
* Explain how joint provision can address the market failure in this market
* Explain the limitations/challenges about joint provision
* Explain how two other policies are required as well, which can address the limitations posed by joint provision.
* Synthesis and make a stand on the appropriateness of joint provision by considering the changing demographics also the short vs long-term sustainability.

# Introduction:

Joint provision in the medical services means that medical services are provided jointly by the private sector and the government. In Singapore, there are public restructured hospitals such as Tan Tock Seng Hospital, Changi General Hospital as well as those private ones such as Gleaneagles Hospital, Raffles Hospital. The intent of the Singapore government to intervene by joint provision is to correct the under-consumption and under-provision of healthcare services in Singapore’s market. Whether joint provision is the most appropriate policy is dependent on whether it addresses the root cause of the problem and also the nature of the country itself.

# Point 1: Joint provision is appropriate because it is able to correct the market failure in the healthcare market in Singapore.

Joint provision is able to address the problem of under-consumption of healthcare services. The private medical producers will only take into account their own marginal private benefits (mainly potential revenue earned by the provision of these services) and their marginal private cost (operating costs) and hence, will **only provide healthcare services, up till the market equilibrium level of healthcare, Qm, which maximises their profits.** However, the socially optimal level of provision should be where marginal social cost (MSC) equals to the marginal social benefits (MSB). Therefore, the **government can intervene in by providing the remaining QmQs level of healthcare services.** In this way, the provision of healthcare services can be at the optimal level, Qs, where the social welfare is maximised. At the same time, joint provision also **increases the level of competition** among the healthcare providers. The higher level of competition should **encourage more competitive pricing** for the healthcare services, which can **increase the quantity of healthcare services consumed**.



Benefits

/ Costs

Welfare loss

B

MSC = MPC

E

P

P

E

MSB

MPB

0

Q

M

Q

S

Quantity of healthcare

In the context of Singapore, there are polyclinics and private clinics in the provision of primary healthcare services (such as doctor consultations for common ailments like influenza, fever etc.). In the secondary healthcare services such as X-rays, invasive surgeries etc, there are restructured hospitals and private hospitals providing such services. **If there are only the private healthcare providers in both the primary and secondary medical sectors in Singapore,** the private healthcare providers tend to **charge prices which may be unaffordable to the low-income families**. Moreover, these private providers tend to **cherry- pick by providing healthcare services in the sectors that are most profitable for themselves**, such as cosmetics surgeries, invasive surgeries, rather than outpatient treatment. This may result in a **gap for the provision of essential medical services**, especially for the low income families, **worsening the inequity issue in Singapore**. Therefore, **the need for government healthcare providers in both the primary and secondary sectors are to address the gap of under-consumption and for equity reasons.**

# Point 2: Joint provision may not be so appropriate as it has its limitations in addressing the market failure problem

Joint provision may not be able to fully correct the problem of market failure as it is **difficult to accurately ascertain the amount of QsQm to provide**. In order to estimate accurately, the government will need to have accurate data and information. Some external benefits and costs in the provision of healthcare services are intangible in nature, for example, it is difficult to calculate the monetary value of a more productive workforce as a result of the provision of healthcare services. This makes the computation of MSB and MSC difficult. **[Evaluation:]** However, in the case for Singapore, this **limitation is not as severe** as **Singapore has systematic data collection**, therefore the Singapore government usually has sufficient and accurate data to estimate the amount of provision needed.

Sometimes, even with joint provision, the healthcare services could still be **too expensive** to the poor, discouraging them from the consumption of healthcare services. Therefore, the consumption of the healthcare services may still be under-allocated. In recent times, **healthcare costs have been rising due to a rise in demand for healthcare services across all sectors.** This is made worse, especially by the private healthcare providers cherry-picking the provision of medical services that are most profitable for themselves. There could also be the problem of **supply-induced demand** where the healthcare providers may have more medical knowledge and information than the patients, **resulting in the providers recommending certain treatments/surgeries to the patient, driving up the demand and hence, prices of such treatments.** Without any form of financial support from the government, the cost of the treatments could be too expensive for the consumers. Overall, **joint provision, while it can increase the provision of healthcare services, it is not sufficient to work on its own** to fully address the market failure in the Singapore’s market for healthcare services.

# Point 3: Subsidies is also needed to complement joint provision so as to improve accessibility for the poor.

There is a need to complement the use of joint provision with subsidies to correct the under- consumption of healthcare services in the Singapore’s market. Subsidies can help to **reduce the cost of operating** and hence, **reducing the prices of the medical services**. Targeted subsidies given to the poor can also directly offset the out-of-pocket expenses for them. In Singapore, the poor / less privileged pay a subsidised consultation and/or hospitalisation fees. In this way, subsidies can help to resolve the unequal accessibility issue in the market for healthcare.

However, provision of subsidies is **not a long-term solution** as it is taxing on the government budget to finance such subsidies in the long term. This problem may be especially more severe as Singapore’s population ages, and there will eventually be a growing pool of old and poor families. **[Evaluation:]** Singapore circumvented this limitation by providing **target subsidies instead of blanket subsidies**. This is done through **means-testing**, where the households from lower income will receive greater subsidies from the Singapore government.

The Singapore government also provides subsidies to help the low-income families through the private healthcare providers. This can be seen by how some private clinics offer subsidised consultation fees for pioneers and elders, holding the senior citizens’ pass and the Community Health Assist Scheme (CHAS) card.

However, subsidy is only a **corrective measure**, rather than a preventive measure. As Singapore’s population ages, the demand for and prices of healthcare services will only increase in the future. As such, it is **necessary to also complement** joint provision and subsidy policy with a **long-term preventive measure** such as **public education**, to promote healthy and active living through correcting the mind-set and behaviour of the consumers.

# Point 4: Public education is a long-term preventive measure that is also necessary to correct the imperfect information in the market for healthcare services.

The under-consumption of healthcare services is also the **result of imperfect information among the public.** Some may have under-estimated the true benefits of regular health screening and check-ups while others may lack the knowledge or information about certain medical conditions, hence reducing their willingness to seek medical help/attention. Therefore, **public education is necessary to improve the level of information for the public, to correct certain misconceptions and mind-set.** Public education is actively done by the Singapore government to promote healthy living. This is seen by how community centres partner up with the Ministry of Health and polyclinics to offer free medical check-up for the public. In addition, the Singapore government also holds public campaigns, such as the “war against diabetes” and organises healthy outdoor games and activities for organisations and neighbourhoods. Posters are also put up by the Health Promotion Board to raise awareness of the risk of diabetes and ways to cut down our sugar intake. These public education efforts seek to improve the resource allocation of healthcare services in Singapore, through improving the level of information for the public. Although the outcomes from public education are uncertain and requires long-term implementation to see its effects, it is still necessary and appropriate for Singapore to **manage government’s spending on healthcare services as our population ages in the next decade.**

# Conclusion:

Joint provision is an appropriate measure to correct the market failure in the market for healthcare services in Singapore. Not only does it provide a cheaper alternative for the consumers, it also encourages greater competition among the healthcare providers, leading to better quality and variety of healthcare services. **As Singapore’s population ages and human labour is our only resource, ensuring a healthy workforce is a priority for the Singapore government. This further necessitates the role of our government** in the provision of healthcare services. However, **joint provision cannot be the only measure** implemented by the Singapore government, as subsidies and public education also have to go hand in hand to ensure accessibility for all and long-term sustainability.

Question for Discussion

## With the use of a diagram, illustrate how free provision of plastic bags worsens the issue of market failure.[6]

## Assess the factors the Singapore government should consider when deciding between imposing a ban and a tax on plastic bags. [10]

Paragraph development

1. Why can charge $25

Based on the demand and supply analysis, we will understand why the New York Museum can $25 for the entrance fee. The price is attained when the market demand equals to markets supply where the price and output level is set. In this situation, there is an effective demand as there is desire to visit the museum and purchasing power to support the demand. At the same time, the cost of production of museum is high and supply will only be provided, if there is effective demand. This effective demand is supported by a large population, higher income, and strong preference for museum visit.

Draw diagram – increase in demand leads to increase in price from $10 to $25

Description

1. Why provide free
   1. why government intervene into the market for museum (cause of market failures – presence of positive externality) (causation, diagram and description)

merit good, positive externality, rise external benefit, dwl if society underpoduces

In the case of museum which is a merit good and this means that there is positive eternality seen in terms of more refined lifestyle and understanding of our society which builds a sense of belonging. This leads to social stability and promotes market confidence. As a result, there is lesser cost in managing the social friction where the cost of police administration is lowered. If such external benefits are not reaped due to underconsumption, it gives rise to welfare loss seen in terms of the external benefit not reaped by society.

* 1. evaluation – why government must provide free

low effective demand in Singapore as individuals – fail to recognise the direct benefit and therefore ignore the third party effects

high cost of building and slow rate of return on such projects – provide by the government – the government absorb this huge cost of social project

huge and significant third party effects that the society can ignore – social development for a cultural identity