Transaction exposure exercise

Started: Nov 6 at 2:06pm

Quiz Instructions

Directions

- This assignment is not timed.
- You get 2 attempts to complete it by the due date Apr 15, 11:59PM. The highest attempt will be recorded.
- In all questions where you are asked to find the FX rate (expected, forward), round you answer to 4 decimal places.
- In all questions where you are asked to find the amount of home or foreign currency round you answer to 2 decimal places.
- DO NOT ROUND Intermediate calculations, ROUND your final answer.
- Answers will be open after the due date.

You source Ice Cubes to sell in the US from Greenland and you owe DKK 3,000,000 which is due in 60 days. Greenland is part of Denmark and uses Danish Krona (DKK) as its currency. If the Currency exchange rates and interest rates are a as follows what is your hedging decision?

Data Table	
Amount (to be paid in DKK)	DKK3,000,000
Days	60
Spot	DKK5.7200/$
Forward premium or discount (calculate)	DKK is sold at Premium of 2% (Hint: use % appreciation of the Quote currency to calculate the rate, but keep in mind that premium or discount is given on annual basis

	and you need to adjust it)
Expected change in FX rate (calculate)	DKK is sold at Premium of 1.50% (Hint: use % appreciation of the Quote currency to calculate the rate, but keep in mind that premium or discount is given on annual basis and you need to adjust it)
Identify what kind of Option should be used	
Premium - CALL Option	1%
Premium - PUT Option	2%
CALL Strike Price	DKK5.7500/$
PUT Strike Price	DKK5.7500/$
Identify which rate should be used	
US borrowing AND investing	5% and 3% respectivelly
Danish borrowing AND investing	6% and 4% respectivelly
Cost of Capital (WACC)	10%

Using data in the table above, you need to calculate proceeds of different hedging alternatives.

Question 1 — 1 pts

Remain Unhedged (1)

Compute the expected FX rate of DKK/$ in 60 days.

Question 2 — 1 pts

Remain Unhedged (2)

How much will you have to pay in USD, if you choose to Remain Unhedged.

Question 3 — 1 pts

Forward hedge (1)

Compute the 60-day forward FX rate of DKK/$. (Round your answer to 4 decimals).

Question 4 — 1 pts

Forward hedge (2)

Find how much you will have to pay in 60 days if you choose to hedge in the forward market. (Round your answer to 2 decimals).

Question 5

1 pts

Money market hedge (1)

Find the amount you need to invest today in DKK.

Question 6

1 pts

Money market hedge (2)

How much USD will you need to spend today to buy DKK for the investment (Hint: translate the DKK from previous question to USD).

Question 7

1 pts

Money market hedge (3)

Adjust the amount in USD from the previous questions for the Time Value of Money (Hint: find the future value in 60 days of the amount from the previous question).

Question 8

1 pts

Option hedge (1)

What option should you buy?

- ◯ Call
- ◯ Put

Question 9

1 pts

Option hedge (2)

Calculate the cost of the option (premium) in USD.

Question 10

1 pts

Option hedge (3)

Adjust the option cost for the Time Value of Money (Hint: find future value in 60 days of the option premium from the previous question).

Question 11

1 pts

Option hedge (4)

If you exercise the option at a strike price, how much will you have to pay in USD for the needed amount of DKK?

Question 12

1 pts

Option hedge (5)

Find the total cost of the Payables if you hedge on the option market? (Hint: compute total cost including the FV of the option premium)