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Major: International Business
Module: Commodity Market

Correction of Exercise series n°4

exercise 1 *choose the right answer*

I. On January 2023, company A and company B entered into a forward contract, whereby company B has to sold 50,000 bushels of Corn to Company A at $7/bushel and delivery on March 25, 2023.

1. On the date of delivery if the price is $15/bushel then;

- The company B makes profit.
- The company A incurs a loss.
- Both companies didn't make neither profit nor loss.
- None of the above

2. On the date of delivery if the price is $7/bushel then;

- The company A makes profit.
- The company B incurs a loss.
- Both companies didn't make neither profit nor loss.

3. On the date of delivery if the price is $5/bushel then;

- The company A makes profit of 100000$.
- The company B incurs a loss 50000$.
- The company B makes a profit of 100000$.
- None of the above.

II. In February, an investor plans to sell **20,000 bushels** of Wheat in June; He is unsure about the future price of Wheat and wants to hedge against price fluctuation. The current market price of wheat **in February is $10.5/bushel**, and Wheat **futures contracts for June are trading at $11/bushel**. Assume that the **size of the Wheat futures contract is 5000 bushels** and that the **initial margin is 5%** and **the maintenance margin is 75%**.

1. The number of futures contracts should the investor enter into?
    - Five
    - Three
    - None of the above

Number of the futures contracts should the investor enter into = 20000/5000 = 4

2. The initial margin and maintenance margin?
    - The initial margin is 8250 the Maintenance margin is 11000.
    - The initial margin is 11000 the Maintenance margin is 5280.
    - The initial margin is 11000 the Maintenance margin is 8250.

The future contract value = 20000 x 11 = 220000;

then the initial margin is 0.05 x 220000 = 11000;

the maintenance margin is 11000 x 0.75 = 8250.

3. What position should the investor take to cover the risk of price fluctuation in the future?
    - Long position
    - Short Position because he has to sell a future contract to hedge against price fall
4. If the spot price in June is $7/bushel, the net selling price is;
    - 10$
    - 11$
    - 11.7$
5. If the spot price in June is $15/bushel, the net selling price is;
    - 15$
    - 11$
    - 10$

First scenario Spot price in June is 7$/bushel

Spot Market	Future Market
February: price of Wheat is 10.5$/bushel	February: Sell a future contract at 11$/bushel
June: Sell a Wheat at 7$/bushel	June: close the position by buying the future contract at 7$/bushel
	Make a profit of (11 - 7 = 4)

The net selling price is:

- A bushel of Wheat was sold in June at a price of ……7$
- Make a profit on the future contract position ..... 4$
- The net selling price .....11$

Scenario two: Spot price in June is 15$/bushel

Spot Market	Future Market
February: price of Wheat is 10.5$/bushel	February: Sell a future contract at 11$/bushel
June: Sell a Wheat at 15$/bushel	June: close the position by buying the future contract at 15$/bushel
	Loss of (11 - 15 = -4)

The net selling price is:

- A bushel of Wheat was sold in June at a price of ……15$
- incurs a loss on the future contract position ..... -4$
- The net selling price .....11$