# UNIVERSITY OF COLOMBO, SRI LANKA

# FACULTY OF MANAGEMENT AND FINANCE

Bachelor of Business Administration (Level II-Semester VII) Examination

July, 2018

## FIN 2208 – International Financial Management

**Two (02) Hours**

**Answer any 04 (four) questions.**

**Use of calculators is permitted.**

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1.

i. Explain 05 (five) key theoretical relationships (parity conditions) among spot rates, forward rates, inflation and interest rates using a diagram. (10 Marks)

ii. Describe the difference between capital market integration and segmentation using diagrams.

(10 Marks)

iii. Suppose five year interest rate in USA and UK is 7% and 5% respectively. The current spot rate is $ 0.80 / £. What is the fifth year forecasted exchange rate? (05 Marks)

**(Total 25 Marks)**

2.

i. Suppose the interest rate on £ is 14% in London and interest rate on $ is 6% in New York. The £ spot rate is $ 1.70 / £ and the one year forward rate is $ 1.60 / £. Assume an US investor is borrowing $ 2 million from a US bank which should be payable after one year. Calculate the profit / (loss) for the US investor through covered interest rate arbitraging.

(10 Marks)

ii. Briefly define below market participants.

a. Arbitrageurs
b. Traders
c. Hedgers
d. Speculators

(10 Marks)

iii. £ spot rate is $ 1.9095 / £ and 90 day forward rate is $ 1.8967 / £. What is the annualized forward premium or discount? (05 Marks)

**(Total 25 Marks)**

3.

PQR is an Indian conglomerate with a subsidiary in Sri Lanka. Present spot rate is Sri Lankan Rupees (LKR) 2.50 per one Indian Rupee (INR). Analysts have forecasted two scenarios where LKR 5.00 / INR and LKR 1.50 / INR respectively. Balance sheet of Sri Lankan subsidiary of PQR is given below as at 31st March 2017.

| *All amounts are expressed in LKR thousands.* | | |
|---|---|---|
| Cash | 5,000 | |
| Inventory | 15,000 | |
| Current Assets | | 20,000 |
| Non Current Assets | | 50,000 |
| **Total Assets** | | **70,000** |
| | | |
| Current Liabilities | 8,000 | |
| 5 Year Bank Loan | 30,000 | |
| **Total Liabilities** | | **38,000** |
| | | |
| Share Capital | 20,000 | |
| Retained Earnings | 12,000 | |
| **Equity** | | **32,000** |
| **Total Liabilities & Equity** | | **70,000** |
| | | |

i. Convert the given balance sheet of Sri Lankan subsidiary of PQR to INR at present spot rate. (05 Marks)

ii. Calculate the exchange gain / (loss) under two scenarios mentioned above using below methods.

a. Monetary / Non monetary method
b. Temporal method
c. Current / Non current method (15 Marks)

iii. Even though there is no accounting exposure, still exchange rate fluctuations can harm the companies economically. Review this statement. (05 Marks)

**(Total 25 Marks)**

4.

i. ABC Corporation, an US firm is going to establish a factory in Australia. The initial investment is USD 15 million. Existing spot rate is USD 0.75 / AUD (Australian Dollar). In addition to the initial investment, AUD 12 million is needed for working capital which will be borrowed from an Australian Bank at 15%. Loan's duration is 10 years and only the interest should be paid annually. Principle should be paid after 10 years. The factory will be sold to an Australian buyer end of three years. ABC assumes the Australian acquirer of the business will agree to pay rest of the installments of the loan together with principal. Operational information are given in the below table.

| Year | Price (AUD) | Units demand | Variable cost (AUD) | Exchange rate |
|---|---|---|---|---|
| 1 | 1,200 | 20,000 | 1,000 | USD 0.66 / AUD |
| 2 | 1,400 | 25,000 | 1,150 | USD 0.84 / AUD |
| 3 | 1,600 | 30,000 | 1,350 | USD 0.77 / AUD |

Overhead expenses are expected to be constant at AUD 6 million over three years. Corporate tax rate in Australia is 40%. The USD 15 million worth factory should be depreciated over 10 years on straight line basis. The working capital will not be liquidated but will be used by the acquirer after the 3rd year. ABC's required rate of return is 15%. Expected sales proceeds from the project sale are AUD 35 million in year 3.

Calculate the NPV of the project and decide whether ABC should accept it or not.

(20 Marks)

ii. Terminal value calculation can be used to window dress true financial picture of capital budgeting projects. Comment on this statement. (05 Marks)

**(Total 25 Marks)**

5.

i. DDE, a US company having operations in Sri Lanka. Parent US firm is funded with 70% debt and 30% equity while Sri Lankan subsidiary is funded with 60% debt and 40% equity. US corporate tax rate is 40% and Sri Lankan corporate tax rate is 30%. Three month Treasury bill rate 5% and 11% in USA and Sri Lanka respectively. Before tax cost of debt is 8% in USA and 17% in Sri Lanka. Market rate of return is estimated as 9% in USA and 19% in Sri Lanka. US parent of DDE Company has a beta of 0.75 relative to USA market and Sri Lankan subsidiary has a beta of 1.05 relative to Sri Lankan market. As a multinational corporation, 25% of DDE global business can be attributed to Sri Lankan operations and remaining is credited to US operations.

a. Calculate the weighted average cost of capital (WACC) of DDE Sri Lanka subsidiary.
b. Calculate the WACC for DDE US parent Company.
c. Calculate the overall WACC of DDE as a multinational corporation. (13 Marks)

ii. A portfolio manager gathered information on individual country funds as follows.

| | **France** | **Germany** |
|---|---|---|
| Expected return | 20% | 17% |
| Standard deviation of returns | 10% | 8% |
| Correlation with France market index | 1.00 | 0.65 |
| Correlation with German market index | 0.65 | 1.00 |

Calculate the expected returns and standard deviations of below portfolios.

a. 50% in France and 50% in Germany
b. 80% in France and 20% in Germany
c. 20% in France and 80% in Germany (12 Marks)

**(Total 25 Marks)**

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