

- 3 The Singapore government announced that there will be a greater focus on quality and affordable pre-school education to ensure that every child has a strong start. To this end, the Ministry of Education will provide more support to children with financial difficulties, and continue to refine kindergarten curriculum resources.

Source: <http://www.channelnewsasia.com/news/singapore/nation-of-opportunity/1112098.html>, accessed 18 July 2014

- (a) Explain the factors that result in high fees for private pre-school education in Singapore. [10]
- (b) Discuss the view that government provision of free pre-school education will lead to efficient allocation of resources. [15]

Suggested Answers for Question 3(a)

Students are required to:

- Identify and explain the demand and supply factors that cause the increase in school fees for private pre-school.
- Explain why the increase in school fees was **sharp**, thus leading to **high fees**.

Introduction

- Acknowledge that prices are determined by forces of demand and supply
- Identify the possible demand and supply factors that could contribute to the increase in school fees for private pre-schools
- Identify that PES may play a role in the sharp increase in school fees
- Describe the pre-school education environment in Singapore
 - Kindergartens in Singapore provide up to 3 years of pre-school for children ages 3-6. The three years are commonly called Nursery, Kindergarten 1 (K1) and Kindergarten 2 (K2), respectively.
 - The kindergartens are run by the private sector, including community foundations, religious bodies, and civic or business groups. There are more than 200 kindergartens registered with the Ministry of Education. Kindergartens are also run by child care centres as well as international schools.
 - The People's Action Party, which has governed Singapore since 1957, runs 247 kindergartens through its charitable arm, the PAP Community Foundation (PCF).

Development of ideas

Demand factors

a) Taste & preferences

- Increasingly more parents see the importance of pre-school education and the need for comprehensive education in the formative years
- A good pre-school education would ensure smooth transition for the child into primary school.
- Private pre-schools are perceived to provide a different and better quality/more superior brand of pre-school education.
- Private pre-schools provide different array of courses which attracts the parents to register their children in these pre-schools.
- Good pre-school education could give their children a better playing field and good start in life.

b) Household income

- Growing household income, coupled with willingness to spend on their children's education, has prompted many families to register their child in the private pre-school education which they deem to provide a better education.
- Household size is smaller with fewer children per family. Parents are more willing and able to spend a larger proportion of their income on their children.

Supply factors

a) Increase in number of private pre-schools

- There is an increase in the number of private pre-schools being set up in Singapore, partly because of brighter business prospects here and positive support from the government, e.g. in terms of applying for licences, clear guidelines and requirements for firms interested in setting up pre-schools.
- Amongst the many private pre-schools are popular ones like Eton House, Pat's Schoolhouse, Lorna Whiston Preschool, schools bearing the Montessori brand, and many international schools such as Nexus, Odyssey Canadian International School, Rosemount International School and GEMS World Academy to be opened in September 2014.

Putting supply and demand factors together

- An increase in demand and supply will lead to an increase in quantity. Prices may increase or fall depending on the extent of increase in demand and supply.
- In the context of private pre-school education, it is likely that there is a larger increase in demand than supply. This would result in an increase in private pre-school fees.
- Construction of pre-school centre and finding suitable/qualified pre-school educators will take time. Thus the increase in supply will be small and slow → this implies that supply is price inelastic.
- An increase in demand larger than supply will lead to a shortage of private pre-school education. This shortage will put an upward pressure on the school fees causing an increase in school fees.
- The lack of large pool of available trained pre-school educators and the long-time taken to construct the pre-school centre will also cause the supply of pre-school education to be price inelastic. Thus an increase in demand along a price inelastic supply curve will cause a sharp increase in school fees leading to the high fees for private pre-schools.

Level Descriptors for Essay Question 3(a)		Marks
L3	<ul style="list-style-type: none"> • Well-developed explanation of demand and supply factors leading to high fees. • Use of price inelastic supply to explain the sharp increase in school fees. • Use of adjustment process to explain the change in price. • Answer supported by examples. 	7-10
L2	Undeveloped explanation of demand and supply factors that led to high fees. <u>OR</u> Developed explanation of demand or supply factors causing the increase in school fees. Limited use of examples.	5-6
L1	<ul style="list-style-type: none"> • Answer lacks economic reasoning. • Conceptual inaccuracies. • Mere listing of points. • Answer does not address the issue of the question, i.e. high school fees. 	1-4

Suggested Answers for Question 3(b)

Introduction

- Identify what type of good pre-school education is – briefly link to why government must intervene
- Define market failure and positive externality

Development of ideas

Explain why government intervene in the market for pre-school education

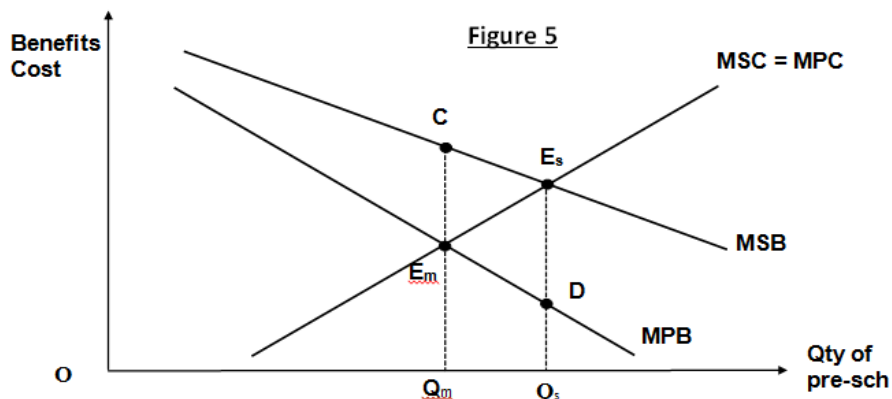
Pre-school education is a merit good that generates positive externalities and is deemed by the government to be socially desirable (sets the foundation for lifelong learning).

MOE press release (Aug 2012):

The early years are important for a child's development. Quality pre-school education will provide developmentally appropriate learning experiences for young children to develop holistically and nurture positive attitudes towards learning. It will also help the children develop foundational literacy and numeracy skills and build up confidence as well as self-management and social skills. This foundational development will enable children to have a smoother transition from pre-school to formal education in primary schools.

Over the years, especially following the last major review of pre-school education in 2008, the Government has improved the accessibility, affordability and quality of pre-school education through strategies and programmes to enhance teacher, programme and centre quality. Steady progress has been made. The Government will now step up its efforts to accelerate the quality improvements in the sector.

- Positive externalities refer to external benefits enjoyed by third parties arising from the production or consumption of a good. Third parties refer to people who are not directly involved in the production or consumption of a good.
- Pre-school education levels the playing field for young children so that they could be better equipped for formal education. In particular, it allows children from lower-income families to be better prepared for primary school education and the possibility of better upward social mobility in the future.
- Due to the presence of positive externality in the consumption of pre-school education, its marginal social benefit (MSB) exceeds its marginal private benefit (MPB) by the amount marginal external benefit (MEB) generated. Because pre-school education does not generate negative externality, the marginal social cost (MSC) is equal to the marginal private cost (MPC).
- If left solely to the private sector, market equilibrium will be achieved at $MPB = MPC$, where parents only consider private benefits and costs of sending their children for pre-school education but ignore the external benefits to the rest of society. Thus, only Q_m amount of pre-school education is consumed.
- However, social equilibrium is achieved only when $MSB = MSC$. This occurs when the external benefit to the rest of the society is taken into account, and the marginal social benefit of consuming the additional unit of pre-school education matches the marginal social cost.
- As Q_m is less than Q_s , there is under-consumption of pre-school education. This results in welfare loss to the society. This means that society's welfare can be improved from additional consumption of pre-school education. As there is under-allocation of resources to pre-school education, the government must intervene to bring about a more efficient allocation of resources.



Identify the existing measures which Singapore government has adopted in the market for pre-school education and discuss the need for provision of FREE pre-school education

- Singapore government subsidises school fees for pre-school education at PCF centres, in the hope of encouraging parents to send their children for pre-school education at the PCF centres.
- However, school fees at non-PCF pre-school centres are not subsidised by the government.
- Given that positive externality exists in pre-school education, the debatable issue is whether Singapore government should do more than just subsidise school fees for PCF centres. Should it subsidise all pre-school centres? Or should it provide free pre-school education?
- While subsidising pre-school education in PCF centres may encourage more families to send their children for pre-school education, it might not be effective in raising consumption or ensuring a level playing field for all children.
- Private pre-schools are perceived to provide a different and better quality/more superior brand of pre-school education than PCF centres. Thus parents who could not afford to send their children to private pre-schools (school fees are about \$20,000 a year) will be at a disadvantage compared to parents who could send their children to prestigious pre-schools. Thus government needs to do more than just subsidise the school fees for PCF centres.

Explain why provision of FREE pre-school education will lead to efficient allocation of resources

Government provision of free pre-school education is needed as it allows all children regardless of income level to have the same level playing field when they move on to primary schools.

- Explain what is free pre-school education
- Pre-school education allows all children, regardless of income levels and social strata, to be equally prepared for primary school education. When school fees for pre-school education is fully subsidised, consumers would consume at the socially-optimum level, effectively raising society's welfare.
- This will lead to efficient allocation of resources.

Explain why provision of FREE pre-school education may not lead to efficient allocation of resources

• **Overconsumption in the market for preschool education**

Free pre-school education may encourage parents to sign their child up for more programmes in the pre-school, leading to over-consumption and thus over-allocation of resources in the market for preschool education.

- While provision of free preschool education will ensure level playing field for all children, amount of school fees parents pay may vary depending on the type of enrichment programmes the parents sign their children up for.
- Full subsidies of the education would encourage parents to register for additional enrichment programmes in the school even though they may not be necessary.
- Hence free provision may lead to over-allocation of resources and over-consumption in the market for pre-school education.

• **Better utilisation of resources in other areas**

Resources are limited and thus government must be prudent in its use of government budget. More resources allocated to the market for preschool education would mean less being allocated in other areas like healthcare and higher-level education where the extent of market failure is greater.

- Given our rapidly ageing population, more resources are needed to provide better healthcare support for the aged. The trade-offs between supporting pre-school education and supporting an ageing population must be carefully weighed.
- Though it is undeniable that there are external benefits from pre-school education, the extent of external benefits may not be sufficient to warrant full subsidies or full provision of this merit good.
- The extent of external benefits is relatively small compared to secondary and tertiary education. Thus resources could have been better allocated in other areas.

Conclusion

Singapore government believes strongly in public-private (joint) provision of most merit goods to ensure that Singaporeans enjoy a high quality service. Instead of providing the goods free of charge, the government employs market-based solutions such as subsidies or grants to ensure efficiency in the allocation of resources. This is seen in Singapore's education, healthcare and public transport industry. This approach will also reduce the reliance of the citizens on the government and is more sustainable in the long run.

While it seems fair to suggest that the government should be more involved in the provision of pre-school education, providing it free is not desirable. Not only will co-payment deter 'over-subscription' of additional educational programmes by the parents, it will also reduce the strain on government budget. Co-payment will free up Singapore's budget to address more pressing macro problems for the economy. Alternatively, the government could modify the amount of subsidies for pre-school education according to income levels; or according to different types of pre-schools.

Level Descriptors for Essay Question 3(b)		Marks
L3	<p>Developed and balanced analysis which covers the following</p> <ul style="list-style-type: none"> • Correct identification of source of market failure in pre-school education • Intervention in provision of pre-school education is necessary but may not necessary to provide it for free • Provision of free pre-school education may/may not lead to efficient allocation of resources <p>Good use of diagram with use of accurate economic concepts to illustrate Answer supported by examples.</p>	9-11
L2	<p>Developed but one-sided analysis</p> <ul style="list-style-type: none"> • Source of market failure in pre-school education • How free pre-school education leads to efficient allocation of resources <p><u>OR</u></p> <p>Balanced but undeveloped analysis</p>	6-8
L1	<ul style="list-style-type: none"> • Answer is not supported by relevant economic framework • Conceptual inaccuracies • Answer does not address the issue of the question • Answer not supported by economic reasoning 	1-5
E2	<p>Well-reasoned and supported judgement.</p> <p>Relevant criteria/conditions identified for evaluation. Students can consider:</p> <ul style="list-style-type: none"> • Feasibility and practicality of free provision of pre-school education • Impact of free pre-school education in the long run • Need for free pre-school education in Singapore 	3-4
E1	Attempt to make some judgement, but not supported.	1-2