SIMON FRASER UNIVERSITY
Faculty of Business Administration

BUS 419 11-1
MIDTERM EXAM

Rules for Submitting Final Exam: Answers to questions are to be typed, single spaced, of length 1 page ***each*** for all questions, 8"x11" standard paper, with 1" margin and type point not less than 12. (This assignment is typed in 12 point.) For questions with a) and b) parts, answer both parts. Violations will be subject to deductions. Assignment is due in class on Fri., Mar. 4, 2011

Do all 4 Questions; be sure to answer all parts of the question.
Total length 4 pages; 10 pts. for a) and 15 pts. for b)

1. a) Explain the <u>arbitrage</u> underlying the covered interest parity theorem discussed in Sec. 4.2 of the text. What assumptions are being made about both the execution of the arbitrage and the underlying securities?
b) From the information in the attached table of forward rates and interest rates from Feb. 25, 2011, calculate all possible interest rates implied by the covered interest parity condition. (Hint: When possible, be sure to identify bids and offers.)

2. a) Derive the profit profile for a spread trade with equal position sizes. What factors determine the profitability of this trade? Derive the profit profile for a tailed spread and explain how this trade is different from one with one-to-one position sizes. Does your answer depend on the commodity under consideration?
b) What factors determine the profitability of: a butterfly in corn; a tandem in gasoline and heating oil; and, a metal stereo with copper and gold. (Hint: Use the profit profile for the trades to identify the factors.)

3. Outline appropriate questions to be addressed when undertaking a risk management program for the following types of firms: a) an oil and gas producer; b) a chartered bank; c) an airline; d) a base metal producer; and, e) an investment bank. In your answer be sure to identify the appropriate questions to address in formulating a risk management philosophy for firms in that sector.

4. Explain in detail the appropriate hedging strategies for the following:

a) Suppose that on Mar. 1, 2011, a bank plans to make a one-year fixed-rate loan for $150 million beginning on Mar. 29, 2011, with loan payments to be made in quarterly installments. The fixed rate is 3.50%. The bank plans to fund the loan by using quarterly borrowing in the spot Eurodollar market. This funding takes place in 27 days. Explain how to execute: i) a strip hedge; and, ii) a stack hedge for this borrowing.: In your answer also explain potential benefits for either strategy.

b) i) In June 2011, a US investment dealer expects Canadian interest rates to rise over the next two years and wants to protect itself against US dollar capital losses on its inventory of Canadian bank preferred stocks.

ii) In Dec 2011, a metals refinery that purchases copper scrap and sells copper cathodes needs to determine an appropriate hedging position for the next calendar year.

From the Financial Post, Feb. 25, 2011

	US$/unit	**CA$/unit**
Britain Spot Pound	1.6140	1.5860
1 month forward	1.6134	1.5866
3 months forward	1.6121	1.5879
6 months forward	1.6095	1.5894
Europe Spot Euro	1.3803	1.3564
1 month forward	1.3796	1.3567
3 months forward	1.3784	1.3574
6 months forward	1.3757	1.3582

	C$/US$	**US$/C$**
U.S. dollar	0.9832	1.0171
1 month forward	0.9834	1.0169
3 months forward	0.9847	1.0155
6 months forward	0.9871	1.0131

International Interest Rates on 2011.02.25

Euro-Deposit Rates (Bid)

C$	3-month	1.01

London Interbank Offer Rate US$

US$	1-month	0.26
	3-month	0.31
	6-month	0.46