SAMPLE ANSWERS

Final Exam: March 13, 2008

Instructions: Exams are *individual assignments*, so do not collaborate with anyone else on this exam. Write your name at the top of each odd numbered page, and then stop to read all of the questions before starting to answer any of them. You need to write your answers in the space provided in this exam. Good luck!!

1. (25 points)

(a) Masulis shows that leverage-decreasing recapitalizations are associated with a drop in stock prices. Why would management voluntarily choose to make these changes in capital structure if they know that stock prices are going to fall?

Management does this as this is nothing but an *early disclosure of impending bad news* that *would anyway be released*. By releasing this negative signal of financial distress, they try to save on bankruptcy cost, renegotiation cost with vendors and cost of litigation through shareholders.
(b) Since Masulis shows that leverage increasing recapitalizations are associated with increases in stock prices, why wouldn't all firms want to do this to increase their stock prices?

Leverage increasing transaction send a positive signal about the future cash flows of a company but only up to a point where optimal capital structure is reached. Beyond this point, bankruptcy cost due to high leverage exceed benefits from tax shields.

Hence, after the point where optimal leverage is reached stock price no more reacts positively to leverage increasing recapitalizations.

(c) Briefly, evaluate the role that tax deductibility of interest payments has in explaining the change in stock prices associated with recaps.

In a leverage increasing transaction, market gets a positive signal about future cash flows of the company and it also builds in the stock price the increase in company valuation due to increased tax shields. Thus, the stock price reacts positively to such transactions like debt for equity or debt for preferred stock. But market also reacts positively to the swap of preferred stock to common stock, which cannot be explained by the benefits due to tax shields.
(b) Since Masulis shows that leverage increasing recapitalizations are associated with increases in stock prices, why wouldn't all firms want to do this to increase their stock prices?

A leverage increasing recapitalization gives a boost to the stock price. This can be perceived as a good way of enhancing stock price but unfortunately it is not possible for all firms to do so.

With increasing leverage the cost of bankruptcy also goes up. The new makes the old debt risky. Also, with increasing debt comes more covenants which restrict several corporate actions.

Thus, raising new debt is beneficial only up to the point till the marginal benefits are greater than the marginal costs.

(c) Briefly, evaluate the role that tax deductibility of interest payments has in explaining the change in stock prices associated with recaps.

Tax deductibility does not have a very severe impact in explaining the stock price changes. It is true that a leverage increasing recap provides the firm with tax shields, but there is a limit to the tax benefits of debt.

The reason why the stock price react (favorably or unfavorably) is because of the signal associated with the corporate action. The recap signals the management's view of the future cash flows of the firm.
(d) Briefly, evaluate the role that expected cost of financial distress has in explaining the change in stock prices associated with recaps.

2. (20 points)

Read the article below from the *Wall Street Journal* and then answer the question below it.

**IBM Plots Another Share Buyback**

*By WILLIAM M. BULKELEY*

*February 27, 2008; Page B2*

International Business Machines Corp. announced its second $15 billion stock-buyback plan in less than a year, boosting its share price and igniting a stock-market rally.

The announcement helped convince investors that IBM, which had a strong fourth quarter, is confident in its strategy and outlook and believes its stock is underpriced. IBM shares rose $4.30, or 3.9%, to $114.38 in 4 p.m. composite trading on the New York Stock Exchange, leading a rally that boosted the Dow Jones Industrial Average by nearly 1%.

Few companies have relied on share buybacks as much as IBM. The Armonk, N.Y., company has spent $46.2 billion in the last five years on repurchasing its shares -- a sum equal to about 30% of its current market capitalization, or stock-market value, and more than twice the $20 billion it spent on acquisitions during that period.

The latest buyback comes as Samuel J. Palmisano enters his sixth year as chief executive officer. During the early years of his tenure, IBM went through a rocky period of lowered forecasts and divestitures of businesses including its disk-drive and personal-computer units. Until recently, its stock was stuck at less than its level when Mr. Palmisano took over, while chief rival Hewlett-Packard Co. has seen a sharp rise in its share price.

IBM's growing profits from an expanded line of software, steady services business and sales in foreign markets have helped the company produce a lot of cash. Last year, it reported free cash flow of $12.4 billion, and it had $16.1 billion in cash at the end of the year.

IBM said it expects to spend about $12.4 billion of the latest authorized buyback amount during the current year. Funds will come from operations. It said the reduction in shares will increase its per-share earnings by five cents to at least $8.25 for the current year, up at least 16% from 2007. It has forecast $10 to $11 a share in 2010.
"The willingness to make continued share buybacks speaks to strong faith in the business model," said Thomas Smith, an equity analyst with Standard & Poor's who recommends the stock. Andrew Neff, an analyst with Bear Stearns Co., said, "We like where they're positioned, in big markets where they have a compelling advantage." He said that IBM has been successful in purchasing software companies and increasing their sales by training its huge sales force to peddle the programs.

Last year, IBM spent $18.8 billion on stock buybacks, including a $12.5 billion accelerated share repurchase in May for which it borrowed money through a foreign subsidiary in order to avoid U.S. taxes. The Internal Revenue Service prohibited further use of that technique, which was known as a "Killer B" because it was designed to circumvent IRS Section 367 (b) covering U.S. tax on repatriated foreign earnings.

Despite the big gain in IBM shares yesterday, buybacks don't have a very good recent record of providing superior returns to shareholders and are sometimes criticized as poor uses of corporate cash. S&P said that 423 members of the S&P 500-stock index did buybacks in the 18-month period ended June 30, 2007, but only one-quarter of them, including IBM, outperformed the S&P index through Sept. 30. Buybacks reached record-setting levels in the first half of last year.

Ed Barbini, an IBM spokesman, said the company isn't stinting on investment in its operations and has increased spending on research and development in all but one of the past five years. He noted IBM also has been aggressively purchasing small companies, especially software makers. The company raised its dividend 33% last year.

(a) If you were the CFO of a firm with the type of free cash flow described by this story, would the argument put forward in this article cause you to recommend a stock repurchase program for your company?

Yes, I would recommend the stock repurchase program for the following reasons:

1) Stock repurchase is a great way to use your excess cash. If you are investing enough in R&D, and pursuing positive NPV projects such as certain acquisitions, and you still have excess cash as does IBM, then buying back stock is a good way to use it as it prevents you from pursuing negative NPV projects with the extra cash.

2) Your share price goes up not only because you decrease the number of shares in the market but also because a share buyback is a positive signal to the market. It shows you won't invest in - NPV projects and you have strong faith in the success of the company in the future.

3) As the article states, IBM has increased their dividend 33% last year. This is an alternative use of the excess cash. Since IBM has already increased their dividends, has invested in software companies, and does plenty of R&D, the stock repurchase program is the best use of the excess cash.
(b) Is there any evidence in the papers you studied in FIN 423 that suggests that higher earnings per share is one of the important reasons why companies pursue stock repurchases?

A higher earnings per share is not one of the important reasons to pursue a stock repurchase. The higher earnings per share is just an automatic recalculation once a certain number of shares are off the market. A lower number of shares automatically leads to higher earnings per share as it is the denominator. It does not in itself show anything positive about the company. The share repurchases are a positive signal if the market sees that you are using your excess cash in this manner, so you are less likely to pursue negative NPV projects with the cash.

(c) Is it surprising that firms engaging in repurchases have not out-performed the S&P index so far this year?

Yes it is surprising. A firm that engages in a stock repurchase has the following characteristics usually. They are already investing in R&D or other companies, they already have high dividends, and they still have excess cash. Having excess cash is an indication that the company is doing well. If the company is doing well then they should at least be performing as well as the average (S&P 500). A stock repurchase is an indication that management believes the company has good prospects in the future. If this is the case and their business model and operations are sound, then they should be outperforming the S&P index. Perhaps the reason these firms are not out-performing the S&P is that they are unwisely engaging in stock repurchases just to boost their EPS, and not investing the money first and foremost on the company to enhance its operations.
(a) The *New York Times* has a dual-class voting structure that gives control to the founding family stockholders (the Sulzbergers). Given that fact, what does a shareholder like Harbinger hope to accomplish by seeking a minority position on the Board of Directors?

Harbinger is trying to get representation for an alternate point of view. Even though they are far from controlling, having a few members allows them to make proposals (and second them) which brings issues to the table for open discussion until voted for/against by the board. This forces public debate on issues and if the opposition has good points, it may make the Sulzbergers look bad to turn them down. Without representation, their voice wouldn't be heard. Harbinger must feel that they have proposals that will increase firm value or it wouldn't be a positive NPV project.

(b) How, if at all, would you expect the relative prices of the different classes of *New York Times* stock to change during a proxy fight? Explain.

Normally the prices of the lower class stock would rise (~10%) in a proxy fight until the ex-record date when it drops back a little (~5%).

The voting value of the shares increases as you get closer to the marginal vote, which equals the value of the change in the firm that the vote causes. In this case the value of the votes can't get to the point of control so it would not go up as much. It would only increase to the value of having proposals brought forward, not the point where they would be accepted. The premium voting shares would devalue as they lose the ability to keep alternate proposals off the table.
(a) It appears that Mr. Kerkorian sold his GM stock at about the lowest price observed during that last 10 days. Based on this fact, it seems that he was unable to find another buyer interested in acquiring a large block of GM stock for a control premium. Why do you think that this happened, and how does this differ from the evidence you have seen in FIN 423?

Some evidence shows that premiums of up to 20% can be made by selling a large block (4% of firm). But this requires that there is someone who wants to buy. In this case GM's poor outlook made it impossible to get a premium, and therefore Kerkorian had to dump the shares. It must have been more expensive to report at the 9% level plus maintain the board seat than it was to sell at a lower value. You would also have to look to see what he bought the shares for. He may have still made money but he clearly thought there were less growth options now that talks ended with Nissan/Renault. Apparently he didn't have enough representation to get his points heard so he is moving on to more favorable projects.

(b) The intraday graph of GM's stock price shows that GM's stock price did not react negatively to the story that Mr. Kerkorian was selling? Is this surprising to you? If so, Why? It is not a surprise. The efficient market must have already factored the info that he was selling into the price. The value of the vote's board held were small so there was no premium associated with them (not at the margin).

The small drop indicates that the sale from the prior week signaled that he was going to sell more. And everyone knows the 5% threshold for reporting so they must have figured he would try to get below it after he lost interest (resigned his board seat, etc). Therefore it is not surprising to me that it didn't drop because the sale info was already in the price. A small drop due to the increased supply in the market would be expected and there was little voting value in the shares.
Diebold

United Technologies

(a) Based on this story from the *Wall Street Journal*, and from everything you have learned in FIN 423, does it look like Diebold’s poison pill is expected to prevent a hostile takeover by United Technologies? Why, or why not?

No, DBD’s poison pill is unlikely to prevent a hostile takeover. Most companies in the US have poison pills and evidence shows that pills seldom prevent a hostile takeover. Pills are often employed as a bargaining instrument to obtain a higher bid from the bidder. UTX has already announced that it is prepared to raise its bid. The author seems to misinterpret the meaning of a proxy fight, which can also be seen as a hostile manoeuvre to bypass the Board and Management.
(b) Is it likely that Diebold’s management will “just say no,” and wait for United Technologies to go away? Why, or why not?

No, Diebold’s management will not remain passive. They will try to find other potential acquirers or a White Knight in order to get the best possible deal. This is their fiduciary duty. If they remain passive, they may become the object of a lawsuit from shareholders. Evidence shows that returns on stock prices are higher when there are multiple bidders.

(c) Under what circumstances, if any, would you expect United to pursue a proxy contest to replace some or all of Diebold’s Board?

UTX will pursue a proxy contest if Diebold’s Board and Management persist in their refusal to reject the deal, especially if UTX raises its bid above other interested bidders. Also, if Diebold shows that it is going to implement the pill with certainty, UTX will pursue a proxy contest if it is convinced that it has sufficient support from the main Diebold’s shareholders, because proxy contests are expensive.