**Section I: Computational Problems**

Problem #1

In theory, merger analysis offers several different approaches to computing equity value. The acquiring firm performs an analysis to value the target company. The acquiring firm then seeks to buy the firm at preferably below that estimated value. Meanwhile, the target company would only want to accept the offer is the price exceeds its value if operated independently. In practice, however, the process of merger analysis is much more involved and raises some difficult issues.

Caldwell is in the process of analyzing the value of Tutwiler’s financial performance and has collected financial information in order to value Tutwiler’s equity. Precision in this analysis is critical in generating an offer that balances “intrinsic value” with a merger agreement.

For the given information on Tutwiler please complete the questions listed below. The current capital structure (as of 12/31/07) consists of debt (35%) and equity (65%), valued at $27 million and $50.143 million respectively.



The following matrix will assist in computing the key finance terms needed to properly calculate the solutions:

Problem 1(a): Using the financial information and the corporate valuation method (chapter 15) calculate the Value Equity for Tutwiler in 2008 (present value). In order to reach the Value of Equity, you will need to compute the levered required rate of return on equity, WACC, Operations and Value of Equity

Problem 1(b): Using the financial information and Adjusted Present Value (APV) method with 50% debt and 50% equity capital structure, compute the Value of Equity.

Problem 2

Calculate the Free Cash Flows to Equity (FCFE) based on the following information using the authors formula (FCFE = FCFF – After tax Interest Expense + Change in Net Borrowing).



Problem 3:

A currency trader observes that in the forex market the spot price for 1 USD is equivalent (can be exchanged) for 12.4606 Mexican pesos or 83.995 Japanese yen. Show all calculations for determining the cross rate between the Yen and Peso.

Problem 4:

List the five (5) main reasons why corporations expand into other countries. List and briefly describe one RECENT example (within the previous 12 months)of a US corporation expanding into another country that aligns with at least one of the five main reasons for international expansion.

Problem 5:

The authors of Takeovers, Restructurings, and Corporate Governance, 4e, compiled a list of ten (10) Change Forces that are related to merger activity. Select a recent merger (Kraft-Cadbury, United-Continental, Black & Decker- Stanley Works, or another recent US merger and classify that merger / proposed merger according to the list below. Provide a brief explanation for your rationale.

1. Technological Change
2. Economies of Scale, Economies of Scope, complementarity and the need to catch up technically
3. Globalization and freer trade
4. Changes in industrial organization
5. New Industries
6. Deregulation and regulation
7. Favorable economic and financial conditions for much of the past 2 decades
8. Negative trends in certain individual economies and industries
9. Widening inequalities in income and wealth
10. Relatively high valuations for equities during the 1990s.

Problem 6:

Six month US T-Bills have a nominal rate of 4.5% while default free Japanese bonds that mature in 6 months have a nominal rate of 2.75%. In the spot exchange market, 1 yen equals $0.009. If interest rate parity holds compute the 6-month forward exchange rate.

Problem 7:

Suppose a U.S. firm buys $400,000 worth of electronic components from a French manufacturer for delivery in 60 days with payment to be made in 90 days (30 days after the goods are received). The rising U.S. deficit has caused the dollar to depreciate against the Euro recently. The current exchange rate is 5.60 Euro per U.S. dollar. The 90-day forward rate is 5.45 Euro/dollar (in a fantasy world!). The firm goes into the forward market today and buys enough Euros at the 90-day forward rate to completely cover its trade obligation. Assume the spot rate in 90 days is 5.30 Euros per U.S. dollar. How much in U.S. dollars did the firm save by eliminating its foreign exchange currency risk with its forward market hedge? You will receive 5 points each for correctly calculating the cost of the obligation, the cost of the forward contract, the cost of the spot rate in 90 days, and for calculating the savings of the firm.

**Short Answer**

Short Answer #1:

Recently the WSJ ran an article on Steve Ballmer’s (Microsoft) intention to sell some of his Microsoft stock in attempt to diversify his portfolio. Prior to the sale of the stock, what type of option strategy could you have recommended to Mr. Ballmer in order to provide downside protection for his equity holdings as well as minimize the cost of the downside protection? Describe your recommendation with details as to the specifics on what types of transactions are necessary to make your option strategy work.

[Microsoft](http://online.wsj.com/public/quotes/main.html?type=djn&symbol=MSFT) Corp. Chief Executive [Steve Ballmer](http://topics.wsj.com/person/b/steve-a-ballmer/599) sold $1.34 billion of Microsoft shares in recent days, his first share sales in the company since 2003.

In a statement, the Redmond, Wash., software company said Mr. Ballmer sold the shares for financial diversification and "to assist in tax planning" before the end of the calendar year. In a filing submitted with securities regulators Friday evening, Microsoft said Mr. Ballmer sold about 50 million shares in recent days, amounting to about $1.34 billion. In a statement, Microsoft said Mr. Ballmer could sell up to 75 million shares in total, including his recent sales, by the end of the year.

Because of the infrequency of his share sales, Microsoft sought to allay concerns that Mr. Ballmer's move hints at a lack of confidence in the company.

"Even though this is a personal financial matter, I want to be clear about this to avoid any confusion," Mr. Ballmer said in a statement. "I am excited about our new products and the potential for our technology to change people's lives, and I remain fully committed to Microsoft and its success."

Before his recent share sale, Mr. Ballmer held approximately 408 million Microsoft shares, the company said.