

**Marshall School of Business
University of Southern California**

Summer 2006
FBE 564 International Financial Management
Tuesday, 6:00 pm – 10:00 pm

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Syllabus

Course objectives:

The purpose of this course is to learn about issues in international financial management through lectures and analysis of cases. The major issues that will be examined and discussed are the workings of foreign exchange markets, the valuation of direct foreign investment and the analysis of international capital budgeting decisions including the foreign exchange risks of various types, and the use of innovative international financing for the multinational corporation.

Required readings:

Course Packet: This packet contains

1. My lecture notes (slides). Electronic copies are available from my website.
2. Notes from Harvard Business School.
3. Cases from Harvard Business School and the University of Western Ontario.

My lecture notes and the HBS notes are comprehensive, and these should be sufficient for you to understand the subject matter. But if you want to read further on the subject, or get more background information, I recommend the following book.

Recommended book:

Alan C. Shapiro, "Multinational Financial Management," 8th edition, Wiley.

Office Hours:

Tuesday 5:00 - 6:00 pm, or by appointment.

Course Requirements:

Your grade will be based on the following requirements:

1. Class participation and presentation: 10%
2. Three case write-ups, one problem set, and one mini-case (“International Wood Products”) write-up: 70%
 - Group assignments (40%): Two memoranda, one hardcopy of presentation, and “International Wood Products” write up.
 - Individual assignments (30%): “Exchange Rate Problems” and “Simmons Japan” memorandum.
3. Final exam: 20%

The “International Wood Products” mini-case walks you through the process of international capital budgeting, and its write-up should be in the form of the worksheet with notes and commentaries.

We will use four cases in this class. Case preparation is an important part of the course, particularly in learning to apply finance principles to real business problems. There are two different types of case assignments: “Simmons Japan” case requires an individual write-up; and all other three cases require group write-ups.

The case write-up should be up to four (4) page, typed, double-spaced executive memorandum of analysis and recommendations, plus supporting appendices of fully worked out spreadsheet analysis.

For group write-ups, students will form study teams (four to five students) and prepare cases together. Teams should consist of students with a broad range of backgrounds, national origins and prior preparation in finance. Effective teamwork should both lighten the workload and improve the quality of learning for experienced and inexperienced students alike.

All memoranda are to be handed in for grading at the beginning of the class. The groups that are presenting their case analysis (see below) are required to hand in (in lieu of the executive memorandum) a hardcopy of their PowerPoint presentation with fully worked out spreadsheet analysis in appendices. This is also due at the beginning of the class. No memoranda and presentation will be accepted after the class has met. You should also retain your own copy for the class discussion.

Except for the “Foreign Exchange Rate Problems,” fully worked-out Excel worksheets for the assignments should also be e-mailed for grading to the T.A., Engin Volkan volkan@usc.edu. The e-mail submission is also due at the beginning of the class.

I will assign two groups per case to present their analysis for the three cases. The case class will discuss the presenting groups’ analysis (for about 15 - 20 minutes each), and then proceed to class discussion. Note that the grading of your presentation is done

solely based on the quality of the content, not on the fanciness (animation, audio, fancy graphics and pictures, etc.) of the presentation.

I may ask presenting groups questions during their presentation. I may also randomly select individuals in class to offer their comments if necessary. Clearly, it is important the all groups, not just the designated presenters, carefully read and attempt an analysis of the case. Groups that are not presenting the case should also be involved in class discussion, and are encouraged to ask questions to presenting groups.

Students often want copies of my notes to the case. **Please note that I will *not* distribute copies of my “solution” to any case.** There are two reasons for this. First, my approach is not necessarily the only correct one, and distributing my approach would give it undue authority. Second, distribution of case notes effectively renders that case unusable in the future, since it reduces the incentives for future students to expend time and effort in case preparation. Further, since the cases we use are the most useful and informative, replacements, even when they are available, are necessarily of less educational value. For these reasons, none of the faculty teaching case courses distributes case notes or analyses.

Class Schedule:

Session 1 (5/23)

Introduction

Lecture: International Capital Budgeting

Reading: “Note on Cross-Border Valuation”

Session 2 (5/30)

Lecture: Foreign Exchange Markets

Session 3 (6/6)

“International Wood Products” (group assignment, hard-copy of worksheet with notes and commentaries) due.

Lecture: Forward and Futures Markets (1)

Session 4 (6/13)

Problems 1, 2, and 3 of the “Exchange Rate Problems” due. This is an individual assignment.

Lecture: Forward and Futures Markets (2)

Session 5 (6/20)

Problems 4, 5, and 6 of the “Exchange Rate Problems” due. This is an individual assignment.

Lecture: Purchasing Power Parity, Interest Rate Parity

Reading: “Note on Fundamental Parity Conditions”

Reading: “Note on Transaction and Translation Exposure”

Lecture: Foreign Exchange Options

Session 6 (6/27)

Problem 7 of the “Exchange Rate Problems” due. This is an individual assignment.

Review of the “Exchange Rate Problems”

Session 7 (7/11)

Case: Huaneng Power International, Inc.: Raising Capital in Global Markets

Turn in Executive Memorandum 1 (group assignment).

Lecture: Currency and Foreign Exchange Swaps (1)

Session 8 (7/18)

Case: Ocean Drilling, Inc.

Reading: “Note on Transaction and Translation Exposure”

Turn in Executive Memorandum 2 (group assignment).

Lecture: Currency and Foreign Exchange Swaps (2)

Reading: “Note on Foreign Currency Swaps”

Session 9 (7/25)

Case: Simmons Japan Limited

Turn in Executive Memorandum 3. This is an individual assignment.

Review for the final exam (1)

Session 10 (8/1)

Case: The Walt Disney Company's Yen Financing

Turn in Executive Memorandum 4 (group assignment).

Review for the final exam (2)

Session 11 (8/8)

Final Exam

Case study questions:

Refer to these questions as guidelines for writing up executive memoranda.

Huaneng Power International, Inc.: Raising Capital in Global Markets

As management of Huaneng Power International Inc. (HPI), you must decide how to proceed with the company's planned initial public offering.

1. Was the chosen issue price for HPI a reasonable value? Present your recommendation on whether, where, how and why HPI should have proceeded with the issue.
 - Use WACC for valuation.
 - "Allowed rate of return" can be interpreted as "rate of return to induce foreign investors to invest in Huaneng." That is, it is the required rate of return on equity. Although we do not have a good data for beta, you can back down beta from the required rate of return.
 - Use numbers in Exhibits 8 and 12 to calculate free cash flows.As you will notice, the valuation will heavily depend on growth rate and discount rate. Thus a sensitivity analysis on these would be essential.
2. Is this the right time for HPI to raise capital overseas, and will foreign investors be interested in investing in this company? As an institutional investor, would you have bought stock in this company?
3. Are there alternatives to a stock offering at this time?
4. What criteria are important in determining the market for this firm's stock?

Ocean Drilling, Inc.

Read "Notes on Transactions and Translation Exposure" for methods of hedging.

1. How would you forecast exchange rate movements for analytic purposes in this case?
2. Which of the two bids would you accept and why? Assume the following:
 - Tax rate is 50%.
 - The loan **principal** amounts will be repaid in equal annual installments over the lives of the loans.
 - No further debt financing would be undertaken in connection with these rigs.
 - The rig can be depreciated over five (5) years using a straight-line method.Hint: These bids have subsidized financing. To get the value of financial subsidies, note that $CF = [\text{Principal borrowed}] - [(\text{Principal repayment}) + (\text{After-tax interest payments})]$. You should discount this by Ocean Drilling's cost of debt. There are other financial side effects, e.g., depreciation tax shields.

3. Do the valuation of financial subsidies in two methods: (1) using forecasted spot exchange rates; and (2) using converted discount rates.
4. Examine money market hedge and forward hedge to hedge the currency risks involved in the financing of the rigs. How costly, in percentage terms, is each alternative?

Simmons Japan Limited

As mentioned in class, the ANPV method is best suited for valuation of this sort of situation (leveraged buyout - LBO) where capital structure changes over time. The buyer initially borrows a lot and plans to pay back later, as shown in Exhibit 6.

The valuation process is nothing but an application of the ANPV we covered in class. First, you should identify FCF that can be discounted by unlevered cost of equity. You may have to make some assumptions about working capital.

Second, identify financial side effects arising from amortization and various debts.

1. Is SJL worth the \$29 million asking price? What value would you assign to the company? Assume U.S. equity premium is 6-8%. Pay attention to what discount rates to use for cash flows and different tax shields.
2. Does PruAsia's target dollar returns (that is, IRR) of 20-25% appear achievable for this deal under the proposed terms? What must be done over the next 5 to 10 years to realize these returns? Is it realistic? (Hint: In answering this question, consider PruAsia's exit strategy. PruAsia is investing in both subordinated debt and equity of SJL. The sub-debt offers only 9.5%, which is not enough to attain 20-25% return. So PruAsia would have to sell equity to someone in 5 to 10 years at a high enough price to achieve IRR of 20-25%. The question is: how much do they have to sell the equity for?)
3. To whom would you try to sell the subordinated debt for this deal? What are likely to be their concerns and reservations with regard to this debt?
4. Would you accede to Wesray's request for a five-year option for 10% of SJL's equity? Why or why not?

The Walt Disney Company's Yen Financing

1. Should Disney hedge its yen royalty cash flow? Why or why not? If so, how much should be hedged and over what time frame?
2. Assuming a hedge is desirable, what hedging techniques are available to the treasurer and what are the advantages and disadvantages of each?
3. In light of the various other techniques for hedging currency exposures, why does a market for currency swaps exist? Who benefits and who loses in such an arrangement? Can a swap really create value for a corporation, and if so, where does the value come from?
4. Evaluate Goldman's proposal for an ECU bond issue accompanied by an ECU/Yen swap. Calculate cash flows for Disney, French Utility, and IBJ. How does its "all-in" yen cost compare to that of the proposed yen term loan?

How about for the French Utility? (Note: French Utility's cost of issuing bonds is not given in the case, so assume that yields to maturity given in Ex. 8 are their AICs. Then there is an inconsistency with 14,445.153m yen notional principal given in Ex. 7. This has to be recalculated using the correct AIC.)

Exchange Rate Problems

1. Are the dealer quotes shown in Table 1 direct or indirect? If a bank client sells SFR 1,000,000 spot to the bank, how many dollars does he/she receive?
2. From Table 1, derive implied cross spot rates among SFR, DKR and JPY. (That is, derive Table 2 yourself. Refer to “Forex Markets” slides 36-39.) Then compare them with the quoted cross spot rates shown in Table 2. Is there any triangular arbitrage opportunity among these currencies? If so, how much profit can a U.S. investor make on a \$5 million transaction?
3. What would be the \$/SDR (SDR=Special Drawing Rights) bid if the spot SDR appreciates 15 percent against the dollar? What would be the SDR/\$ ask rate if the spot SDR appreciates 15 percent? Be careful about the way the exchange rate is quoted (direct or indirect). Note that in direct (American) terms, the % change is given by $\frac{S_{t+1} - S_t}{S_t} \times 100$. In indirect (European) terms, however, it is $\frac{S_t - S_{t+1}}{S_{t+1}} \times 100$. Also note that $(\$/\text{SDR})_{\text{BID}} = 1/(\text{SDR}/\$_{\text{ASK}})$. (This is discussed on page 18 of the “Forex Markets” slides.) Does your answer confirm it?
4. Which currencies are at a dollar discount and which are at a dollar premium? (To say a currency is at a “dollar discount” means that the dollar is depreciating against this currency.) What are the outright forward rates for the pound and Danish kroner?
5. A private speculator expects the yen to depreciate against dollar to 165.81 yen/\$ over the next 3 months. How can the speculator try to profit on these expectations through (a) spot market transactions only, and (b) forward market transactions only (assume no margin requirements or restrictions on transactions in credit markets)? What will be the expected dollar profit on a \$1 million (or its equivalent at spot rate) position in each case? If you need capital upfront, you should borrow. Note that Table 3 shows bid-ask quotes of interest rates (i.e., deposit and borrowing rates for customers). For forward cover and money-market hedge, and speculation, refer to the “Forward Exchange Rates slides 40-47. You may also want to refer to page 2-3 of “Note on Transaction and Translation Exposure,” which is included in the reading packet.
6. A U.S. corporate treasurer will receive a £2 million payment in 30 days from a British customer. The treasurer has no opinion about the direction or magnitude of changes in the pound spot rate, but would like to eliminate the uncertainty surrounding such movements. Within the context of the rates shown in Tables 1

- and 3, (a) forward market hedge (forward cover), and (b) money-market hedge are available to the treasurer for hedging the foreign exchange risk associated with the pound payment. What is the expected cost (expressed as an annualized percentage) of each alternative? Which alternative should the treasurer pursue?
7. Using midpoints of the bid-ask spread, compare the 1-year forward premium or discount on the Danish kroner to the 1-year Eurodollar and Eurokroner interest rates shown in Table 3. How can this situation be arbitrated? Note that according to the IRP, forward discount/premium should be (approximately) equal to interest differential (see “Interest Rate Parity” slide 29). If not, there should be an arbitrage opportunity (that is the whole idea behind IRP!). [Hint: Again be careful how the exchange rate is quoted. The formula on page 29 of the slides is true when exchange rate is quoted in dc/fc (see page 8 of the slides). If you are considering Danish kroner as fc, then you must use a consistent way of quoting the exchange rate. First, compute forward premium/discount and the interest rate differential using midpoints of bid-ask spread. Are they equal? If not, you have an arbitrage opportunity. Try two positions described on page 6-13, starting with borrowing \$10,000,000. Here you do need to take bid/ask spread into consideration. If this does not give you a profit, or rather gives you a loss, then try the opposite position, i.e., start with borrowing DKr 10,000,000. Do you end up with a profit?]

Table 1 Spot and Forward Exchange Rates (bid/ask)

Currency	Spot	1 month	3 months	6 months	12 months
British pound*	1.4890/900	55/52	160/156	302/289	560/523
Swiss franc	2.0310/20	22/18	64/54	128/105	277/228
Danish kroner	6.6575/625	73/86	263/296	505/590	1194/1351
Japanese yen	154.20/30	8/6	33/27	75/62	164/137
SDR*	1.2141/43	5/3	12/8	18/11	24/12

*U.S. dollars per unit of currency

Table 2 Cross Spot Exchange Rates (bid/ask)

	SFR	DKR	JPY
SFR		0.3048/52	1.3163/78
DKR	3.2763/804		4.3365/84
JPY	75.8858/9724	23.1445/769	

Quotes should be interpreted as units of the currency in the left-hand column per unit of currency shown in the top row. Quotes for the SFR/yen and DKR/yen are expressed in units per 100 yen.

Table 3 Eurocurrency Interest Rates (bid/ask)

Currency	1 month	3 months	6 months	12 months
US dollar	5.6875-5.8125	5.5000-5.6250	5.5000-5.6250	5.6250-5.7500
British pound	10.0625-10.1875	9.8750-9.9375	9.5875-9.7500	9.6250-9.7500
Swiss franc	4.4375-4.5625	4.3125-4.4375	4.3125-4.4373	4.3125-4.4375
Danish kroner	7.1250-7.2500	7.1875-7.3125	7.1875-7.3125	7.2500-7.3750
Japanese yen	5.1250-5.1875	4.7500-4.8125	4.6250-4.6875	4.6250-4.6875
SDR	5.9375-6.0625	5.8125-5.9375	5.7500-5.8750	5.8125-5.9375