Part 1: FRAMEWORK

Chapter 1:
A Framework for Business Analysis and Valuation Using Financial Statements

Discussion Questions

1. Qian, who has just completed his first finance course, is unsure whether he should take a course in business analysis and valuation using financial statements because he believes that financial analysis adds little value, given the efficiency of capital markets. Explain to Qian when financial analysis can add value, even if capital markets are efficient.

The efficient market hypothesis states that security prices reflect all available information, as if such information could be costlessly digested and translated immediately into demands for buys or sells. The efficient market hypothesis implies that there is no further need for analysis involving a search for mispriced securities.

However, if all investors adopted this attitude, no equity analysis would be conducted, mispricing would go uncorrected, and markets would no longer be efficient. This is why there must be just enough mispricing to provide incentives for the investment of resources in security analysis.

Even in an extremely efficient market, where information is fully impounded in prices within minutes of its revelation (i.e., where mispricing exists only for minutes), John can get rewards with strong financial analysis skills:

1. John can interpret the newly announced financial data *faster* than others and trade on it within minutes; and
2. Financial analysis helps John to understand the firm better, placing him in a better position to interpret other news *more accurately* as it arrives.

Markets may be not efficient under certain circumstances. Mispricing of securities may exist days or even months after the public revelation of a financial statement when the following three conditions are satisfied:

1. relative to investors, managers have superior information on their firm's business strategies and operation;
2. managers' incentives are not perfectly aligned with all shareholders' interests; and
3. accounting rules and auditing are imperfect.

When these conditions are met in reality, John could get profit by using trading strategies designed to exploit any systematic ways in which the publicly available data are ignored or discounted in the price-setting process.

Capital in market efficiency is not relevant in some areas. John can get benefits by using financial analysis skills in those areas. For example, he can assess how much value can be created through the acquisition of a target company, estimate the share price of a company considering initial public offering, and predict the likelihood of a firm's future financial distress.

2. Four steps for business analysis are discussed in this chapter (strategy analysis, accounting analysis, financial analysis and prospective analysis). As a financial analyst, explain why each of these steps is a critical part of your job and how they relate to one another.

Managers have better information on a firm's strategies relative to the information that outside financial analysts have. Superior financial analysts attempt to discover 'inside information' from analysing financial statements. The four steps for business analysis help outside analysts to gain valuable insights about the firm's current performance and future prospects.

1. Business strategy analysis is an essential first step because it enables the analysts to frame the subsequent accounting, financial and prospective analysis better. For example, identifying the key success factors and key business risks allows the identification of key accounting policies. Assessment of a firm's competitive strategy facilitates evaluating whether current profitability is sustainable. Finally, business strategy analysis enables the analysts to make sound assumptions in forecasting a firm's future performance.
2. Accounting analysis enables the analysts to 'undo' any accounting distortion by recasting a firm's accounting numbers. Sound accounting analysis improves the reliability of conclusions from financial analysis.
3. The goal of financial analysis is to use financial data to evaluate the performance of a firm. The outcome from financial analysis is incorporated into prospective analysis, the next step in financial statement analysis.

4. Prospective analysis synthesises the insights from business strategy analysis, accounting analysis, and financial analysis in order to make predictions about a firm's future.

3. Accounting statements rarely report financial performance without error. List three types of errors that can arise in financial reporting.

Three types of potential errors in financial reporting include:

1. error introduced by rigidity in accounting rules;
2. random forecast errors; and
3. systematic reporting choices made by corporate managers to achieve specific objectives.

Accounting Rules: Uniform accounting standards may introduce errors because they restrict management discretion of accounting choice, limiting the opportunity for managers' superior knowledge to be represented through accounting choice. For example, SFAS No. 2 requires firms to expense all research and development expenditures when they are occurred. Note that some research expenditures have future economic value (thus, to be capitalised) while others do not (thus, to be expensed). SFAS No. 2 does not allow managers, who know the firm better than outsiders, to distinguish between the two types of expenditures. Uniform accounting rules may restrict managers' discretion, forgo the opportunity to portray the economic reality of the firm better and, thus, result in errors.

Forecast Errors: Random forecast errors may arise because managers cannot predict future consequences of current transactions perfectly. For example, when a firm sells products on credit, managers make an estimate of the proportion of receivables that will not be collected (allowance for doubtful accounts). Because managers do not have perfect foresight, actual defaults are likely to be different from estimated customer defaults, leading to a forecast error.

Managers' Accounting Choices: Managers may introduce errors into financial reporting through their own accounting decisions. Managers have many incentives to exercise their accounting discretion to achieve certain objectives, leading to systematic influences on their firms' reporting. For example, many top managers receive bonus compensation if they exceed certain pre-specified profit targets. This provides motivation for managers to choose accounting policies and estimates to maximise their expected compensation.

4. Would financial statement analysis still be necessary if managers reported truthfully and fully on the firm's performance? Why or why not?

Yes, financial statement analysis would still be necessary. If managers reported truthfully and fully, then financial statements would be a source of truth for the analyst. However, there is more to financial statement analysis than having information on the past performance and current financial position of the firm. That information must be evaluated in order to holistically assess the current and potential strengths and weaknesses of the firm, and then it must be projected into future periods in order to estimate the value of the firm. These tasks are described in the chapter as Financial Analysis and Prospective Analysis. Analysts have an advantage over management in these tasks, because they are more objective in evaluating the economic consequences of the firm's investing and operating decisions.

5. Explain voluntary disclosure of information in financial reports as a solution to the 'lemons problem' described in the chapter. Is it a full solution or a partial solution? Why?

The 'lemons problem' is that, if investors rely on management information about investment proposals or ideas, they cannot distinguish between good and bad ideas, because managers with bad ideas can present them as if they were good ideas. Investors therefore value all proposals at an average level, which dissuades managers with good proposals from participating in a market that undervalues their worth. Eventually the market would be comprised of only poor investment proposals.

As explained in the chapter, there are several external or market solutions to the lemons problem. They include financial intermediaries, information intermediaries, transaction facilitators and regulatory intermediaries.

Voluntary disclosure of information is an internal solution that provides a partial resolution of the lemons problem, because managers with good ideas can report non-compulsory information that can be evaluated and potentially verified by investors, in order to demonstrate that their good ideas are superior to those of other managers. Examples include: marketing information on demand for new products or services; technical information on new products that can be verified by outside experts; and reports of staff morale and commitment to the firm using actual employee profiles.

However, voluntary disclosure strategies are only partial solutions, because they can be imitated by managers without good ideas. Further, as voluntary disclosures they are not audited by the firm's auditors, and so they lack the verification of mandatory disclosures. As a strategy, voluntary disclosure is also limited by the willingness of managers with good ideas to disclose competitively sensitive information to other firms in the same market.

6. What are the advantages and disadvantages of accounting standards for financial statement analysis?

The advantages of accounting standards are:

- They provide consistent information in a consistent format that enables investors to make comparisons between the financial performances and financial positions of different firms in the same period.
- They provide consistent information in a consistent format that enables investors to make comparisons between the financial performances and financial positions of the same firm over time.
- They reduce the reporting flexibility available to managers, to ensure that managers do not distort the financial statements for their own purposes, for example, when their remuneration is based on accounting performance measures.

The disadvantages of accounting standards are:

- They reduce the flexibility in reporting that would allow managers to reflect genuine business differences in their firm's financial statements. This is particularly a problem when significant and informed business judgment is needed to assess a transaction's economic consequences.
- They can encourage managers to expend resources restructuring business activities and transactions in order to achieve a desired accounting result.

7. Research demonstrates that managers usually report truthfully, rather than seeking to distort the firm's performance and financial position. Explain why accounting analysis is still an important step in financial statement analysis.

Although managers usually report truthfully, accounting analysis is still needed to uncover those financial reports that are not reported as truthfully as they should be. It is also useful in fleshing out additional information about the firm's financial performance and financial position that managers may have reported truthfully, but not as fully as investors would like.

A further advantage of accounting analysis is that it reveals the accounting policies, accounting choices and estimates that the manager has made. Knowing these can lead the analyst to make adjustments to the firm's accounts before undertaking a financial analysis. The accounts may have been prepared and reported truthfully and fully, but in order to achieve better comparability with other firms or over time, the analyst may, for example, choose to re-state certain line items or classifications.

8. Your brother, who works in a bank, has recommended to you that you purchase shares in an organisation, on the basis of the following information, which he has heard discussed around the office:

- ***Total assets have increased by 33%.***
- ***Revenue has increased by 12%.***
- ***Profit after tax has decreased by 4%.***
- ***The dividend per share is 23¢.***
- ***The current share price is $8.50, whereas 12 months ago it was $7.50.***

Would you invest in this organisation? What information encourages you to do so, and what reasons might you have for hesitating? What additional information would you like before making this decision, and where might you find that information?

There is not enough information provided to make the decision to invest in this organisation. The information provided can be classified as either 'encouraging' you to invest or causing you to 'hesitate'. Both types of information lead you to want more information before making a decision.

Information that encourages you to invest is the increase in revenues and the increase in total assets, both of which point to a growing organisation. This is supported by the fact that the share price has increased compared to last year.

Information that encourages you to hesitate is the decrease in profit and the low dividend (the yield, or dividend as a percentage of share price, is 2.7%).

Additional questions that you might ask are:

- How reliable is the information provided by your brother? You might seek to verify information that has been 'passed around the office'.
- Why have the organisation's expenses increased at a faster rate than revenues, which must be the case if the profit has fallen but revenues have increased?
- How was the increase in assets financed?

- What was the previous dividend? Its change from the previous level indicates management's confidence in the future of the organisation. What are the dividends of comparable firms?
- What has been the general movement in share prices in the economy and in the industry? What industry does this organisation belong to?
- What has been the performance of comparable organisations?

There are many more questions that could be asked. These are just the starting point, based on the information provided.

The sources of the answers to these (and other) questions are the organisation's annual report, the stock exchange on which the organisation is listed, the organisation's website and commercial providers of financial information.

Case for Discussion: Solutions

Would you invest in this company?

1. For each section of the report described, present the case for investing in this company, and if possible also give an alternative explanation for the presentation that does not encourage investment.

Observation	For	Against
Large and well known company	Being large, the company's growth is likely to be the result of a history of good performance. Being well known, it is likely to be subject to public scrutiny, including media and analysts. It is also likely to have an active shareholder group.	Large companies are not immune from poor performance or failure.
Good headline performance, increasing assets, increasing profits at a higher rate than revenue, increasing dividends	The company is growing and it is profitable. It has demonstrated its confidence in its future by increasing its dividend.	The growth in assets was not financed through retained profits. Was it financed by debt or by equity? Expenses are growing more quickly than revenues. The company continues to pay out an almost constant percentage of its profits in dividends.
Graphical presentation of results	Upward sloping graphs generally indicate good news and can summarise many indicators in a single page.	What is not presented in the graphs? Is the company using presentation techniques to hide some aspects of its performance?
Share price growth	Shareholders like to invest in companies with a growing share price. It is helpful for the company to provide this information in the annual report.	Is share price growth a focus of the management? Does this indicate a short-term rather than a long-term focus?
The characteristics of the board of directors and the executive	The board and the executive are experienced. Directors are likely to sit on other corporate boards, adding to their effectiveness. The fact that they are smiling is an anecdotal indicator that the report contains good news.	The board and the executive are not diverse, in terms of gender or age. The company is missing the fresh eyes and fresh ideas that diversity can bring.

2. What else would you like to know about this company?

a. Would you find this information in the annual financial report?

b. If not, where might you find it?

This question works well as a class discussion.

The idea of this question is to get students to think broadly about what they want to know, and then how they might find it. It also draws out what the class already knows, which can be helpful for future class discussions.

As a group, students will contribute a large variety of items that they would like to know. Some of these items will be covered in later chapters of this book, and some are not. Some are not available publicly – the wish list.

Having to identify if information is available in the annual report should send students to several annual financial reports to discover the contents of such reports. Other information may be available from national statistical providers (such as the Reserve Bank of Australia and the Australian Bureau of Statistics), or from industry sources or private compilers of such information.

End of Chapter Case: Solutions

Economic cycles and capital markets, and implications for regulation and governance

1. ***Discuss the effective functioning of capital markets in Australia during and immediately after the Global Financial Crisis (GFC). How was the raising of finance affected by the GFC and what was the role of governance guidelines in supporting it?***

During and immediately after the GFC, it was very difficult to raise new capital. Markets were volatile, and those seeking new finance were more likely to issue equity, making non-renounceable rights offerings, or directly approaching institutional investors. The preference for private sources of funds meant that companies and markets were less publicly exposed to potential failure to raise sufficient funds. The result was that less finance was available and it was more expensive. Governance guidelines allowed companies to raise funds in these effective ways during the GFC, and to restore balance to their books by making more pro-rata issues and more renounceable offers after the GFC.

2. ***Discuss the intended roles of the institutions and intermediaries discussed in the case, such as central banks (e.g., the U.S. Federal Reserve), stock exchanges (e.g., ASX), individual banks and governments. Are their incentives aligned properly with their intended role? Whose incentives are most misaligned? At what stage of the economic cycle are the misalignments more pronounced?***

Central banks: their role is to protect national bank depositors and national systemic stability, and they have responsibility for monetary policy and capital markets to enable them to achieve this. Their focus is not primarily on economic activity or fiscal policy, although their actions impact these areas.

Stock Exchanges: their role is to keep capital markets functioning effectively, to allow companies to raise finance. Their focus is not on governance or economic activity overall.

Individual banks: their responsibility is to their shareholders and to their depositors. Their focus is on profitability and market share. Their focus is not on borrowers or on financial system stability.

Governments: their role is to ensure that national economic activity and the distribution of wealth throughout their society provides the greatest benefit to the national electorate. They implement fiscal policy and social programs and policies. Effectively, the political cycle means that their focus is not primarily on the long-term consequences of their actions, or the unintended consequences of changes in their policies.

Arguably, it is the banks' incentives that are most misaligned in a downturn, and the stock exchanges' incentives that are most misaligned in an upturn.

3. Who if anyone was primarily responsible for the GFC?

Economies depend on investor confidence and political stability as much as they do on economic activity and finance. It can be argued that the seeds for the GFC were built in to the outcomes of the previous economic crisis. It can be also argued that the GFC was a result of the housing bubble in the U.S., or the social and economic policies that allowed poor quality housing loans to be made, which lead to the housing bubble. Globalisation was a contributing factor, which itself grew out of relaxed national regulations and national competition for growth and finance. Governments and their agencies therefore played a role as well.

It is hard to argue that any one organisation was primarily responsible.

4. What are the costs of such an event? As a future business professional, what lessons do you draw from it?

The costs of a GFC are the costs of interrupted growth: the fall in economic activity, the loss of individual and corporate wealth, company failures, lost opportunities and lost innovations, reactionary changes to government policies that inhibit recovery, and loss of confidence which also inhibits recovery. This is not an exhaustive list.

The important lesson is to not always expect growth, or smooth or even predictable conditions in the future.