National University of Science and Technology
Think in Other Terms

FACULTY OF COMMERCE
DEPARTMENT OF FINANCE
BACHELOR OF COMMERCE HONOURS DEGREE IN FINANCE
PART IV – SUPPLEMENTARY EXAMINATION – AUGUST 2014
INTERNATIONAL FINANCE II [CFI 4202]
TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1) Answer **QUESTION ONE** and any other **THREE (3)** questions.

2) Start the answer to each full question on a fresh page of the answer booklet.

3) All rough work must be crossed out and attached to the end of the answer booklet.

4) Read questions carefully and address all parts of the question.

5) Questions may be written in any order, but must be legibly numbered.

ADDITIONAL INFORMATION FOR CANDIDATES

1) The paper contains SIX (6) questions.

2) Marks for each question are shown in parentheses brackets **( )** and square brackets **[ ]** at the end of each part of the question and full question respectively.

3) Question One carries **40 marks** and all other questions carry **equal marks** [20 marks].

This paper consists of 6 printed pages

QUESTION ONE

Silva Star Company currently has no business interest in Canada, but is considering establishing a subsidiary there in addition to its existing operations in the US for the production and sell of cricket bats. The following information has been gathered from its different divisions to assess the suitability of this project.

i) The initial investment required is C$25 million Canadian dollars (C$) and the current spot exchange rate is $0.50/C$1. In addition to the C$25 million for the plant and equipment, C$10 million is needed for working capital and will be borrowed by the subsidiary from the Bank of Canada at an interest rate of 7% p.a. and the principal is to be paid at the end of ten years.

ii) The project is to be terminated after three years when the subsidiary is sold, and Silva expect to receive C$26 million after subtracting capital gains and withholding taxes and the new owners take over the loan balance.

iii) The price, demand and variable cost of the product in Canada are estimated as follows:

Year	Price per bat (C$)	Demand	Variable cost per bats (C$)
1	250	40,000	30
2	256	50,000	35
3	265	60,000	40

iv) Other fixed costs are estimated at C$3 million per year.

v) The exchange rate of the Canadian dollar is forecasted to be $0.50, $0.52 and $0.54 in years 1, 2 and 3 respectively.

vi) The Canadian government imposes a corporate tax of 20% on business income and a further 10% withholding tax on all earnings remitted by the subsidiary. The US government allows tax credit and will not impose any additional taxes.

vii) The plant and equipment are depreciated over ten years using a straight line depreciation method.

viii) After consideration of all business risk factors, Silva requires a 15% rate of return on this project.

REQUIRED

a) Determine the present value of this project and advise whether or not Silva Star Company should implement this international project. **(16 marks)**

b) Instead of borrowing the C$10 million for working capital, the parent decides to invest an additional $5 million to avoid Canadian bank loan. If this alternative financing is used, the salvage value on sale is expected to be C$9 million dollars higher. Is this alternative financing arrangement more feasible for the parent than the original one? **(16 marks)**

c) Assume that Silva uses the original financing proposal, but funds are blocked until the subsidiary is sold. What is the value of the project if the funds to be remitted are reinvested in the local money market at 6% p.a. interest until the end of 3 years? **(6 marks)**

d) What is the break-even salvage value if Silva uses the original proposal and funds are not blocked? **(2 marks)**

[TOTAL 40 MARKS]

QUESTION TWO

General Farm Equip Limited (GF) is a US based multinational company manufacturing tractors. On 1 January, 2013 it was awarded a contract to supply 72 tractors to Can Farming Corporation, a government of Canada agricultural agency established to support the agricultural development policy in that country. GF is expected to receive C$35 million on 31 December the same year from Can Farm Corporation as payment for the tractors. The current spot rate for Canadian dollar is C$0.50 and the one-year forward rate is expected to be C$0.45. You are required to explain to the management team of GF on how the transaction exposure can be managed in this transaction.

a) Explain the concept of transaction exposure in relation to the statement above. **(2 marks)**

b) Using clearly worked out examples or diagrams, explain:

   i. How GF can use a forward market hedge to manage the transaction exposure. **(5 marks)**

ii. How GF can use a money market hedge to suppress the transaction exposure if interest rates are currently 15% p.a. and 10% p.a. for the Canadian dollar and US dollar respectively. **(5 marks)**

iii. How GF can use a currency risk sharing technique to hedge the transaction exposure when the two companies have agreed on an exchange rate neutral zone ranging between C$0.49 to $0.51 using the current spot rate as base rate but, the actual exchange rate at the end of one year turned out to be C$0.45/$1. **(8 marks)**

[TOTAL 20 MARKS]

QUESTION THREE

Table 1 below shows the balance sheet of subsidiary operating in Singapore in local currency, the Singapore dollar (S$) and its equivalent when translated to the parent's currency (US$), Dzeko Limited based in the US at the spot rate of S$4/$1.

Table 1: Balance Sheet as at 31 December 2012 ('000')

	Local Currency (S$)	US$ equivalent before change S$4/$1
Assets		
Current Assets		
Cash	2,600	650
Inventory (at Market)	3,600	900
Prepaid expenses	200	50
Total Current Assets	6,400	1,600
Fixed assets	3,600	900
Goodwill	1,000	250
TOTAL ASSETS	**11,000**	**2,750**
Liabilities		
Current Liabilities	3,400	850
Long-term debt	3,000	750
Deferred income taxes	500	125
Subtotal Liabilities	6,900	1,725
Capital	1,500	375
Retained earnings	2,600	650
Total Equity	4,100	1,025
TOTAL LIABILITIES	**11,000**	**2,750**

Dzeko Limited's forecast of the three months exchange rate of the Singapore dollar to the US dollar when it produce its consolidated financial statements is predicted to reflect a 37.5% appreciation of the subsidiary's local currency to S$2.5/$1. Calculate the translation exposure using the following methods and determine the loss or gain of each of the methods to the parent company.

a) Current/Noncurrent method **(5 marks)**
b) Monetary/Nonmonetary method **(5 marks)**
c) Temporal method **(5 marks)**
d) Current method **(5 marks)**

[TOTAL 20 MARKS]

QUESTION FOUR

a) As part of its international short-term treasury management strategy, why would a multinational company consider investing in a portfolio of foreign currencies instead of just in a single foreign currency? **(2 marks)**

b) Morgenstern Limited Company based in the US is considering placing 30% of its $100,000 in excess funds in a one-year Singapore dollar deposits and the remaining 70% of the funds in a one-year Canadian dollar deposits. The one-year Singapore interest is 15% p.a. and the Canadian one-year interest rate is 13% p.a. The possible percentage changes in two currencies for the next year are forecasted as follows.

Currency	Possible % change in Spot Rate over the investment horizon	Probability of that % change in Spot Rate occurring
Singapore dollar	-2%	20%
Singapore dollar	1%	60%
Singapore dollar	3%	20%
Canadian dollar	1%	50%
Canadian dollar	4%	40%
Canadian dollar	6%	10%

Given the information above:

i. Determine the possible effective yields of each of the currencies if the funds are invested separately in one of the markets. **(9 marks)**

ii. Determine the possible effective yield of the portfolio investment and the probability associated with each of the possible portfolio yield. **(9 marks)**

[TOTAL 20 MARKS]

QUESTION FIVE

a) What factors should be considered by a South African multinational firm that plans to issue floating rate bonds in the Eurobond market.
(6 marks)

b) Is the risk of issuing a floating rate Eurobond higher or lower than the risk of issuing a fixed rate Eurobond? Explain. **(6 marks)**

c) Explain the differences in the cost of financing with a foreign currency during a strong-rand period versus a weak-rand period for a South African firm.
(8 marks)

[TOTAL 20 MARKS]

QUESTION SIX

Most multinational companies often use optimal cash flows as a centralized cash management technique to maximize effective usage of funds for and on behalf of all their subsidiaries. Explain how this can be achieved using the following optimal cash flows techniques.

a) accelerated cash inflows **(5 marks)**
b) minimizing currency conversion costs **(5 marks)**
c) managing block funds **(5 marks)**
d) managing inter-subsidiary cash transfers **(5 marks)**

[TOTAL 20 MARKS]

END OF EXAMINATION PAPER