FNCE20005 CORPORATE FINANCIAL DECISION MAKING

TUTORIAL 1: OPTIONS

Answers to Section B questions to be submitted on Canvas by **10am on Monday, August 2nd**

SECTION A

Question 1

Distinguish between the following:

- **(a)** put option and call option
- **(b)** American-style option and European option
- **(c)** time value of an option and time value of money.

Question 2

Selling a share is the opposite of buying a share. Therefore, an option to sell a share must be the opposite of an option to buy a share. Is this statement true? Explain.

Question 3

List the six factors likely to influence the value of a call option. Briefly explain the direction of the relationship between each of these factors and the value of a call option.

Question 4

Pinder Ltd is a company specialising in the brewing of a style of beer called IPA. A key ingredient in IPA is a type of hops called Simcoe hops. Simcoe hops are currently traded in the market for $20 per kilo.

It is July 2020 and you have been engaged by Pinder Ltd to provide them with advice on how they might manage their exposure to the cost of hops when they next need to buy them in November 2020.

The Chief Financial Officer (CFO) of Pinder Ltd tells you that hops prices are notoriously volatile (see here for example: goo.gl/3Muuvd) and she would like to understand how the use of options might assist her company in managing that risk.

- (a) Advise the CFO what style of option Pinder Ltd should consider purchasing (i.e. a put or call) and why that is the case.
- (b) Show – using a payoff diagram – the payoffs from the style of option selected in part (a) – assuming that that option had an exercise price of $22 per kilo. Also include the payoff from an unhedged position (no need to use Excel here – just label turning points and intercepts (if any)).
- (c) Now show – using a profit diagram – the outcomes for Pinder Ltd in terms of the cost they face in September (per kilo) for their hops if they hedge using the option described in (a) and (b).
- (d) Explain the circumstances – if any – under which Pinder Ltd will be worse off (overall) if they hedge using the options described above as compared with not hedging at all. Demonstrate this graphically [for the sake of the illustration – assume that the option described above cost $1 to buy].

SECTION B – PRIORITY QUESTION

REMEMBER ALSO THAT ALL ANSWERS MUST BE HANDWRITTEN AND YOUR NAME CLEARLY WRITTEN AT THE TOP OF EACH SUBMITTED PAGE.

In 2002 a former executive with Macquarie Bank, Simon Hannes, was jailed for insider trading. The offence related to Mr Hannes trading on the basis of information he had received indicating the likely takeover of the transport company TNT by the Dutch firm KPN. Specifically, having learnt of the impending takeover, and at a time when TNT was trading at approximately $1.56 per share, Mr Hannes purchased almost $90 000 worth of short-dated call options with an exercise price of $2. Following the public announcement of the takeover bid, the share price for TNT increased to approximately $2.40 per share. Mr Hannes attempted to sell his options but the trades were questioned by his broker. Had the sale been successful he would have generated a profit in excess of $2.3 million.

(a) Why do you think Mr Hannes employed options rather than shares to exploit the price-sensitive information he had in his possession? Specifically, why do you think he used short-dated out-of-the-money call options?

(b) Could Mr Hannes have used put options to exploit the same information?

Please note:

- ***The related case study "Insider Trading and Options: A Case Study" from Steve Easton and Irena Ivanovic is also available on Canvas.***
- ***The material contained in the case study, "Insider Trading and Options: A Case Study", is not examinable.***