NORTHWESTERN UNIVERSITY
KELLOGG GRADUATE SCHOOL OF MANAGEMENT

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Investments
EMP 69

Problem Set 2.5
PLEASE LOOK THE PROBLEMS OVER BUT YOU DON'T HAVE TO HAND THEM IN

1. Suppose you enter into a **short** silver futures contract with May 2008 delivery. The futures price is $4.64/ounce. The size of the contract is 5,000 ounces. The initial margin is $1500 and the maintenance margin is $1000. What change in the futures price will lead to a margin call?

2. Suppose the risk free rate is 4% per and the current value of silver is $16.70 per ounce.

i. What is the six month futures price?

ii. Suppose the observed futures price was $17.50. How could you earn an arbitrage profit? Be explicit about the positions you would take and show the cash flows associated with those positions (i.e. initially and when you close out the positions).

3. Suppose that you own a chain of movie theatres which are heated using natural gas. If you want to hedge the cost of natural gas, would you go long or short a future. Are there any risks associated with this hedge?