

TRƯỜNG ĐẠI HỌC VĂN LANG

KHOA: THƯƠNG MẠI

**ĐÁP ÁN ĐỀ THI KẾT THÚC HỌC PHẦN****Học kỳ 1 , 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: 221\_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:**

<b>Section 1 - Theory</b>							
	<b>Suggested answer</b>						<b>Mark(s)</b>
	Give the correct definitions for licensing and franchising. Point out the differences between licensing and franchising in three aspects (a table)						0.5
	- The first aspect						0.5
	- The second aspect						0.5
	- The third aspect						0.5
	<b>Total</b>						<b>2.0</b>
<b>Section 2 - Exercise</b>							
<b>Q.</b>	<b>Suggested answer</b>						<b>Mark(s)</b>
<b>1</b>							
Par t a	<b>Currency</b>	<b>Interest Rate</b>	<b>Possible % Change</b>	<b>Effective Financing Rate Based on That Change</b>	<b>Probability</b>	1.0	
	Real Brazil	6.25%	3.70%	10.18%	22.50%		
	Real Brazil	6.25%	2.80%	9.22%	34.20%		
	Real Brazil	6.25%	3.50%	9.97%	43.30%		
	Japanese Yen	5.75%	3.70%	9.66%	29.20%		
	Japanese Yen	5.75%	2.90%	8.82%	40.70%		
Japanese Yen	5.75%	3.50%	9.45%	30.10%			

	Possible Joint Effective Financing Rate		Joint Probability	Effective Financing Rate of Portfolio			
	BRL	JPY					
Part b	10.18%	9.66%	6.57%		9.90%	0.5	
	10.18%	8.82%	9.16%		9.43%		
	10.18%	9.45%	6.77%		9.78%		
	9.22%	9.66%	9.99%		9.47%		
	9.22%	8.82%	13.92%		9.00%		
	9.22%	9.45%	10.29%		9.35%		
	9.97%	9.66%	12.64%		9.80%		
	9.97%	8.82%	17.62%		9.34%		
	9.97%	9.45%	13.03%		9.68%		
	There is a 39.02 percent chance that VitaPedic will incur a higher effective financing rate from borrowing the portfolio.					0.5	
	<b>Total</b>					<b>2.0</b>	
<b>Q. 2</b>							
Part a	$r_p = w_A r_A + w_B r_B = 4.97\%$					0.5	
Part b	$\text{VAR}(r_p) = w_A^2 \sigma_A^2 + w_B^2 \sigma_B^2 + 2w_A w_B \sigma_A \sigma_B \text{CORR}_{AB}$ $= 0.017875296$					0.5	
	<b>Total</b>					<b>1.0</b>	
<b>Q. 3</b>							
Part a	<i>Forward hedge</i> Purchase £2,843,000 6-month forward: £2,843,000 × N\$0.92= N\$2,615,560					0.25	
	<i>Money market hedge</i> 1. Need to invest £2,796,164.249 (£2,843,000/1.01675 = £2,796,164.249) 2. Need to borrow N\$2,516,547.82 (£2,796,164.249 × N\$0.90 = N\$2,516,547.82) 3. Will need N\$2,607,772.683 to repay the loan in one year N\$2,516,547.82 × 1.04 = N\$2,607,772.683)					0.5	
	<i>Call option hedge (Exercise price = N\$0.91; Premium = N\$0.029)</i>					0.5	
	Possible Spot Rate	Option Premium per Unit	Exercise	Amount Received per Unit (also Accounting for premium)	Total Amount Received for £2,843,000		Probability
	N\$0.88	N\$0.029	No	0.909	2,584,287		7%
	N\$0.90	N\$0.029	No	0.929	2,641,147		12.5%
	N\$0.93	N\$0.029	Yes	0.939	2,669,577		38.5%
N\$0.95	N\$0.029	Yes	0.939	2,669,577	32%		
N\$0.97	N\$0.029	Yes	0.939	2,669,577	10%		
	The money market hedge is superior to the forward hedge and has a 93% chance of outperforming the call option hedge. Therefore, the money market hedge is the optimal hedge.					0.25	

Part b	<i>Unhedged Strategy</i>			0.25			
	Possible Spot Rate	Total Amount Received for £2,843,000	Probability				
	N\$0.88	2,501,840	7%				
	N\$0.90	2,558,700	12.5%				
	N\$0.93	2,643,990	38.5%				
	N\$0.95	2,700,850	32%				
N\$0.97	2,757,710	10%					
The money market hedge is preferable to the unhedged strategy because it has 80.5% chance of outperforming the unhedged strategy.				0.25			
<b>Total</b>				<b>2.0</b>			
Q. 4							
	<i>Cost of equity (CAPM)</i> $K_e = R_f + \beta(R_m - R_f) = 7.15\% + 1.3 \times (15.4\% - 7.15\%) = 17.88\%$			0.5			
	<i>Cost of capital</i> $K_c = \frac{D}{D+E} K_d(1-t) + \frac{E}{D+E} K_e$ $= 0.542 \times 8.72\% \times (1 - 23\%) + 0.458 \times 17.88\% = 11.83\%$			0.5			
<b>Total</b>				<b>1.0</b>			
Q. 5							
	<i>Forward hedge</i> Sell ¥299,000 × MOP\$1.27 = MOP\$379,730			0.25			
	<i>Money market hedge</i> 1. Borrow ¥294,908.149 (¥299,000/1.06 = ¥294,908.149) 2. Convert ¥294,908.149 to MOP\$368,635.187 (at MOP\$1.25 per ¥) 3. Invest the MOP\$368,635.187 at 7.89% to earn MOP\$375,906.516 after a year			0.50			
	<i>Put option hedge (Exercise price = MOP\$1.28; Premium = MOP\$0.032)</i>						
Part a	Possible Spot Rate	Option Premium per Unit	Exercise	Amount Received per Unit (also Accounting for premium)	Total Amount Received for ¥299,000	Probability	0.50
	MOP\$1.23	MOP\$0.032	Yes	1.248	373,152	5.5%	
	MOP\$1.26	MOP\$0.032	Yes	1.248	373,152	35.7%	
	MOP\$1.28	MOP\$0.032	Yes or No	1.248	373,152	29.3%	
	MOP\$1.31	MOP\$0.032	No	1.278	382,122	16.5%	
	MOP\$1.32	MOP\$0.032	No	1.288	385,112	13%	
The forward hedge is superior to the money market hedge and has a 70.5% 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
	Possible Spot Rate	Total Amount Received for ¥299,000	Probability	
	MOP\$1.23	367,770	5.5%	
	MOP\$1.26	376,740	35.7%	
	MOP\$1.28	382,720	29.3%	
	MOP\$1.31	391,690	16.5%	
MOP\$1.32	394,680	13%		
When comparing the optimal hedge (the forward hedge) to no hedge, the unhedged strategy has an 58.8% chance of outperforming the forward hedge. Therefore, the firm may desire to remain unhedged.				0.25
<b>Total</b>				<b>2.0</b>
<b>TOTAL:</b>				<b>10.0</b>

Ngày biên soạn: 26.10.2022

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

Ngày kiểm duyệt:

**Trưởng (Phó) Khoa/Bộ môn kiểm duyệt đề thi: 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](mailto: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).