

**2014 PJC H2 Econs Prelims Paper 2 Question 2:**

**2 (a)** With examples, distinguish between internal and external economies of scale. [10]

**(b)** The conventional assumption in most economic models is that firms maximize profits. Discuss the assertion that the pursuit of profits will always lead to a few large firms dominating the market for each and every product. [15]

**Interpret the Question – Part (a)**

**a)** With examples, distinguish between internal and external economies of scale. [10]

**What is the cue word?**

(skills required?)

**Distinguish** between –  
Make clear the similarities and differences between the two concepts through COMPARISON.

**What is the concept word?**

Internal EOS

External EOS

**What is the context word?**

No specific context – but need to use APPROPRIATE examples to illustrate each concept.

**Schematic Plan**

Define: EOS, iEOS, eEOS

Scope: difference in terms of sources, egs, diagrams & which firms can enjoy the EOS.

**Sources:**

iEOS (Firm Expand)  
e.g (mkting EOS)  
NTUC bulk buying  
lower AC

eEOS (industry expand)  
e.g (ec of Concentration)  
oil industry in Sg  
Shell / other firms  
lower AC

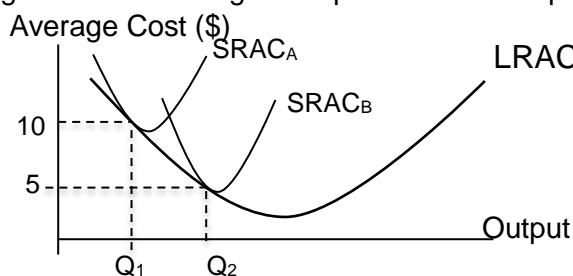
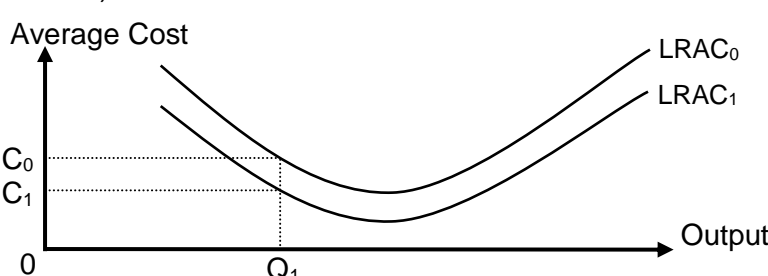
**Diagram:**

iEOS (Firm Expand)  
movement along LRAC  
Q+: expand scale of product.  
C falls: lower AC

eEOS (industry expand)  
shift of LRAC (down)  
Q same: (firm does not grow)  
C falls: lower AC

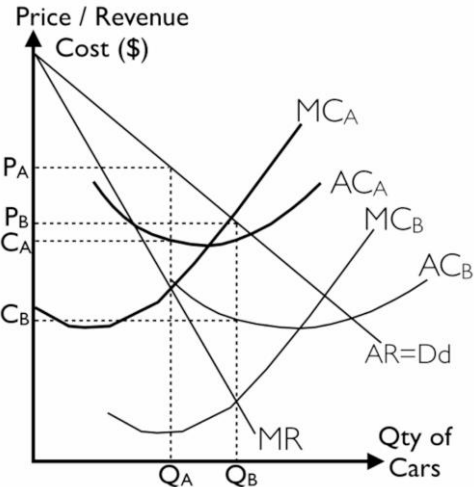
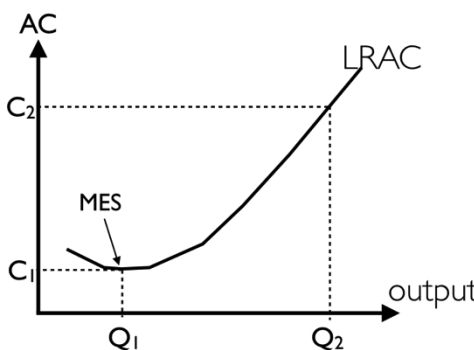
<b><u>Introduction (GIST)</u></b>	
Introduction	<b>(G)</b> Economies of scale (EOS) refers to cost savings enjoyed by firms in the long run. <b>(I)</b> There are two different types of EOS – internal EOS and external EOS. <b>(S)</b> Internal EOS are cost savings that arise when the firm expands thus are enjoyed more by the large firms rather than small firms, while External EOS are cost savings which arise when the industry expands, benefitting both large and small firms. They are also illustrated differently in the LRAC diagram.

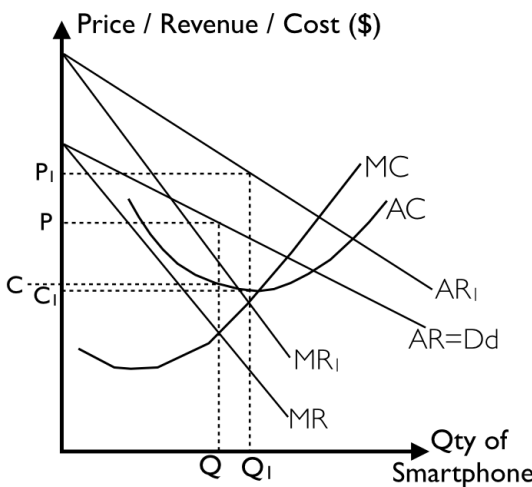
<b><u>Body (PEEL)</u></b>	
What is the most important point?	
State the <b>Point (P)</b>	Internal and external EOS arise from different sources of cost savings.
<b>Explain the point with clear causal links (E)</b>  <b>Elaborate the point with examples/diagram</b>	Internal EOS occur when firms expand the scale of production through increasing its size by using more capital goods and labour in production. With large-scale production, firms like NTUC (a grocery supermarket chain) would enjoy Marketing EOS through bulk purchases of raw material (vegetables, fish, meat etc.). Bulk purchasing discounts helps NTUC reduce average cost (lower per unit cost). In contrast, an oil refinery company like Shell can enjoy external EOS like economies of concentration when there is an expansion of the oil refinery industry in Singapore. As other firms that provide raw materials to Shell, as well as other firms which utilize the output (refined oil products) of Shell, all set up factories in close proximity with Shell's production plant, cost savings can be experienced by all firms in the oil refinery industry since there's lower delivery costs for raw materials and output between these firms.
Link back to Qn	Hence, internal EOS arises when the firm expands, benefitting the firm itself, while external EOS arises when the industry expands, benefitting all firms in the industry.

What is the SECOND most important point?	
State the <b>Point (P)</b>	Internal and external EOS are illustrated differently on the LRAC curve.
<p>Explain the point with clear causal links (<b>E</b>)</p> <p>Elaborate the point with examples/diagram</p>	<p>Internal EOS can be seen below, where average costs fall from 10 to 5 when the firm expands production from <math>Q_1</math> to <math>Q_2</math>. Expanding the firm is shown by a shift from <math>SRAC_A</math> to <math>SRAC_B</math> along the long run average cost (LRAC) curve. The internal EOS occur along the downward sloping part of the LRAC curve - average costs are falling as output and scale of production rises.</p>  <p>On the other hand, external EOS occurs when the industry expands, average cost falls for all firms, regardless of the size or scale of production of the firm. This is illustrated by a downward shift of the entire LRAC curve from <math>LRAC_0</math> to <math>LRAC_1</math> and the firm can produce the same <math>Q_1</math> with lower average costs (<math>C_0</math> falls to <math>C_1</math>) due to external EOS.</p> 
Link back to Qn	Hence internal EOS are shown by a movement along the LRAC curve while external EOS are shown by a downward shift of the LRAC curve.

Conclusion (SL)	
Conclude	<p>In conclusion, internal EOS are the results of expansion of individual firms independently of what is happening to other firms, whereas, external economies are the results of expansion or development of the entire industry of which the individual firms are members.</p> <p>While only large firms will enjoy internal EOS, both small and large firms are able to enjoy external EOS.</p> <p>The presence of EOS determines whether firms would have cost advantages from growing large.</p>

<u><b>Interpret the Question – Part (b)</b></u>				
<b>b)</b> The conventional assumption in most economic models is that firms maximize profits. Discuss the assertion that the pursuit of profits will always lead to a few large firms dominating the market for each and every product. [15]				
<u><b>What is the cue word?</b></u> (skills required?) Discuss the assertion – present 2 sides to examine the assertion AGREE (YES) or DISAGREE (NO) <u><b>Absolute</b></u> WORD: “will ALWAYS lead to”	<u><b>What is the concept word?</b></u> (concepts required?) Pursuit of profits (profit = TR-TC) LEAD TO a few Large firms (firms must grow bigger) Dominating market(+mkt power)	<u><b>What is the context word?</b></u> (what is the context for this question?) Each and Every Type of Product (product markets – no specified context – but MUST discuss and present variety of examples)		
<u><b>Schematic Plan</b></u>				
Cost / Rev Adv determines whether firms grow large, and B2E affects whether firms can dominate mkts.				
EOS → cost advantages for large firms → boost profits → firms will want to grow large and dominate the market.	No EOS, MES low → no cost adv when grow large → AC+ when firm grows large → firms want to stay small	Rev Adv → grow large → +Mkt Share → +Mkt Pwr → +dd → +TR → + profit	No Rev Adv → personalized svc → Consumers preferences unique → small firms personalized pdt → more profits	B2E → low B2E → even with large firms → unable to dominate → small firms may co-exist → both make profits in mkt

<b>Introduction (GIST)</b>	
Introduction	Firms are assumed to seek profit maximization and this is achieved in the short run when marginal revenue (MR) equals marginal cost (MC). When firms make long run decisions, as $\text{profit} = \text{TR} - \text{TC}$ , firms consider cost and revenue advantages in deciding whether to expand in size. For products economies of scale and revenue advantages, firms tend to want to grow large as it allows them to make more profits and dominate the market. However, it may not always be true for each and every type of product. Other motives may prevail that make firms dominate the market. In addition, profit motive would not causes domination in all types of goods.
<b>Body (PEEL)</b>	
What is the most important point?	
State the <b>Point (P)</b>	Firms can enjoy cost advantages when they expand in size, thus the profit motive causes firms to want to grow large.
Explain the point with clear causal links ( <b>E</b> )  Elaborate the point with examples/diagram	<p>As explained in (a), when firms expand, they can gain internal EOS and lower average cost (AC). For example, as car manufacturer expands scale of production, they enjoy technical EOS like specialization and increased dimensions in repetitive production processes such as mass production of car doors with automated machines. With EOS, MC and AC shift from <math>MC_A</math> to <math>MC_B</math>, and <math>AC_A</math> to <math>AC_B</math>. The profit maximizing firm's price will fall from <math>P_A</math> to <math>P_B</math>, and the initial profit is <math>(P_A - C_A) \times Q_A</math>, which now rises to <math>(P_B - C_B) \times Q_B</math>. Expanding to reduce costs also allow the firm to set lower prices to boost competitiveness of their cars.</p> 
Link back to Qn	In such markets, firms will grow in size and large firms will dominate.
What is the evaluation?	
State the <b>Point (P)</b>	Not all products may give EOS when the scale of production rises.
Explain the point with clear causal links ( <b>E</b> )  Elaborate the point with examples/diagram	<p>Some industries do not have significant EOS and in fact, diseconomies of scale may set in early. Such industries have the minimum efficient scale (lowest point of LRAC) set in at a low level of output, and the LRAC is upward sloping after the MES. This means that if the firm produces at output <math>Q_1</math>, they can enjoy lowest AC of <math>C_1</math> compared to producing at output <math>Q_2</math> when AC rises to <math>C_2</math>. An example of such a product is hawker / street food or macarons industry where operating on a large scale would make it difficult for the firm to maintain the quality and taste of the food produced or will lead to more wastages with increased numbers of macarons that fail the quality control checks and have to be thrown away.</p> 
Link back to Qn	In such industries, the profit motive will not lead to large firms dominating the industry.

What is the next most important point?	
State the <b>Point (P)</b>	Firms can enjoy revenue advantages when they expand in size.
<p>Explain the point with clear causal links (E)</p> <p>Elaborate the point with examples/diagram</p>	<p>When a firm takes over or merges with another firm, the resulting firm will capture a larger market share, and have a higher demand for their goods. Also, with greater market power, the demand for their goods become more price inelastic. This shifts the <math>AR=Dd</math> to the right to <math>AR_1</math> leading to higher revenue since the profit maximizing (<math>MC=MR</math>) <math>P</math> and <math>Q</math> both increase to <math>P_1</math> and <math>Q_1</math> where <math>MC=MR_1</math>. The firm can earn higher total revenue, and their profits increase from <math>(P-C)XQ</math> to <math>(P_1-C_1)XQ_1</math>. Sony merged with Ericsson to form Sony Ericsson to sell mobile phones, and this enabled them to capture a larger market share.</p>  <p>Thus firms may choose to grow big to dominate the market for more profits.</p>
Link back to Qn	
What is the evaluation?	
State the <b>Point (P)</b>	Larger firms may not have revenue advantages for all product markets
<p>Explain the point with clear causal links (E)</p> <p>Elaborate the point with examples/diagram</p>	<p>For some products, consumers may desire personalized products, and hence being a large firm with mass-produced products do not enjoy revenue advantages or higher demand, hence reducing the profits they can make. Examples include bespoke (shirt and suit) tailors, where everyone has a different body shape and people have different preferences such as slim fit or skinny cut due to changing fashion trends. Being small allows the tailor to customize the product to the individual and hence appeal to them more, boosting demand and consumers' willingness and ability to pay for these customized products.</p>
Link back to Qn	For such products, the profit motive will not lead to large firms dominating the industry.
What is the next most important point?	
State the <b>Point (P)</b>	Even when there are EOS, in some markets, there may be big and small firms co-existing in the market due to low barriers to entry.
<p>Explain the point with clear causal links (E)</p> <p>Elaborate the point with examples/diagram</p>	<p>We have seen increasing numbers of online retailers selling a variety of products like electronics, fashion (blogshops) and bicycle shops selling bicycle parts. Some firms are huge, like Amazon or Apple, while there are also many small firms such selling individualized products on etsy or even resorting to crowdfunding to launch their new products on kickstarter. The internet has reduced barriers to entry, allowing many small firms to enter the market and co-exist and compete with the large firms. The large firm appeals to customers for a wide variety of products, while the small firms cater to customers who want specialized services or the smaller unique brands, and both firms can make profits.</p>
Link back to Qn	Thus, when barriers to entry are low, large firms may not be able to dominate the market, and have to compete with the many small firms in the market.

<b>Conclusion (SR)</b>	
Conclusion	<p>Firms choose to grow large or stay small depending on whether there are economies of scale / cost advantages, or whether there are revenue advantages to being large. In some product markets, large firms are unable to dominate the market despite there being cost and revenue advantages, because of the low barriers to entry, where small firms can cater to select group of consumers with specific preferences. Hence, the view that the pursuit of profits will always lead to a few large firms dominating the market for each and every product does not hold true.</p>