UNIVERSITY OF TEXAS AT AUSTIN

Quiz 5

Forward contracts.

Problem 5.1. (2 points) The profit diagram and the payoff diagram for long positions in a forward contract are identical. *True or false?*

Solution: TRUE

Problem 5.2. (5 points) Maryam bakes batches of cupcakes for a cupcake convention. She buys forward 21 pounds of raspberries from a local farmer at the forward price of $5.60 per pound.

She projects to bake 336 cupcakes and sell each for $3. The total and aggregate non-raspberry costs of baking the cupcakes are $200.

If the market price of raspberries on the day of the cupcake convention is $5.40, what is Maryam's profit?

(a) $690.40
(b) $694.60
(c) $890.40
(d) $894.60
(e) None of the above.

Solution: (a)

$$336 \times 3 - 21 \times 5.60 - 200 = 690.40.$$

Problem 5.3. (8 points) Believe it or not, we all enter forward-like contracts on a daily basis. Explain, in eight lines or fewer, how ordering a pizza is like a forward contract. Ignore time-limits on when the pizza should be delivered. Imagine that the pizza is to be delivered in 30 minutes **exactly**.

Solution: The quantity and type of pizza is specified at order time. So is the agreed upon price and the delivery time. The logistics are also explained (you give your address and contact info). The pizza parlor will confirm that you, indeed, ordered your pizza. While there are no formal steps to aleviate "credit risk" (you decide you do not want the pizza, even though you did order it, and you refuse to pay), you might get "blacklisted" by a particular pizza parlor.