**Investments Seminar 12**

**Theoretical questions**

1. **(551/2.)** What must be the net inflow or outlay from marking the market for the clearinghouse?
2. **(556/4.)** What are the sources of risk to an investor who uses stock index futures to hedge an actively managed stock portfolio?
3. **(571/7.)** What is the difference in cash flow between short-selling an asset and entering a short futures position?
4. **(571/6.)** Why might individual purchases futures contracts rather than the underlying asset?
5. **(570/1)** On January 1, you sold one March maturity S&P 500 Index futures contract at a futures price of 800. If the futures price is 850 on February 1, what is your profit? The contract multiplier is $250.
6. **(573/4)** In each of the following cases, discuss how you, as a portfolio manager, could use financial futures to protect a portfolio.
7. You own a large position in a relatively illiquid bond that you want to sell.
8. You have a large gain on one of your Treasuries and want to sell it, but you would like to defer the gain until the next year.
9. You will receive a large contribution next month that you hope to invest in long-term corporate bonds on a yield bases as favourable as is now available.

**Futures on stock and stock indices**

1. **(571/8.)** Suppose the value of the S&P 500 Stock Index is currently $3800. If the one-year interest rate is 3%, what should be the one-year maturity futures price be?
2. **(571/13.)** One Chicago has just introduced a new single-stock futures contract on the stock of Brandex, a company that currently pays no dividends. Each contract calls for delivery of 1,000 shares of stock in one year. The T-Bill rate is 6% per year.
3. If Brandex stock now selling at $120 per share, what should the futures price be?
4. If the Brandex price drops by 3%, what will be the change in the futures price and the change in the investor’s margin account?
5. If the margin on the contract is $12,000, what is the percentage return on the investor’s position?
6. **(572/19.)** The margin requirement on the WIG Index futures contracts is 10%, and the stock index is currently 800. Each contract has a multiplier of $250. How much margin must be put up for each contract sold? If the futures price falls by 1% to 792, what will happen to the margin account of an investor who holds one contract? What will be the investor’s percentage return based on the amount put up as margin?

**Futures on commodities**

1. **(571/9)** It is now January. The current interest rate is 4%, The June futures price for gold is $946.30, while the December futures price is $952. Is there an arbitrage opportunity here? If so, how would you explore it?