

# Chapter 1

## Fundamentals of Financial Accounting Theory

### I. Problems

#### **P1-1. *Suggested solution:***

People need to make decisions under uncertainty, which creates the demand for information to reduce that uncertainty, allowing them to make better decisions. However, if everyone had access to the same information at the same time, no one would be able to supply any information useful to anyone else (since they already have it). Thus, an asymmetric distribution of information is necessary for the supply of information from those who have relatively more of it to those who have relatively less.

#### **P1-2. *Suggested solution:***

An IPO is a sale of a part of the entrepreneur's company to other investors. Inherently, there is uncertainty about the future success of this company and the value of the company's shares in the future. Potential investors demand information to reduce this uncertainty. If the entrepreneur is able to supply information that reduces the potential investor's perceptions of uncertainty, she is likely to be able to obtain a higher stock price in the IPO. The entrepreneur has intimate knowledge of her company's operations, which is likely to be far superior to the information available to potential buyers of the IPO shares—there is information asymmetry between the entrepreneur and potential investors.

#### **P1-3. *Suggested solution:***

A borrowing/lending transaction involves an advance of funds from the bank to the company in exchange for promises of future repayment from the company to the bank. There is, of course, uncertainty regarding the ability of the company to repay the bank in the future. The corporation's management has better information about the company's prospects in comparison to bank staff. To reduce this information asymmetry, the bank demands information such as audited financial statements. The corporation is willing to supply this information in order to obtain the most favourable borrowing terms (e.g., a low interest rate).

**P1-4. Suggested solution:**

	Adverse selection	Moral hazard
Hidden action or information?	Hidden information	Hidden action
Information about past, present, or future?	Past and present	Future
Associated with the market for “lemons” or insurance deductibles?	Market for lemons	Insurance deductibles
Mitigation of information asymmetry involves risk sharing or full disclosure?	Full disclosure	Risk sharing
Most closely associated with investment decisions or compliance with contractual terms?	Investment decisions	Compliance with contractual terms
Creates demand for provision of relevant or reliable information?	Relevant information	Reliable information

**P1-5. Suggested solution:**

The managers within companies have an information advantage over outside investors. This adverse selection causes investors to be sceptical of investing in the company, unless management provides information to alleviate that scepticism. If management withholds information, investors will rationally price the company as a “lemon.” To avoid this negative outcome, management’s best response is to voluntarily provide information to investors.

**P1-6. Suggested solution:**

Signalling must be costly to be credible because a costless signal can be sent by anyone. A signal that can be sent by anyone has no value because such “cheap talk” does not help differentiate one party from another. Thus, the signal should not be believed—it is not credible.

Since signalling must be costly to be credible, a company that can credibly communicate information through other more cost effective means would avoid costly signalling. Therefore, if there are no other cost effective means to communicate a particular type of information, the company could choose to use costly signalling. For example, to credibly indicate management’s belief in the sustainability of the company’s cash flows, the company can commit to a higher level of dividend payments to shareholders.

**P1-7. Suggested solution:**

The separation of ownership and management creates a moral hazard by allowing management to take responsibility for the resources of shareholders, and the shareholders cannot monitor management. Shareholders would like to see high returns on their investment, but this can only be expected if management works hard to create value. Managers incur the cost of hard work, but they do not obtain the benefits of that hard work in the absence of incentive pay.

Accounting information helps to alleviate this moral hazard in two ways. Accounting reports provide measures of performance that shareholders can use to evaluate/monitor management. Second, the accounting performance measures can be used as a basis for rewarding management. Incentive pay linking management compensation to value creation helps to align the interests of management with those of shareholders.

**P1-8. Suggested solution:**

Moral hazard arises in a lending context because the bank loses control of funds that it advances to the borrowing enterprise. The bank is justifiably worried that the borrower will mispend the funds and not repay the loan and interest. This scepticism causes banks to be reluctant in lending and to charge high interest rates to cover potential losses from unpaid loans.

Accounting information can be valuable in alleviating this moral hazard by allowing the bank to monitor the performance of the borrower using the accounting reports (e.g., is the company profitable, how much assets does it have, how much cash flow is it generating?). Part of the monitoring is in the form of covenants that require the company to comply with various financial ratios computed using accounting reports. By alleviating the extent of moral hazard, accounting information allow banks to be less sceptical of borrowers and thereby lower the interest rates that they charge and increase their lending activity.

**P1-9. Suggested solution:**

An agency problem (moral hazard) arises when shareholders hire a manager to run the business for them, as the shareholders cannot directly observe management's actions in administering the resources entrusted to him.

Some would suggest that the shareholders' motivation for investing is solely to maximize their returns while the employee's (management) motivation for working is to do as little as possible to earn the agreed upon salary. While this is likely an extreme case it remains that shareholders are normally interested in earning high returns whereas the manager may be reluctant to work hard to create those returns unless there is an incentive to do so.

There are various ways to mitigate this problem, including:

- Linking the manager's pay to value creation by paying a bonus for achieving stipulated financial targets such as net income, return on equity, and sales growth.
- Granting the manager a partial ownership interest in the company through direct shareholdings or a stock option plan so as to align the manager's interests with that of the owners.
- Using accounting reports to monitor the company's performance as a proxy (indirect measure) of the manager's performance.

**P1-10. Suggested solution:**

This is a case of adverse selection, because the information is not affected by the actions of the person who has the information—we cannot change time. There is only hidden information, not hidden actions. (Using a fake or borrowed piece of identification is fraudulent and the insurance would be voided.)

**P1-11. Suggested solution:**

All three situations are most likely cases of moral hazard as they involve hidden actions, rather than hidden information. An outcome of moral hazard is that parties may take on risks because the negative consequences of those risks will be borne by someone else.

In situation (a) the mortgage company earns the commission for making the loan but it is the investors who purchase the pool of mortgages that lose money when the unqualified borrowers default. The hidden action is not verifying the applicants' income.

In situation (b) your friend enjoys his consumer purchases while knowing that he will not have to repay the additional debt when he seeks bankruptcy protection. The hidden action is not telling the credit card companies that he intends to file for bankruptcy at the end of the month.

In situation (c) you have little incentive to protect your home as the insurance company bears the risk for loss or damage. The hidden action is not using your alarm system.

**P1-12. Suggested solution:**

Version A of the game involves only uncertainty; the information is symmetrically distributed among all three participants in the game. While there is a demand for information about the value of the drawn card, there is no information for anyone to supply to anyone else. In this scenario (and assuming "risk neutrality"), the rational bids start at \$1 and go no higher than \$5.50, the latter being the expected value of the card. Bids higher than \$5.50 will lose money on average. While the lowest bid of \$1 provides you with the most profit, competition from Julia forces you to successively increase your bid, so we expect the equilibrium final bid to be \$5.50.

Version B of the game involves both uncertainty and information asymmetry. Scott has more information than you and Julia, so he can supply you with information if it is in his best interest to do so. In this game, your best strategy is to bid \$1 and to make higher bids only if Scott provides information that indicates the card has a higher value. Since Scott's income depends on how much you and Julia bid, and his cost equals the value of the card, it is in his interest to provide as much information as possible so that the bids are as high as possible. (Scott's disclosures about the card must be truthful because they can be verified against the card at the end of the game.) For example, if the card is a seven of hearts, Scott can say any of the following: "the card has hearts," which is true but not useful; "the card is higher than three," which is true; "the card is at least six," which is also true. Since you and Julia increase your bids according to the information that Scott provides, ultimately he is forced to say something that reveals the card's value of seven. This is the full-disclosure outcome in adverse selection. There is no moral hazard because there is nothing that Scott can do to change the value of the card that was drawn.

**P1-13. Suggested solution:**

- \* This scenario is an example of an agency relationship that gives rise to moral hazard.
- \* The taxi driver is an agent of the taxi company.
- \* The driver has an information advantage over you (the passengers/visitors) regarding the geography of the city.
- \* The driver also has an information advantage over the management and owners of the taxi company regarding the minute-to-minute operations of the taxi.

- \* The fare meter is a device to mitigate these two information asymmetries. It is an indirect monitoring device for the taxi company to track how the taxi driver is operating the taxi. It also provides incentives for the driver to take passengers using an efficient route. (Note that the fare increases for both distance travelled and time, so there is more reward when the taxi is moving rather than idling, and more reward when it moves faster.)
- \* An assumption we take for granted, but which is nonetheless important, is that the driver's pay is directly linked to the taxi fare.
- \* The meter does not eliminate moral hazard problems. It is only an indirect monitor of driver behaviour and tracks a limited number of items. If the driver is unfriendly or drives recklessly, the meter would not capture that information.
- \* The metered fare also does not preclude a driver taking a circuitous route to increase the distance travelled and thus increasing the fare. Many cities require taxi cabs to post estimated fares from the airport to popular destinations such as downtown so that taxi drivers do not take advantage of visitors who are not familiar with the city's geography.
- \* Providing a gratuity at the end of the trip is a separate practice that helps to mitigate the moral hazard problem: the passengers serve as the monitors of the driver's behaviour.
- \* For the meter system to be useful, the taxi company and passengers must be confident of its reliability. A meter that can be easily tampered with by the driver will provide misleading information to these users.

**P1-14 Suggested solution:**

- First note that, without genetic tests, individuals and insurance providers have the same (lack of) information.
- Insurers are willing to provide coverage to individuals because they can spread the risk over many individuals. They only need to be right on average for the insurance premiums they collect to be sufficient to cover the medical costs when they arise.
- This is a case of adverse selection (not moral hazard) because genetics cannot be changed; it is just a matter of individuals having an information advantage over the insurance companies.
- With the advance in genetic testing, individuals will have a better understanding of which medical conditions they are more likely to experience.
- Under GINA, insurance providers will suspect that individuals will have genetic tests results that are not accessible to the insurance company.
- Individuals who know that they have a genetic pre-disposition to certain ailments will seek insurance for those conditions, and the insurance company cannot prevent them from doing so under GINA.
- Other people who do not have these genetic pre-dispositions will find less benefit to obtaining this insurance.
- Thus, the expected cost of insurance will increase.
- To cover that increased cost, insurance companies will need to raise insurance premiums.
- The increased premiums will further reduce the pool of people who will find the insurance beneficial. Hence, the reference to adverse selection spiralling out of control.
- These premiums will possibly be too high for anyone to afford; people may be better off paying for the cost of treatment when the need arises.
- Ultimately, insurance companies will need to be rationally sceptical of people seeking insurance, and assume the worse (i.e., assume that they are "lemons").

- Now, because insurance companies are not able to pool high and low risk individuals, they could find it unprofitable to insure some medical conditions altogether (i.e., those that are hereditary/genetic) because such a high fraction of the insured will need expensive medical treatment.
- Given a choice of providing insurance that is unprofitable or not providing that insurance at all, these companies will ultimately decide not to insure certain medical condition. This is what is meant by these conditions being “uninsurable”—people might want to get the insurance but they can’t buy such insurance.

**P1-15. Suggested solution:**

- The fundamental issue is whether equity financing (in addition to debt) is a good idea.
- The writer does not recognize the importance of moral hazard in his proposal.
- From the student’s perspective, equity financing reduces the rewards of hard work
- Conversely, the cost of not working hard is partly borne by investors.
- The risks to the student are also reduced.
- Therefore, the incentives to make money are reduced.
- The effect is much like that of a tax on income.
- Debt imposes more risk on students so students have more incentive to earn money.
- Equity contracts may lead to misreporting of income during the contract period.
- Students may engage in pay-deferral arrangements when they start working.
- Students will tend to self-select the type of financing.
  - Better students and those willing to work harder will choose the debt contract.
  - Other less able students will choose the equity contract.
  - Therefore, the cost of the equity contracts may be very high.
- Unlike corporations, if the investors do not like how the student is behaving (i.e., not earning money), they cannot fire the management.
- Again, investors will anticipate this, and demand a high rate of return from the student before investing.
- Will there be sufficient information available to price the human capital contracts?
- Equity contracts for different groups of students may offer different rates/returns.
  - For example, business and medical students vs. others, male/female, different universities
  - May lead to perception of bias if financial institutions charged different rates to different groups.

**P1-16. Suggested solution:**

Fixed salary:

- \* Does not motivate management; only if the manager’s actions can be observed would a salary be optimal.
- \* Agency theory predicts that the manager will shirk their responsibilities because of self-interest.
- \* Shirking occurs because there is moral hazard: the owners cannot observe the manager.
- \* Information will be more reliable, but the company would be worth a lot less.
- \* There is a trade-off between reliable information and maximizing firm value.

Stock options:

- \* Manager still has incentive to bias information to try to affect stock price.
- \* Option compensation has higher risk than bonuses because stock price is affected by factors outside the manager's control and not reflective of his/her effort.
- \* Manager needs to be paid more to compensate for the additional risk.
- \* Could lead to more insider trading and more incentive to withhold information from shareholders.
- \* Insider trading is costly to outside investors.

**P1-17. Suggested solution:**

- \* The incentive plan is based on a measure of performance that is *not* consistent with shareholders' goals.
- \* Shareholders are interested in the stock price and the amount of profit available to them.
- \* Incentive plans based on stock price or return on equity would be most appropriate from the shareholders' perspective.
- \* Changes in ROA and ROE are closely related if leverage remains stable.
- \* Using the definition of operating profit margin and ROA, we can infer that turnover = sales / total assets = ROA / op. profit margin = 4.4% / 5.5% = 0.8 (in 2010) vs. 1.23 (2009) and 1.25 (2008).
- \* ROA has further declined in 2010 even though profit margin has increased because turnover has declined.
- \* The incentive plan prompted management to maximize profit margin while sacrificing turnover.
- \* The lower turnover is partly explained by the rise in A/R by roughly half as a proportion of sales.
- \* Possibly looser credit policies have been put in place to increase sales without lowering prices.
- \* The theory of efficient security markets suggests that QAF's stock price reflects value-destroying behaviour.
- \* If this were a manufacturer, absorption costing and overproduction could increase profits and reduce inventory turnover.
- \* Macroeconomic factors could also be affecting ROA and the stock price.

**P1-18. Suggested solution:**

- \* The provision of both auditing and non-audit services creates a conflict of interest for accounting firms.
- \* Auditors need to be independent and objective in evaluating companies' financial statements, but consultants are interested in helping companies become successful.
- \* Auditors may compromise their independence to maintain/attract profitable consulting business.
- \* Without an independent audit to verify numbers, a firm's financial statements become unreliable.

- \* Investors will become skeptical of reported results, increasing adverse selection. Skeptical investors will pay less for firms' securities (equity or debt), thereby increasing the cost of capital.
- \* The regulation requiring fee disclosure could solve the adverse selection problem: investors will be able to infer from fees paid to what extent audit independence may have been compromised (more non-audit fees = higher risk).
- \* As a result, companies that report more non-audit fees will be viewed as "lemons" as it will be difficult to convince investors otherwise, and their cost of capital will rise.
- \* Companies will therefore voluntarily reduce the use of accounting firms for non-audit services to lower their cost of capital.
- \* Thus, the disclosure regulation could be viewed to be in the public's best interest.
- \* Additional regulation requiring the separation of audit and non-audit divisions would be unnecessary.

**P1-19. Suggested solution:**

If securities markets are efficient in the semi-strong form, then security prices properly reflect all information that is *publicly* known about the securities. In such markets, accounting reports are still useful as long they contain information that is not already publicly available. For example, management has private information about the profitability of the company that is not available to the public. The announcement of annual or quarterly earnings by management can provide a significant amount of new information to the securities markets.

**P1-20. Suggested solution:**

- \* The theory of efficient security markets (EMH) applies to commodities as much as to stocks.
- \* Investors cannot make superior returns consistently if the markets are efficient.
- \* It is probably *more* difficult to "spot the home-run play" in the commodities market—there are many more buyers and sellers for each commodity (only 20 commodities) than in the stock market.
- \* Basic economics tells us that commodity markets, having many buyers and sellers, are nearly perfect.
- \* There could be more risk in commodities, explaining the higher returns. Systematic risk could be higher—many commodity prices move together because of weather and the economic cycle.
- \* If the brochure provides inside information, you could make superior profits. However, this brochure is widely circulated, and if many others have already bought into this system there is unlikely to be any inside information left.

**P1-21. Suggested solution:**

In response to the friend studying liberal arts:

- \* Opening price reflects expectations before the earnings announcement.
- \* Those expectations incorporate more information than just the previous earnings report.



- \* Non-accounting information led investors to expect earnings to be higher than what was reported.
- \* It is unlikely that MLF's price is inefficient because its shares are traded so heavily.
- \* The restructuring charges included in the announcement could signal bad news about future operations.
- \* The presence of restructuring charges could also lead to more suspicion about the reliability of earnings before restructuring charges, decreasing confidence in the company.

In response to the friend studying finance:

- \* Movement in stock price after the announcement shows that accounting information is useful. If accounting information were not useful, why did the stock price change so much?
- \* Direction of the price change depends on whether the announcement was good news or bad news *relative to expectations*, not past accounting numbers.
- \* It is also possible that there had been other news releases on that day affecting the price.

**P1-22. Suggested solution:**

- a. If you believe in the efficiency of securities markets, then you should predict the following:
  - The stock price for these two companies should be the same. It does not matter whether the intangible assets are revalued or not.
  - The theory of efficient markets suggests that all publicly available information is reflected in stock price.
  - The reporting of intangible assets does not affect future cash flows / future prospects of the companies. Therefore, the future cash flows and risks of the two firms are exactly the same.
  - Investors are sophisticated enough to “see through” accounting numbers. Investors should be able to undo these different accounting policies. Thus whether the intangible assets are revalued does not make a difference to firm value.
  - If revaluation provides information not known to investors, it could cause stock price to increase or decrease, depending on whether the reported value is higher or lower than investors' expectations.
- b. The concepts of information asymmetry, earnings management, relevance, and faithful representation are applicable to this context as follows:
  - *Insiders have better information about the value of intangibles, which are difficult to value.*
  - *The current value of intangible assets could be useful information that would be otherwise unavailable to investors.*
  - *The additional information could alleviate uncertainty regarding future cash flows, reducing investors' perception of risk surrounding the company's operations. The reduced risk could potentially increase stock price.*
  - *Whether the information is useful depends on management's motivations for providing the information.*
  - *If management prepares the figures unbiasedly to aid investors' decisions, the numbers would provide relevant information.*

- *However, management could bias the information to achieve its own objectives. Since the value of intangible assets is subjective, there is considerable room for manipulation.*
- *The subjectivity and bias in the reported values of intangibles make the information an unfaithful representation of their underlying value.*

## **J. Mini-Cases**

### **Case 1: The Aftermath of Enron's Collapse. *Suggested solution:***

- \* The Enron scandal has increased investor skepticism of companies' financial reports.
- \* Increased skepticism exacerbates the adverse selection problem as investors suspect that companies' insiders are withholding bad news.
- \* In order to convince investors that they are not withholding information, companies have to disclose even more than before.
- \* Large companies that attract public attention and political cost (e.g., government regulation and taxes) are particularly susceptible to this problem.
- \* The root of Enron's problem appears to be inappropriate assumptions about the boundaries of the economic entity.
- \* Related partnerships held some of Enron's assets and liabilities but were not consolidated into Enron's economic entity.
- \* The off-balance-sheet financing lowered investors' perception of the company's risk.
- \* The article claims that it may have been possible for sophisticated investors to identify Enron's tricks by reading the financial statement footnotes; if so, then the market was not efficient with respect to Enron's securities.
- \* Some analysts had some doubts, but most did not; the consensus was that there weren't any severe problems.
- \* Many analysts have conflicts of interest: to provide accurate forecasts and to generate brokerage business.
- \* Reliance on analysts' "buy" recommendations led many naïve investors to buy the stock.
- \* On the other hand, it is likely that not enough about these partnerships was revealed to investors, especially if there are so many of them ("thousands" of partnerships).
- \* New accounting standards may be required to prevent such off-balance-sheet financing transactions.
- \* The auditors gave clean opinions on Enron's F/S; did Enron's accounting comply with GAAP? If so, the auditors are not at fault and new standards are required.
- \* Even if GAAP permits the off-balance-sheet treatment of the partnership debts, Enron could have chosen to include them in the financial statements.
- \* Management made the decision not to do so; so, ultimately, the blame must be placed on management for choosing such aggressive accounting policies that misled so many investors.
- \* It is possible that Enron fraudulently concealed the information from the auditors, in which case it would be difficult to lay blame on Andersen.
- \* It is also possible that Andersen compromised its independence by allowing the partnership debts to be left off the balance sheet.

- \* Disclosure of fees for audit and non-audit services would allow investors to make up their own minds as to whether the auditors might have a conflict of interest and whether to invest.
- \* Investors and analysts need to be skeptical about “murky” disclosure. If the information is so convoluted as to be not understandable, then readers should assume the worst about the company and not buy its securities.

**Case 2: The Superstar Who Wears Two Hats. *Suggested solution:***

- \* There is information asymmetry; in particular, Grubman has access to inside information.
- \* Inside information may be used to Grubman’s benefit, or sold to investors.
- \* There is a clear conflict of interest.
- \* “Ethical wall procedures” or “Chinese walls” are supposed to prevent use of inside information in stock recommendations, but how do you put a wall inside someone’s head? Thus, the company’s policy is not effective.
- \* This is a form of moral hazard—no one can see what Grubman is doing inside his head.
- \* Grubman’s recommendations are likely influenced by his knowledge of impending mergers and acquisitions (M&As).
- \* Investors know that Grubman is using insider information and so will want to use his advice.
- \* This creates an unlevel playing field for stock analysts.
- \* If investors rely on Grubman, then he has the ability to move stock prices with his recommendations.
- \* A buy recommendation on a potential target would increase its stock price, making the deal more expensive for the acquirer.
- \* Grubman’s compensation is related to how well his employer (Salomon) does, so he has incentives to make a lot of investment-banking deals and to bring in brokerage customers.
- \* Grubman’s reports may be biased and less reliable because he needs to maintain good relations with investment-banking clients.

### **Case 3: In-Substance Defeasance of Long-Term Debt. *Suggested solution:***

#### Overview

This case illustrates many of the ideas in positive accounting theory. It shows the depth to which companies will go to manage earnings by exploiting the flexibility in accounting standards. It also shows that earnings management is not only limited to making accounting choices, but also by arranging real transactions and operations in such a way to as to obtain a particular accounting outcome. The case exposes students to the various parties potentially affected by the firm's accounting and asks them to apply their judgment to arrive at their own conclusion. The solution to the last question in this case discusses the difficulties faced by standard setters, and the role of accounting research in those decisions.

#### Specific questions

- a. Exxon was motivated by the gain that could be reported in income as a result of retiring the debt.
- b. The gain could be reported on the income statement regardless of whether Exxon chose to directly retire the debt or use the in-substance defeasance structure. Exxon chose the more complex approach to avoid the immediate tax liability on the gain that would arise from directly retiring the debt. Legally, Exxon was still liable for the debt after the in-substance defeasance transaction, so the company had not disposed of the debt for tax purposes. The tax expense of \$73 million is a non-cash expense recorded to match the gain reported in the income statement.
- c. For the moment, we can set aside the tax issue discussed in part (b). If income tax were not an issue, then we could simply think of a debt retirement, whether direct or through in-substance defeasance.

The debt retirement did not make financial sense. While a gain was recorded as a result of the retirement, no transaction was needed for Exxon to experience the gain economically. The gain on the transaction arose due to significant increases in interest rates (market yields), resulting in large drops in the value of the debt to levels far below the book value of \$515m, which was the amount realized when Exxon issued the bonds. (Recall from introductory economics that bond prices and yields move in opposite directions.)

Exxon spent \$312m on this transaction, so the value of bonds that Exxon retired would have had an even lower value. First, the company would have incurred significant transaction costs to hire investment bankers to set up the trust and buy the right mix of government bonds to obtain the desired cash flow pattern. For the sake of argument, assume that it is 2% of \$312m, or about \$6m, leaving \$306m for the purchase of government bonds. Second, and more importantly, Exxon purchased U.S. federal government bonds, which are considered the safest bonds available. Since government bonds are safer than Exxon's bonds, investors demand a lower yield and a higher price for government bonds.

For concreteness, if we assume that the long-term debt had an average remaining maturity of 15 years and an average coupon rate of 6.25% (midpoint of 5.8% and 6.7%), then we can infer (using Excel solver) that the yield on the government debt purchased was 12.31%. Assuming a modest premium of 0.50% on Exxon debt, the yield on the bonds Exxon retired would have been 12.81%, double the coupon rate of 6.25%. At this yield, Exxon's debt would have had a market value of \$295m, which is \$11m less than the value of the government bonds.

To recap, the gain occurred because interest rates increased. Exxon did not have to do anything to earn this gain. Had the company not retired the debt, it would have funds financed at an interest rate of 6.25%, half the rate of any new financing with similar terms. For financial reporting, the gain would gradually show up in the income statement by way of lower interest expense. Put another way, by realizing the gain through the debt retirement, the company reports the gain in that year, but will record higher interest expense in future years due to the higher financing cost. Indeed, the company had plans to issue more debt in 1996.

- d. The clear winners in the in-substance defeasance were the investors in Exxon's debt. Without incurring any cost themselves, their investments were effectively converted from risky corporate bonds to relatively risk-free government bonds, because the payments on the Exxon bonds were now derived from the government bonds. Management probably also gained because the company was able to report higher income, potentially increasing compensation linked to reported income. The losers were Exxon's shareholders. As the residual owners of the company, they incurred costs in the neighbourhood of \$6m + \$11m = \$17m for no economic benefit. The U.S. government was also a loser because, had the retirement been direct rather than through an in-substance defeasance, Exxon would have paid \$73m in extra taxes.
- e. The share price should not increase because the transaction did not create shareholder value. The price could decrease slightly due to the costs incurred in the transaction, although these costs were modest relative to the scale of Exxon's operations. The price could decrease significantly if shareholders interpret this transaction as a signal that Exxon management is unable to find real value-creating projects and had to resort to this type of earnings management to boost profits.
- f. Open to student interpretation. If there were no specific accounting standard to the contrary, Exxon's treatment of the gain on the in-substance defeasance would likely pass scrutiny by the auditors. The end result of the series of transactions is economically the same as a direct repurchase or redemption of the bonds. If a gain would be recorded in the direct transaction, then to reflect economic substance there is a strong case that the in-substance defeasance should be treated the same way.
- g. Without specific guidance on this issue, the application of general principles (particularly economic substance) would permit gain recognition in an in-substance defeasance.

However, as discussed above, these transactions are purely cosmetic and do not improve the position of shareholders; indeed, the transactions are costly to shareholders. It would then make sense for accounting standard setters to deter this type of transaction by prohibiting the gain recognition.

As it turns out, there was disagreement at the U.S. Financial Accounting Standards Board (FASB). Board staff had recommended allowing firms to recognize gains on in-substance defeasance transactions just as they can for direct repurchases and redemptions.

However, the Board rejected staff's recommendation and prohibited gain recognition on in-substance defeasances. Statement of Financial Accounting Standard No. 125 (FAS 125), issued in June 1996, paragraph 16, indicates:

**Case 4: Bremner Health Insurance Company. *Suggested solution:***

- a. The information asymmetry present in this case is adverse selection since the consumers have more medical information than BHIC. In order for BHIC to reduce the information asymmetry, they should require consumers to provide medical documents when buying their insurance coverage with the company. Since, BHIC has stated that it will provide coverage regardless of the consumers' medical state, the information will allow the company to make better decisions for the future financial state of the company.
- b. Efficient markets assume that all public information will be instantaneously impounded into stock price. In this case, BHIC released information that the market considered as bad news (i.e., earnings per share released were less than analysts' forecasts), which would decrease share price instantaneously. Furthermore, the disclosure of significant expenses due to terminally ill patients would negatively affect analysts' future forecasts because it would significantly decrease their confidence in BHICs' future financial performance.
- c. If BHIC had released earnings of \$1.46/share on its earnings announcement date, we would expect the price of the share to increase because of the good news contained in the earnings announcement.
- d. For publicly traded companies, meeting analysts' forecasts is very important because it is one of the biggest factors affecting share price. The pressure to meet or beat analysts' forecasts can compel management to engage in earnings management. Examples of earnings management include: being overly aggressive in revenue recognition, deferring expenses to another period, or not recognizing contingent liabilities. Analysts must be aware of management's inclination of earnings management when analyzing the financial performance of the company.