

Mark Scheme (Results)

January 2023

Pearson Edexcel International Advanced Level In Economics (WEC13) Paper 01 Unit 3: Business behaviour

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

Question	Quantitative skills assessed	Answer	Mark
1	QS4: Construct and interpret a	The only correct answer	(1)
	range of standard graphical	is C	
	forms		
	QS6: Calculate cost, revenue	A is incorrect because	
	and profit (marginal, average,	decreasing returns to	
	totals)	scale would relate to the	
	QS9: Interpret, apply and	long-run average cost	
	analyse information in written,	curve	
	graphical, tabular and	B is incorrect because	
	numerical forms.	fixed costs would not be	
		included in marginal costs	
		D is incorrect because	
		diseconomies of scale	
		would relate to the long-	
		run average cost curve	
2	QS6: Calculate cost, revenue and	The only correct answer	
	profit (marginal, average, totals)	is A	(1)
		B is incorrect because this	
		is the average fixed cost	
		C is incorrect because this	
		is the average total cost	
		D is incorrect because this	
		is the average revenue	
3	QS9: Interpret, apply and	The only correct answer	
	analyse information in written,	is C	(1)
	graphical, tabular and		
	numerical forms.	A is incorrect because this	
		is likely to increase	
		unemployment	
		B is incorrect as this	
		affects the geographical	
		mobility of labour	
		D is incorrect because this	
		is likely to increase	
		unemployment	
4	QS4: Construct and interpret a	The only correct answer	(1)
	range of standard graphical	is B	-
	forms		
	QS9: Interpret, apply and	A is incorrect because the	
	analyse information in written,	equilibrium output is not	
	graphical, tabular and	at the lowest point of the	
	numerical forms.	AC curve	

		C is incorrect because the revenue curves would be perfectly elastic D is incorrect because the firm is making normal profit	
5	QS4: Construct and interpret a range of standard graphical forms QS9: Interpret, apply and	The only correct answer is D A is incorrect because the	(1)
	analyse information in written, graphical, tabular and numerical forms.	firm is likely to increase employment B is incorrect because the price would be lower than at the profit maximising output C is incorrect because total fixed costs would not fall when output increases	
6	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answeris AB is incorrect because highwage rates would affectthe price elasticity ofsupply of labourC is incorrect because ifthe demand for labour iselastic then the demandfor the product will beelasticD is incorrect because thiswould discourage firmsfrom employing workers	(1)

Section B

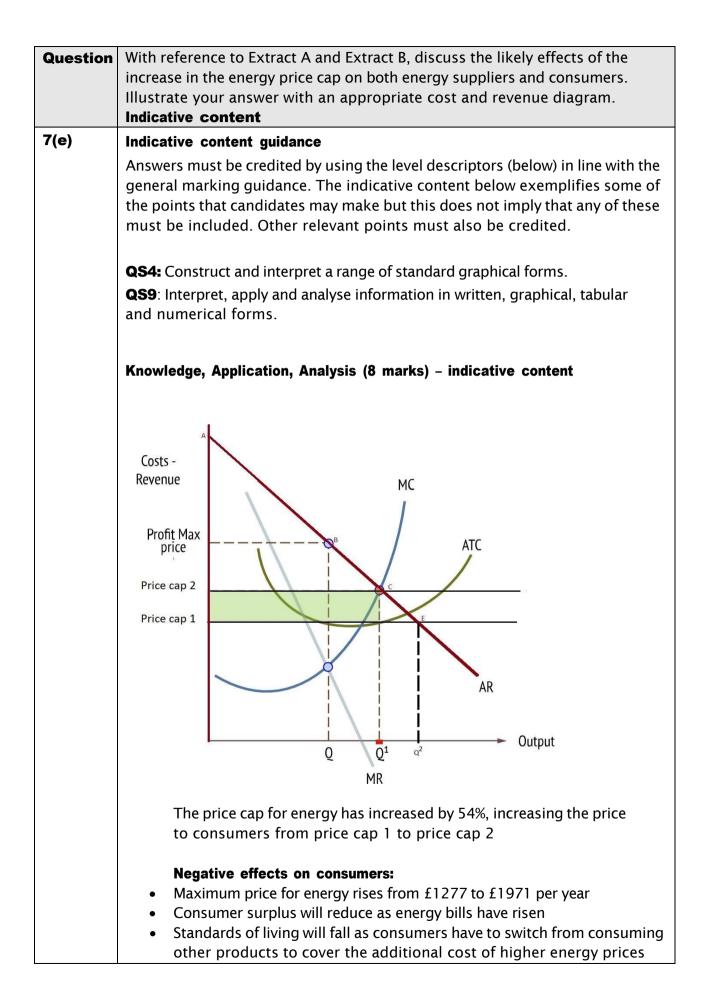
Question	With reference to Figure 1, calculate the percentage change in the wholesale price of gas from 1 April 2021 to 1 April 2022. You are advised to show your working. Answer	Mark
7(a)	Application 2Quantitative skills assessed: QS2: Calculate, use and understand percentages, percentage changes and percentage point changes QS9: Interpret, apply and analyse information in written, graphical, 	(2)

Question	With reference to Figure 2 and Extract A, explain what is meant by the term 'concentration ratio'. Answer	Mark
7(b)	Knowledge 2 Application 2	
	Quantitative skills assessed: QS2: Calculate, use and understand percentages, percentage changes and percentage point changes QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	
	 Knowledge: Up to 2 marks for the definition of the concentration ratio: Concentration ratio is the market share of the largest firms (1+1) The n firm concentration ratio would show the market share of the top "n" firms (1+1) 	
	Application: Up to 2 marks for application to Figure 2 and/or Extract A e.g.	
	 The six largest suppliers had a 82.3% of the market by the end of 2021 (1) The six largest suppliers had a 74.4% of the market in Q4 2020 (1) The four firm concentration ratio was 63.3% in Q4 2021 (1) The concentration ratio of the larger gas suppliers increased (1) The concentration ratio of the top six increased from 74.4% to 82.3% (1+1) The six firm concentration ratio has increased (1) by 7.9 Percentage points (1) 	

Question	With reference to Figure 2 and Extract A, analyse two barriers to entry that might prevent a new firm from entering the UK energy market. Answer	Mark
7(c)	Knowledge 2 Application 2 Analysis 2	
	Quantitative skills assessed: QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	
	Knowledge and analysis	
	Up to 2 knowledge marks for identifying two reasons and 1 analysis mark for each linked expansion e.g.	
	 Few dominant firms (1K) make it harder for a new firm to compete because of brand loyalty (1AN) 	
	 Significant increase in the wholesale price of natural gas (1K) causing an increase in cost of production for new entrants (1AN) 	
	 Economies of scale (1K) allows incumbent firms to achieve lower average costs enabling them to lower prices if new firms enter (1AN) 	
	 Increased regulation (1K) increases costs to a new firm wanting to enter the market to meet new production standards (1AN) 	
	 Price cap (1K) may deter new firms from entering the market if it is unlikely they may be able to make a profit (1AN) 	
	Application	
	Up to 2 marks for application to Extract A and/or Figure 2 e.g.	
	• 31 small suppliers have left the market (1)	
	 Six large companies account for 74.4% of the market in Q4 2020/ 82.3% Q4 2021 (1) 	
	 Market share of small-sized gas suppliers decreased from 7.2% in Q4 2020 to 3.2% in Q4 2021 (1) 	
	 Reference to wholesale price of gas increasing using data from Figure 2 (1) 	
	 Price cap was £1 277 in 2021/£1 971 in 2022 (1) NB if more than two barriers considered, credit the best two 	(6)

Question	With reference to Figure 1 and Extract A, examine the impact of the increase in the wholesale price of natural gas on the cost of production for UK gas suppliers.	Mark
7(d)	Knowledge 2 Application 2 Analysis 2 Evaluation 2 Quantitative skills assessed: QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	
	Knowledge	
	Up to 2 marks for knowledge of the impact on suppliers' costs.:	
	• Identification of natural gas as variable costs (1)	
	• Variable costs are a cost that varies with the level of output (1)	
	• Total costs are variable costs plus fixed costs (1)	
	Increase in costs/total costs (1)	
	 Analysis Up to 2 marks for expansion of impact on suppliers' costs:An increase in variable causes an increases in marginal cost (1) 	
	• Increase in marginal costs increases in average total cost (1)	
	Credit for relevant diagram (1+1)	
	Application	
	Up to 2 marks for relevant application from Figure 1 and extract 1 e.g.:	
	 Purchasing natural gas accounts for approximately 35% of the total costs for large gas suppliers (1) 	
	• This increase in the wholesale price made it impossible for 31 smaller suppliers to cover their costs (1)	
	 Wholesale price increased e.g. from 47p to 280p per therm / 495.74% (1) 	
	• Companies have to purchase gas at world market prices (1)	
	Evaluation Up to 2 marks for evaluative comments (1+1) or (2+0), e.g.:	
	• Significance of the rise in wholesale price - 496% (1)	

•	Purchasing natural gas accounts for a significant proportion of the total costs for large suppliers (1) even more significant for small suppliers as 31 left the market (1) Suppliers may have offset the rise in the wholesale price by decreasing other costs of production (1)	(8)
•	In the long-run, the impact of the rise in cost may not be as significant (1) as prices fell during March 2022 (1) Depends on the timing of the impact on costs of production (1)	



 Quantity of energy consumed is likely to decrease Consumers may increase spending on energy saving electricity measures such as green technology, solar panels and insulation
 Positive Effects on suppliers: Higher profits: as prices have increased, revenues will increase allowing firms to cover their costs and make higher profits Firms are more likely to survive in the long-run as they are able to increase their prices Producer surplus will rise as prices will increase Increased competition/ lower barriers to entry
NB Maximum level 2 if only one economic agent is discussed NB Maximum level 2 if no appropriate cost/revenue diagram is included showing increase in price cap

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples.
		Descriptive approach which has no chains of reasoning.
Level 2	4-6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 3	7-8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evalua	tion (6 marks) – indicative content
	Positi	ve impacts on consumers:
	• • • • • • • •	The effect on the consumer will depend on their household income. Low-income households may be affected more than high-income households The UK Government announced help for approximately 28 million households by providing a discount on energy bills worth £200 in 2022. This will reduce the effects of the price cap on consumer surplus The negative effect on standards of living will be reduced as there would also be a £150 cash payment to some households that will not need to be repaid If consumers can reduce their energy usage the increase in the cap may not increase their energy bill as much If consumers use energy saving devices/install solar panels, this may reduce the effects of the price cap re impacts on suppliers: The increase in the price cap may not be sufficient to cover the increase in the wholesale price of gas and some suppliers may make losses Consumers may continue to reduce their energy usage reducing revenues for the suppliers If wholesale price rise again, price caps may not be sufficient for suppliers to survive
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3-4	Evidence of evaluation of alternative approaches Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	5-6	Evaluation recognises different viewpoints and/or is critical of the evidence. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Section C

Question	Evaluate the view that the objectives of state-owned enterprises and private sector organisations always differ. Illustrate your answer with an appropriate diagram(s). Indicative content
8	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.
	Quantitative skills assessed: QS4: Construct and interpret a range of standard graphical forms. QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.
	 A private sector organisation is one that is owned by individuals and not the state State-owned enterprises are run by the government
	Private sector
	Costs & Revenue
	 Private sector organisations may have an objective to profit maximise (where MC=MR) for example the private sector in America At this point the firm is making the highest level of profit possible Private sector organisations may be owned by shareholders who want dividends as reward for their investment Private sector organisations need to make a profit to survive in the free market therefore will have profit as a key objective, universities need to set high prices to cover costs Private sector organisations need to make at least normal profit if they are to remain in the industry. If they choose not to maximise profits,

	-	
		they may have either a revenue maximisation objective (MR=0) or a sales maximisation objective (AR=AC)
		f there is a divorce between ownership and control private sector organisations may have a satisficing objective
	State-o	wned enterprises
	• • •	State-owned enterprises may be run in order to provide public goods and services and not always to generate a Therefore, these organisations may have other objectives rather than profit State-owned enterprises may have social objectives to improve standards of living and quality of life. For example health care and education State-owned enterprises will have an objective to provide a service to the citizens of its country The social objectives of state-owned enterprises may include greater equality, environmental considerations and social mobility State-owned firms may have an objective to achieve allocatively efficient pricing, or pricing to avoid a loss of diagram candidate can achieve a maximum of level 3 one economic agent discussed candidate can achieve a maximum
	Accort	
	-	reverse argument
Level	Mark	reverse argument Descriptor
Level Level 1	-	reverse argument
	Mark 0	reverse argument Descriptor No rewardable material. Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples.
	Mark 0	Descriptor No rewardable material. Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate
Level 1	Mark 0 1-3	reverse argument Descriptor No rewardable material. Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning. Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic

		Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10-12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

Evaluation (8 marks) - indicative content
 Many privately owned firms may have social objectives as consumers are more socially driven and this can increase demand Pressure groups and regulators have increased consumers' awareness of the negative impacts of private firms encouraging them to have more social objectives Nationalised firms often are regulated to cross-subsidise non-profitable parts of their business Charitable organisations are privately run but do not make a profit
 Chantable organisations are privately full but do not make a profit and run to provide a service for society State-owned enterprises may shut down if they are run at a loss Some state-owned enterprises do aim to make a profit e.g. to create additional revenue for the government. For example governments
investing in private partnerships or profit making businesses

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-3	Identification of generic evaluative comments.
		No supporting evidence/reference to context.
		No evidence of a logical chain of reasoning.
Level 2	4-6	Evidence of evaluation of alternative approaches.
		Some supporting evidence/reference to context.
		Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7-8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement.
		Appropriate reference to evidence/context.
		Evaluation is supported by a logical chain of reasoning.

Question	Evaluate the likely impacts of monopsony power on employees and
	suppliers. Refer to a firm with monopsony power in your answer.
	Indicative content
9	 Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. Quantitative skills assessed: QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. The definition of monopsony - a monopsony is where there is a single buyer in the market The definition of monopsony power - where a firm has significant buying power over its suppliers
	 Impact on suppliers Lower prices for their goods because there is no-one else to sell their product to Decreasing revenue for the suppliers This causes a fall in supernormal profits for the suppliers and potentially puts them out of business if prices fall too low Lower producer surplus for suppliers that may prevent them from investing as much, reducing dynamic efficiency Less negotiating ability over contracts, which may prevent suppliers from being able to sell their agricultural products to other supermarkets Lack of bargaining power may allow monopsonists to pass costs onto suppliers, reducing profit margins Increased dependence on one main customer, making them more vulnerable if that customer were to go out of business Impact on employees The monopsony employer has buying power over its potential employees. This gives it wage-setting power in the industry's labour market Employment might be lower in the industry as there are less
	 opportunities for workers Monopsonies may pay lower wages and provide poorer working conditions compared to a competitive labour market
	NB Maximum level 3 if no reference to a firm with monopsony power

Maximum of level 3 if only one economic agent is discussed
Accept reverse argument

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
Level 2	4-6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7-9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10-12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

Evalu	ation (8 marks) – indicative content
Supp	liers:
•	Monopsony may offer more stable contracts guaranteeing demand for the suppliers, this may encourage more investment and dynamic efficiency from the suppliers
•	If the monopsony is socially responsible, suppliers may be paid a fai amount for their products
•	If monopsony power is weak/not significant, prices might not be that different to a competitive market
•	There is often government intervention in monopsony markets that prevents the monopsony from abusing its dominance
•	Farmers may organise into cooperatives to increase their bargaining power against the monopsony
•	Businesses will attempt to find other alternative routes to market eg farmers market or farm shop
Emp	loyees:
•	Job security is likely to be higher than in more competitive markets
•	Walmart/the firm may not be the only employer of workers therefore they may pay higher wages than a pure monopsony
•	If a trade union exists, wages may be higher depending on the relative bargaining power of the union/monopsony
•	Many monopsony employers are governments that do not profit-maximise and may seek to prioritise other objectives such as well-being

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-3	Identification of generic evaluative comments.
		No supporting evidence/reference to context.
		No evidence of a logical chain of reasoning.
Level 2	4-6	Evidence of evaluation of alternative approaches.
		Some supporting evidence/reference to context.
		Evaluation is supported by a partially-developed chain of reasoning.

Level 3	7-8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement.
		Appropriate reference to evidence/context.
		Evaluation is supported by a logical chain of reasoning.

Question	Evaluate the benefits of growth by takeover for a business in an industry of your choice. Illustrate your answer with an appropriate diagram(s). Indicative content
10	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. Quantitative skills assessed: QS4: Construct and interpret a range of standard graphical forms. QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.
	 Growth by takeover occurs when one firm acquires another A takeover may allow a firm to enter new markets e.g. WestJet selling more luxury holidays and flights. This will increase revenue and market share for the firm A takeover may enable a firm to achieve economies of scale e.g. purchasing, technical, financial, managerial
	C C Output
	Economies of scale occur as output increases from Q to Q_2 and long- run average costs fall from C to C_1

NB if no diagram candidate can achieve a maximum of level 3 If no reference to an industry maximum level 3
 A takeover may increase market power enabling the new firm to increase price/restrict output/ or allow an established firm to expand quickly
 A takeover enables a firm to expand quickly into new markets
 Horizontal takeover would allow the firm to increase market share
 If taking over a firm at a later stage of production (forward vertical integration, car manufacturer integrating with car show rooms), the firm may be able to increase revenue by selling directly to the consumer
 A takeover may enable a firm to spread its risk if moving into new markets/diversifying products (conglomerate integration)
 Takeover may create greater control over suppliers if backward integration which could increase barriers to entry in the industry
 A takeover may result in cost savings if the integration occurs with a supplier (backward vertical integration, fast food chain purchasing a farm) –
 The firm may benefit from sharing expertise/research and development skills
• The firm may be able to reduce duplication e.g. where they both have a marketing department and so will be able to reduce costs

Level	Mark	Descriptor
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		problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7-9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models.
		Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.

		Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10-12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

Evaluation (8 marks) – indicative content		
• Takeovers can be expensive, increasing costs and decreasing profits		
 Culture clashes may occur between the firms if they were run differently, causing diseconomies of scale 		
The larger firm may cause communication problems		
• The takeover may cause concern for competition authorities and lead to government intervention		
 The firm may enter into new markets where they have little or no expertise 		
• The firm may grow too fast raising costs and lowering profits		
Many takeovers may end up being unsuccessful, resulting in demergers		

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1-3	Identification of generic evaluative comments.
		No supporting evidence/reference to context.
		No evidence of a logical chain of reasoning.
Level 2	4-6	Evidence of evaluation of alternative approaches.
		Some supporting evidence/reference to context.
		Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7-8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement.
		Appropriate reference to evidence/context.
		Evaluation is supported by a logical chain of reasoning.

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