

TRƯỜNG ĐẠI HỌC VĂN LANG

KHOA: THƯƠNG MẠI

ĐÁP ÁN ĐỀ THI KẾT THÚC HỌC PHẦN**Học kỳ 2 , năm học 2022 – 2023**

Mã học phần: 7TM0310

Tên học phần: Quản trị tài chính công ty đa quốc gia

Mã nhóm lớp học phần: 222_7TM0310_01

Thời gian làm bài (phút/ngày): 60 phút

Hình thức thi: **Tự luận**SV được tham khảo tài liệu: Có Không

Cách thức nộp bài: Upload file bài làm (word, excel, pdf...)

Đáp án đề thi:**(ĐỀ 01)**

Q.1	Suggested answer	Mark(s)																							
Part a	<i>Forward hedge</i> Sell A\$720,000 × \$0.77 = \$554,400	0.25																							
	<i>Money market hedge</i> 1. Borrow A\$679,245.283 (A\$720,000/1.06 = A\$679,245.283) 2. Convert A\$679,245.283 to \$509,433.9623 (at \$0.75 per A\$) 3. Invest the \$509,433.9623 at 8% to earn \$550,188.6792 after a year	0.50																							
	<i>Put option hedge (Exercise price = \$0.78; Premium = \$0.035)</i>	0.50																							
	<table border="1"> <thead> <tr> <th>Possible Spot Rate</th> <th>Option Premium per unit</th> <th>Exercise</th> <th>Amount Received per unit (accounting for premium)</th> <th>Total Amount Received for A\$720,000</th> <th>Probability</th> </tr> </thead> <tbody> <tr> <td>\$0.76</td> <td>\$0.035</td> <td>Yes</td> <td>\$0.745</td> <td>\$536,400</td> <td>15%</td> </tr> <tr> <td>\$0.78</td> <td>\$0.035</td> <td>Yes or No</td> <td>\$0.745</td> <td>\$536,400</td> <td>50%</td> </tr> <tr> <td>\$0.81</td> <td>\$0.035</td> <td>No</td> <td>\$0.775</td> <td>\$558,000</td> <td>35%</td> </tr> </tbody> </table>		Possible Spot Rate	Option Premium per unit	Exercise	Amount Received per unit (accounting for premium)	Total Amount Received for A\$720,000	Probability	\$0.76	\$0.035	Yes	\$0.745	\$536,400	15%	\$0.78	\$0.035	Yes or No	\$0.745	\$536,400	50%	\$0.81	\$0.035	No	\$0.775	\$558,000
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The forward hedge is superior to the money market hedge and has a 65% chance of outperforming the put option hedge. Therefore, the forward hedge is the optimal hedge.	0.25																								
Part b	<i>Unhedged Strategy</i>	0.25																							
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	When comparing the optimal hedge (the forward hedge) to no hedge, the unhedged strategy has an 85% chance of outperforming the forward hedge. Therefore, the firm may desire to remain unhedged.	0.25																								
	Total	2.0																								
Q.2																										
Part a	<i>Forward hedge</i> Purchase NZ\$943,000 6-month forward: NZ\$943,000 × \$0.72 = \$678,960	0.25																								
	<i>Money market hedge</i> 1. Need to invest NZ\$933,663.3663 (NZ\$943,000/1.01 = NZ\$933,663.3663) 2. Need to borrow \$653,564.3564 (NZ\$933,663.3663 × \$0.70 = \$653,564.3564) 3. Will need \$679,706.9307 to repay the loan in one year \$653,564.3564 × 1.04 = \$679,706.9307)	0.5																								
	<i>Call option hedge (Exercise price = \$0.70; Premium = \$0.03)</i>	0.5																								
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The forward hedge is superior to the money market hedge and has a 72% chance of outperforming the call option hedge. Therefore, the forward hedge is the optimal hedge.	0.25																									
Part b	<i>Unhedged Strategy</i>	0.25																								
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Q.3																										
	<i>Cost of equity (CAPM)</i> $K_e = R_f + \beta(R_m - R_f) = 9\% + 1.1 \times (13\% - 9\%) = 13.4\%$	1.0																								
	<i>Cost of capital</i> $K_c = \frac{D}{D+E} K_d(1-t) + \frac{E}{D+E} K_e$ $= 0.5 \times 7.6\% \times (1-17\%) + 0.5 \times 13.4\% = 9.854\%$	1.0																								
	Total	2.0																								
Q.4																										

Part a	Currency	Interest Rate	Possible % Change	Effective Financing Rate Based on That Change	Probability	1.0
	USD	5.3%	6.0%	11.62%	20%	
	USD	5.3%	2.0%	7.41%	80%	
	Hong Kong Dollar	4.6%	8.0%	12.97%	30%	
	Hong Kong Dollar	4.6%	5.0%	9.83%	70%	
Part b	Possible Joint Effective Financing Rate		Joint Probability	Effective Financing Rate of Portfolio	0.5	
	\$	HK\$				
	11.62%	12.97%	6%	12.27%		
	11.62%	9.83%	14%	10.76%		
	7.41%	12.97%	24%	10.08%		
	7.41%	9.83%	56%	8.57%		
There is a 6 percent chance that Broadcom will incur a higher effective financing rate from borrowing the portfolio.						0.5
Total						2.0
Q.5						
Part a	$r_p = w_A r_A + w_B r_B = 0.6 \times 6.2\% + 0.4 \times 4.7\% = 5.6\%$					1.0
Part b	$\begin{aligned} \text{VAR}(r_p) &= w_A^2 \sigma_A^2 + w_B^2 \sigma_B^2 + 2w_A w_B \sigma_A \sigma_B \text{CORR}_{AB} \\ &= 0.6^2 \times 0.06^2 + 0.4^2 \times 0.08^2 + 2 \times 0.6 \times 0.4 \times 0.06 \times 0.08 \times 0.14 \\ &= 0.00264256 \end{aligned}$					1.0
Total						2.0
TOTAL:						10.0

Ngày biên soạn: 02.03.2023

Giảng viên biên soạn đáp án đề thi: Tiến sĩ Nguyễn Công Thành

Ngày kiểm duyệt:

Trưởng (Phó) Khoa/Bộ môn kiểm duyệt đề thi: ThS. Nguyễn Thị Dị Anh

Sau khi kiểm duyệt đề thi, **Trưởng (Phó) Khoa/Bộ môn** gửi về Trung tâm Khảo thí qua email: khaothivanlang@gmail.com bao gồm file word và file pdf (được đặt password trên 1 file nén/lần gửi) và nhắn tin password + họ tên GV gửi qua Số điện thoại Thầy Phan Nhật Linh (0918.01.03.09).