International Financial Management FINA 4836
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Third Midterm Exam

No points will be given by simply writing down formulas, and writing down definitions or irrelevant statements from the book, or saying "yes," will get you zero points. Justify all your answers. If you cannot prove something give some intuition. Good luck. Reminder: this is an open book exam, but no open notes.
Time: 1hr 25 minutes.

I. Problems (10 points each).

1. Quahong Inc., a U.S. firm, plans to invest in a new project that will be located either in Venezuela or in Colombia. If the Venezuelan project is selected, it will constitute 35% of the firm's total funds invested in it. If the Colombian project is selected, it will constitute only 15% of the firm's total funds. The risk free rate is 3%. You have the following data on expected returns for each project:

	Quahong	Venezuela	Colombia
Expected return	12%	20%	25%
Standard deviation	16%	30%	50%
Correlation with existing Quahong's portfolio	1.00	.40	.10
Weight on overall portfolio	-	.35	.15
Beta	.90	1.20	1.35

A. Based on the Sharpe Ratio, which project would you recommend to Quahong?
B. Based on the Treynor Ratio, which project would you recommend to Quahong?
C. Is Quahong, under both criteria, better off without adding any project?

2. Griffin Corporation, a U.K.-based MNC, has a subsidiary in Venezuela that manages oil fields. The subsidiary believes it could also enter into the gas exploration business. The following data has been compiled for the analysis (in Bolivares (VEB), Venezuela's currency):

- Initial outlay: VEB 3000 million
- Life of the project: 3 years
- Gross profits per year: VEB 1200 million
- Depreciation: 10% of initial outlay
- Salvage value: VEB 1100 million
- Exchange rate: 2000 VEB/GBP
- Forecasted exchange rates: $E[S_{t+1}]$=1800 VEB/GBP; $E[S_{t+2}]$=1600 VEB/GBP; $E[S_{t+3}]$=1500 VEB/GBP.
- The Venezuelan government imposes a 30% tax on profits.
- The Venezuelan government also imposes a 10% withholding tax on <u>any</u> funds remitted to the U.K. parent house (<u>including salvage value</u>).
- The U.K. government imposes a 10% tax on remitted funds, excluding salvage value. There is no tax credit allowed.
- The required rate of return is 12%.

i. What is the evaluation of the project for Griffin Corporation?

ii. Suppose you do not trust the SV provided by the Venezuelan's subsidiary. You believe there are 3 possible scenarios: 20% chance the subsidiary tells the truth –i.e., SV=VER 1100 M-, 30% chance SV is inflated by 40%; and 50% chance SV is inflated by 60%. How would you incorporate this probability distribution in your NPV calculations? Calculate expected NPV.

iii. Back to i. One way to incorporate uncertainty over the numbers provided by the subsidiary is increasing the discount rate. Suppose you increase the discount rate by 20% to 14.4%. Calculate NPV.

iv. Would you recommend the project to Griffin Corporation?

3. Yuup Co., a Canadian auction company, wants to refinance debt amounting to USD 200 million. An investment bank suggests issuing a straight bond, with annual coupon payments. The investment bank has the following data available:

U.S. Treasury government bond yield: 4-year 1.15 % (s.a.)
Canadian government bond yield: 4-year 2.05 % (s.a.)
Yuup USD Eurobond yield (outstanding debt): Government bonds + 180 bps (s.a.)

Given the current tight market conditions, an investment bank suggests: a 4-year full-coupon USD Eurobond and an issue price of 100% (P=100).

(1) Following usual market practices, set the coupon and the yield of the new Yuup bond.

(2) Two years from now, Yuup wants to buy back the bond. If the yield to maturity for similar bonds is 4% and S_t = 1.01 USD/CAD, how much does Yuup (in CAD) have to pay for the bond buyback?

(3) Suppose that oil prices collapse causing Canada to have a government debt crisis. Is this going to affect Yuup's Eurobond price –i.e., increase, decrease or stay the same? Justify your answer.

(4) Now, suppose Yuup is concerned about a potential appreciation of the USD. They decide to buy a 2-year call option with a .98 CAD/USD strike price, with a CAD .03 premium. Determine the maximum cost (worst case scenario) in CAD of repaying the bonds at maturity –i.e., in 2 years.

4. Pearl Bailey Corp is considering a project in Costa Rica, with a duration of 7 years, which requires an investment of CRC 3000M (CRC: Costa Rican colón). Pearl Bailey is planning to use the usual 60/40 D/E split. Costa Rica has a 20% effective corporate tax rate. To calculate the cost of capital, Pearl Bailey gathers the following data (all annualized):

Pearl Bailey can borrow in Costa Rica at 6% and in the U.S. at 3%.
7-year government (risk-free) rates: 4% in Costa Rica and 1.5% in the U.S.
Effective corporate tax rate in Costa Rica: 20%
Expected Costa Rican stock market return: 15%
U.S. stock market return: 8%
Beta of project: 1.2
$E[I_{CR}] = 4\%$
$E[I_{US}] = 2\%$
Stock market volatility: 40% in Costa Rica, 15% in the U.S.
Bond market volatility: 30% in Costa Rica, 12% in the U.S.

a. Using WACC, calculate the cost of capital for the Costa Rican project.

b. Suppose Pearl Bailey does not trust the expected return reported for Costa Rica and decides to use the Relative Equity Market Approach to estimate the Costa Rican risk premium ($k_M - k_f$). Recalculate the cost of capital for the Costa Rican project.

c. Pearl Bailey believes the project would not have full exposure to Costa Rican country risk, since 90% of its production would be exported to the U.S. Assume that exports contribute 35% to Costa Rican GDP. Recalculate the cost of equity and the cost of capital under this scenario.

II. CASE (20 points).
Note: No points will be given by simply writing lines from the article. Briefly justify your answers.

Read the attached Tribune article (November 29, 2012) and briefly answer the following questions:

1) According to what you learned in class, what is the effect of the recent order issued by U.S. District judge Griesa on U.S. investments in Argentina? What kind of additional risks are international companies taking by investing in Argentina?

2) Many U.S. companies have decided to sell (at a loss) their investments in Argentina. What is the effect of leaving the Argentine market on the cost of capital for these U.S. companies (increase or decrease)?

3) Assume Cresud (CRESY), an Argentine grain exporter, has issued debt in the Euromarket, denominated in USD. Cresud's spread over Argentina's government rate is 95 basis points. Calculate Cresud's current YTM.

4) Suppose that Cresud is planning to use a USD 150 million credit-facility to finance an acquisition (a “target”) in the U.S. market. Use the data from question 2. Also, assume that Cresud’s debt/equity ratio for acquisitions is equal to .4. The target has a beta equal to 1.30. The U.S. stock market has an average return of 10%. The US tax rate is 25%. What should be the discount rate used by Cresud to calculte the NPV of the target?

5) Compare Greece and Argentina. Based on what you learned in class, which country should have a better country risk in the medium-run (say, 2 years), Greece or Argentina? (Briefly explain)