Som-Lalit Institute of Management Studies (SLIMS)

Subject Code: 4539222, Subject Name: Financial Derivatives, Sem III

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Topic: Cash and carry arbitrage, module 2

Reliance Gas Ltd would need about 5000 barrels of oil after 3 months. The purchase manager assumes high volatility in the price of oil in the coming 3 months. He is under pressure to minimize the annual average purchase cost. He wants to hedge his exposure using future contracts. Current price of crude oil is Rs.3000 per barrel. He finds out that the 3 months delivery futures contracts on crude oil for 100 barrel each are available at Rs 3100 per barrel. The opportunity cost of capital for the refinery is estimated to be 12% per annum. The storage cost of the oil is 3% per annum. Assume that the refinery has enough stock of oil in stock and the compounding is done annually.

1. As a purchase manager how would you hedge your exposure? What are the risks involved in buying the future contracts?
2. Is there any arbitrage opportunity? Up to what price the arbitrage is feasible? (upper bound)