Exercise Handbook

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Exercise XIV

Consider the following:

$S_{\frac{C_1}{C_2}}$	1.25
r_{1yr-C_1}	0.03
r_{1yr-C_2}	0.04

- Calculate the theoretical price of a one year forward contract.
- What would you do if the forward price was quoted at $\frac{C_1}{C_2}$ 1.26 in the market place? Where would you borrow? Lend? Calculate the gain on a C_1 100 million arbitrage transaction.
- What would you do if the future price was quoted at $\frac{C_1}{C_2}$ 1.20 in the market place? Where would you borrow? Lend? Calculate the gain on a C_2 100 million arbitrage transaction.

Exercise XV

The following exchange rates and one-year interest rates exist.

	Bid	**Ask**
$S_{\frac{A}{B}}$	1.12	1.13
$F_{\frac{A}{B}}$	1.12	1.13

	Deposit	**Loan**
r_A	0.06	0.09
r_B	0.07	0.1

You have 100,000 A to invest for one year. Would you benefit from engaging in covered interest arbitrage?

Exercise XVI

True or false? **Please, explain**.

- *Ceteris paribus*, based on CIRP, given any two currencies A and B, if $r_A > r_B$, then currency A is likely to trade at a forward discount. (Remark: r_A=interest rate on a currency A-denominated investment r_B= interest rate on a currency B-denominated investment).
- If the US inflation level increases at a much higher rate than does the Canadian inflation level, the CAD is likely to appreciate *ceteris paribus*.

Exercise XVII

An investor sells 1 share MPS short at 70 USD and simultaneously writes one MPS 70 put at 3 USD. What is the maximum gain in this strategy? **Do not forget to justify your claims.**

1. 73 USD
2. 70 USD
3. 67 USD
4. 3 USD

What is the maximum loss?

1. Unlimited
2. 70 USD
3. 63 USD
4. 3 USD

Exercise XVIII

An investor has sold 1 share of FBN stock short at 62 USD and buys one FBN Jan 65 call at 2 USD. If FBN stock rises to 70 USD and the investor exercises the call, what is the gain or loss in this position? **Do not forget to justify your claims.**

1. Unlimited
2. 2 USD/share
3. 5 USD/share
4. 8 USD/share

Exercise XIX

Suppose that an investor has sold 100 shares of MNO stock short at 75 USD/share and feels confident that the stock's price will fall in the market in the near future. To protect against a sudden rise in price, which of the following strategies would you recommend? **Do not forget to justify your claims.**

1. Sell a MNO put
2. Buy a MNO put
3. Sell a MNO call
4. Buy a MNO call

Exercise XX

For each pair of conditions, which one refers to futures? Which one to forwards? **Support your claims with concise explanations.**

- Standardized-Tailor made
- Mark-to-market risk-Settlement risk
- Fixed maturities-Several available maturities
- Illiquid secondary market-Liquid secondary market
- OTC traded-Traded on regulated markets
- For hedgers-For speculators