Chapter 7: Financial Statements

Roles of Standard Setters, Auditors, and Regulators in Financial Reporting

1. The aforementioned entities exist in order to ensure consistency in financial reporting. Standards for financial reporting are typically set at the national or international level by private sector accounting standard-setting bodies. Globally, two such prominent standards are the International Financial Reporting Standards (IFRS) and the International Accounting Standards Board (IASB). In the US, publicly traded companies are required to report according to Generally Accepted Accounting Principles (GAAP).
2. There is still some flexibility within accounting standards to choose and use specific methods of accounting. These choices must be recorded and can be found in the notes attached to the financial statements that a company releases.
3. Regulation for accounting standards is backed by the federal government, which recognizes, adopts, and enforces them. In the US, the agency responsible for doing so is the Securities and Exchange Commission (SEC.)
4. Before being published, financial reports must be reviewed by independent accountants called auditors. Auditors report opinions of the authenticity and integrity of financial reports, and their opinions can range from unqualified to clean. Note that what auditors look for is accuracy in reporting financial position, rather than the quality of the financial position itself.

Financial Statements

1. Companies are required to keep accounting records and produce specific financial reports, which include:
    a. The Balance Sheet: (also called the statement of financial position / condition) shows the company's assets and how it is financed. The financing includes its debts and shareholders' equity.
    b. The Income Statement: (also called the Statement of Profits and Loss, P&L Statement, or Statement of Operations) shows the gains, losses, and profits generated by the company over a given period of time.
    c. The Cash Flow Statement: shows the cash received and spent by the company in a given period of time.
    d. Notes to the financial statements provide information relevant to understanding and assessing the financial statements.
    e. There are other financial reports than companies may be required to create, keep, and release. In the US, this includes an annual 10-K Report that is submitted to the SEC. This report includes the financial statements listed above, as well as information regarding management's discussion and analysis of the financial conditions and results of operations, as well as qualitative disclosures about the risk the company faces.

2. The Balance Sheet
    a. The Balance Sheet provides information about a company's financial position at a specific point in time.
    b. The Balance Sheet is comprised of the following elements:
        i. Assets (resources the company owns that are used in the generation of revenue)
        ii. Liabilities (obligations the company has to lenders and creditors)
        iii. Shareholders' Equity (the equity of the company that is owned by shareholders)
    c. The Accounting Equation: Total Assets = Total Liabilities + Total Shareholders' Equity
        i. The Balance Sheet can also be interpreted as representing the total resources available to the company for generation revenue. Assets being owned, liabilities being resources that are loaned or on credit, and shareholders' enquiry being capital raised by shareholders.
        ii. In total, the Accounting Equation must equal zero.
        iii. The values of total assets, liabilities, and shareholders' equity are known as the "Book Values" of their respective categories.
    d. Assets:
        i. Assets can be reported at either Historical Cost (what it actually cost to acquire the asset) or Fair Value (what the fair selling price of the asset would be in a transaction between separate and willing parties, known as "Arm's Length Transaction.) Most assets are reported by historical cost.
        ii. On balance sheets, assets are categorized into current and non-current assets, the difference between the two being the length of time each is expected to be converted into cash.
            1. Current Assets: include cash, inventories, and accounts receivable. The typical term under which current assets are expected to be converted is one accounting period (typically a year.) A company's operation period is the average amount of time elapsed between acquiring inventory and collecting the cash from sales.
            2. Non-Current Assets: include tangible assets, such as land, buildings, machinery, and equipment, and intangible assets such as patents. These assets are used to generate revenue over years. Non-Current assets are often grouped together under the term "Plant, Property, & Equipment" (PP&E). This category can also include financial assets, such as shares or bonds issued by other companies.
                a. Upon the purchase of Non-Current Assets, companies do not report them as immediate expenses in their entirety. Rather, the purchase is Capitalized, meaning that its total cost (and therefore its lifetime value) is held and depreciated over time. Annual depreciation cost is what is reported as an expense (Depreciation Expense), rather than the total cost of the asset at once. Net Book Value is the term used to describe the remaining value of a non-current asset after net depreciation costs.
            3. Other assets that may be reported on a company's financial reports include its long-term financial assets, intangible assets, and goodwill.

The process of expensing intangible assets over their useful lives is called amortisation (a process similar to depreciation.)

e. Liabilities and Shareholders' Equity:
    i. Together, liabilities and shareholders' equity indicate how the reporting company's assets are financed. There are two kinds of financing: debt and equity. Debt is a liability, and Shareholders' Equity is a form of equity.
    ii. Liabilities are also divided into:
        1. Current Liabilities: which must be paid within the next year, and include categories such as accounts payable, short-term borrowing, and the amount of long-term debt that is due in the next period. Unpaid operation expenses are often grouped together as accrued liabilities.
        2. Non-Current Liabilities: which must be paid over a period of time greater than one year.
    iii. Shareholders Equity: represents the equity of the company that shareholders residually own. SE is further subdivided into:
        1. The amount received from selling stock to common shareholders
        2. Retained Earnings (retained income) which represents the company's undistributed income (as opposed to dividends that represent distributed income.) RE are an indirect contribution by shareholders that allows the company to retain profits.
            a. RE represent one link between the Balance Sheet and the Income Statement. When a company successfully generates profit/income and retains it, RE increases the company's profitability and overall value (both in terms of market cap and equity.)

3. The Income Statement
    a. The Income Statement reflects the total gains and losses that a company has over a given period of time. The Accounting Equation for the income statements is
    Profit = (Revenues) - (Expenses)
    The Income Statement is comprised of:
    b. Revenues
    c. Expenses:
        i. Defined as the cost of company resources (cash, inventories, recruitment, etc…) that are used to generate revenue. Expenses are subdivided into three categories:
            1. Operating Expenses: which include the cost of sales (or cost of goods sold), selling, general, administrative, and depreciation expenses
            2. Financing Costs: such as interest expenses
            3. Income Taxes
    d. Identities:
        i. Gross Profit = (Revenues) - (Cost of Sales/Goods Sold)

ii. Operating Income = (Gross Profit) - (Other Operating Expenses) (EBIT), the operating income is the income generated before taking into account financing costs and taxes.
iii. EBITDA = EBIT + Depreciation and Amortization. This is another measure of income before taxes, depreciation, and amortization. The calculated totals for depreciation and amortization are dependent upon accounting methods, rather than by operating decisions. EBITDA is useful because it is a closer approximation of operating cash flow and management's ability to manage revenues and expenses. EBITDA is not typically included on financial reports for this reason.
iv. Earnings Before Taxes = (EBIT) - (Interest Expense)
v. Net Income = (EBIT) - (Interest Expense) - (Tax Expense)
    1. (Earnings Before Taxes) - (Tax Expense)
    2. Net Income represents the income that the reporting company has available to retain and reinvest in the company (retained earnings) or to distribute to owners in the form of dividends (disbursements of profit.)
vi. Earnings Per Share (EPS) = (Net Income) / (Number of Shares Outstanding)
vii. Dividends Per Share = (Total Dividends) / (Number of Shares Outstanding)

4. Profit and Net Cash Flow
    a. There is a differentiation in accounting between profit and net cash flow. The distinction is made because of the difference in timing between when consumers and companies make sales and purchases and when the cash for those transactions are given and received. For this reason, reported profit, revenues, expenses, and cash flows will never be identical over a given period of time.
    b. Accrual Basis of Accounting: is an accounting method in which revenues are recorded when they are earned rather than when they are received.
    c. There are other reasons as well that profit and net cash flow will not be identical, such as the use of expensing the depreciation and value of a long-term asset on the income statement, while cash itself is accounted for in the beginning of the assets lifetime.
    d. A company's level of efficiency in completing cash transactions is an important factor in determining its value. Companies can have negative profits while having positive cash flows, and vice versa. It is nearly impossible for a company to function while having persistent negative cash flows, as positive cash flows are needed to pay short-term and long term liabilities, interest payments, and dividends.

5. The Cash Flow Statement
    a. The Statement of Cash Flows identifies the sources and uses of cash during a given period and explains the change in the company's cash balance reported on the balance sheet. The classification of cash flows is helpful in demonstrating now only how much cash was generated, but also how cash was generated. For instance, operating activities are likely to be recurring costs, while investment and financing activities are not necessarily recurring, so they can give an indication of the company's future cash flows. Cash Flows are subdivided into three categories:

i. Operating Activities: reflect the cash generated from a company's operations/main profit-creating activities. These typically include cash inflows received for sales and cash outflows paid for operating expenses, such as cost of goods sold, wages, operating overheads, etc… (this is according to the "Direct Method.") when a company reports net income and then makes adjustments to arrive at the cash flow from operating activities, it is using the indirect method. (Note that the indirect method shows the relationship between the income statement and balance sheet changes and cash flow from operating expenses.)
ii. Investment Activities: are typically cash outflows related to purchases of long-term assets.
iii. Financing Activities: are cash inflows resulting from raising new capital (through either the issuance of shares, bonds, or borrowing) and cash outflows for payments of dividends, repayment of debt, or purchase of shared (buybacks.)

b. Net Cash Flow = (Operating Activities) + (Investment) + (Financing)

6. Links Between Financial Statements
    a. Income Statement and Balance Sheet:
        i. Net Income and Retained Earnings
        ii. The revenues and expenses reported on the income statement that have not been settled in cash are recorded as current liabilities and assets.
        iii. The purchase of long-term assets and its reduction in cash is represented in long-term assets on the balance sheet, are shown in the statement of cash flows, and in the depreciation expense of the income statement.
    b. Note that the balance sheet shows the financial position of a company at a specific point in time, while the income statement and statement of cash flows show changes in a company's position over a period of time.

Financial Statement Analysis

1. How Liquid Is the Company?
    a. In accounting, liquidity refers to a company's ability to pay its outstanding obligations in the short term. Two ratios that are commonly used to measure liquidity are:
        i. Current Ratio = (Current Assets) / (Current Liabilities)
        ii. Quick Ratio = (Current Assets - Inventories) / (Current Liabilities)
        iii. The Current Ratio company's ability to use its short-term assets to cover its short-term liabilities. The resulting calculation represents the number of units of assets available to cover one unit of liability. The higher the number, the higher the liquidity. A current ratio of 2 is commonly used as a minimum desirable standard for investment.
        iv. The Quick Ratio excludes inventories, as they are the least liquid current assets. The quick ratio gives an idea of how easily a company could pay its short-term obligations should it need to. A quick ratio over greater than 1 is desirable, however, higher quick ratios are not always better as they can indicate that the company is holding too much cash and not investing enough.

2. Is the Company Generating Enough Profit from Its Assets?
    a. Net Profit Margin = (Net Income) / (Revenues)
        i. This identity represents the percentage of revenues that are profits, the percentage of revenues available to shareholders after all expenses have been accounting for. Generally, the higher the ratio, the better.
    b. Return on Assets (ROA) = (Net Income) / (Total Assets)
        i. This identity indicates how much return, as measured by net income, is generated per monetary unit invested in assets. Generally, the higher the ratio, the better.
    c. Basic Earning Power = (Operating Income) / (Total Assets)
        i. This identity is similar to the previous, but uses operating income rather than net income, the difference being that operating income does not account for how assets are financed. Whichever measurement is used to measure profitability of assets, it should be kept consistent.
    d. Return on Assets and Basic Earning Power can be broken down further in order to identify a company's ability to generate profit from its assets relative to other companies.
        i. ROA = (Net Income) / (Total Assets)
            = ((Net Income) / (Revenues)) / ((Revenues) / (Total Assets))
        ii. BEA = (Operating Income) / (Total Assets)
            = ((Operating Income) / (Revenues)) / ((Revenues) / (Total Assets))
        iii. In both of these equations, the first component is measure of profitability: known as the Net Profit Margin (in ROA) and Operating Profit Margin (in BEA). These give an indication of how effective a company is at managing costs to increase profitability.
        iv. The second component is called Asset Turnover. This ratio indicates the volume of revenues being generated by the assets used by the company, or how effectively the company uses its assets to generate revenue. An increasing ratio may indicate increased performance, but this is not necessarily the case, as decreasing assets attributable to depreciation will result in a higher ratio, but sales will not be increasing.

3. How Is the Company Financing Its Assets?
    a. Degree of financial leverage is a measurement used to measure the extent to which debt is used to finance a company.
    b. Debt-to-Equity Ratio = (Debt) / (Equity)
        i. This identity measures a company's ratio of debt to equity. Typically, this will be calculated using debt defined as only interest-bearing, including short-term borrowing, the portion of long-term debt due within the reporting period, and long-term debt. This does not include accounts payable and accrued expenses that do not require interest payments.
    c. Equity Multiplier Ratio = (Total Assets) / (Equity)
        i. This identity measures the amount of total assets supported by one monetary unit of equity. The greater the value of assets relative to equity, the more debt is being used as financing. A company with a low financial leverage or equity multiplier is one predominantly financed by equity.

d. Having a higher proportion of debt is riskier, as the company is obligated to to service its debts in addition to its equity. If a company carries higher debt, there is risk that it will not be in a position to meet those obligations or respond as quickly as its competitors to new opportunities. Highly leveraged companies are thought of as being less solvent.

4. Is the Company Providing Sufficient Return for Its Shareholders?
    a. Return on Equity (ROE) = (Net Income) / (Equity)
        i. This identity indicates how much return (as measured by net cineom) is available to each monetary unit of equity. This figure can be compared over time, to other companies, and industry averages. ROE can be further subdivided into three components:
        ii. (Net Income / Revenue) * (Revenues / Total Assets) * (Total Assets / Equity)
        iii. Or ROE = (Net Profit Margin) * (Asset Turnover) * (Financial Leverage)
    b. The first two components indicate the return on assets, and the final component is included to account for leverage. "A company that has a higher level of debt in its total capital will have a higher return on equity as long as the debt returns more than it costs."
        i. They can be further described as:
            1. Company's ability to generate profits from its revenues
            2. Company's ability to generate revenues from its assets
            3. Accounting for the company's use of leverage
    c. Other things being equal, when any one of these ratios increases, the return on equity increases. This makes intuitive sense, as a company being better able to generate revenues from assets and profit from revenues will increase return on equity. The order of the third component indicates that increased assets will increase returns, but comes with the caveat that increased leverage is not necessarily a good thing.

5. Market Valuations
    a. There are two ratios commonly used to assess a company's ability to create or lose value for its shareholders. These two ratios are:
        i. Price-to-Earnings Ratio = (Market price per share) / (Earnings per share)
            1. This identity indicates the number of monetary units that consumers are willing to pay for every $1 of earnings per share. A higher PE ratio indicates that consumers are more willing to pay for a dollar of earnings per share, indicating a belief of growth potential. Alternatively, a low PE ratio could also mean that the company's stock is undervalued.
        ii. Price-to-Book Ratio = (Market price per share) / (Equity book value per share)
            1. Or (Equity reported on balance sheet) / (Number of shares outstanding)
            2. This identity reflects historical costs and measures the amount that shareholders have invested in the company throughout its lifetime. A ratio greater than 1 indicates that investors believe the company is worth more in the long run than the amount shareholders have invested in it, meaning the company has increased shareholder value. A ratio of less than one indicates that investors believe the company has lost value for its shareholders.