

UNIVERSITY OF ROCHESTER

William E. Simon Graduate School of Business Administration

Finance 423
Corporate Financial Policy

Professor G. William Schwert
Spring 1997

OLD EXAM QUESTIONS

I. Venture Capital and Initial Public Offerings of Common Stock

1. After graduating from the Simon Graduate School of Business Administration, you have begun your first job as a financial analyst at the investment banking firm of First Rochester. As your first assignment (which you have to accept), you are asked to advise a profitable computer software firm, Spreadsheet Inc., on strategy for having an initial public offering. The founder of the firm, Mitch Caper, feels that Spreadsheet is a unique company and can only succeed if he continues to control its operating decisions in the future. Nevertheless, Caper feels a desire to diversify his personal wealth and to obtain liquidity for his stock in Spreadsheet.
 - (a) If you were working for the underwriting group of First Rochester, how would you convince Caper to use your firm as the lead underwriter?
 - (b) If you were working in a consulting capacity for First Rochester, and your firm is not one of the contenders to be lead underwriter, what would you tell Caper to consider in choosing a lead underwriter.
 - (c) Recently the IPO market has been "hot" (lots of new issues and substantial price increases for many of the new issues when they begin trading). How, if at all, does this affect your recommendations?
 - (d) Describe the main factors, other than those outlined by Caper, that would cause a company with substantial cash flows like Spreadsheet to go public.
2. After working for First Rochester for two hectic years you are hired away to become Assistant Treasurer at a large industrial corporation, Westman Corp. Your CEO, Olby Handler, wants to raise capital to finance a new investment in the electronic imaging industry. He wants a recommendation from you about the type of financing that should be used for this large, long-term project. Westman currently has a very low debt/equity ratio and has had good earnings for many years. Evaluate the advantages and disadvantages of selling: (a) equity; (b) convertible debt; or (c) straight debt, and make a recommendation.
3. Assume that Handler has decided to move forward by selling equity in Westman Corp. (perhaps despite your advice). Given this decision, he would like a recommendation about the most effective way to sell the stock. Evaluate the advantages and disadvantages of: (a) using First Rochester as an underwriter in a "firm commitment" underwriting; (b) having a rights offering to Westman's 3,000,000 shareholders; (c) having a rights offering, with an arrangement that First Rochester will exercise the unexercised rights at the expiration of the offering; or (d) selling the stock directly to a single investor, such as Carl Icahn or T. Boone Pickens. What would you recommend?

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4. In the past five years the personal computer market has grown at a rapid rate. Three of the most successful firms that have benefited from that growth are Apple Computer, Lotus Development Corp., and Microsoft. In all three cases, a bright young entrepreneur has made a large fortune through the success of his company. Apple was the first to go public, and within 3 years of being a public company Stephen Jobs, the founder of Apple, had resigned from the company and sold almost all of his stock, because of a disagreement with the professional managers who had been brought in to run the company. A similar situation has occurred at Lotus, where Mitch Kapor has resigned all of his managerial roles and been replaced by a more traditional manager. In both Apple and Lotus, the primary disagreement was between the founder-entrepreneur, who had developed a big success through innovation and wanted to plow back the rewards from that innovation into more research and development activities, versus the outside professional manager, who wanted to cut back on the R&D activities and focus on marketing the existing product line to generate the largest possible revenues.
- (a) How do you think the stock market reacted to the news about the departures of Jobs and Kapor from Apple and Lotus? Why?
 - (b) Is the desire of the founder to maintain the "entrepreneurial spirit" of the company after it has gone public an example of the agency costs of outside equity? Why or why not?
 - (c) Given the history at Apple and Lotus, I suspect that Bill Gates (the founder of Microsoft) must be worried about his ability to continue to control his corporation now that it has gone public. Perhaps he limited the number of shares offered in Microsoft's IPO so that he would continue to have a large block of votes. What effect would this have on Microsoft's stock price?
 - (d) If Gates has "outsmarted" his outside shareholders by retaining voting control, does this mean that Microsoft's stock is a bad investment? Why or why not?
5. Suppose that Microsoft had sold nonvoting common stock in its IPO, retaining the voting class of stock for employees of Microsoft (i.e., if someone left Microsoft, his shares would automatically be converted to nonvoting stock). What effect would that have had on the IPO? Who would have gained or lost from such a decision?

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6. The CEO of Raywes (a man named Simon Williams), a profitable private manufacturing firm, has been badgered by representatives from a number of investment banking firms during the last five years. They are all trying to convince Mr. Williams that he should cash in his equity in Raywes by having an initial public offering (IPO) of stock. Williams' wealth is tied up in Raywes. He plans to remain as the CEO for many years and hand Raywes down to his son when he retires. The cash flows from operations are more than adequate to finance the Williams family's consumption, and to pay off the bank debt that has been used to finance new capital expenditures.

Given this information, and your knowledge from FIN 423, answer the following questions that Mr. Williams has raised:

- (a) Briefly describe the main advantages and disadvantages of an IPO, and relate them to the Raywes situation.
- (b) Assuming that Raywes has decided to go ahead with the IPO, what would happen if Raywes only sold a 25 percent minority interest to the public? What would happen if Raywes only sold "non-voting" stock to the public, and retained the voting stock for the family?
- (c) If there were three different investment banking firms competing for this business, how would you choose among them? How would you deal with these firms to get the best possible deal?
- (d) If you were Mr. Williams, how would you proceed?
7. The April 20, 1992 *Wall Street Journal* contains a story about the postponement of the initial public offering of stock by Great Lakes Dredge. The story is reproduced below. Comment on the reasons for the postponement and the likelihood that the IPO will eventually occur (if so, at what price?) How does this story relate to the evidence that most IPO's are underpriced?
8. The table below from the April 23, 1992 *Wall Street Journal* shows the largest IPO's during March 1992. The graph above it shows the market value of IPO's from January 1990 through March 1992. Given these facts, comment on current IPO market conditions. Is this a "hot issues" market? If so, what would you predict would happen to the pricing and frequency of IPO's in the coming months? [*Hint: relate your answer to the evidence discussed in the course.*]
9. On the following page is a copy of an article from the April 20, 1992 *Wall Street Journal* "Older IPOs, Rather Than New Ones, Seem Better Bargains to Some Investors." Relate the discussion in this article to the evidence we have discussed in FIN 423. In particular, is this a suggestion that the recent "hot" IPO market has cooled off? Are the conjectures in the *Wall Street Journal* consistent with Ritter's evidence on after-market performance of IPOs?
10. The table to the right from the April 25, 1994 *Wall Street Journal* shows the largest IPO's during March 1994. The graph above it shows the market value of IPO's from March 1993 through March 1994. Given these facts, and anything else you know about IPO market conditions in recent years, comment on current IPO market conditions. Is this a "hot issues" market? **Why, or why not?** If so, what would you predict would happen to the pricing and frequency of IPO's in the coming months? [*Hint: relate your answer to the evidence discussed in the course.*]

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11. The article below from the November 15, 1993 *Wall Street Journal* describes the proposed sale of \$143 million initial public offering of common stock in Gateway 2000 (the makers of most of the PCS in the Simon School). Given the information in the story, and everything you have learned thus far in FIN 423, comment on the following questions:
- (a) Why did Gateway choose to sell common stock (as opposed to some other type of security)? Why do you think they decided to sell stock at this time? ***Be as specific as possible.***
 - (b) What do you think will be the biggest problem (cost) associated with this offer? ***Be as specific as possible.***
- 12.
- (a) The table to the right from the March 31, 1995 *Wall Street Journal* shows the largest IPO's during February 1995. The graph above it shows the market value of IPO's from February 1994 through February 1995. Given these facts, and anything else you know about IPO market conditions in recent years, comment on current IPO market conditions. Is this a "hot issues" market? ***Why, or why not?*** If so, what would you predict would happen to the pricing and frequency of IPO's in the coming months? ***[Hint: relate your answer to the evidence discussed in the course.]***
 - (b) Why do you think that Oak Technology and Integrated Silicon Solutions' IPOs were so underpriced? ***[Hint: What factors do you think help to explain underpricing? How might they relate to these two companies (which I do not assume you know anything about)?]***
- 13.
- a) What were the main reasons that Microsoft chose to have an initial public offering (IPO) of common stock? Did their reasons differ from more typical IPO's? If so, why and how?
 - b) Microsoft's stock price rose dramatically after the IPO. Was this a loss to Microsoft? Why or why not?
 - c) What did Microsoft do to try to avoid the "underpricing problem"? Can you suggest other things they might have done?
 - d) What role, if any, did the federal securities laws play in exacerbating the problem of getting Microsoft's stock priced correctly at the IPO?

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14. The article below from the March 28, 1995 *Wall Street Journal* describes the proposed sale of \$23-26 million initial public offering of common stock in Performance Systems.

HL Heard On Street: Bulls Await Internet Provider IPO
DD 03/28/95

SO WALL STREET JOURNAL (WJ)

LP By Bart Ziegler, Staff Reporter of The Wall Street Journal

TX If it weren't for O.J., the Internet might win the contest for most overexposed story of recent months. The all-too-trendy global computer web has starred on magazine covers and TV shows, leaving investors salivating for a piece of the action.

And in just a few weeks, investors will get a rare chance to buy into the hype. Wall Street is eagerly awaiting the planned initial public offering of Performance Systems International, a Herndon, Va., company that links computer users to the Internet.

Should investors bite? If so, they had better be prepared to spit the stock out fast at the first sign of trouble, skeptical analysts say. Competition looms in cyberspace access. Performance Systems easily could be a very hot IPO. It also could catch a big chill later.

"By the end of this year, basic Internet access is going to be a low-margin, commodity business," contends Michael Murphy, editor of the Overpriced Stock Service newsletter. "There's going to be a huge change in the way people view these Internet-access companies."

Right now, the view is bullish. Never mind that Performance Systems has lost money the past two years and faces a daunting list of competitors, including coming on-line forays from giants Microsoft and AT&T. In offering materials, the company imputes a market value for all of its stock as high as \$234 million, or more than 15 times its 1994 revenue. That's assuming the company gets the top end of the \$7-to-\$8 share price it seeks for 3.3 million new shares, which would give the public an 11.3% stake. The IPO is planned for the Nasdaq Stock Market under the symbol PSIX.

Even the company's own stock-registration filing concedes "the Internet services business is highly competitive and there are no substantial barriers to entry."

But driven by on-line fever, the shares seem likely to surge as investors focus on the company's strong presence in the growing business of hooking up corporations to the Internet. Analysts say bold investors might do well to grab Performance Systems early on the way up, as long as they are ready to dump it like a computer virus at any sign the runup is ending.

"The public has a very, very strong appetite for investing in the Internet," says Harvey Poppel, a managing director at Broadview Associates, a technology-investment firm in Fort Lee, NJ And investors so far have had few chances to buy into pure-play companies in the Internet or other on-line fields.

One Internet service went public in December and has treated investors well. Netcom On-Line Communications Services now trades at 26 3/4, more than double its initial 13. The hard part is assessing when an on-line stock is about to plummet to earth. Days after the IPO? Months? Mastering this skill will be critical as Wall Street offers up ever more cyber-stocks. UUNet Technologies and Netscape Communications, two much-watched Internet-access firms, are believed to be mulling plans to go public, and a raft of lesser-known players awaits.

"It gets all hyped up when people start whispering Internet," says one executive at an Internet-access company who so far has resisted the Street's pressure to take his own operation public.

Given the information in the story, and everything you have learned thus far in FIN 423, comment on the following questions:

- Why do you think that Performance Systems is considering an IPO, while UUNET and Netscape Communications are waiting? What is likely to be the main motivation for having an IPO for this firm at this time? *Be as specific as possible.*
- Suppose that you had the opportunity to invest 10% of your liquid assets in this offering because a fellow Simon MBA graduate worked at the lead underwriting firm. Would you make this investment? *Why, or why not?*
- Suppose that were shut out of the IPO because it was vastly oversubscribed. Would you like to buy the stock in the after-market? *Why, or why not?*

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15. The April 11, 1995 *Wall Street Journal* describes a venture capital investment made by Sequoia Capital in the directory assistance software on the Wide World Web known as Yahoo. Does this type of "firm" seem typical of venture capital financed activities? *Why, or why not?* What are the benefits to Sequoia from this investment? What are the benefits to Mr. Yang and Filo?

HL Venture Capitalist Funds Hip Internet Guide
DD 04/11/95
SO WALL STREET JOURNAL (WJ)
LP By Jared Sandberg, Staff Reporter of The Wall Street Journal
TX Yahoo!

A puckish and popular on-line guide to the Internet, known by that name and founded by two Stanford University students who began it as a hobby, has lined up heavyweight backing from venture capitalist Sequoia Capital. Graduate students Jerry Yang and David Filo said they will take a leave of absence from their engineering studies to commercialize their Yahoo service, which draws an estimated 200,000 people each day and refers them to useful -- and often useless -- resources on the Internet's World Wide Web.

"We try to bring out the fun things on the 'net, like the toilet cam," a so-called Web site that supposedly pictures an ordinary toilet and gets thousands of onlookers a day, says Mr. Yang, 26 years old. "That's a good way to get people to come to you -- by providing totally useless stuff."

Such directory services are thought to be the Internet's next big business. Each day, hundreds of new services arise on the World Wide Web, but there isn't a central way for users to find out about them. Yahoo is a free service and will continue to be, although soon users will have to endure on-line ads that the service will display as a revenue vehicle.

"Yahoo answers the most pressing need on the Internet, which is how to find things," says Michael Moritz, general partner at Sequoia. Mr. Moritz said Sequoia, which has backed other high-tech ventures such as Apple Computer Inc., is providing "a sizable amount" of financing for Yahoo, which stands for Yet Another Hierarchical Officious Oracle. "The fact that it is offbeat and has developed a certain notoriety is what makes it appealing to us," he said.

The funding couldn't come at a better time for Mr. Yang and Mr. Filo, 28. By last November, the traffic on the Yahoo computer was so heavy that the two students feared Stanford officials were ready to kick them off the campus network. Despite job offers from outside firms, they plan to use the money to go it alone.

But first "we need to get an office space and all the standard fun stuff that business people get," Mr. Yang says.

16. The story below from the *Dow Jones News Wire* of April 3, 1996 describes the pending IPO for Lucent (a spin-off from AT&T). Read the article and answer the questions at the end.

HD Heard On Street: Lucent's IPO Is In Hot Demand
BY By Susan Pulliam
PD 04/03/96 06:00
SN Dow Jones News Service-Wall Street Journal Stories
CY (Copyright (c) 1996, Dow Jones & Company, Inc.)
LP It's the Rolling Stones. It's Barbra Streisand. It's . . . Lucent Technologies.

Like tickets to a sold-out concert, Wall Street is clamoring for a
* piece of the biggest initial stock offering in U.S. history, a 20% stake worth roughly \$3.3 billion in Lucent, the telephone equipment company being broken off by AT&T Corp.

TD On Friday, 500 investors showed up at a splashy New York road show at the Plaza Hotel and by yesterday traders were saying the 111-million-share deal, set to be priced at the close of trading today, was as much as four to five times oversubscribed. Fidelity Investments alone was said to have placed orders totaling 66.5 million shares for its mutual funds, though some traders cast doubt on those reports.

Some investors are already predicting that Wall Street will eventually develop indigestion from the Lucent deal. "Over time, it will be a good short," said one investor, who plans to participate in the initial offering anyway on the theory that Lucent shares have nowhere to go initially but up.

Risks to Lucent's share price include cutthroat competition, a huge overhang of 524 million shares that AT&T plans to offer by year end, and doubts about whether Lucent will actually be able to cut 23,000 jobs as planned in an increasingly anti-layoff climate.

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In the short run, however, the clamor for Lucent shares suggests the stock could surge from its offering price even after an increase late Monday in the proposed price range to \$25 to \$27 a share from a previous range of \$22 to \$25.

Lucent's underwriters, led by Morgan Stanley and Goldman Sachs, are evidently hoping to surf the wave of interest in telecommunications stocks that followed Monday's announcement of the \$16.7 billion Baby Bell merger pact between SBC Communications and Pacific Telesis.

"My feeling is that you'll have a nice premium, maybe eight to 10 points," in the first day of trading, said Vincent Slavin, who follows the initial public market at Cantor Fitzgerald & Co. Later he lowered his estimate to a \$3 jump in price, as stocks of some of the Baby Bells gave back some of Monday's big gains.

Robert Natale, a new-issues analyst at Standard & Poor's, said he expects Lucent to climb to \$35 to \$40 a share, or about 16 times his earnings estimate of \$2.50 a share for 1997. Other analysts are predicting Lucent will reach a level where its market capitalization approaches the same multiple of sales as its competitors.

Kathleen Smith, an analyst at Renaissance Capital in Greenwich, Conn., expects Lucent to rise quickly to around \$33, giving it a stock-market value of about \$21 billion, roughly equal to its revenue for 1995. Northern Telecom, by comparison, trades at about 1.2 to 1.3 times its revenue for the last year.

Rosy predictions such as these are enough to make any investor drool and yesterday major Wall Street firms, nearly all of which are involved in the underwriting, were said to have been besieged by calls from retail investors clamoring for a piece of the deal.

Indeed, early indications of interest in the Lucent deal recall the frenzy that surrounded the \$1.07 billion initial public offering last August of Netscape Communications, the internet wonder. But some people doubt Lucent's shares can possibly rise as fast; the telephone-equipment business just doesn't have the same appeal to retail investors.

- 1) Why do you think that AT&T is only selling 20% of Lucent at this time, but has announced plans to sell all of it by the end of the year?
- 2) Given that so many security analysts are predicting an immediate price jump of \$3-10, why do you think that AT&T has not raised the range of IPO prices higher than it has?
- 3) What do you think is AT&T's primary motivation for selling Lucent? How does this compare to other types of IPOs (e.g., Netscape, Indian Bingo, etc.)

II. Primary Distributions of Seasoned Stock, Underwriting, Rights and Private Placements

1. The evidence in Asquith and Mullins' paper indicates that the stock market doesn't like it when firms sell stock, and the evidence in Eckbo's paper indicates that the market doesn't seem to mind sales of debt. Given these facts, answer the following questions:
 - (a) Does this evidence imply that the corporate tax shield is a dominant factor in determining the optimal capital structure?
 - (b) Why do any firms sell equity, when it makes the old stockholders worse off?
 - (c) Why doesn't the stock market react positively to debt sales, given that it reacts negatively to stock sales? (i.e., Is there a profitable trading rule here?)
 - (d) How would you as the CFO choose between stock and bond issues to maximize the value of the firm?

2. Five years after graduating from the Simon School you are a partner in the fast growing investment banking firm of Silverman Baggs. You specialize in new securities offerings, and it is your responsibility to make sure that Silverman Baggs is always at the forefront in using new financial ideas to help its clients market their securities. A Rochester firm, Xerak, is considering selling stock to finance a \$3 billion capital expenditure program. Three options are being discussed by the staff at Silverman Baggs:
 - (1) Issue rights that expire in 6 months such that each of the 3 million shareholders can purchase 1 share of stock for each share already owned at a price of \$50 (the current Xerak stock price is \$60). There are currently 60 million shares of Xerak stock outstanding.
 - (2) Or, the analysts at Silverman Baggs have recently been pushing the idea of security "packages", where stocks and bonds are bundled together into units (e.g., you buy 20 shares of stock and a \$1,000 20 year bond as a unit for a combined price of about \$2,200). Current Aa long-term bond yields are about 10 percent. Xerak's current debt/equity ratio is about .83, and Xerak's outstanding debt is rated Aa by Moody's.
 - (3) Or, Xerak could sell a 20 year convertible bond, where each \$1,000 bond would be convertible into 10 shares of stock, and the coupon rate would be 4.5 percent.

Answer the following questions about these alternatives:

- (a) What will happen to the price of Xerak stock if each of these offers is announced? Which option will cause the largest change in price? Why? Should this be the basis for choosing which option is best?
- (b) What effect will each of these options have on Xerak's capital structure? Should this be a determining factor in deciding which option is best?
- (c) How would you evaluate the pricing terms of each alternative? (i.e., How would you know which alternative is the cheapest?) Describe the calculations you would make as explicitly as possible.

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(d) Should the bonds in alternatives 2 and 3 contain call provisions? Explain what call provisions are, and the motives that might lead managers to include them in a bond issue. How should these call provisions be factored into the pricing decision, if at all?

3. In your first job after graduating from the Simon School, you have been hired as a financial analyst by a prosperous private corporation that is involved in biomedical engineering research. The CEO is an M.D. who developed a number of potential pharmaceutical products during his career as an academic researcher. He created his firm, called Siprax, and arranged for private financing from a large, diversified publicly owned pharmaceutical company (Aspirin Corp.) to help with the long and expensive research and development process. At this point, the CEO owns 75 percent of the stock, Aspirin Corp. owns 25 percent (for which they paid \$10 million), and Aspirin Corp. has a \$15 million loan to Siprax. Because the process of getting approval for new drugs through the Federal Drug Administration (FDA) is so tedious, Siprax requires another \$40 million to pay for additional research and efficacy studies.

Aspirin Corp. wants to maintain 25 percent equity ownership in the company, so if Siprax sells stock, it must offer 25 percent to Aspirin Corp. as part of the deal. Since Aspirin Corp. is likely to market this product if it ever gets FDA approval, and they are a large minority shareholder, it seems that this request must be part of any stock offering.

Given this information, and your knowledge from FIN 423, answer the following questions:

- (a) The CEO believes that debt financing is not feasible because of the highly uncertain nature of the FDA approval process. Also, the firm's capital structure would be very levered if \$40 million of debt were sold, and there is no prospect for cash flows to make interest payments until after the FDA has approved Siprax' products. Given that Siprax will have to sell stock, what would be the cheapest way for it to raise the \$40 million?
- (b) Assuming that Siprax must sell stock to the public, *briefly* explain the main advantages and disadvantages of a public offering. Will it have an effect on the firm's cost of capital? Why or why not?
- (c) Assume that Siprax has chosen to use an investment banker to underwrite an initial public offering (IPO). A relatively new firm, Tweedy & Weedy, has put forward the following innovative argument: "The stocks we underwrite do extremely well in the after-market, often rising as much as 25-50 percent. This results from aggressive marketing of our clients' stock to our retail customers. The stock you currently own will be much more valuable due to our marketing campaign. Other, more established investment bankers (like Goldman Sachs) won't work as hard, so their customers' stock prices don't rise in the after-market." What evidence do you know that supports or refutes this argument? Can you think of an experiment that would convince you this argument was either true or false?

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4. The evidence in Asquith and Mullins' paper indicates that firms announce stock offerings after their stock price has risen abnormally, at the announcement there is a drop in price, and after the announcement the abnormal price increase stops.
- (a) Does this indicate that managers stop the run-up in their firm's stock price by announcing an equity offering?
 - (b) Does it mean that managers are good market timers, in the sense that they can tell when the stock price has 'peaked out', so they sell at the peak?
 - (c) Does the drop in stock price at the announcement mean that managers are doing something that makes their old stockholders worse off?
 - (d) Does the negative reaction to the announcement of an equity offering imply that managers should have used a debt offering, where the interest payments are tax-deductible for corporate income taxes?
5. Contrast and compare the various explanations for the underpricing of initial public offerings. In particular, explain the role of:
- (a) risk aversion on the part of underwriters;
 - (b) asymmetric information between investment bankers and the CFO/CEO of the firm that is thinking of going public;
 - (c) informed and uninformed investors;
 - (d) "hot issues markets";
 - (e) risk;
 - (f) inefficient markets;
 - (g) or any other explanation you can add to this list.

What *evidence* are you aware of that would allow you to discriminate among these explanations for underpricing? (Be as specific as possible).

6. A close friend who is a recent graduate of the Simon School M.B.A. program now works for Goldman Sachs in their corporate finance department. She claims that the sales force at Goldman is so effective that it can increase the value of a company's stock by at least 15-20 percent, which explains why the stock price for IPO's underwritten by Goldman have such good after-market performance. What evidence are you aware of that would allow you to verify or disprove these conjectures? (i.e., how can you discriminate between a 'hot issue' that is due to excellent selling methods by the underwriter versus underpricing?)

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7. Compare and contrast the advantages and disadvantages of different methods of selling seasoned equity:
- (a) an underwritten firm commitment offering;
 - (b) a rights offering;
 - (c) a private placement of stock;
 - (d) a stock purchase plan connected with a dividend reinvestment plan.

In particular, identify the characteristics of firms that would be most likely to choose each of these methods of selling new stock. *Make sure to explain your logic and relate your answers to the evidence we have discussed in the course.*

8. In a job interview, the CEO of a prosperous private corporation asks you to give him advice about the advantages and disadvantages of raising capital using a public equity offering. He is thinking of expanding his business by building several new manufacturing and distribution centers throughout New York and New England.

- (a) Briefly explain the factors that should be evaluated in making this decision.
- (b) Also, this CEO has read the *Fortune* article about Bill Gates' experience with the Microsoft IPO. He wants to know how he can avoid the cost of 'underpricing.' Explain what the 'underpricing' problem is, and why you think it occurs. Also, explain how he can minimize this problem. Be as specific as possible.

9. A close college friend who is about to graduate from the University of Chicago Business School has heard about IPO underpricing. She wants to start a money management firm that will purchase shares in IPOs, hold them for 6 months, then sell them and purchase shares in a new IPO. She wants you to join her in this entrepreneurial undertaking (knowing the reputation of the Simon School.) She thinks that you could manage money for wealthy investors, pension accounts, and possibly even set up a no-load mutual fund. Do you think you could earn risk-adjusted excess returns by following this strategy? *Why, or why not?*

10. Compare and contrast the advantages and disadvantages of different methods of selling seasoned equity:
- (a) an underwritten firm commitment offering;
 - (b) a rights offering;
 - (c) a private placement of stock;
 - (d) a stock purchase plan connected with a dividend reinvestment plan.

In particular, identify the characteristics of firms that would be most likely to choose each of these methods of selling new stock. *Make sure to explain your logic and relate your answers to the evidence we have discussed in the course.*

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11. Read the attached article from the June 7, 1991 *Wall Street Journal* about the recent Time-Warner proposed rights offering. How does the \$17 drop in the stock price (to a level of about \$100) over two days compare with the typical result for announcements of seasoned equity offerings? Given Smith's evidence on the cost of rights offerings, why is the stock market reacting so negatively to this deal? Finally, since the announced purpose of this offering is to reduce debt load (repay the bank loan that comes due in 1993), how does this deal compare with Masulis' evidence on equity-debt recapitalizations?
12. The April 27, 1992 *Wall Street Journal* contained an article (reproduced on the following page) describing General Motors' plan to raise \$2.9 billion in a seasoned equity offering. At the same time, GM announced some additional management restructuring plans. The stock price fell \$ 2.75 to \$ 39.625. Comment on the stock market reaction to this news release. How does it compare to evidence concerning other seasoned equity offerings? Is this evidence that the demand curve for GM shares slopes downward? *Why, or why not?*
13. The October 25, 1993 *Wall Street Journal* (reproduced below) describes the use of rights offerings by closed end mutual funds to raise new investment funds. Why would these firms use rights offerings more frequently than typical industrial firms? From the perspective of the shareholders, how does this compare with the process of investing in open end mutual funds?
14. The July 21, 1993 *Wall Street Journal* (reproduced below) describes the sale of 100 year bonds by Disney. What would be the benefits and costs of such a securities offering? How do you think the stock market reacted to this announcement? Relate your answers to the evidence discussed in the course.
15. The March 25, 1994 *Wall Street Journal* (reproduced below) describes the private placement of \$200 million of 9.76% convertible preferred stock by U.S. Surgical. Based on what you have learned in FIN 423, why do you think U.S. Surgical chose to make this kind of offering? Are you surprised at the stock market reaction to it? If you were advising other firms, under what circumstances would it make sense to issue this kind of security (and who would want to buy it)?
16. The March 25, 1994 *Wall Street Journal* describes the private placement of 700,000 shares of stock by Interlink Electronics. Based on what you have learned in FIN 423, why do you think Interlink chose to make this kind of offering? How do you think the stock market reacted to it? If you were advising other firms, under what circumstances would it make sense to issue this kind of security (and who would want to buy it)?

HL Interlink Electronics Closes 700,000-Shr Private Placement
DD 04/21/95

SO DOW JONES NEWS WIRE (DJ)

LP LOS ANGELES -DJ- Interlink Electronics (LINK) completed a private placement of about 700,000 newly issued common shares, representing a stake of about 17%. An Interlink spokesman declined to disclose the financial terms.

TX After the placement, Interlink has about 4,063,000 common shares outstanding, he spokesman said. In a press release, Interlink said Sutro & Co. served as the manager for the private placement, with an investment group led by Wells Fargo Investment Management Group. The proceeds will be used for working capital, to expand the company's VersaPoint pressure-pointing technology and product line, to expand into new geographical markets in Europe and Asia, and to develop new products targeted for the CD-I and multimedia markets, the company said.

III. Corporate Bond Financing

1. Westman Corp. issued a 30 year convertible bond 6 years ago with a coupon of 4.5% that is convertible into 25 shares of Westman stock for each \$1,000 face value bond. Handler is so pleased with your analysis in the previous projects (because of the wonderful training you received at the Simon School) that he has asked you to tell him what to do about this convertible bond. In particular, the current conversion value of the bond is \$1,110, and the current call price is \$1,100. In 18 months the call price drops to \$1,080, and then the call provision expires in 36 months (i.e., if you don't call it in the next 3 years you never can call it).
 - (a) First Rochester recommends that Westman call the bond to force conversion. Why?
 - (b) What *should* happen to Westman's stock price when the call is announced?
 - (c) Based on the evidence in Mikkelson's paper, what do you think will happen to the stock price? the convertible bond price? the straight bond price? Why?
 - (d) Based on the evidence in Ofer and Natarajan's paper, how would your answers to parts (a), (b) and (c) change, if at all? Why?
2. Given the evidence in the papers by Vu, Mikkelson and Ofer and Natarajan, and your knowledge of financial theory, briefly analyze the policy that should be followed in "calling" corporate bonds. First, explain what call provisions are and the motives that managers might have for choosing to exercise these options. Also, explain how this policy might differ if one is considering straight versus convertible debt issues.
3. How does the evidence in the paper by Ofer and Natarajan alter your view of optimal call policy for convertible debt, if at all? Explain how you interpret their evidence, and how it would alter the advice you would give to a CFO after having read that paper, if at all.
4. Most corporate bonds contain a variety of options that allow either the issuing firm or the bondholder to alter the sequence of coupon and principal payments during the life of the bond. For example, most long-term corporate bonds are *callable* and many are *convertible*.
 - (a) Briefly explain what a *call provision* is, and explain 'rational' call policy for a firm with nonconvertible debt.
 - (b) Explain the reasons why firms would want to include call provisions in corporate debt contracts.
 - (c) What does Vu's evidence indicate about the reasons that firms exercise the call provision?
 - (d) If you were an investment banker, what type of firm would you recommend *should not* include call provisions in their debt contracts?
 - (e) Briefly explain what a *conversion option* is, and what 'rational' conversion policy for a bondholder should be.
 - (f) Explain the reasons why firms would want to include convertibility provisions in corporate debt contracts.

III. Corporate Bond Financing

- (g) What does Eckbo's evidence indicate about the reaction of the stock market to the announcement that a firm is issuing a convertible bond (instead of straight debt)?
- (h) What is the 'rational' call policy for firms that have convertible debt?
- (I) How do you interpret Mikkelson's evidence on the reaction of the stock market to the announcement that a firm is calling a convertible bond to force conversion?
- (j) In what sense is a call to force conversion similar to a debt-for-equity exchange offer (or recapitalization)? How does Mikkelson's evidence compare with Masulis' evidence?
5. In your first job after graduating from the Simon School you are hired as a financial analyst for a large *Fortune* 500 firm. The Chief Financial Officer (CFO) calls you into her office to ask your advice about a proposed new debt offering. Answer her questions with particular reference to the analysis and evidence from FIN 423:
- (a) Should we make the debt offering callable? *Why or why not?*
- (b) Should we make the debt offering convertible? *Why or why not?*
- (c) What will be the effect on our stock price if we announce a convertible or a non-convertible debt offering? *Why?*
- (d) What will be the effect on our stock price if we subsequently call the bond if it is convertible or non-convertible? *Why?*
- (e) Assuming that we make the bond callable, what policy should the company use to decide when to call it if it is convertible or non-convertible? Explain in as much detail as you can.
6. Masulis shows that leverage decreasing recapitalizations are associated with a drop in stock prices. Mikkelson shows that calls of convertible securities are associated with a drop in stock prices.
- (a) Why would management voluntarily choose to make these changes in capital structure if they know that stock prices are going to fall?
- (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?
7. Ofer and Natarajan find that stock prices fall for several years after calls to force conversion of convertible bonds. Explain how, if at all, this fact alters your view of the 'optimal' call policy for convertible bonds. First, explain the 'optimal' call policy in the absence of information/signaling considerations. Second, explain how the Ofer & Natarajan results might reflect asymmetric information. Last, explain why the Ofer & Natarajan evidence is puzzling.

III. Corporate Bond Financing

8. The April 20, 1992 *Wall Street Journal* (reproduced below) describes a plan by Time-Warner to raise \$1 billion in a private placement of debt with institutional investors to reduce commercial bank debt. How would this transaction "strengthen its debt-laden balance sheet?" Why might Time-Warner prefer private placement debt to commercial bank loans (at the margin)?

The *WSJ* story also says that Time-Warner is trying to sell a minority interest in its cable TV and film operations to Toshiba and C. Itoh for \$1 billion (presumably equity.) If you were a Time-Warner stock (or bond) holder, what information about would you infer from these stories?

9. A recent paper by a research economist at the Federal Reserve Board finds that the proportion of corporate bond issues that contain call provisions is much lower than it was five years ago (now about half of long-term issues contain call provisions, whereas five years ago nearly all did). He also estimates that the price of the call provision is higher today than it was five years ago. Assume that these facts are true. Answer the following questions based on the theories and evidence we have discussed in FIN 423.

- (a) How would you estimate the "price of call provisions" if you were going to study this question?
- (b) Why might the "price" of call provisions have risen in the last five years?
- (c) Why do you think the use of call provisions has fallen off in recent years?
- (d) What types of firms would benefit the most from including call provisions in their debt securities? What types of firms would benefit the least? **Why?**

10. The March 21, 1995 *Wall Street Journal* (reproduced to the right) describes the first ever public debt offering by the *New York Times*. \$125 million will be non-callable debt at 55 basis points above Treasuries and \$125 million will be 30 year debt at 85 basis points above Treasuries that are noncallable for the first 10 years.

- (a) Why do you think that the *New York Times* has never had a public debt offering before?
- (b) The proceeds of this offering are apparently going to be used to refund maturing debt obligations. Why are they using debt instead of equity to pay off these maturing bonds?
- (c) What alternatives do you think they considered when they decided that it was "lower cost to finance debt, and the company can find a better interest rate"?

III. Corporate Bond Financing

11. The story below from the January 27, 1994 *Wall Street Journal* describes the IPO of a \$130 million convertible note offering for Boston Chicken.

HL Heard On Street: Boston Chicken Gets Cool Reception
DD 01/27/94

SO WALL STREET JOURNAL (WJ)

LP By William Power

NEW YORK -- Boston Chicken, the hottest initial public offering of 1993, received a much cooler reception when it sold convertible debt Wednesday, *The Wall Street Journal* reported.

TX Just two months after its wildly successful IPO soared 143% the first day, the company Wednesday tapped the public markets again with a \$130 million convertible-note offering.

Some traditional convertible-note buyers steered clear of the offering, which carried junk-credit ratings. Others sold their securities as soon as they got them. And underwriter Merrill Lynch apparently wound up stuck with some of the securities, which were quoted late in the day on the Nasdaq SmallCap Market at 99 1/4. They had been priced at par or 100, so initial investors in effect lost \$7.50 for each \$1,000 face amount of securities they bought Wednesday.

Wednesday's lukewarm offering suggests that a hot IPO's radiance won't necessarily extend to every securities offering by the same company. Boston Chicken's common is trading at 348 times its past year's per-share earnings, and 75 times the most optimistic estimates for this year. Reasons one convertibles trader: "You can't ring the bell every time."

"It's an excellent company but difficult to value at this stage of development," says Daniel Pine, co-manager of Vanguard Group's \$200 million Convertible Fund. Pine says he didn't buy any of Wednesday's offering, even though he is generally bullish on the convertible bonds of growth companies. "If I thought it was going to be a blowout, I would have bought some." Boston Chicken's stock price of 45 1/4, up 1/2 Wednesday, and more than double the IPO offering price of \$20 a share, is "hard to justify," he says.

Not the company is crying. After all, the comparatively young company, which had years of losses before turning a profit last year, did manage to raise \$130 million by selling some of the lowest-rated convertibles to hit the market recently. Moody's Investors Service Inc. rated the notes single-B-3 and Standard & Poor's Corp. tagged them triple-C-plus, both squarely in the junk category. S&P warned of Boston Chicken's "high-risk, rapid-growth strategy within an industry that already is considered to have above-average risk characteristics." Mark Stephens, Boston Chicken's chief financial officer, says of Wednesday's offering: "We feel good about it." He suggests investors shouldn't read too much into the debt's price performance, just as the performance of the IPO was an aberration going the opposite direction. "The experience of the IPO, where it skyrocketed, that phenomenon didn't necessarily indicate the history of our experience in the market, nor does the first day of trading in these bonds," says Stephens.

He was speaking from Denver, where Boston Chicken just opened two more outlets, bringing the ever-increasing total to 238. The proceeds from Wednesday's offering will help finance what Boston Chicken calls its "accelerating" expansion plans, which now call for 450 stores nationwide by year's end.

Stephens concedes that November's IPO was "a little bit crazy." But he emphasizes that management is in for the long haul, saying: "None of the officers are selling their Boston Chicken stock or are going to." Stephens says another securities offering is "not likely" in 1994.

(a) Why do you think that this offering did not jump in price like the IPO of stock had done in late 1993?

(b) Why would Boston Chicken decide to issue a convertible note instead of more equity?

IV. Intrafirm Tender Offers and Recapitalizations

1. Given that the Federal tax code taxed dividends to shareholders at higher rates than long-term capital gains (prior to 1987), many academics have argued that firms should repurchase their shares instead of mailing out dividend checks as a way of minimizing the tax liability of the stockholders. There are many types of share repurchases, including repurchase tender offers, targeted share repurchases (to odd lot holders, or to large block holders), and open market repurchases. If you were the CFO of a company and you wanted to substitute share repurchases for cash dividend payments to minimize tax liabilities, what type of repurchase program would you follow? (e.g., Would you initiate a repurchase tender offer at a premium of 25 percent over the current stock price?)

2. According to Larry Dann, repurchase tender offers have the following characteristics (on average): (i) the firm seeks to repurchase 15 percent of its stock (and does in fact purchase about 16 percent); (ii) the firm offers a premium of about 20 percent over the market price of the stock before the offer; (iii) about 18 percent of the stock is tendered to the firm; and (iv) the stock price rises by about 15 percent during the offer period, then falls slightly to remain about 12 percent above the pre-offer level.
 - (a) Explain why the stock price does not rise up to the level offered by the firm.
 - (b) Explain why the stock price falls after the offer expires.
 - (c) Explain why only 18 percent of the outstanding shares are tendered (on average).
 - (d) If you were the CFO of a firm with large cash balances, would you initiate a repurchase tender offer at a premium to create a permanent increase in your company's stock price? *Why, or why not?*

3. Your company is in the enviable position of having abundant "free" cash flow (i.e., more than enough to fund the profitable capital expenditure programs, make interest and dividend payments, etc.) What would you recommend the company do with this free cash flow? In particular, consider the following options:
 - (a) Open market repurchases of debt or equity securities;
 - (b) A repurchase tender offer (at a 20% premium) for common stock;
 - (c) Increase executive compensation;
 - (d) Increase cash dividend payments to the common stockholders;
 - (e) Or any other alternative you can think of.

Defend your analysis with evidence from FIN 423 and make clear what assumptions you are making about your firm.

IV. Intrafirm Tender Offers and Recapitalizations

4. Your company is considering a change in its payout policy to stockholders. Given that it wants to pay out about 50 percent of its net operating cash flows to stockholders, should it:
- (a) begin open market repurchases of stock?
 - (b) save up cash to fund a repurchase tender offer (at a 20% premium) for common stock?
 - (c) increase cash dividend payments to the common stockholders?

Defend your analysis with evidence from FIN 423 and make clear what assumptions you are making about your firm. In particular, indicate situations where each of these options might be preferred to the others.

5. The story below from the May 10, 1994 *Wall Street Journal* describes the plan by FLP Group to cut its dividend and to begin a share repurchase plan. Based on the evidence we have discussed in FIN 423, what do you think FLP is trying to do here? Are you surprised by the stock market reaction to this announcement? *Why, or why not?*
6. The January 24, 1995 *Wall Street Journal* describes the announcement by Tandy that it planned to call to force conversion of PERCs into common stock. Can you explain why the stock market reacted so adversely to this announcement? How does this relate to the evidence you learned about in FIN 423?
7. The story below from the *Wall Street Journal* of April 17, 1996 describes the \$2 billion stock repurchase program recently announced by Kodak. Read the article and describe whether the stock market reaction to this repurchase plan is similar to the average experience reported by Vermaelen, Dann, and others. If there are differences, what are they and why do you think they happened?

HD Kodak to Start \$2 Billion Buyback; 1st-Period Net Tops Expectations
BY By Wendy Bounds, Staff Reporter of The Wall Street Journal
PD 04/17/96

SN The Wall Street Journal, B4
CY (Copyright (c) 1996, Dow Jones & Company, Inc.)

LP Eastman Kodak Co. said it would mount its second stock buyback in the last six months and reported slightly stronger-than-expected first-quarter earnings.

Rochester, N.Y.-based Kodak, a photography and imaging company, said its board authorized a repurchase program of up to \$2 billion of its outstanding common stock over the next four years. The company, however, said it expects to complete the program in two to three years. This
* follows a \$1 billion stock repurchase program launched last October, which Kodak said would be completed within a month.

TD Kodak's first-quarter net income rose 4.6% to \$274 million, or 80 cents a share, from \$262 million, or 77 cents a share, a year earlier. The results beat analysts' estimates by about five cents a share. Total first-quarter sales climbed 8% to \$3.39 billion from \$3.14 billion in 1995. The earnings improvement, coupled with the stock buyback, sent Kodak's stock climbing 4.7% to close at \$73, up \$3.25, in late composite trading on the New York Stock Exchange. The report also capped what is Chief Executive George Fisher's second full year leading Kodak in its difficult transition from a one-track photography giant into a broad, digitally competent imaging concern. "I think there's some reassuring evidence that a turnaround is in progress," said Michael Ellmann of Schroder Wertheim & Co.

IV. Intrafirm Tender Offers and Recapitalizations

Kodak's copier business reported a surprise profit where analysts had expected a loss; analysts estimated the unit earned between \$5 million and \$10 million. As reported, Kodak is exploring strategic alternatives for the business, including a total or partial sale of the division, which has faced increasing competitive pressures during the last few years. Kodak Chief Financial Officer Harry Kavetas yesterday said the unit's performance in the first quarter "speaks well to the attractiveness of the business for someone considering investing in it." Notably, Mr. Kavetas said Kodak indeed most likely would sell all or partner a portion of the business, rather than keep it and attempt a turnaround alone.

Film revenue rose 16% to 23% worldwide, while photographic paper revenue climbed 11% to 15%. Kodak's Consumer Imaging division -- its largest -- saw earnings climb 10% despite increased advertising and marketing spending on the company's new Advanced Photo System products due to hit shelves later this month. Mr. Kavetas said Kodak would have trouble meeting initial retail demand in the nine countries where it will release its Advanced Photo System products -- an entire new line of film and cameras, indicating demand for the system is perhaps stronger than expected.

Casting a shadow on Kodak's first-quarter earnings picture was the Commercial Imaging division, which is under intense competition from rivals such as Tokyo-based Fuji Photo Film Co., particularly in products such as graphic arts and color professional film. Commercial Imaging's earnings fell 11%.

8. The story below from the *Wall Street Journal* of October 21, 1994, describes the outcome of the repurchase tender offer made for \$2.7 billion of its debt. Why do you think that Kodak offered to pay a premium to repurchase its debt? Why did they have to pay \$220 million to unwind derivative positions that supposedly hedged the debt positions? Why was only 57% of the debt that was sought tendered by bondholders? How do you think that the stock market reacted to the announcement of the bond repurchase plan? Why?

HD * Kodak Bond Holders Accept Tender Offer; Debt Cut About 57%

PD 10/21/94

SN The Wall Street Journal

CY (Copyright (c) 1994, Dow Jones & Co., Inc.)

LP ROCHESTER, N.Y. -- Eastman Kodak Co., a producer of photographic equipment, chemicals and plastics, said holders of about \$2.7 billion in bonds accepted a tender offer, representing about 57% of the \$4.76 billion in debt that Kodak offered to redeem.

Kodak said it will pay a \$150 million pretax premium over face value of the redeemed bonds. That premium, which will be taken as a fourth-quarter charge, Kodak said, was necessary because interest rates are lower now than when the bonds were issued to investors.

TD Also, the company said it has paid an additional \$220 million in pretax premiums to unwind nearly all of its derivative positions taken to protect against movements in interest rates on its debt. Likewise, those premiums are being paid because interest rates are lower than when the swaps and options were put into place. Kodak said it will account for the bulk of these premiums in fourth-quarter charges. In New York Stock Exchange composite trading, Kodak closed at \$49.50, down 50 cents.

Plump with proceeds from recent divestitures, Kodak had offered to buy back about 80% of its \$6.3 billion in total debt. The offer was tendered during an 11-day stretch that began Oct. 4.

IV. Intrafirm Tender Offers and Recapitalizations

Analysts said the results of the tender offer, as well as the premiums, "were consistent with expectations." B. Alex Henderson of Prudential Securities Inc. said "the company has indicated it still wants to retire \$4.76 billion in debt," but he doesn't expect the entire amount to be retired by year's end. Kodak said it would "continue to look at options" to further reduce its debt, adding that its reduction program could move into next year.

9. The story below from the *Wall Street Journal* of February 20, 1996 describes the proposed recapitalization of Morrison Knudsen (which ran into financial troubles under the leadership of William Agee, formerly of Bendix and Mary Cunningham fame). Read the article and describe whether the stock market reaction to this recapitalization proposal is similar to the average experience reported by Ron Masulis. If there are differences, what are they and why do you think they happened?

HD Morrison Knudsen Proposes Exchanging Its Debt for Equity
PD 02/20/96
SN The Wall Street Journal, PG A9
CY (Copyright (c) 1996, Dow Jones & Company, Inc.)
LP BOISE, Idaho -- Morrison Knudsen Corp. said it is in talks with its creditors to exchange secured debt for equity as part of a company * recapitalization.

The engineering and construction company didn't disclose any possible terms of such a swap. It isn't clear that MK's creditors will accept the * recapitalization, which the company said "would substantially reduce the value of existing stockholders' interests."

TD Most of the loans to MK that were originally held by banks have been * sold to traders for about 60 cents on the dollar. Recapitalization talks with these creditors, MK said, are still in their early stages.

"The ball's in their court," said MK spokesman Brent Brandon. The debt-for-equity swap, he said, "is the best alternative available" to MK. The company also has said it is exploring other options.

Mr. Brandon said it would be "at least a couple of weeks before we get any feedback" from the creditors' group on MK's proposal. No creditors could be reached to comment.

MK, which ran up huge debts under former Chairman and Chief Executive William Agee, has a bridge loan of \$25 million due March 31, which Mr. Brandon said MK can pay from existing cash flow. The company has a loan of \$100 million due Sept. 30, and \$114 million due at the end of 1996.

In New York Stock Exchange composite trading Friday, MK closed at \$3.125, up 25 cents.

IV. Intrafirm Tender Offers and Recapitalizations

10. The story below from the *Wall Street Journal* of January 19, 1996 describes the proposed recapitalization of Advo. Read the article and analyze the stock market reaction to this announcement. Is it similar to what you would have predicted from Masulis' paper? Why, or why not? Why do you think they chose this plan versus a premium repurchase tender offer?

HD Advo Special Payout Of \$10 Is Declared; Net Declines by 30%
PD 01/19/96
SN The Wall Street Journal
CY (Copyright (c) 1996, Dow Jones & Company, Inc.)
LP WINDSOR, Conn. -- Advo Inc., unable to attract an acceptable acquisition offer, declared a special cash dividend of \$10 a common share and said it would borrow as much as \$195 million to pay for it. The direct-mail marketing-services company has been trying to maximize shareholder value. Selling the company was its first plan, but when that fell through, it declared the special dividend.

TD The company also reported that fiscal first-quarter net income fell 30% from the year-earlier period. In composite trading yesterday on the New York Stock Exchange, Advo shares yesterday closed at \$20.625, down \$3.875, or 14%. Advo had engaged Goldman, Sachs & Co. in September to explore strategic alternatives but said it didn't receive an acceptable price for the company. Lowell Robinson, chief financial officer, said the * board decided that the special dividend "recapitalization" plan was the fairest for shareholders since "it basically treats every shareholder equal." The board rejected a stock-buyback tender offer, he said. For the fiscal first quarter ended Dec. 30, Advo posted net income of \$6 million, or 25 cents a share, on revenue of \$256.5 million. The earnings include a loss from disposal of discontinued operations of \$981,000, or four cents a share. In the year-earlier period, the company had net of \$8.7 million, or 37 cents a share, on revenue of \$248.1 million. The earnings included a loss from discontinued operations of \$15,000.

V. Interfirm Tender Offers, Mergers and Corporate Control

1. You have begun your first job as a financial analyst at the investment banking firm of First Rochester. As your first assignment (which you have to accept), you are asked to advise a new computer software firm, Spreadsheet Inc., on strategy for having an initial public offering. The founder of the firm, Mitch Caper, feels that Spreadsheet is a unique company and can only succeed if he continues to control its operating decisions in the future. At the same time, Mitch would like to diversify his personal wealth by cashing in some of his equity in Spreadsheet's stock through an IPO. What advice would you give Caper about the following options:

(a) sell a small minority of common stock to the public (so that Caper maintains voting control of the corporation); or

(b) create a new class of nonvoting common stock, Class B, that would allow Caper to maintain voting control but to sell a larger claim on the future cash flows of Spreadsheet; or

(c) don't sell stock at all -- after all, many companies like Spreadsheet have recently had leveraged buyouts (LBOs) to "go private". Instead, Caper should arrange some high risk debt financing (i.e., "junk bonds").

Compare and contrast these three methods of achieving Caper's goals. Support your arguments with relevant evidence.

2. As your second assignment for First Rochester you are asked to provide a recommendation about a corporate charter amendment for the GSM Corp. Paul MacAvoy, the CEO of GSM Corp, is afraid that some raider, such as Princeton Inc. or Brown Corp., will try to takeover his prospering firm to become part of their conglomerate corporations. MacAvoy's proposal is to include a "fair price" provision in the corporate charter -- any offer to buy GSM stock at a premium above quoted market prices must be made available to all GSM stockholders. This would eliminate "two-tier" tender offers where a raider could buy controlling stock at high prices and then buy up minority stock at lower prices. Explain the benefits and costs of such a proposal. What would happen to GSM's stock price if such a provision is proposed to the stockholders? Cite evidence to support your position.

V. Interfirm Tender Offers, Mergers and Corporate Control

3. As a result of the successes you have had in your previous assignments at First Rochester, you have been promoted to become the managing partner in the mergers and acquisitions(M&A) group. A local manufacturing firm, Computer Terminals, has received a merger proposal from another firm in a related line of business, MAH Corp. The CEO at Computer Terminals has retained First Rochester to provide advice about the merger negotiations. He is particularly interested in facts (evidence) that you can provide him to direct him how to behave in this transaction.
- (a) MAH has offered an exchange of common stock which gives Computer Terminals' stockholders a premium of 12 percent relative to the current market price. Is this a "good" price? What do you think would happen to Computer Terminals' stock price when this deal is announced? What will happen to MAH's stock price?
 - (b) Suppose that Computer Terminals' management decides to turn down the offer after it has already been announced. What will happen to the stock prices of these firms? What justification could the Computer Terminals' CEO give for turning down the offer?
 - (c) Now, suppose that another bidder, Poone Bickens, announces that he is making a cash tender offer for 51 percent of the stock of Computer Terminals. Would you expect that the price would be above or below the offer from MAH? Why? What would happen to Computer Terminals' stock price?
 - (d) The CEO of Computer Terminals is concerned that Bickens will take advantage of the minority shareholders that remain after the tender offer. He plans to fight Bickens by instituting a competing tender offer for Computer Terminals' shares (a repurchase tender offer). Explain the advantages and disadvantages of this strategy.
4. As a last resort, in an effort to save the interests of the minority shareholders, Computer Terminals decides to offer to buy the stock that has been purchased by Bickens at a substantial premium above his cost. They also ask Bickens to sign a "standstill agreement". Define what is meant by a standstill agreement and predict what will happen to Computer Terminals' stock price. Would you recommend such a course of action to Computer Terminals? Why or why not? Cite evidence to support your position.
5. Briefly explain why the "free rider" problem is related to "two tier" tender offers. What would be the effect of a proposal by a corporation to prohibit two tier offers? What would be the effect of an S.E.C. rule that prohibited two tier offers?

V. Interfirm Tender Offers, Mergers and Corporate Control

6. Dodd and Warner find that abnormal stock returns are positive during the 3 months before the announcement of a proxy contest, and they are negative during the 2 months after the announcement. One interpretation of this evidence is that proxy fights occur in firms whose stock prices have been rising (i.e. sample selection bias), and that the costs of defending the firm against the dissidents cause the stock price to fall during the period after the initial announcement of the contest. Do you agree with this interpretation? If not, can you provide a different interpretation of this evidence?
7. What do you think would happen to the stock price of Microsoft if it was announced that Bill Gates had been granted a "golden parachute" contract, where he would be paid a large sum of money if the directors of Microsoft ever decide to fire him? What are the benefits and costs of such a contract?
8. In many leveraged buyout (LBO) offers, the management is purchasing the equity in the firm, perhaps with the help of a few outside investors (such as Bill Simon). They use debt financing to help purchase the existing stock, with the intent of limiting the number of shareholders so that the S.E.C. does not require disclosure of financial statements to the public.
 - (a) In "going public" transactions, one of the biggest costs seems to be the underpricing problem. Yet, in most "going private" transactions the bidder is willing to pay a substantial premium for the shares of the target. Why would someone want to 'go private' if he knew that he would have to bear the cost of underpricing when and if he ever 'went public' again in the future?
 - (b) LBO's usually result in substantial changes in the capital structure of the corporation, with much higher leverage. Based on the evidence from Masulis' study of exchange offers, do you think that this increased leverage is good for the firm? Why?
9.
 - (a) Briefly explain what a "two-tier" tender offer is, why a bidding firm might want to use this strategy, and who is most threatened (harmed) by such a tactic.
 - (b) In the face of a two-tier offer, explain how you would react if you were a target firm shareholder. Be as specific as possible about the circumstances under which you would, or would not, tender your shares.
10. The average returns to target firm shareholders are higher in tender offers than in mergers, and they are even lower in proxy fights. Can you explain the relations among these premiums?

V. Interfirm Tender Offers, Mergers and Corporate Control

11.
 - (a) Imagine that you were an outside member of the Board of Directors of a Corporation that was considering adopting a number of anti-takeover charter amendments, including a 'poison pill' security issue, staggered terms for the Board members, supermajority provisions for major corporate decisions, and 'golden parachutes.' Briefly describe and summarize the arguments for and against these 'shark repellents', and support your analysis by referencing relevant evidence.
 - (b) Now, suppose that an unsolicited (unfriendly) tender offer has been made for this firm. Incumbent management are considering a 'crown jewel' defense, a 'Pac man' defense, or a 'scorched earth' defense, in addition to using some of the existing charter provisions (adopted in part (a)). Briefly describe the characteristics of these defenses and analyze the appropriateness of these defenses from the perspective of target shareholders.
12. 'Going private' transactions or leveraged buyouts (LBOs) have become increasingly popular in recent years. Answer the following questions about LBOs:
 - (a) Explain the conflict of interest problem in LBOs that differs from interfirm tender offers. How can this problem be mitigated?
 - (b) How do LBOs differ from repurchase tender offers? from leverage-increasing recapitalizations? What incentives would lead management to choose one of these alternatives?
 - (c) In many cases, LBOs are followed within a relatively short time (3-5 years) by an public sale of stock (either an IPO or a sale of stock to the employees of the firm as happened recently with Avis Rental Cars). What could change about a firm in such a short time that would explain 'going private' and then 'going public?'
13.
 - (a) Briefly explain why most corporations assign voting rights to common stockholders, rather than bondholders, preferred stockholders, employees, or customers. What are the costs of limiting the voting rights of common stockholders? Who 'pays' for these costs? Why?
 - (b) Suppose that votes could be traded in much the same way that rights are traded. Explain how the votes would be valued (e.g., when are the votes likely to have greatest value? What factors will lead to the greatest value?) Suppose that stockholders could choose between two classes of common stock, one that paid a 'normal' cash dividend and carried one vote per share and one that paid a cash dividend equal to the 'normal' dividend plus the cash value of the votes as determined by the 'vote market' on the record date for the vote. What would you expect to be the relation between the prices of these two classes of stock? How does this prediction compare with the empirical evidence on the 'value of votes?'
14. A recent article in the *Wall Street Journal* describes an S.E.C. study that finds that 'bad' bidders (i.e., bidding firms' whose stock prices fell when they announced takeover bids) become targets in future hostile takeovers. Why would someone want to acquire the 'bad' bidder? Briefly describe the evidence that supports or refutes this model for hostile takeovers.

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15. Recently, there has been much discussion about the negative effects of hostile takeovers. Several legislators and regulators have proposed rules that would require anyone acquiring a 'foot-hold' position in a target corporation's stock (2 or 3 percent) to file an immediate 13-D statement with the S.E.C. (current rules allow somewhat delayed filing when a holding reaches 5 percent.) There have also been proposals to eliminate 'two-tiered' tender offers, and to lengthen the period when tender offers must remain open.
- (a) Describe the effects of lowering the shareholding limit for 13-D filings.
 - (b) Define what a 'two-tiered' tender offer is, and describe the effects of outlawing them.
 - (c) Describe the effects of increasing the minimum length of tender offers.
 - (d) Based on this analysis, do you think that stockholders would benefit from the passage of rules such as these? *Why, or why not?*
16. Many corporations are still controlled by family groups. For example, a recent article in *Business Week* describes the Johnson family control of Johnson's Wax (this family gave \$20 million to Cornell to rename its business school.) The Johnson family owns 35 percent of the publicly traded Class A shares and 92 percent of the closely-held Class B shares (which confer superior voting rights and the right to elect 75 percent of the board of directors). Class B shares can be exchanged for Class A shares if one of the family members needs cash to pay estate taxes or for other reasons. Thus, the family can maintain control of the corporation, while still allowing some family members to enjoy the liquidity of publicly traded stock.
- (a) What are the *disadvantages* of having a family group retain ownership control over a large corporation?
 - (b) *Business Week* claims that Samuel Johnson organized the sale of Class A shares in an IPO in early October, 1987, so that his heirs could pay estate taxes when he dies without having to sell off the company (in a potentially bitter family dispute.) Based on your knowledge from FIN 423, is Mr. Johnson making his heirs better off? *Why, or why not?*
17. The recent RJR-Nabisco leveraged buyout (LBO) highlighted a number of important questions concerning LBOs. Answer the following questions about LBOs (you may refer to the RJR-Nabisco case if you want, but you don't have to):
- (a) Explain the conflict of interest problem in LBOs that differs from interfirm tender offers. How can this problem be mitigated?
 - (b) How do LBOs differ from repurchase tender offers? from leverage-increasing recapitalizations? What incentives would lead management to choose one of these alternatives?
 - (c) In many cases, LBOs are followed within a relatively short time (3-5 years) by an public sale of stock (either an IPO or a sale of stock to the employees of the firm.) What could change about a firm in such a short time that would explain 'going private' and then 'going public'?

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18. Suppose that you were brought in as a consultant by the board of directors of a medium-sized corporation that might become a target for a takeover attempt. They want advice on how to deal with the current management of the corporation, and how to deal with outside offers. In particular,
- (a) Would you recommend that they adopt a 'golden parachute' for the current management team? *Why, or why not?*
 - (b) Would you recommend that they adopt a 'fair price' amendment to the corporate charter? *Why, or why not?*
 - (c) Would you recommend that they adopt an 'anti-greenmail' amendment to the corporate charter? *Why, or why not?*
 - (d) If a hostile bid is made, should the board of directors let the management team decide the choice of defensive measures? *Why, or why not?*
 - (e) One of the outside board members asks whether it might not be best to accept any offer that is higher than the prior stock price by at least ten percent? *What do you recommend?*
19. You have begun your first job as a financial analyst at the investment banking firm of First Rochester. As your first assignment (which you have to accept), you are asked to advise the SSB Corporation on tactics which it can use to prevent a hostile takeover. Paul MacAvoy, the CEO of SSB Corp, is afraid that some raider, such as Princeton Inc. or Brown Ltd., will try to takeover his prospering firm to become part of their conglomerate corporations. MacAvoy's proposal is to initiate a "shareholder rights plan" (a poison pill) that would be triggered if a potential acquirer accumulated more than 15 percent of SSB's stock. The poison pill can be redeemed at the discretion of the Board of Directors of SSB (if they think an offer is in the best interests of the shareholders). This would eliminate "hostile" tender offers. Explain the benefits and costs of such a proposal. What would happen to SSB's stock price if such a provision is adopted by management? What if it is put to a vote by shareholders? Is it likely to pass, and what would happen to stock prices if it does? *Cite evidence to support your position. (Be as specific as possible).*
20. What do you think would happen to the stock price of Microsoft if it was announced that Bill Gates had been granted a "golden parachute" contract, where he would be paid a large sum of money if the directors of Microsoft ever decide to fire him? What are the benefits and costs of such a contract?
21. The average returns to target firm shareholders are higher in tender offers than in mergers. The average returns to bidder firm shareholders are lower in mergers than tender offers. Can you explain the relations among these premiums? *(Be specific and refer to evidence where possible).*

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22. The recent RJR-Nabisco leveraged buyout (LBO) highlighted a number of important questions concerning LBOs. Answer the following questions about LBOs (you may refer to the RJR-Nabisco case if you want, but you don't have to):
- (a) Explain the conflict of interest problem in LBOs that differs from interfirm tender offers. How can this problem be mitigated?
 - (b) How do LBOs differ from repurchase tender offers? from leverage-increasing recapitalizations? What incentives would lead management to choose one of these alternatives?
 - (c) In many cases, LBOs are followed within a relatively short time (3-5 years) by an public sale of stock (either an IPO or a sale of stock to the employees of the firm.) What could change about a firm in such a short time that would explain 'going private' and then 'going public'?
23. Jensen argues that "free cash flow" explains much of the merger and acquisition behavior that has been observed in the last two decades. Briefly explain what he means by "free cash flow," and what implications this viewpoint has for the market for corporate control. [*Hint: if you were an outside member of the Board of Directors of a large corporation, how would you change your behavior as a Board member after reading Jensen's paper? What corporate decisions might you become skeptical about? Why?*]
24. The article below from the June 6, 1991 *Wall Street Journal* describes the proposed sale of Rehab Systems to NovaCare for about \$95 million in stock. Previously, Rehab had been thinking of having an IPO by selling 1.7 million shares in the \$11 - \$13 range, which implies that the existing 6.3 million shares in the private company would have been worth about \$75 million. In the context of the readings from FIN 423 on IPOs and on mergers, can you explain why NovaCare was willing to pay \$95 million for Rehab Systems when the IPO would have valued the company at \$75 million? Why didn't the owners of Rehab Systems look for a private placement of stock in the first place, instead of an IPO?
25. The article below from the June 5, 1991 *Wall Street Journal* describes the firing of Tom Barrett as CEO of Goodyear and his replacement by Stanley Gault, who is five years older than Barrett, and was an outside member of the Board of Directors. Goodyear's stock price jumped over 10 percent on the day of the announcement. Compare and contrast this event with other corporate control transactions you have studied in FIN 423?
26. There is some evidence that the stock prices of bidder firms drop on the announcement of a merger proposal. There is also evidence of a significant negative stock price reaction when a "white knight" bidder enters to win a takeover auction. Can you explain these facts? What do they mean about the bidder firms? [*Hint: relate these results to the Lehn and Mitchell paper and Jensen's 'free cash flow' theory.*]
27. Explain the differences between a hostile tender offer and a leveraged management buyout (MBO). Document your analysis with reference to the empirical evidence you have studied in FIN 423.

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28. Many firms that go through leveraged buyouts (LBOs) subsequently have initial public offerings (IPOs) of stock in the reorganized firm. What would cause a public company to want to go private? What could change about this firm that it would decide to become a publicly held corporation within 1 to 5 years after the LBO? *Be as explicit as possible in documenting your analysis with evidence studied in FIN 423.*
29. On the following page is a copy of an article from the May 29, 1992 *Wall Street Journal* "Centel Shares Plummet 25% On Sprint's Bid." Relate the discussion in this article to the evidence we have discussed in FIN 423. In particular, is it unusual for a *target* firm's stock price to fall by 25%? The bidder's (Sprint) stock price fell by over 5% -- is that unusual? What are the apparent sources of synergistic losses in this combination? Can you provide an alternative explanation for this unusual stock price behavior? [*Hint: make sure to relate your answer to evidence we discussed in the course.*]
30. (a) Imagine that you are an outside member of the Board of Directors of a Corporation that is considering adopting a number of anti-takeover charter amendments, including a 'poison pill' security issue, staggered terms for the Board members, supermajority provisions for major corporate decisions, and 'golden parachutes.' Briefly describe and summarize the arguments for and against these 'shark repellents', and support your analysis by referencing relevant evidence.
- (b) Now, suppose that an unsolicited (unfriendly) tender offer has been made for this firm. Incumbent management are considering a 'crown jewel' defense, a 'Pacman' defense, or a 'scorched earth' defense, in addition to using some of the existing charter provisions (adopted in part (a)). Briefly describe the characteristics of these defenses and analyze the appropriateness of these defenses from the perspective of target shareholders.
31. (a) Briefly explain why most corporations assign voting rights to common stockholders, rather than bondholders, preferred stockholders, employees, or customers. What are the costs of limiting the voting rights of common stockholders? Who 'pays' for these costs? Why?
- (b) Suppose that votes could be traded in much the same way that rights are traded. Explain how the votes would be valued (e.g., when are the votes likely to have greatest value? What factors will lead to the greatest value?) Suppose that stockholders could choose between two classes of common stock, one that paid a 'normal' cash dividend and carried one vote per share and one that paid a cash dividend equal to the 'normal' dividend plus the cash value of the votes as determined by the 'vote market' on the record date for the vote. What would you expect to be the relation between the prices of these two classes of stock? How does this prediction compare with the empirical evidence on the 'value of votes'?
32. Many firms that go through leveraged buyouts (LBOs) subsequently have initial public offerings (IPOs) of stock in the reorganized firm. What would cause a public company to want to go private? What could change about this firm that it would decide to become a publicly held corporation within 1 to 5 years after the LBO? *Be as explicit as possible in documenting your analysis with evidence studied in FIN 423.*

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33. The story below from the May 27, 1993 *Wall Street Journal* describes the takeover fight currently pending over PSI Resources. The question of regulatory approval and the resulting treatment of the merged firm by utility regulators after one or the other of these bidders succeeds raises significant public policy questions.
- (a) For example, should utility regulators have the (implicit or explicit) right to choose which bidder wins in a takeover contest? If so, what basis should they use for making this choice (e.g., highest returns for target stockholders? or lowest product/service prices offered to customers? or largest side-payments offered to regulators?)
 - (b) If a bidder such as Ipalco can find significant cost savings, should the public utility regulators force them to give those savings back to customers in the form of lower electric rates? If so, what implications will this policy have for the efficiency of this industry in the future? *Why?*
 - (c) On the other hand, suppose that a bidder was allowed to write up the assets of the target firm that it had acquired on the basis that the price it paid in the takeover reflected the higher market value of these assets than was reflected on the books of the target firm. Since rate-of-return regulation sets utility prices based on a markup over costs of production (including the cost of the physical capital), this would imply higher electricity prices for customers of PSI. How does this differ from the more typical case where both the target and bidder firms operate in a competitive industry? How should the utility regulator react to a request to increase the cost of electricity to cover the premium paid by the bidder firm?
34. The story below from the May 23, 1990 *Wall Street Journal* describes the plan by Playboy Enterprises to recapitalize and issue a second class of non-voting common stock by issuing 3 shares of non-voting stock (Class B) for each share of voting stock (Class A). Comment on the advantages and disadvantages of such a plan. Since Hugh Hefner's family owned 71% of Playboy stock at that time, why was Rex Sinquefeld (of Dimension Fund Advisors) complaining that only the "public" (minority) shareholders should vote on this proposal? Relate your answer to the evidence we discussed in the course.
35. The story below from the May 22, 1990 *Wall Street Journal* describes the proposal by Gannett (publisher of the Rochester *Demagogue & Comical*) to adopt a shareholder rights plan (poison pill). Apparently, this decision was triggered by the decision by the Gannett Foundation (headed by former Gannett CEO Allen Neuharth) to sell its large block about 10% of shares outstanding) of Gannett stock.
- (a) Given the information in the story, and any evidence you studied in FIN 423, comment on Gannett's motivation to adopt a poison pill at that time (e.g., is the linkage with the large block sale an unusual event? *Why, or why not?*)
 - (b) What is the most likely effect that the poison pill had on Gannett stock, both in the short-term and the long-term?
 - (c) Who would be the most likely purchasers of the block of stock owned by the Gannett Foundation? Is it likely that it would sell at a premium or discount relative to the current market price? *Why?*

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36. "Going private" transactions or leveraged buyouts (LBOs) became very popular in the 1980s. Many of the deals (e.g., RJR-Nabisco, Beatrice, etc.) created complicated capital structures with large amounts of leverage. Answer the following questions about LBOs:
- (a) Explain the conflict of interest problem in management buyouts (MBOs) that differs from interfirm tender offers. How do target firms typically solve this problem?
 - (b) Mike Jensen argues that the large amount of debt involved in LBOs was crucial to their subsequent success. *Why?* (List and describe specific benefits of large amounts of debt.)
 - (c) In many cases, LBOs are followed within a relatively short time (3-5 years) by an public sale of stock (either an IPO or a sale of stock to the employees of the firm). What could change about a firm in such a short time that would explain "going private" and then "going public"? Relate your answer to the evidence produced by Muscarella & Vetsuypens.
37. In every merger or acquisition situation, estimates of the value of the target firm (and/or estimates of the value of the merged bidder and target firms together) are made by all of the major participants in the transaction. Based on everything you have learned at the Simon School, but particularly those things that you have learned in FIN 423, answer the following questions.
- (a) What role, if any, should the current market price of the target's stock play in creating these valuation estimates? (i.e., what factors relating to value are *not* reflected in the current market price?)
 - (b) Suppose there has been unusual trading activity (e.g., a price runup and higher than normal trading volume) in the target company's stock in the recent past, but you as a potential bidder have not been buying this stock. How, if at all, would this information affect your estimates of value? *Why, or why not?*
 - (c) Describe the incentive problems faced by each of the following participants in producing a valuation estimate (also describe the factors, if any, that would mitigate these incentive problems):
 - (i) a financial analyst working for the CFO of a bidder firm to help acquire the target firm
 - (ii) an investment banker hired by a bidder firm to help acquire the target firm
 - (iii) an investment banker hired by the target firm to help defend itself
 - (iv) an investment banker hired by either the bidder or the target firm to provide a "fairness opinion" on the terms of a negotiated deal.

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38. The story below from the May 20, 1994 *Wall Street Journal* describes the fall in the stock price of QVC since it lost its bid to acquire Paramount. The article notes that QVC's stock price rose immediately after its was announced that Viacom had succeeded in acquiring Paramount.
- (a) Based on the evidence discussed in FIN 423, are you surprised that QVC's stock price rose after it was announced that they had lost the bidding war for Paramount? **Why, or why not?**
- (b) Based on the evidence discussed in FIN 423, what do you think might happen to QVC in the future as it tries to figure out its future plans? **Be as specific as possible**
39. The story above from the March 22, 1994 *Wall Street Journal* describes the proposed merger between LDDS and ACC.
- (a) Who is the bidder and who is the target? **How can you tell?**
- (b) Given the evidence you studied in FIN 423, are you surprised at the stock market reaction to this announcement? **Why, or why not?**
40. The story above from the May 19, 1994 *Wall Street Journal* describes the cancellation of the proposed merger between LDDS and ACC. Who do you think canceled this deal? **Why?** What is your interpretation of the stock market reaction to the cancellation?
41. The story below from the April 22, 1994 *Wall Street Journal* describes a close vote on a shareholder proposal to rescind Philip Morris' poison pill. Based on the evidence discussed in FIN 423, do you think it would be wise to rescind the poison pill? **Why, or why not?** Why did (as many as, or as few as) 40% of the shares vote for this proposal?
42. The article below from the May 9, 1994 *Wall Street Journal* describes a plan recently proposed by Ted Turner to recapitalize Turner Broadcasting by doubling the voting power of class A shares.
- (a) Given the information in the story, and any evidence you studied in FIN 423, comment on Turner's motivation to change the voting rights of class A stock.
- (b) How do you think the stock market will react to this action? **Why?**
- (c) How would you react if, instead, Turner proposed a premium repurchase tender offer for class A shares and financed it with the sale of a new issue of class B shares (which have 1/5 vote per share)? **Why?**

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43. In every merger or acquisition situation, estimates of the value of the target firm (and/or estimates of the value of the merged bidder and target firms together) are made by all of the major participants in the transaction. Based on everything you have learned at the Simon School, but particularly those things that you have learned in FIN 423, answer the following questions.
- (a) What role, if any, should the current market price of the target's stock play in creating these valuation estimates? (i.e., what factors relating to value are **not** reflected in the current market price?)
 - (b) Suppose there has been unusual trading activity (e.g., a price runup and higher than normal trading volume) in the target company's stock in the recent past, but you as a potential bidder have not been buying this stock. How, if at all, would this information affect your estimates of value? **Why, or why not?**
 - (c) Describe the incentive problems faced by each of the following participants in producing a valuation estimate (also describe the factors, if any, that would mitigate these incentive problems):
 - (i) a financial analyst working for the CFO of a bidder firm to help acquire the target firm
 - (ii) an investment banker hired by a bidder firm to help acquire the target firm
 - (iii) an investment banker hired by the target firm to help defend itself
 - (iv) an investment banker hired by either the bidder or the target firm to provide a "fairness opinion" on the terms of a negotiated deal
44. The story below from the *New York Times* describes the 16.8% fall in the stock price of Intuit and the 2.2% rise in Microsoft's stock price after their proposed merger was canceled due to opposition from the Antitrust Division of the Justice Department.
- (a) Why did the stock market react that way to this announcement? Is it consistent with the evidence you have learned about in FIN 423? **Why, or why not?**
 - (b) Who stood to benefit from the cancellation of this merger? What do you think happened to their stock prices as a result of this announcement?
45. The article below from the May 23, 1990 *Wall Street Journal* describes a plan recently proposed by Hugh Hefner to recapitalize Playboy Enterprises by issuing non-voting stock.
- (a) Given the information in the story, and any evidence you studied in FIN 423, comment on Hefner's motivation to issue non-voting stock.
 - (b) How do you think the stock market reacted to this action? **Why?**
 - (c) Why do you think that Rex Sinquefeld (of DFA) and Richard Koppes (of CALPERS) were opposed to this plan? Is their position justified? **Why or why not?**

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46. Comment and Schwert, in their paper "Poison or placebo?" argue that poison pills and state antitakeover laws did not systematically deterred takeovers during the 1975-91 period.

(a) What evidence do they have to support this contention?

(b) Consider the recent attempt by Tyson Foods (and Arkansas chicken farmer and close friend of the Clintons) to make a tender offer for WLR Foods (a Virginia turkey farmer). WLR responded to the offer from Tyson by (1) saying it was inadequate, (2) instituting a poison pill, and (3) seeking protection under the Virginia business combination law. Tyson refused to change its offer, sued to overturn the pill and the laws, lost the lawsuit, and finally withdrew its offer. Is this case inconsistent with the Comment-Schwert evidence? *Why or why not?*

47. In every merger or acquisition situation, estimates of the value of the target firm (and/or estimates of the value of the merged bidder and target firms together) are made by all of the major participants in the transaction. Based on everything you have learned at the Simon School, but particularly those things that you have learned in FIN 423, answer the following questions.

(a) What role, if any, should the current market price of the target's stock play in creating these valuation estimates? (i.e., what factors relating to value are *not* reflected in the current market price?)

(b) Suppose there has been unusual trading activity (e.g., a price runup and higher than normal trading volume) in the target company's stock in the recent past, but you as a potential bidder have not been buying this stock. How, if at all, would this information affect your estimates of value? *Why, or why not?*

(c) Describe the incentive problems faced by each of the following participants in producing a valuation estimate (also describe the factors, if any, that would mitigate these incentive problems):

(i) a financial analyst working for the CFO of a bidder firm to help acquire the target firm

(ii) an investment banker hired by a bidder firm to help acquire the target firm

(iii) an investment banker hired by the target firm to help defend itself

(iv) an investment banker hired by either the bidder or the target firm to provide a "fairness opinion" on the terms of a negotiated deal.

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48. "Going private" transactions or leveraged buyouts (LBOs) became very popular in the 1980s. Many of the deals (e.g., RJR-Nabisco, Beatrice, etc.) created complicated capital structures with large amounts of leverage. Answer the following questions about LBOs:
- (a) Explain the conflict of interest problem in management buyouts (MBOs) that differs from interfirm tender offers. How do target firms typically solve this problem?
 - (b) Mike Jensen argues that the large amount of debt involved in LBOs was crucial to their subsequent success. *Why?* (List and describe specific benefits of large amounts of debt.)
 - (c) In many cases, LBOs are followed within a relatively short time (3-5 years) by an public sale of stock (either an IPO or a sale of stock to the employees of the firm). What could change about a firm in such a short time that would explain "going private" and then "going public"? Relate your answer to the evidence produced by Muscarella & Vetsuypens.
49. Because of the increased sophistication of takeover defenses, a variety of new methods have been developed to undertake "hostile" takeovers. For example, the "bear hug" merger proposal occurs when a bidder announces his/her intent to offer a particular price to purchase the shares of a target company (e.g., as Kirk Kerkorian did recently for Chrysler), yet there is no formal tender offer that would trigger a poison pill.
- (a) What makes an offer "hostile" and how are these deals different from "friendly" transactions?
 - (b) One of the effects of using less direct methods to attempt "hostile" takeovers is that it takes longer to reach a resolution (e.g., the ATT and NCR takeover a couple of years ago). What effect is this likely to have on the payoffs to the target firm? What about the payoffs to the bidder firm?
50. Based on everything you have learned in FIN 423,
- (a) What are the sources of gains from mergers & acquisitions?
 - (b) Why do the target firms seem to get the lion's share of the gains?
 - (c) What are the explanations for the negative returns to bidder firms in some deals?

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51. The story below from the *Wall Street Journal* of April 15, 1996 describes the \$1.7 billion stock offer made by Western Resources for Kansas City Power.

HD Western Resources Makes Bid for Kansas City Power
Hostile \$1.7 Billion Offer Seeks to Break Up Deal With Utilicorp United
BY By Steven Lipin, Staff Reporter of The Wall Street Journal
PD 04/15/96

SN The Wall Street Journal, PG A3

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LP Western Resources Inc., trying to bust up the friendly \$1.35 billion merger pact between Kansas City Power & Light Co. and Utilicorp United Inc., offered to buy Kansas City Power for \$1.7 billion, or \$28 a share, in stock.

The hostile move by Western, based in Topeka, Kan., follows on-and-off merger talks with Kansas City, Mo.-based Kansas City Power since 1994, in which Western has been rebuffed by Kansas City Power's management. At the time of the friendly merger pact between Kansas City Power and Utilicorp in January, there was speculation that Western would launch an unsolicited takeover of one of the parties.

TD A Western-Kansas City Power combination would create a company with nearly \$2.5 billion in revenue, more than 6,000 employees and a strong presence in Missouri, Kansas and Oklahoma.

In New York Stock Exchange composite trading on Friday, shares of Western closed at \$29.125, up 25 cents, while shares of Kansas City Power closed at \$23.875, up 25 cents. Utilicorp, based in Kansas City, Mo., closed at \$28.25, up 37.5 cents.

Western, attempting to appeal to Kansas City Power shareholders who are to vote on the Utilicorp merger next month, said its offer provided a 17% premium over Kansas City Power's current stock price as well as a promise of increased dividends. It also said that a combination with Western would result in deeper electricity-rate reductions than promised in the friendly merger accord with Utilicorp.

Under its plan, Western said that there would be no employee layoffs, despite the companies' proximity to each other. In addition, Western and Kansas City Power each own almost half the Wolf Creek nuclear plant in Kansas.

"The difference in the proposals is striking and demonstrates that a combination of our companies will result in significant benefits for each company's respective shareholders, customers and employees," Western Chairman John E. Hayes Jr. wrote to Kansas City Power Chairman Drue Jennings in a letter released yesterday.

Since last May, the electric-utility industry has spawned several major mergers or acquisitions, sparked by a new federal law encouraging competition and by the need for utility companies to boost earnings growth.

But hostile takeovers are extremely difficult in the utility industry, in part because their shareholder bases are composed mostly of individuals, rather than institutional investors, and because of the long regulatory approval process. Indeed, Western Resources emerged as a "white-knight" acquirer when Kansas City Power launched a hostile takeover bid for Kansas Gas & Electric Co. six years ago. "We don't believe those activities in the past should be an indicator for the future," said Mr. Hayes, in an interview yesterday. "We wouldn't have launched this initiative unless we thought we would be successful."

Right now, Western's move is akin to a bear-hug letter, in which a prospective acquirer makes public an offer. It wouldn't discuss whether * it would proceed with a full-blown hostile tender offer. It said it wants to hear from Kansas City Power by noon April 22.

Mr. Hayes wouldn't discuss what plans he has if the company is rebuffed. "At that time we will determine what course of action we will take," he said.

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But clearly the timing is aimed at convincing shareholders to vote down the Utilicorp-Kansas City Power merger pact. Shareholders of both Utilicorp and Kansas Power & Light will vote on the proposed merger May 22. Both sides need investors representing two-thirds of the shares to approve the merger. The merger pact does have a clause that allows a party to kill the pact if it receives a higher offer. The breakup fee is a modest \$58 million.

At a minimum, the Western bid complicates the Utilicorp merger plan. At the time of the merger announcement in January, Richard Green, Utilicorp's chairman and chief executive officer, suggested Western wouldn't be a problem. He said any mention of a hostile bid by Western is "really not the issue and not a concern."

Officials at Kansas City Power couldn't be reached for comment. UtiliCorp spokesman Jerry Cosley said his company was aware of the Western offer but hadn't seen any formal documents and didn't know any details of the bid. Mr. Cosley, however, said, "Both the boards of directors at Kansas City Power & Light and UtiliCorp thoroughly analyzed all possible deals before settling on our combination as the best one for both companies."

Mr. Jennings would be chairman of the combination with Utilicorp, a position Mr. Hayes is willing to give him in any Western-Kansas City Power combination. In an attempt to assuage management, Western's offer includes bringing in nine Kansas City Power directors to 13 from Western and offers top jobs to Kansas City Power executives.

Western said shareholders of Kansas City Power would receive \$28 in Western stock, unless the stock swings beyond the bounds of the so-called collar. Kansas City Power shareholders would receive no less than 0.833 and no more than 0.985 share of Western for each of their shares. It said its bid includes a 27% increase in the Kansas City Power annual dividend to \$1.98 a share.

Kansas City Power provides electricity to about 430,000 customers in western Missouri and eastern Kansas, according to Value Line. Utilicorp has a broader geographical territory in the Western U.S. and also provides electricity in Canada, Britain, New Zealand and Australia, thanks to an aggressive acquisition strategy.

Western, the former Kansas Power & Light, supplies electricity to about 600,000 customers in eastern Kansas, and gas to about 650,000 customers in Kansas and Oklahoma, according to Value Line. It acquired Kansas City Gas in 1992 for about \$1 billion. It has been expanding into unregulated areas in recent years outside its core businesses.

While a merger would result in no "layoffs," Mr. Hayes said that the companies would begin a hiring freeze and take other steps to cut costs. Western said a merger of the two companies would allow Kansas City Power to reduce rates by \$210 million over 10 years for retail customers and allow its Kansas Gas division to reduce retail rates by \$100 million in the same period.

Salomon Brothers and Sullivan & Cromwell are advising Western Resources.

- a) How do you think the stock prices of Western Resources, Kansas City Power, and Utilicorp reacted to this announcement? *Why?*
- b) What factors are likely to explain Western's willingness to pay an extra \$350 million for KCP (relative to the Utilicorp bid)?
- c) Why do you think that Western used a "bear hug" offer instead of a formal tender offer at this time?
- d) What factors cause KCP management to prefer the lower Utilicorp bid?

V. Interfirm Tender Offers, Mergers and Corporate Control

52. The story below from the *Wall Street Journal* of April 25, 1996 describes the cancellation of the \$1.8 billion tender offer by Rite Aid for Revco following Federal Trade Commission opposition to the transaction on anti-competitive grounds. Read the article and answer the questions at the end.

HD Rite Aid Corp. Abandons Revco Deal, Blaming FTC for Aggressive Opposition
U.S. Agency Calls Collapse Of \$1.8 Billion Accord a Victory for Consumers
BY Matt Murray and Bryan Gruley, Staff Reporters of The Wall Street Journal
PD 04/25/96

SN The Wall Street Journal, PG A3

CY (Copyright (c) 1996, Dow Jones & Company, Inc.)

LP Rite Aid Corp. abandoned its \$1.8 billion tender offer for Revco D.S. Inc. and blasted the Federal Trade Commission for its aggressive opposition that killed the drugstore deal. . . .

TD The FTC, which had argued the combined drugstore companies would have the clout to raise prices too much in some markets, called the collapse of the deal "a victory for consumers." George Cary, deputy director of the FTC's Bureau of Competition, rejected Rite Aid's charge that the agency acted arbitrarily, pointing out that the agency has cleared five drugstore acquisitions in the past two years, including two by Rite Aid and one by Revco.

The collapse of the deal is a stunning setback for Rite Aid and, some believe, for the chain-drugstore business as a whole. Some rivals feared the acquisition would have created a drugstore colossus -- with close to \$11 billion in annual sales and more than 4,500 stores -- twice the number of nearest rival Walgreen Co. But industry executives and analysts said the FTC's actions could threaten growth prospects for big chains by putting a damper on acquisitions, which drugstores see as a way to slash costs. Some executives in the \$87 billion industry also say bigger chains are crucial in fending off pressure from managed-care groups, which are squeezing profits for the drugstores by cutting the fees they pay pharmacies to dispense drugs to consumers. . . .

Mr. Cary also said that a combination of Rite Aid and Revco, which have the two largest store counts of any drugstore chain, would be a unique circumstance. . . .

The head of a drugstore trade group agreed. "We do not believe the FTC is sending any signal indicating absolute opposition to consolidation in this industry," said Ronald L. Ziegler, head of the National Association of Chain Drug Stores. . . .

In composite trading on the New York Stock Exchange, Rite Aid shares fell \$1.75 to \$29.875. Revco shares fell \$1.875 to \$24.125.

Rite Aid said it didn't have to pay a breakup fee, but that it would take a fiscal first-quarter charge of \$15 million to \$16 million, or 10 cents to 12 cents a share, for costs related to the aborted deal. Mr. Grass ruled out a future Revco bid. . . .

Trouble From the Outset

Chronology of tensions between the drugstore companies and the FTC

Nov. 30: Rite Aid agrees to buy Revco for \$1.8 billion, creating a giant chain with more than 4,500 drugstores and sales of about \$11 billion.

Dec. 28: FTC requests more information related to proposed deal. Deadline for tender offer is extended, in what will be the first of a constant stream of extensions.

Feb. 8: FTC says Rite Aid and Revco both violated consent decrees requiring them to sell certain stores, and appoints trustees of its own to sell the branches in question. While the consent decrees stem from prior acquisitions, the squabble hints at strained relations between the agency and the firms.

Feb. 20: Merck & Co. files an antitrust lawsuit against Rite Aid and other retail pharmacies, alleging they joined in a conspiracy to boycott a contract for Merck's Medco unit to administer the prescription-drug benefit program for employees in the state of Maryland. Merck lost the contract last winter after more than half the state's pharmacies refused to fill prescriptions. Rite Aid denies the accusation.

April 17: FTC panel votes to block Rite Aid-Revco deal, citing concerns about higher prices.

April 22: Rite Aid offers to shed about 340 stores -- about 8% of combined entity's stores -- in hopes of heading off FTC's threat to sue to block the deal.

April 23: FTC rejects the settlement proposal and restates intention to block the deal.

April 24: Rite Aid drops its tender offer for Revco.

V. Interfirm Tender Offers, Mergers and Corporate Control

- a) Why do you think that the stock prices of both Revco and Rite Aid fell when this story was announced? Link your explanation to the evidence you have learned in the course.
- b) How do you think the stock price of Rite Aid and Revco competitors (e.g., Walgreen) reacted to this announcement? *Why?*
- c) How do you think the stock price of Rite Aid and Revco suppliers (e.g., Merck) reacted to this announcement? *Why?*

53. The story below from the *Wall Street Journal* of May 16, 1996 describes the new antitakeover insurance product offered by Aon. For a fee of 2.25% per \$1 million of coverage, a company can purchase insurance from Aon to cover the costs of a successful takeover fight. Read the following excerpts from the article and answer the questions at the end.

HD Aon Offers Defense Against Hostile Bids For U.S. Companies
Insurance Product Reimburses Concerns for Their Costs Of Warding Off Raiders
BY By Michael R. Sesit, Staff Reporter of The Wall Street Journal
PD 05/16/96
SN The Wall Street Journal, A4
CY (Copyright (c) 1996, Dow Jones & Company, Inc.)

LP LONDON -- The financial-services industry is offering U.S. companies the corporate world's version of kidnap and ransom insurance.

The new product, which will be launched today by big Chicago-based insurance holding company Aon Corp. and underwritten at Lloyd's of London, is designed to reimburse companies for the costs associated with warding off a hostile takeover bid or a proxy fight with dissident shareholders. Dubbed "Hostile Takeover Defense Insurance," it is mostly aimed at the management of small and medium-size U.S. companies.

TD The policy pays only if a company's defense is successful. Yet Jeremy Culverhouse, a director of the Nicholson Leslie Group, a London insurance broker owned by Aon, says it is still worthwhile. That is because it can buy management valuable time to negotiate a higher offer, he says.

"Anything you can do to alleviate the costs that a shareholder incurs and ensure that he gets the highest value possible makes sense," says Purna Saggurti, a managing director at J. P. Morgan & Co. in New York.

The expenses of battling a hostile takeover attempt -- which include paying for lawyers, investment bankers, accountants, proxy firms, stockbrokers, asset appraisers and investor-relations consultants -- can be staggering. Adrian Blackshaw, a director of TOI Corporate Services Ltd., a London company that specializes in developing corporate-insurance products and a co-designer of Aon's new product, says that the average U. S. company will spend an amount equal to 2.25%-2.5% of its market capitalization to defend against a hostile bid.

With the new Aon policy, a company can buy \$1 million of insurance for as little as \$22,500. Basic coverage will be available in increments of \$1 million, up to \$5 million, but Aon is willing to negotiate higher limits subject to underwriters' discretion. The policy runs for 15 months but only kicks in after three months. That is to protect underwriters from having to request company information that might violate U.S. insider-trading rules. Subsequent renewals are available for 12-month periods with no waiting time.

"This isn't anything a General Motors would buy; a really big company doesn't need something like this," said Judith Thoyer, a partner at Paul, Weiss, Rifkind, Wharton & Garrison in New York. "It's really aimed at the middle-market company, anywhere from a \$50 million market capitalization to a \$400 million to \$500 million cap company, where the cost of defense is a meaningful number."

Nonetheless, others point out that the Aon policy could have paid for a large chunk of the \$11 million pretax charge that RJR Nabisco Holdings Corp. took for its proxy fight with financier Bennett S. LeBow for control of the tobacco and food company.

V. Interfirm Tender Offers, Mergers and Corporate Control

- a) Aon says that the three month waiting period before the policy becomes effective is to avoid insider trading laws. What other reasons might they have for imposing this requirement? Why is this requirement waived for renewals?
- b) What is the expected cost of having this insurance in place for the remaining life of the firm? Explain how you would estimate this number.
- c) What is the expected benefit from purchasing this insurance? Explain how you would estimate this number.
- d) How do you think the stock market would react to the announcement the a company had purchased this insurance? Why?