International Financial Management C45.0030.001

Problem Set IV (Chapters 9, 10, & 11)

Due: Tuesday, 11/04

Question I (also problem 9.4 in MSE on p. 214)

Cleveland Pneumatic Company exports pneumatic valves to China. Sales are currently 1,000,000 units per year at the renminbi equivalent of \$24 each. The Chinese renminbi has been trading at Rmb 8/\$, but a Hong Kong advisory service predicts the renminbi will drop in value next week to Rmb 10/\$, after which it will remain unchanged for at least a year.

Accepting this forecast as given, Cleveland Pneumatic Company faces a pricing decision in the face of the impending devaluation: either: (1) maintain the same renminbi price and in effect sell for fewer dollars, in which case Chinese unit volume will not change, or (2) maintain the same dollar price, raise the renminbi price in China to offset the devaluation, and experience a 10% drop in unit volume. When computing the gross profit, you need to subtract from the sales revenue in renminbi the direct costs, which are incurred in US\$, and represent 75% of the <u>US sales price</u> per unit.

- a. What would be the US\$ total direct cost in both cases?
- b. What would be the short-run (one-year) impact of each pricing strategy on US \$ gross profit?
- c. Which pricing strategy do you recommend?

Question II (also problem 10.1 in MSE on p.235)

Montevideo Products, S.A., is the Uruguayan subsidiary of a US manufacturing company. Its balance sheet for January 1 is shown below. The January 1 exchange rate b/n US\$ and the Uruguayo peso (PU) is PU 15/US\$.

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Assets		
Cash	PU 60,000	
Accounts Receivable	PU 120,000	
Inventory	PU 120,000	
Net Plant & equipment	PU 240,000	
	PU 540,000	
Liabilities & Net Worth		
Current Liabilities	PU 30,000	
Long-term Debt	PU 90,000	
Capital Stock	PU 300,000	
Retained Earnings	PU 120,000	
	PU 540,000	

Balance Sheet as of Jan 1st, in '000 of Peso Uruguayo

a. What is the US\$ value of the net exposed assets of Montevideo on January 1, using <u>the</u> <u>current rate method</u>?

b. Calculate Montevideo's contribution to its parent's translation loss if the exchange rate on December 31^{st} is PU 20/\$. Assume all peso Uruguayo accounts remain as they were at the beginning of the year.

Question III (also problem 11.1 in MSE on p. 262)

Schmidt Company has a beta of <u>1.3</u>. The company's cost of debt is 6%, the risk-free rate of interest is 4%, and the general return on a market portfolio is 14%. Income taxes are 30%, and the company's optimal capital structure is 70% equity, 30% debt. What is Schmidt Company's weighted average cost of capital?

Question IV.

Read the case study on pages 216 - 217. In a nutshell, this is a case on the forex operating exposure of Toyota in Europe. Please answer the following questions:

1. Suppose Toyota wants to set up an operating exposure hedge for its sales in Europe. Toyota has Yen denominated debt. Can you show how they can use <u>a cross-currency</u> <u>swap</u>? For the purpose of setting up the cross-currency swap, suppose that another company, BASF of Germany, is exporting chemicals to Japan, and has Yen account receivables. BASF has debt in Euros, and is also willing to hedge its operating exposure.

2. Why do you think Toyota waited so long to move much of its manufacturing for European sales to Europe?

3. What other measures, apart from the cross-currency swap, would you recommend Toyota Europe to resolve its continuing operating losses?