Derivative Instruments
Paris Dauphine University - Master IEF (272)

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Exercises Chapter 2

Exercise 1 *Suppose that you enter into a short futures contract to sell July silver for* $17.20 *per ounce. The size of the contract is* $5,000$ *ounces. The initial margin is* $4,000, *and the maintenance margin is* $3,000.

What change in the futures price will lead to a margin call ?

What happens if you do not meet the margin call ?

Exercise 2 *What does a limit order to sell at $2 mean ? When might it be used ?*

What does a stop order to sell at $2 mean ? When might it be used ?

Exercise 3 *Explain what a stop-limit order to sell at €10 with a limit of €9.90 means.*

Exercise 4 *What is the difference between the operation of the margin accounts administered by a clearing house and those administered by a broker ?*

Exercise 5 *The party with a short position in a futures contract sometimes has options as to the precise asset that will be delivered, where delivery will take place, when delivery will take place, and so on. Do these options increase or decrease the futures price ? Explain your reasoning.*

Exercise 6 (Done) *A trader buys two July futures contracts on frozen orange juice. Each contract is for the delivery of* $15,000$ *pounds. The current futures price is* 160 *cents per pound, the initial margin is* $6,000 *per contract, and the maintenance margin is* $4,500 *per contract.*

What price change would lead to a margin call ?

Under what circumstances could $4,000 *be withdrawn from the margin account ?*

Exercise 7 (Done) *At the end of one day a clearing house member is long 100 contracts, and the settlement price is $50,000 per contract. The original margin is $2,000 per contract. On the following day the member becomes responsible for clearing an additional 20 long contracts, entered into at a price of $51,000 per contract. The settlement price at the end of this day is $50,200. How much does the member have to add to its margin account with the exchange clearing house ?*

Exercise 8 *A cattle farmer expects to have 120,000 pounds of live cattle to sell in three months. The live-cattle futures contract traded by the CME Group is for the delivery of 40,000 pounds of cattle.*

How can the farmer use the contract for hedging ?

From the farmer's viewpoint, what are the pros and cons of hedging ?