

H1 Economics 8819 Paper 1 Question 1: Suggested Markscheme

Question 1: The Market for Higher Education

- (a) With reference to Table 1, compare the government expenditure per student for primary and university education from 2012 to 2015. [2]

- Both government expenditure per student for primary level and university have generally increased from 2012 to 2015. [1]
- Government expenditure per primary school student is always lower than university expenditure per student. [1]

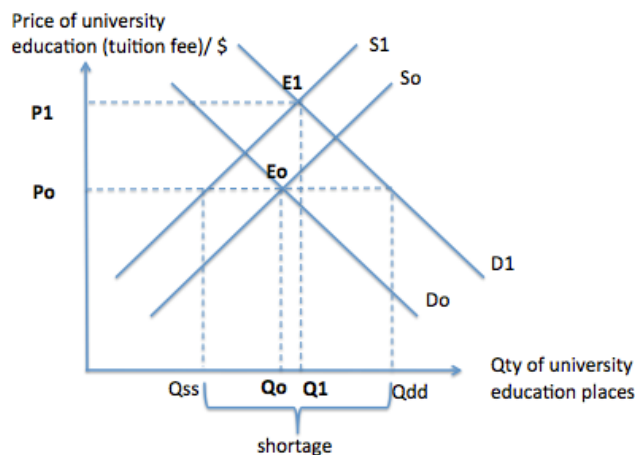
OR

- Both government expenditure per student for primary level and university have generally increased from 2012 to 2014 but for 2015, university expenditure per student has fallen while expenditure per primary school student continued to increase. [1]

- (b) With the aid of a diagram and using demand and supply analysis, explain two reasons for the expected increase in UK's university tuition fees. [4]

With references to Extract 2,

- The increase in birth rates in UK → leads to the rise in demand for university education → increase in DD (shift right from DDo to DD1) [1]
- Cut in government subsidies for universities leading to higher COP for universities. → Decrease in SS (shift left from SSo to SS1) [1]
- A shortage (of $Q_{ss}Q_{dd}$ amount at initial price level of P_o) will occur in the market [1] → lead to an increase in price of university education (from P_o to P_1)
- Diagram [1]



1m – DD factor

1m – SS factor

1m – price mechanism linking to shortage

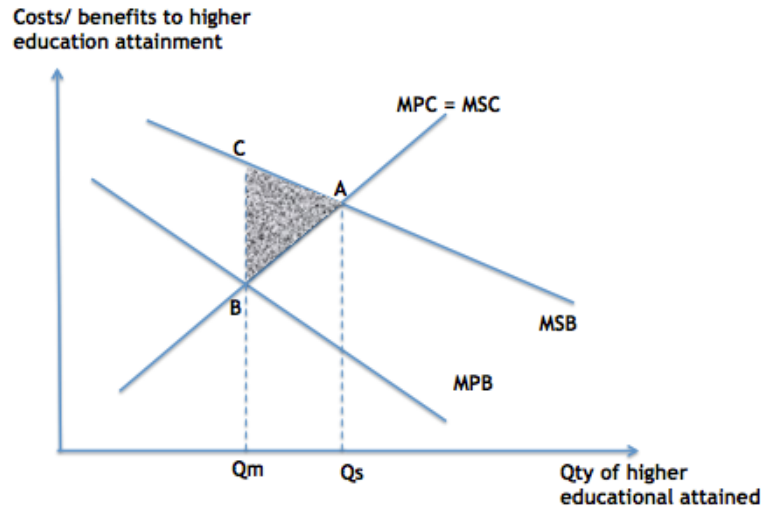
1m – diagram

- (c) (i) With the aid of a diagram and with reference to Extract 1, explain how social outcomes associated with higher levels of educational attainment can lead to market failure. [6]

- Diagram to show how positive externalities associated with higher

educational attainment can lead to under consumption and market failure

(assume: no negative externality, thus $MPC = MSC$)



- **With reference to the extract, explain the positive external benefits that arise from higher educational attainment and relate it to the third parties.**
 - According to Extract 1, higher level of educational attainment can lower poverty and crime rates, creating a society that is more cohesive and safer for households. It also improves the quality of the labour force that is beneficial for economy long-term economic development, improving the standard of living of the future generations as well. These are some of the external benefits to the third parties.
- **Explanation of the market equilibrium**
 - Individuals who seek to attain higher level of education only take into account their private benefits (such as the higher employability and wages earned) and private costs (such as the tuition fee for higher level education, time needed to graduate from higher educational etc.)
 - Thus the market equilibrium is at $MPC = MPB$, where level of university places taken up/ number of university students is at Q_m
- **Explanation of the socially optimal equilibrium**
 - However, these individuals do not account the external benefits related to higher level of education attained
 - Due to the external benefit incurred, $MSB > MPB$
 - The socially optimal equilibrium is at $MSC = MSB$, where level of university places taken up/ number of university students is Q_s
- **Under-consumption and welfare loss**
 - However, at Q_m , $MSB > MSC$. This implies that the society's welfare is not maximised at Q_m . Hence, there will be a deadweight loss of the shaded area ABC. The increase in the number of students beyond Q_m up to Q_s will increase the net society's welfare.
 - Thus if left to the market, the number of university students will remain at $0Q_m$. There will be an under-consumption of higher education of Q_mQ_s and the market fails.

Level	Descriptors	Marks
L3	<ul style="list-style-type: none"> • A well-developed answer with good reasoning. • Clear and accurate economic analysis • Good use of relevant examples from the case study to support the explanation. 	5 – 6
L2	<ul style="list-style-type: none"> • Under-developed answer. Points are stated but lack coherent reasoning • Economic analysis contains some conceptual errors • Some attempt to use examples from case study and relate to the context. 	3 – 4
L1	<ul style="list-style-type: none"> • Descriptive answer with no economic analysis • Many conceptual errors. 	1 – 2

- (ii) **Comment on whether Singapore should follow the UK's cut in subsidies for university education.** [6]

Approach: Students should consider the reasons for the subsidies made by the Singapore govt. Based on extract 1, subsidies on higher education sector require a careful balancing between strategic considerations, equity, and efficiency. These considerations could differ from what the UK govt based their decision to cut their subsidies on, however. Thus, on evaluation, cutting the subsidies would also entail a review of these considerations in the Singapore context.

Argument for: Singapore should cut subsidies

- 1 **Extent of private returns to higher education, as compared to external benefits:**
Considering that there are private returns of higher employability and wages (Extract 3) to higher education, it may be **possible that current subsidy levels are too high**. If students are to gain from higher education, then they should be willing to pay a larger proportion of the fees. → **The govt may have overestimated the size of external benefits of higher education**. A cut in subsidies would lower the quantity of places available in universities, and possibly lead to a better allocation of resources.
[Students to insert diagram to illustrate possible over-subsidy of higher education]
- 2 **High subsidies may lead to an overconsumption of higher education places**, which would then lead to an over-supply of graduates. This could mean that the Singapore economy would have to be able to absorb the increase in graduate workers with sufficient capacity and opportunities for graduate-level jobs. If not, it could result in under-employment or, in an economic crisis, high unemployment. Thus to prevent this, a cut in subsidies would reduce the number of university places and reduce the rate of increase in graduates.
- 3 **Improved range of courses by universities:** Reducing subsidies would mean that universities would have to increase their fees for some consumers, or be more strategic in their offering of courses.
 - a. Higher fees are viable as higher income consumers now have better ability to pay and thus do not need to be subsidised at the same level as those with lower income

- b. Consumers are more knowledgeable about higher education courses, and are more discerning about their choice of university courses to attain their dream career.

Thus, universities can be allocatively more efficient with the reduced subsidies if they offer courses that consumers are willing and able to pay for.

- 4 Similar to the UK economy, the opportunity cost of subsidizing higher education could be high, considering that there are other priorities in the economy, for example caring for the aging population, improving public infrastructure on healthcare and transportation, and budgeting for industry transformation programmes.

Counter- Argument: Singapore should not cut subsidies

1 Consideration of efficiency and equity: Extent of market failure caused by positive externalities and the income gap

As expressed in extract 3, market failure exists in the market for higher education. Thus, there is a case for government to subsidize.

- The extent of subsidies so far has generated a large pool of skilled and educated workforce, which has contributed immensely towards the economic progress of the country. This shows that the external benefit are large and continues to be enjoyed by the economy
- The govt has to also consider the need to support the aspirations of the lower income group through subsidizing their participation in higher education.

2 Strategic consideration of economic progress and competitiveness:

Expenditure figures in Table 1 show that the amount spent by the govt per university student is more than double that of expenditure on primary school students.

- Considering that universities have to deliver high quality education to prepare the people for the future economy, a cut in subsidies could place them in danger of having to cut corners, employ low quality teaching staff and reduce intake of students.
- There could also be a reduction in the range of courses that students can choose from. As an education hub, this would make the sector less attractive to investors and potential private institutions.
- Considering the need for labor to continue to be highly skilled for the future economy, subsidizing higher education should continue

3 Strategic consideration of fiscal capacity:

From Extract 1, UK govt decided to cut subsidies in order to ease their debt. This might not be the case for the Singapore govt. Unlike the UK govt, the govt of Singapore does not have a large debt and historically have a healthy budget balance through the govt prudent spending. This provides them with a strong ability to continue subsidizing higher education, even at its present level to achieve its social and macroeconomic goals.

Evaluative judgement

Overall, the level of subsidies that the government gives to universities should be high enough to sustain their quality of education. While it can be argued that the private benefits gained by consumers are high and thus should be

privately financed, the economic benefits to the economy of a highly educated and skilled workforce far outweigh the economic costs of the subsidies given. The Singapore government does have that fiscal ability to continue subsidizing higher education.

Level	Descriptors	Marks
L3	<ul style="list-style-type: none"> Reasons for the subsidies are well analyzed, and placed within the context of the Singapore economy. Answers draw from the data as well as from their knowledge of the Singapore economy. Answers have a balanced view regarding whether the Singapore govt should reduce subsidies or continue with the current level. Answer provides judgement that is based on analysis. 	5-6
L2	<ul style="list-style-type: none"> There is a lack of depth of analysis regarding the reasons to implement subsidies in education. Use of data is sporadic and inconsistent. Answer has some inaccurate concepts. Answer provides some judgement but is sporadic and brief, at times with no justification and economic analysis. 	3-4
L1	<ul style="list-style-type: none"> Descriptive answer with no economic analysis Many conceptual errors 	1-2

- (d) (i) With reference to Extract 4, explain how the increasing number of graduates is “bad for (graduate) students and employers”. [4]

Students:

- Rise in SS of graduates entering the non-graduates labour market → leads to fall in wages for the graduates and non-graduates → this can adversely affect their standard of living. [1]
- Evidence: Extract 4 mentioned that the graduates have to take up jobs that do not require a degree. [1]

OR

- Students might not be able to pay off their education loans → due to these students taking on non-graduate jobs which offer lower wages → lead to reduction in ability to consume and may also be under financial stress → fall in standard of living. [1]
- Evidence: Extract 4 mentioned that more than half of the graduates actually took on non-graduate jobs, the graduates' average debt is around £44,000 and it is estimated that 45% of the student loans would never be paid off. [1]

Employers:

- Graduates taking on mismatching jobs relative to their qualification may be less committed at work and may not remain loyal to the company → more likely to leave company/ job-hop → firms may incur higher cost of training worker, which may lower its profit margin [1]
- Evidence: Extract 4 mentioned that firms may incur greater hiring and training costs. [1]

2m each for students and employers

– for identification of the reason

– for explanation of the reason

- (ii) Discuss the view that the huge increase in number of graduates is undesirable for the UK economy. [8]

Approach: Answer should explain the two views of how the increase in graduates can be both undesirable and desirable to UK economy before providing an explained judgement of the likely outcome for UK economy.

Argument: Increase in graduates can be undesirable to UK economy

1. Rise in number of graduates may worsen UK's unemployment (unN) rate

- There are insufficient jobs to absorb the huge increase in SS of graduates into the labour market → resulting in some graduates taking on jobs that do not require a degree (under-utilisation of labour resources) → and putting some non-graduates out of jobs → creating the issue of under-employment as graduates are over-qualified for the non-graduate jobs as well as structural unemployment given that there are insufficient matching jobs (both higher-skilled and lower-skilled jobs to absorb all labour) in the economy.
- The rise in unemployment can also result in greater strain on UK's government budget as more welfare spending such as unemployment benefits would be needed. Thus, less government spending can be allocated for other projects such as spending on healthcare, education or infrastructure-based development that could improve UK's future EG.
- Evidence: Extract 4- Research showed that the huge increase in the supply of graduates over the last 35 years has resulted in more occupations and professions being dominated by graduates. These include the banking, education, police and estate agency sectors in which jobs were mainly occupied by non-graduates in the past.

2. Rise in number of graduates may worsen UK's inequity issue

- Increase in SS of labour in non-graduate job market due to graduates seeking for non-graduate jobs → result in falling wages in the lower-skilled job markets → lead to widening of income gap between the labours in the high-skilled and lower-skilled job markets.
- In addition, the fall in household disposable income for labours in non-graduate jobs → fall in purchasing power → fall in C → fall in AD → fall in real national income → resulting in material SOL of unemployed graduates and non-graduates worsening and compromising macroeconomic goals; causing negative EG and increase in demand-deficient unemployment.

3. Rise in number of graduates may slowdown future EG

- Increase in graduates taking non-graduate jobs → lead to these graduates being discouraged as there is lack in opportunities to develop and master higher level skills that will enable them to become expertise in their fields → slowdown in productivity growth → slowdown increase in LRAS → hinder UK's potential EG.
- In addition, the issue of brain drain may occur as the unemployed graduates may move out of UK in search of better jobs → fall in labour force size → fall in production capacity → fall in LRAS → hinder UK's

potential EG.

- Evidence: Extract 4- Lower levels of engagement will also undermine the government's attempts to boost productivity

Counter- Argument: Increase in graduates can be desirable to UK economy

1. Rise in number of graduates can increase X- revenue

- Number of international students in higher education may increase too → increase spending by foreigners in many UK's sectors, including tourism, healthcare and education sectors → rise in X → rise in AD → increase in real national income → actual EG and lower demand-deficient unemployment due to more labour hired for increase in production of goods and services.
- Evidence: Extract 3- Tuition fees, spending and hosting family and friends coming to visit – a net contribution of £2.3bn.

2. Rise in number of graduates can increase in I

- Higher education sector provides greater opportunities for firms to carry out research projects with universities → create more job opportunities for graduates → not only prevent the issue of under-employment (where graduates take on non-graduate jobs) and thus alleviate inequity issue, it also encourages the growth in productivity and innovation → higher I → rise in AD and LRAS → increase in real national income and economy maximum production capacity respectively → actual EG and potential EG → sustained EG as well as lower demand-deficient unemployment due to more labour hired for increase in production of goods and services.
- Evidence: Extract 3 - research collaborations between UK universities and business are worth more than £3.5 billion

3. Rise in number of graduates can increase in C

- Graduate jobs provide higher income → higher disposable income → higher purchasing power → hence increase C → rise in AD → increase in real national income → improve SOL and achieve macroeconomic goals, such as actual EG and lower demand-deficient unemployment due to more labour hired for increase in production of goods and services.
- Evidence: Extract 3 - Young adults with degree can earn £9,000 more than those without a degree.

Evaluative judgement:

- In general, having increase in graduates can be beneficial to UK economy. However, if the increase in graduates is not matched with sufficient graduate jobs created, it would be undesirable for UK economy.
- Thus, in order for the higher education sector to stimulate UK economy in the long run, UK would need to ensure that the job market offers sufficient matching jobs for the graduates while also ensuring that the graduates are equipped with the relevant skills required by firms.
 - This means, more communication need to be established between the schools and the firms. Perhaps, universities need to encourage greater partnership between universities and firms → enabling graduates to develop soft skills and possess higher level of apprenticeships (extract 4).
- Looking into the future, UK universities should also start to explore ways to balance its rise in COP while continuously aim to provide high-quality

teaching. The increase in fee cap excessively may eventually lead to UK being a less popular location for some international students in the future. If so, it may dampen X- earnings contributed by the international students → slowdown future actual EG.

Level	Descriptors	Marks
<i>L3</i>	<ul style="list-style-type: none"> • A well-developed answer with good AD/AS reasoning linking to macroeconomic aims. • Clear and accurate economic analysis • Good use of relevant examples from the case study to support the explanation. 	<i>5 – 6</i>
<i>L2</i>	<ul style="list-style-type: none"> • Under-developed answer. Points are stated but lack coherent AD/AS reasoning linking to macroeconomic aims. • Economic analysis contains some conceptual errors • Some attempt to use examples from case study and relate to the context. 	<i>3 – 4</i>
<i>L1</i>	<ul style="list-style-type: none"> • Descriptive answer with no economic analysis • Many conceptual errors. 	<i>1 – 2</i>
<i>E2</i>	<ul style="list-style-type: none"> • Judgement provided is supported with reasoning. For instance, answer may explain the circumstances that the rise in graduates from higher education institutions can be desirable to UK economy. 	<i>2</i>
<i>E1</i>	<ul style="list-style-type: none"> • Judgement provided is unsupported. 	<i>1</i>

[Total: 30]