**Financial Reporting Quality**

**Learning Outcomes**

After completing this module, students will be able to:

1. Explain the earnings quality dilemma and the steps being taken to address it.
2. Evaluate the earnings quality of a company.
3. Evaluate the cash flow quality of a company.
4. Evaluate the financial reporting quality of a company using the Beneish model.

**Introduction**

Novice users of financial statements assume that what they are reading is an accurate portrayal of a company’s performance, as the firm’s auditors approved these statements. Despite all the effort that goes into preparing the financial statements and the accompanying notes, management’s considerable discretion when constructing them limits their accuracy and the user’s ability to analyze a firm’s performance and compare it to industry peers.

International Financial Reporting Standards (IFRS) allow firms to choose between different accounting policies, such as the FIFO or average cost methods for inventory valuation or the straight-line or accelerated depreciation approaches when expensing fixed assets. Businesses rely on estimates of useful lives, bad debts, and returns and can choose whether their assets and liabilities are valued at historical cost or fair market value. Major assets like patents and goodwill are excluded from the balance sheet if they are developed internally, as are certain off-balance sheet liabilities. Companies decide whether to classify assets and liabilities as current or long-term and long-term obligations as either liabilities or equities. Revenue recognition, cost recognition, the timing of discretionary expenses, asset revaluations, impairment losses and reversals, and the classification of revenues and expenses as operating or non-operating are all management decisions.

This considerable discretion allows companies to manipulate their financial performance and deceive boards of directors and current and potential investors. There is a joke in accounting where one accountant says, “What is your net income?” The other replies, “What do you want it to be?” This answer is indicative of the great latitude that accountants have in reporting a company’s financial results. The ability to identify financial reporting quality issues and adjust a firm’s financial statements to measure its performance better is an important skill for financial analysts.

* 1. **| Earnings Quality**

**Definition of Earnings Quality**

High-quality earnings accurately measure a firm’s financial performance by recognizing revenues and expenses at the appropriate time under IFRS and the different theoretical accounting principles, particularly the revenue recognition and matching principles.

In the past, earnings were thought to be of high quality if they were conservative, which means companies were slow to realize revenue but quick to recognize expenses. This approach understates earnings, so now the common opinion is that high-quality earnings must fairly state revenue and expenses. Accounting practices are referred to as being conservative if they understate a company’s financial performance (i.e. income statement) or position (i.e. balance sheet) in the current period and aggressive if they overstate it. Practices that are aggressive during this period, such as recognizing revenue prematurely, may be conservative in future periods as revenue will be understated. The opposite may also be true.

**Earnings Quality Dilemma**

Managers are under tremendous pressure to perform financially. They must meet or beat the consensus earnings forecasts of the equity analysts who follow their company’s stock for different money management firms. Portfolio managers who buy shares have limited investment horizons as they are evaluated based on their short-term performance despite the long-term nature of most investment portfolios. As a result, even a slight negative variation from analysts’ consensus forecasts typically causes a significant decline in a firm’s share price.

The financial pressure on management has many causes. CEOs receive a large portion of their pay from cash bonuses and long-term incentive pay, such as stock options or restricted share units, whose payouts are dependent on rising share prices. Companies need “in-the-money” stock options to attract and retain top managers. A high share price allows firms to negotiate more favourable terms when acquiring other businesses using stock swaps. Most bank loans stipulate that companies meet specific ratio requirements that include earnings to retain their financing. Growing, stable profits are better received by a company’s board of directors and the stock market. CEOs are always fearful of losing their jobs because of significant earnings fluctuations or negative earnings surprises. An earnings surprise occurs when the consensus earnings forecast is different from the actual earnings per share (EPS) announced by the company.

Managers spend a lot of valuable time playing the “earnings game” or managing their earnings because of this financial pressure. They inflate a company’s actual earnings to meet profit targets or smooth earnings to avoid the scrutiny of the board and investors. Companies try to guide stock analysts to a specific EPS figure with their financial disclosures and usually err on the low side so their earnings announcement exceeds the consensus forecast, resulting in a positive earnings surprise and a rising share price. If managers miss the target, they tend to do so by a large margin and save earnings for future periods. Earnings management is also referred to as “creative accounting,” “hocus pocus accounting,” “cooking the books,” “making their numbers,” or “income smoothing.”

**Exhibit 1: Managing Earnings**

**Time**

**EPS**

**Inflated**

**Smooth**

Accounting earnings are not always a good measure of a corporation’s success or failure because of earnings management. Analysts may not detect these deceptive practices until it is too late, leading to losses for investors. Valuable resources are wasted thinking of these earnings management schemes and moving analysts closer to the profit target that a company wants. Smoothing out short-term variations in profits may provide analysts with a better measure of long-term performance, but inflating earnings hurts investors.

The quality of corporate earnings has improved significantly since the Enron debacle in 2001 and the mortgage lending crisis in 2007. Public companies hire an external auditor to attest to the accuracy of their financial statements, and these auditors are now better trained and much more independent. Boards of directors, audit committees, and the company’s internal auditors are more conscious of the need to avoid financial impropriety. Corporate whistleblower programs are becoming commonplace. CEOs and CFOs must now certify company earnings, which means they are held accountable for any irregularities. Disgruntled shareholders and creditors are increasingly threatening companies with lawsuits when financial problems are discovered. Governments have passed legislation to improve financial reporting and hold violators accountable. International accounting and auditing organizations like the International Accounting Standards Board (IASB) and the International Accounting and Assurance Standards Board (IAASB) are adopting more demanding standards. Finally, financial analysts are becoming savvier about detecting earnings management and adjusting a firm’s financial statements to reflect its performance better.

**Inflating and Smoothing Earnings**

As discussed, companies manage earnings to inflate or smooth out their yearly profits so they can maximize management compensation, attract new managers, meet loan requirements, and avoid the scrutiny of their board of directors and stock markets. This is accomplished primarily by manipulating revenue recognition, but they distort cost recognition as well. Firms also re-classify revenues and gains that are non-operating as operating items or expenses and losses that are operating as non-operating items to increase analysts’ expectations of their sustainable or recurring earnings. They may even try to hide regular expenses in restructuring provisions or discontinued operations. This practice is referred to as moving items “above the line” or “below the line.”

Stock analysts focus on operating income (i.e. “the line”) and not net income when evaluating a company’s performance because it reflects core income from continuing business activities, which is more representative of its future performance. Operating income excludes non-recurring or one-time items such as discontinued operations, restructuring provisions, goodwill impairments, gains and losses on asset sales, and litigation settlements as well as items that are unrelated to the firm’s regular business operations such as investment income or gains and losses on the sale of financial assets like stock or bonds.

Many earnings management strategies are fraudulent and are increasingly being detected by more vigilant auditors and regulators. Other strategies allow managers to exercise their judgement and may be permitted by auditors or go undetected. Common strategies include:

**Exhibit 2: Revenue Recognition Strategies**

|  |  |
| --- | --- |
| Backdate sales invoices | Invoices are backdated to before year-end so companies can meet their annual sales quotas. This reduces next year’s revenues, but sales can recover, or the firm may find a new way to manipulate its revenues before then. |
| Recognize revenue before finalizing a sales agreement | Revenue is not recognized until the two parties enter into a binding sales agreement. Recognizing sales prematurely increases current revenues. |
| Recognize revenue too quickly on long-term sales contracts | Profits on long-term contracts are recognized in parts over the contract’s life as the work is completed. A company may intentionally overvalue work completed in the initial stages to increase its current revenues.  |
| Manipulate discount rates when payments are delayed | When collections are deferred, a sale is recorded at the present value of its future cash flows. By recording these deferred revenues at their face value or using a discount rate that is below the current market rate, companies inflate their current revenues. |
| Recognize revenue even when return provisions cannot be reasonably estimated | Revenue recognition should be delayed until return provisions expire unless they can be reasonably estimated. |
| Recognize revenue when the ability to pay is questionable | Revenue recognition should be delayed until cash is collected if payment cannot be reasonably estimated using a bad debts provision. |
| Allocate more revenue to product sales than to after-sales services | Some contracts, like those in the software industry, consist of an initial product sale followed by after-sales services like installation, training, or program customization. Revenue relating to product sales is recognized immediately, but revenue for after-sales services is delayed until the work is completed. Managers increase current revenues by arbitrarily allocating a greater portion of the contract to product sales. |
| Falsify sales to fictitious customers. | Desperate companies create fake invoices and ship products to secret company-owned facilities to make phony sales appear legitimate. |
| Provide generous credit terms, sales discounts, or return privileges | These incentives encourage customers to purchase inventory early without fear of loss so that the company can meet its annual sales quota. Again, this will reduce revenues next year, but sales may recover, or the firm may find a new way to manipulate its revenues before then. The high cost of these incentives hurts investors. This strategy is called “channel stuffing” or “trade loading” and is a serious global problem. |
| Provide free storage | Customers agree to buy products early if a company provides free storage until the product is needed, which is usually well in the future. Higher storage costs hurt investors, but they help management meet its annual sales quota. These are called “bill-and-hold” transactions. |
| Grossed-up revenue | Revenues are inflated by including the value of goods and services the company does not own but resells for a fee or commission. Only the fee or commission should be included in sales. This is called “grossing up.” |
| Negotiate two-way sales transactions between related parties at inflated prices | Companies collude to increase revenues by selling fictitious output to each other from unused production capacity. No cash is involved in what is called “round-tripping.” |
| Time store openings, new product introductions, or acquisitions | If a company’s sales growth comes primarily from these sources, it could be hiding a problem with its existing operations. Analysts address this by examining same-store sales that exclude new store openings. They also separate existing sales from sales relating to new products and acquisitions. |
| Use reserves to hold back revenues until they are needed  | A company defers revenue in good years and recognizes it in future years to meet its profit targets or smooth earnings. These deferred revenues are held in “cookie jar” reserves. |

**Exhibit 3: Cost Recognition Strategies**

|  |  |
| --- | --- |
| Capitalize too many costs | Expenditures are capitalized and amortized over the period they benefit a firm if their future value is certain. Otherwise, they are expensed immediately based on the conservatism principle. Companies capitalize costs such as research and development, internal development of intangible assets, resource exploration, advertising, store opening, marketing, or new customer solicitation that have uncertain future values to increase their current earnings. Inventory should only include costs that are directly traceable to the product. Interest incurred outside the manufacturing period, storage costs relating to excess production, or administration costs that are not directly related to production need to be expensed. Fixed assets only include costs related to putting the assets into place and condition for use, such as transportation, installation, or testing. |
| Manipulate accounting estimates | Accounting estimates such as bad debts percent, warranty claims, product returns, or useful lives are lowered to increase current earnings. |
| Use provisions for restructuring charges, bad loans, product returns, and other expenses to manipulate earnings | Managers overstate provisions and then partially reverse them in subsequent years by adjusting cost estimates, discount rates, and probabilities to meet profit targets or smooth earnings. |
| Reduce discretionary costs | Some expenses, such as advertising, training, maintenance, or research and development, are not driven by consumer demand like the cost of sales but are at management’s discretion. These costs are reduced to meet profit targets or smooth earnings, but lowering these critical expenditures seriously impacts corporate performance. |
| Time asset impairment losses and reversals, and asset revaluations | These adjustments to receivables, inventory, fixed assets, intangibles, and goodwill are not made when incurred but are timed to help a company meet its profit targets or smooth its earnings. |
| Change the discount rate | Manipulate the discount rate to generate gains and losses on assets and liabilities that are valued at the present value of their future cash flows.  |
| Use vendor overpayments and rebates to manipulate expenses | Companies collude with their vendors to overpay for purchases in good years and receive rebates in bad years to meet profit targets or smooth earnings. Vendors agree with these fraudulent arrangements to retain valued customers. |
| Select accounting policies that smooth earnings  | Capitalizing expenditures and amortizing them over the period they benefit the company results in smoother earnings than expensing them all at once.  |

**Exhibit 4: Classification Strategies**

|  |  |
| --- | --- |
| Discontinued operations are frequent and often classified as held for sale, but not subsequently sold | Poorly performing business components are classified as discontinued operations when they do not meet the requirements, so their results can still be moved “below the line,” where they are usually ignored by analysts. Discontinued operations should only be classified as held for sale if the disposal is highly probable.  |
| Investment income and other non-operating income are classified as operating | These non-operating items are classified “above the line” to increase operating income. |
| Operating expenses and losses are classified as non-operating | These operating items are classified “below the line” to increase operating income. Managers may attempt to hide them in restructuring provisions and discontinued operations, so analysts do not notice them. |
| Adopt fair value through profit or loss for all short-term investments | Any gains on short-term investments are included in profit or loss instead of other comprehensive income to increase operating income. |

**Warnings of Earnings Management**

Financial statements are complex, so analysts often try to identify warning signs or “red flags” of earnings management that indicate further investigation is required. Some of these include:

**Exhibit 5: Warning Signs of Earnings Management**

|  |  |
| --- | --- |
| Rising unbilled receivables | Revenue is recognized prematurely before the billing date agreed to by the parties. This date is typically set soon after the work is completed. |
| Rising long-term receivables | Longer credit terms are used to increase sales. |
| Revenue growth is higher than that of industry peers | Aggressive revenue recognition policies have been adopted compared to the industry. |
| Falling accounts receivable turnover | Generous credit terms are used to increase sales, resulting in higher receivables and lower turnover. |
| Seasonal items are sold at the wrong time of year, and a large portion of sales are in the last quarter | Channel stuffing is used in the final quarter to meet the annual sales quota. |
| Barter or non-cash sales with related parties | “Round tripping” or swaps of unused production capacity are used to increase sales. |
| Vendor financing with customers who have questionable credit ratings | Companies selling high-priced products such as machinery often provide financing to their customers. Lending standards are relaxed to increase sales and earn more interest income, but bad debts increase in the future. |
| Deferred revenues fall/rise disproportionately | Revenue reserves are released/accumulated to raise/decrease sales. |
| Expense provisions fall/rise disproportionately | Expense provisions are released/accumulated to decrease/raise expenses. |
| Gross or operating profit margins rise dramatically | Operating expenses are reclassified “below the line” or capitalized when they should have been expensed to increase profits. |
| A large portion of earnings is from gains on asset sales | Current earnings are not sustainable as the firm is overly dependent on one-time items. |
| A large portion of earnings is from investment income | Heavily relying on interest and dividend income conceals problems with core business operations. |
| Inventory turnover is falling | Inventories are not correctly written down, and non-traceable production costs are capitalized to reduce expenses. |
| Fixed asset turnover is falling | Amortization periods are extended, and more asset costs are capitalized to reduce expenses. |
| Maintenance, research and development, marketing, and advertising fall as a percentage of sales | Discretionary expenses are reduced or capitalized to lower expenses. |
| Unjustified changes in accounting estimates | Accounting estimates like the bad debts percentage are manipulated to reduce expenses. |
| Frequent changes in how expenses are classified | Accounting transactions are being moved “above the line” or “below the line” to meet profit targets or smooth earnings. |
| More restructuring provisions than usual | Operating expenses are being hidden “below the line” in restructuring provisions to increase operating income. |
| External auditors do a lot of other consulting work for the client | Audit firms overlook questionable accounting practices to retain lucrative consulting work that is often much more profitable than the audit. |
| Numerous secret side deals are negotiated with suppliers | Price rebates are given to lower expenses in exchange for higher prices in the future. |
| Significant asset impairments and restructuring provisions are recognized | Managers recognize these expenses all at once in a financially challenging year when investors expect substantial losses and will likely ignore them. This “big bath” overstates future profits and makes it appear that management was successful in turning around operations. |
| Accounting policies in the notes to the financial statements contain questionable practices compared to the industry | Earnings management is used to meet profit targets or smooth earnings. |
| Numerous accounting policy changes, earnings restatements, and error corrections | Companies change accounting policies or misapply them to manipulate their financial performance. Auditors or regulators who detect these improprieties demand that the policies be changed or applied correctly, causing adjustments to past earnings. |
| Misclassified after the reporting period events | These events are incorrectly included or excluded from current income to meet profit targets or smooth earnings. |
| Overemphasis on non-IFRS disclosures | Managers stress non-IFRS earnings to hide the financial problems apparent in the company’s IFRS-compliant financial statements. |
| New auditors, CFO, or outside counsel, and investigations by government regulators | Questionable accounting practices are discovered that drive honest people out of the company. |
| Poor corporate governance, few independent directors, and inadequate internal controls | Inferior corporate oversight means earnings management goes undetected. |
| Executive compensation systems emphasize short-term profit maximization and stock option payouts | Management has a strong incentive to manage earnings as their compensation is closely linked to the firm’s financial results. |
| Consistently meet or exceed analysts’ earnings estimates | Management is playing the “earnings game,” so it does not disappoint its directors and investors. |
| The company is raising financing or struggling to comply with its loan conditions | Management has a strong incentive to manage earnings to secure or maintain its financing. |
| Flamboyant or “flashy” executives | These types of people use earnings management to feed their egos and build a false reputation as skilled and successful managers. |

**Quantitative Earnings Management Models**

**Beneish Model**

Instead of examining a company’s financial statements and other disclosures to assess its earnings quality, analysts can use quantitative models. The most popular is the Beneish Model, which measures the probability of earnings manipulation based on several variables using a type of regression analysis called a probit model.

M-score = -4.84 + 0.920 (DSRI) + 0.528 (GMI) + 0.404 (AQI) + 0.892 (SGI) + 0.115 (DEPI) – 0.172 (SGAI)

+ 4.679 (ATA) - 0.327 (LEVI)

Beneish found that firms with M-Scores above -1.78 are likely earnings manipulators, between -2.00 and -1.78 are possible manipulators, and below -2.00 are not manipulators. The eight variables are:

**Exhibit 6: Beneish Model Variables**

|  |
| --- |
| Days sales receivable index (DSRI) = (Receivables t / Sales t) / (Receivables t-1 / Sales t-1)Rising DSR means receivables are increasing relative to sales, indicating more aggressive revenue recognition. |
| Gross margin index (GMI) = Gross margin t-1 / Gross margin tRising GMI means gross profit margins are declining, which provides a greater incentive to manipulate earnings. |
| Asset quality index (AQI) = (1 – (PPE t + Current assets t) / Total assets t) / (1 – (PPE t-1 + Current assets t-1) / Total assets t-1)Rising AQI means there are more other assets, such as intangibles or goodwill, which indicate questionable cost capitalization. |
| Sales growth index (SGI) = Sales t / Sales t-1Rising SGI means sales are increasing, so there is greater pressure to manipulate earnings to maintain the trend. |
| Depreciation index (DEPI) = (Depreciation t-1 / (Depreciation t–1 + PPE t-1)) / (Depreciation t / (Depreciation t + PPE t))Rising DEPI means falling depreciation relative to fixed assets due to greater cost capitalization. |
| Sales, general, and administration expenses index (SGAI) = (SGA t / Sales t) / (SGA t-1 / Sales t-1)Rising SGAI means reduced operational efficiency, which encourages more earnings manipulation. |
| Accruals to total assets (ATA) = (Continuing income t – Cash flow from operations t) / Total assets tRising accruals signal greater earnings manipulation. |
| Leverage index (LEVI) = (Debt t / Total assets t) / (Debt t-1 / Total assets t-1)Rising LEVI means higher financial distress, which increases the need to manipulate earnings. |

This model is problematic as Beneish found the DEPI, SGAI, and LEVI variables were not statistically significant, and the SGAI and LEVI coefficients had the wrong signs. Beneish has a five-variable model that excludes these factors. Other variables have been tried to improve the model’s predictability, but the results were inconclusive. A problem with quantitative models is that firms have learned to “game” them by manipulating their financial ratios to produce lower M-scores. Beneish found the predictability of his model declined in a subsequent study.

**Coping with Managed Earnings**

What should an analyst do if they discover a company is engaging in earnings management? Some will recommend to their employer that they not invest or extend credit because of the irregularities, but this would ignore many potentially lucrative investments, considering how widespread earnings management is in the economy. An alternative is to restate a company’s profits, so they are less impacted by earnings management. In practice, this is difficult because of the time and cost involved, a lack of information in the financial statement and notes, and an equity analyst’s limited accounting knowledge.

As discussed, re-stated earnings should reflect regular and continuing elements only and exclude non-recurring items, especially those that are unrelated to the firm’s core operations. These include discontinued operations, restructuring provisions, asset impairments, gains or losses on asset sales, or unreasonably high amounts of investment income. More conservative revenue and cost recognition policies are adopted. Accounting estimates can be reset to match industry peers. Discretionary expenses can be returned to normal levels, and costs that were improperly capitalized could be expensed.

* 1. **| Cash Flow Quality**

Suppose accounting income cannot be adjusted to reduce the impact of earnings management because of the cost, a lack of information, or insufficient accounting expertise. In that case, cash flow-based financial ratios can be employed, which substitute cash flow from operations (CFO) for net income. Cash flow-based ratios are examined in Module: Financial Statement Analysis.

The cash-to-income ratio specifically measures cash flow quality by comparing CFO to operating income. Interest expense and income taxes are added to CFO because they are not included in operating income, which makes the numerator and denominator in the ratio more comparable.

$$Cash to income ratio= \frac{Cash flow from operations+Interest expense+Incomes taxes}{Operating income}$$

If the cash-to-income ratio falls significantly below 1.0, the company is likely to recognize revenues prematurely. If this ratio is well below 1.0 but then suddenly improves, the company may be “stretching” payables; reducing inventory balances below regular levels; accelerating accounts receivable collections by tightening credit terms or using expensive cash discounts and factoring; deferring discretionary costs such as maintenance, research and development, advertising, and training that have serious long-term negative consequences; or capitalizing additional costs as fixed or intangible assets so they appear in CFI and not CFO.

IFRS also gives companies considerable discretion when classifying certain transactions on the cash flow statement. These different classifications can be used to increase or decrease the CFO.

* Normally, interest paid and interest and dividend income received are classified as operating activities as they are included in net income. Interest paid can also be classified as a financing activity as it is the cost of borrowing, which raises the CFO. Interest and dividends income received may be classified as investing activities as they are investment returns which lower the CFO.
* Dividends paid to shareholders are usually classified as a financing activity because they are a cost of equity financing. They may be classified as an operating activity to assist users in determining an entity’s ability to pay dividends out of operating cash flows, which lowers the CFO.

Under US GAAP, interest paid and interest and dividend income received must be included in operating activities, while dividends paid are always classified as financing activities. This provides a more accurate measure of the CFO needed to finance capital expenditures, make required principal payments, and pay dividends. These amounts must be disclosed separately under IFRS so they can be easily reclassified by analysts to compare different companies.

* 1. **| Balance Sheet Quality**

A high-quality balance sheet provides a complete and unbiased measurement of a company’s assets and liabilities. These values are needed to accurately calculate a business’s net worth (i.e. assets minus liabilities) and many of the traditional and cash flow-based financial ratios used to measure its performance.

A complete and unbiased balance sheet means all of a company’s assets and liabilities have been recorded at their fair market value. Producing such a balance sheet and disclosing how the amounts were calculated is the goal of IFRS. Despite recent IFRS initiatives like fair value accounting and lease capitalization, financial statements are still not compliant because of some ill-conceived accounting standards and the discretion firms have in selecting and implementing accounting policies.

Like with the income and cash flow statements, analysts should carefully examine the quality of a firm’s balance sheet and make the necessary adjustments before analyzing its performance. Before doing this, some advanced accounting topics must be studied.