

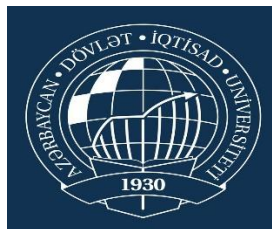


**The Ministry of Education of
Azerbaijan Republic**

**ANALYZING OF FINANCIAL
STATEMENTS**

Vuqar Yusifzade

UNEC SABAH
Azerbaijan State Economic University



2018

ACKNOWLEDGEMENTS

Initially, I would like to thank to my scientific supervisor, PhD candidate Polad Azizov for his advice, encouragement and patient guidance. I am extremely lucky to have a supervisor who cared so much about my work and responded my questions so promptly.

ABSTRACT

ANALYZING OF FINANCIAL STATEMENTS

Vuqar Yusifzade

SABAH 2 Economy 1

Supervisor: PhD candidate Polad Azizov

UNEC SABAH

Azerbaijan State Economic University

The general purpose of the financial statements is to provide information about the results of operations, financial position, and cash flows of an organization. This information is used by the readers of financial statements to make decisions regarding the allocation of resources. At a more refined level, there is a different purpose associated with each of the financial statements. The income statement informs the reader about the ability of a business to generate a profit. In addition, it reveals the volume of sales, and the nature of the various types of expenses, depending upon how expense information is aggregated. When reviewed over multiple time periods, the income statement can also be used to analyze trends in the results of company operations.

Financial statement analysis is the process of reviewing and evaluating a company's financial statements (such as the balance sheet or profit and loss statement), thereby gaining an understanding of the financial health of the company and enabling more effective decision making. Financial statements record financial data; however, this information must be evaluated through financial statement analysis to become more useful to investors, shareholders, managers and other interested parties.

<u>Contents</u>	
Acknowledgements	2
Abstract	3
Contents	4
INTRODUCTION	5
CHAPTER I. Characteristics of financial analysis	7
1.1 Financial Statements	7
1.2 Comparative analysis	8
1.3 Users of financial statements	10
CHAPTER II. Tools of financial statement analysis	12
2.1 Horizontal Analysis	12
2.2 Vertical Analysis	13
2.3 Ratio Analysis	14
CHAPTER III. Analysis of financial statements	20
3.1 Analyzing the Balance Sheet	21
3.2 Analyzing Income Statements	30
3.3 Analyzing the Cash Flow Statement	37
CONCLUSION	45
REFERENCES	49

INTRODUCTION

Introduction to Analyzing Financial Statements presents the tools needed to analyze financial statements with confidence. This course reviews the importance of analyzing financial statements in the small business lending process, and teaches the terms and steps associated with analyzing financial statements, including the income statement, the balance sheet and the cash flow statement. This course will also explain how tax returns report income and expenses from a different perspective. This course examines the computation and meaning of four categories of financial ratios and how ratios are used to spot significant trends.

Personnel who are responsible for reviewing financial statements for the purpose of assisting in making lending decisions, monitoring the ongoing health of the business, or conducting the initial financial analysis.

Learning Objectives: After completing this course, students will be able to:

Define financial statement analysis and explain its importance in the small business lending process

List the basic steps of financial statement analysis and the purpose of each step

Analyze an income statement and balance sheet

Explain how tax returns are used in the lending process

Calculate and interpret key ratios

Perform a simple cash flow analysis

Financial statement analysis (or financial analysis) is the process of reviewing and analyzing a company's financial statements to make better economic decisions. These statements include the income statement, balance sheet, statement of cash flows, and a statement of changes in equity. Financial statement analysis is a method or process involving specific techniques for evaluating risks, performance, financial health, and future prospects of an organization.

It is used by a variety of stakeholders, such as credit and equity investors, the government, the public, and decision-makers within the organization. These stakeholders have different interests and apply a variety of different techniques to meet their needs. For example, equity investors are interested in the long-term earnings power of the organization and perhaps the sustainability and growth of dividend payments. Creditors want to ensure the interest and principal is paid on the organizations debt securities (e.g., bonds) when due.

Common methods of financial statement analysis include fundamental analysis, DuPont analysis, horizontal and vertical analysis and the use of financial ratios. Historical information combined with a series of assumptions and adjustments to the financial information may be used to project future performance. The Chartered Financial Analyst designation is available for professional financial analysts.

CHAPTER 1. CHARACTERISTICS OF FINANCIAL STATEMENT ANALYSIS

1.1 Financial statements

Financial statement analysis is a company's fundamental performance that is aimed to provide essential information about its financial position in the form of financial statements. Basically, it is valuable for company's internal as well as external users to make a decision. External and internal users including lenders, shareholders, investors, owners and managers have special needs depending on the types of decisions to be made. They focus on three characteristics of a company: solvency, profitability and liquidity. For instance, a short-term creditor, such as a bank, is particularly interested in ability of the borrower to pay obligation when they come due. Therefore, creditors concentrate on the liquidity of the borrower before lending money.

The most important characteristics of useful information are relevance and reliable. In order to have relevance and reliable, accounting information must be timely as well as verifiable. In addition to being relevant and reliable, accounting information should be comparable and consistent. Information that lacks either of these characteristics is considered insufficient for decision making. Comparability refers to the ability to make relevant comparisons between two or more companies in the same industry at a point in time. Consistency refers to the ability to make relevant comparisons within the same company over a period of time.

Financial statements are a set of formal records that is used as a main source in analyzing financial statements. There are three primary financial statements: *balance sheet, income statement and statement of cash flows*.

Balance sheet is a summary of companies' financial condition on a specific date. It presents what the organization owns as well as what the organization owes to its external users and internal owners. The statement has three parts: assets, liabilities and ownership's equity. According to financial equation, assets

must equal liabilities plus stockholder's equity.

The aim of *Income statement* is to show how profitable the firm has been over a certain accounting period. It reports a summary of how the business incurs its revenues and expenses through both operating and non-operating activities. A result of this statement is given as net profit or loss. Income statement is the most important report that investors, creditors and analysts are interested in.

Statement of cash flows provides information about the firm's cash outflows and inflows during the accounting period of time. It consists of three sections: cash flows from financing, cash flows from investing and cash flow from financing activities.

1.2 Comparative analysis

Comparative analysis, also described as comparison analysis, is used to measure the financial relationships between variables over two or more reporting periods. Businesses use comparative analysis as a way to identify their competitive positions and operating results over a defined period. Larger organizations may often comprise the resources to perform financial comparative analysis monthly or quarterly, but it is recommended to perform an annual financial comparison analysis at a minimum.

Financial Comparatives

Financial statements outline the financial comparatives, which are the variables defining operating activities, investing activities and financing activities for a company. Analysts assess company financial statements using percentages, ratios and amounts when making financial comparative analysis. This information is the business intelligence decision makers use for determining future business decisions. A financial comparison analysis may also be performed to determine company profitability and stability. For example, management of a new venture may make a financial comparison analysis

periodically to evaluate company performance. Determining losses prematurely and redefining processes in a shorter period will favor compared to unforeseen annual losses.

Comparative Format

The comparative format for comparative analysis in accounting is a side by side view of the financial comparatives in the financial statements. Comparative analysis accounting identifies an organization's financial performance. For example, income statements identify financial comparables such as company income, expenses, and profit over a period of time. A comparison analysis report identifies where a business meets or exceeds budgets. Potential lenders will also utilize this information to determine a company's credit limit.

Comparative Analysis in Business

Financial statements play a pivotal role in comparative analysis in business. By analyzing financial comparatives, businesses are able to pinpoint significant trends and project future trends with the identification of considerable or abnormal changes. Business comparative analysis against others in their industry allows a company to evaluate industry results and gauge overall company performance. Different factors such as political events, economics changes, or industry changes influence the changes in trends. Companies may often document significant events in their financial statements that have a major influence on a change in trends.

To analyze financial statements, it is required to use comparative techniques. A financial statement only shows a company's financial position of a given time. For instance, knowing that a company's net profit was \$200 million, it is not adequate to know whether the amount represents an increase or decrease over the period. To obtain such information, it is necessary to compare one financial statement data with another financial statement data. The most popular comparative techniques are *intra-company basis*, *intercompany basis*

and *basis of industry averages* (Weygandt, Keiso and Kimmel 2008, 207)

The *Intra-company basis* is used to compare items or financial relationship within a company in current year with the same item or relationship in one or more years. The Intra-company basis is also useful for detecting changes in financial relationship and significant trends.

The *Intercompany basis* compares an item or financial relationship of one company with the same item or relationship in other one or more competing companies. This comparison is useful to determine a company's competitive position.

The *Industry averages* compare an item or financial relationship of a company to industry averages published by financial organizations. The industry averages show a position of a company's relative performance within the industry.

1.3 Users of financial statements

Users of financial statement information include managers, creditors, stockholders, investors and regulatory agencies. These individuals and organization can be divided into two groups as *internal* and *external* according to their interests in financial statement information. Their purposes of using accounting information are different than one another. External users include *shareholders, customers, regulators, lenders, government* and other *suppliers* that who are not directly involved in running an organization. Internal users include *managers* and *employees* that who are directly involved in running and managing the organization.

Shareholders/owners use accounting reports to decide whether to buy, hold or sell stock. As well as shareholders have a right to elect a board of directors to oversee their interests in an organization.

Regulators often have legal authority over certain activities of organizations. Tax authorities require organizations to file accounting reports in computing tax. Other regulators include utility boards that use accounting

information to set utility rates and securities regulators that require reports for companies that sell their stock to the public. (Wild 2008, 5)

Lenders/Creditors are individuals or organizations who loan money or other valuable resource to an organization. Banks and loans, mortgage and finance companies are lenders. Lenders use accounting information to ensure that the organization can repay its loans with interests.

Government/Legislators look for information to monitor and evaluate government receipt and expenses.

Investors focus on an organization's profitability and potential for growth. On the other words, investors fully rely on financial statements information in making their investment decisions.

Managers utilize financial statement information in many of their financing, investment or operating decisions. They need very detailed information to plan and control an organization's human and material resources effectively. (Spiller 1990, 5)

Employees often have an interest in the continued and profitable operations of their firm. They use accounting information to monitor the viability of their pension plans.

CHAPTER 2. TOOLS OF FINANCIAL STATEMENT ANALYSIS

2.1 Horizontal analysis

Various tools are used to evaluate financial statements. Financial statement analysis consists of applying analytical tools and techniques to financial statements and other relevant data to obtain useful information. Three of the most common tools of financial statement analysis are: *horizontal analysis*, *vertical analysis* and *ratio analysis*.

Horizontal analysis, also called trend analysis, is a tool for evaluating a series of financial statement data over a period of time. Its purpose is to investigate whether an increase and decrease that has taken place. The analysis is used mainly in intra-company comparisons. The advantage of *horizontal analysis* is that the changes can be expressed in amounts as well as in percentages. Horizontal analysis of changes from period to period is relatively straightforward and is quite useful. However, complications can occur in making the computations. If an item has no value in a base year or preceding year and a value in the next year, no percentage change can be computed. If a negative amount appears in the base or year or preceding period and a positive amount exists the following year, no percentage change can be computed. (Weygandt, Keiso and Kimmel 2001, 720)

Horizontal Analysis Example

Horizontal analysis looks at the trend of financial statements over multiple periods, using a specified base period. Horizontal analysis typically shows the changes from the base period in dollar and percentage. The percentage change is calculated by first dividing the dollar change between the comparison year and the base year by the item value in the base year, then multiplying the quotient by 100%.

For example, assume an investor wishes to invest in company XYZ. The investor may wish to determine how the company grew over the past year. Assume that in company XYZ's base year, it reported net income of \$10 million

and retained earnings of \$50 million. In the current year, company XYZ reported net income of \$20 million and retained earnings of \$52 million. Consequently, it has an increase of \$20 million in its net income and \$2 million in its retained earnings year over year (YOY). Therefore, company ABC's net income grew by 100% YOY, while its retained earnings only grew by 4%.

2.2 Vertical analysis

Various tools are used to evaluate financial statements. Financial statement analysis consists of applying analytical tools and techniques to financial statements and other relevant data to obtain useful information. Three of the most common tools of financial statement analysis are: *horizontal analysis*, *vertical analysis* and *ratio analysis*.

Vertical analysis is a tool that consists of the study of a single financial statement in which each item is expressed as a percentage of a significant total. The use of vertical analysis is especially helpful in analyzing income statement data such as the percentage of cost of goods sold to sales. (Hermanson, Edwards and Salmonson 1989, 781)

Vertical Analysis Example

For example, suppose XYZ Corporation has three assets: cash and cash equivalents worth \$3 million, inventory worth \$8 million and property worth \$9 million. If vertical analysis is used, the asset column looks like:

Cash and cash equivalents: 15%

Inventory: 40%

Property: 45%

If comparative financial statements are also used, then additional detail from previous periods is also included and an additional comparative column for the percentages of a previous period is added.

The method of vertical analysis can also be contrasted with horizontal analysis, which uses one year's worth of entries as a baseline while every other

year represents percentage differences in terms of changes to that baseline.

2.3 Ratio analysis

Various tools are used to evaluate financial statements. Financial statement analysis consists of applying analytical tools and techniques to financial statements and other relevant data to obtain useful information. Three of the most common tools of financial statement analysis are: *horizontal analysis*, *vertical analysis* and *ratio analysis*.

Ratios are most widely used tools of financial analysis, due to they provide clues to and symptoms of underlying conditions. Like other analysis tools, ratios are usually future oriented, and it helps accountant analysts to uncover conditions and trends difficult to detect by inspecting individual components making up the ratio. Besides, a ratio expresses a mathematical relation between two quantities. It can be expressed as a percent, rate as well as proportion. Moreover, usefulness of a ratio analysis fully depends on a user's skillful interpretation. The *ratio analysis* can be used to evaluate three fundamental qualities of a company: liquidity, solvency and profitability. (Wild 2008, 549)

When investors and analysts talk about fundamental or quantitative analysis, they are usually referring to ratio analysis. Ratio analysis involves evaluating the performance and financial health of a company by using data from the current and historical financial statements. The data retrieved from the statements is used to - compare a company's performance over time to assess whether the company is improving or deteriorating; compare a company's financial standing with the industry average; or compare a company to one or more other companies operating in its sector to see how the company stacks up.

[Financial ratios are a great way to quickly assess a company's health before digging deeper into its financial statements. Price-earnings ratios can provide insights into valuation, while debt-coverage ratios can tell investors about potential liquidity risks. If you're interested in learning more about financial ratios, Investopedia's Fundamental Analysis Course provides an in-

depth introduction to the topic with over five hours of on-demand video, exercises, and interactive content. You'll learn everything from how to interpret financial ratios to how to read financial statements and glean critical insights.]

Most investors are familiar with a few key ratios, particularly the ones that are relatively easy to calculate. Some of these ratios include the current ratio, return on equity (ROE), the debt-equity (D/E) ratio, the dividend payout ratio, and the price/earnings (P/E) ratio. While there are numerous financial ratios, ratio analysis can be categorized into six main groups:

1. **Liquidity Ratios:** liquidity ratios measure a company's ability to pay off its short-term debts as they come due using the company's current or quick assets. Liquidity ratios include current ratio, quick ratio, and working capital ratio.

2. **Solvency Ratios:** also called financial leverage ratios, solvency ratios compare a company's debt levels with its assets, equity, and earnings to evaluate whether a company can stay afloat in the long-term by paying its long-term debt and interest on the debt. Examples of solvency ratios include debt-equity ratio, debt-assets ratio, and interest coverage ratio.

3. **Profitability Ratios:** these ratios show how well a company can generate profits from its operations. Profit margin, return on assets, return on equity, return on capital employed, and gross margin ratio are examples of profitability ratios.

4. **Efficiency Ratios:** also called activity ratios, efficiency ratios evaluate how well a company uses its assets and liabilities to generate sales and maximize profits. Key efficiency ratios are the asset turnover ratio, inventory turnover, and days' sales in inventory.

5. **Coverage Ratios:** these ratios measure a company's ability to make the interest payments and other obligations associated with its debts. Times interest earned ratio and debt-service coverage ratio are two examples of coverage ratios.

6. **Market Prospect Ratios:** e.g. dividend yield, P/E ratio, earnings per

share, and dividend payout ratio. These are the most commonly used ratios in fundamental analysis. Investors use these ratios to determine what they may receive in earnings from their investments and to predict what the trend of a stock will be in the future. For example, if the average P/E ratio of all companies in the S&P 500 index is 20, with the majority of companies having a P/E between 15 and 25, a stock with a P/E ratio of 7 would be considered undervalued, while one with a P/E of 50 would be considered overvalued. The former may trend upwards in the future, while the latter will trend downwards until it matches with its intrinsic value.

2.3.1 Liquidity ratios

Liquidity ratios are used to indicate a company's short-term debt paying ability. Usually, short-term creditors such as suppliers and bankers are interested in assessing liquidity of a company. The most used liquidity ratios are *current ratio*, *quick ratio*, *cash ratio*, *inventory turnover* and *receivables turnover ratio*.

Current ratio indicates the ability of a company to pay its short-term financial obligations from current assets and, in this way, shows the strength of the company's working capital position. The current ratio is computed by dividing current assets by current liabilities. (Hermanson, Edwards and Salmonson 1989, 786)

$$\text{Current ratio (CR)} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

Quick ratio also known as the *acid-test ratio*, is a conservative variation of the current ratio. The *quick ratio* measures a company's immediate debt paying ability. Only cash, receivables, and current marketable securities are included in the numerator. Less liquid current assets, such as inventories and prepaid expenses, are omitted. Inventories may take several months to sell; prepaid expenses reduce otherwise necessary expenditures but do not lead eventually to cash receipts. The *quick ratio* is computed as follows. (Edmonds et al. 2006,

538)

$$\text{Current ratio (CR)} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

Inventory turnover indicates the number of *times* on average the inventory is sold during the period. Its purpose is to measure the liquidity of the inventory. The *inventory turnover* is computed by dividing cost of goods sold by the average inventory. Unless seasonal factors are significant, average inventory can be computed from the beginning and ending inventory balances. (Weygandt, Keiso and Kimmel 2001, 689)

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

Receivables turnover is used to evaluate the liquidity of a firm's receivables. In fact, liquidity might be measured by how quickly certain assets can be converted to cash. Therefore, main purpose of *receivables turnover* is to measure how many times account receivables are collected during the period. The *receivable turnover* is computed as follow.

$$\text{Receivable turnover ratio} = \frac{\text{Net sales}}{\text{Average receivable}}$$

2.3.2 Solvency ratios

Solvency ratios are used to analyze a company's ability to cover its long-term obligations. Usually, long-term creditors and stockholders show an interest in a company's ability to pay its interests when it comes due and to repay face value of debt at maturity. Mainly used ratios are *debt to total assets ratio*, *debt to equity ratio* and *time interest earned ratio*.

Debt to total assets ratio measures the percentage of a company's assets that are financed by debt. It is computed by dividing total liabilities by the total assets. (Edmonds et al. 2006, 540)

$$\text{Debt to total assets ratio} = \frac{\text{Total debts}}{\text{Total assets}}$$

Debt to total equity is used to compare creditor financing to owner financing.

It demonstrates what proportion of equity and debt the firm is using to finance its assets. This ratio is calculated as follows. (Edmonds et al. 2006, 540)

$$\text{Debt to total equity ratio} = \frac{\text{Total liabilities}}{\text{Total equity}}$$

Time interest earned provides an indication of the company's ability to meet interest payments as they come due. It is calculated by dividing earnings before interest expense and taxes (EBIT) by interest expenses.

$$\text{Times Interest Earned} = \frac{\text{EBIT}}{\text{Interest expense}}$$

2.3.3 Profitability ratios

Profitability ratios measure the income or operating success of an enterprise for a given period of time. Income, or the lack of it, affects the company's ability to obtain debt and equity financing. It also affects the company's liquidity position and the company's ability to grow. As a consequence, both creditors and investors are interested in evaluating earning power - profitability. Profit ability is frequently used as the ultimate test of management's operating effectiveness. (Weygandt, Keiso and Kimmel 2002, 690)

Commonly used *profit ability* ratios are *net income margin*, *return on assets* and *return on equity*.

Net income margin, sometimes called *operating margin*, or *profit margin* is

calculated by dividing net income by net sales. The result of this calculation is often expressed as a percentage. For instance, a high net profit margin ratio shows how effective your business is at converting sales into profit. On the contrary, a low net profit margin demonstrates that a company is not generating enough sales, or that a company is unable to control its production costs.

$$\text{Net income margin} = \frac{\text{Net income}}{\text{Net sales}}$$

Return on assets (ROA), also called *return on investment*, is the ratio of wealth generated (net income) to the amount invested (average total assets) to generate the wealth. In general, higher *return on assets* suggests better performance. ROA can be calculated as follows. (Edmonds et al. 2006, 544)

$$\text{Return on Assets (ROA)} = \frac{\text{Net income}}{\text{Average assets}}$$

Return on equity (ROE) is often used to measure the profitability of the stockholders' investment. ROE is computed as follows. (Edmonds et al. 2006, 544)

$$\text{Return on Equity (ROE)} = \frac{\text{Net income}}{\text{The Average Common Stockholders' Equity}}$$

CHAPTER 3. ANALYSIS OF FINANCIAL STATEMENTS

3.1 Analyzing the Balance Sheet

Investors often overlook the balance sheet. Assets and liabilities aren't required as revenue and earnings. While earnings are important, they don't tell the whole story.

The balance sheet highlights the financial condition of a company and is an integral part of the financial statements. (To read more on financial statement basics, see *What You Need To Know About Financial Statements and Advanced Financial Statement Analysis*.)

The Snapshot of Health

The balance sheet, also known as the statement of financial condition, offers a snapshot of a company's health. It tells you how much a company owns (its assets), and how much it owes (its liabilities). The difference between what it owns and what it owes is its equity, also commonly called "net assets" or "shareholders equity".

The balance sheet tells investors a lot about a company's fundamentals: how much debt the company has, how much it needs to collect from customers (and how fast it does so), how much cash and equivalents it possesses and what kinds of funds the company has generated over time.

The Balance Sheet's Main Three

Assets, liability and equity are the three main components of the balance sheet. Carefully analyzed, they can tell investors a lot about a company's fundamentals.

Assets

There are two main types of assets: current assets and non-current assets. Current assets are likely to be used up or converted into cash within one business cycle - usually treated as twelve months. Three very important current asset items found on the balance sheet are: cash, inventories and accounts receivables.

Investors normally are attracted to companies with plenty of cash on their balance sheets. After all, cash offers protection against tough times, and it also gives companies more options for future growth. Growing cash reserves often signal strong company performance. Indeed, it shows that cash is accumulating so quickly that management doesn't have time to figure out how to make use of it. A dwindling cash pile could be a sign of trouble. That said, if loads of cash are more or less a permanent feature of the company's balance sheet, investors need to ask why the money is not being put to use. Cash could be there because management has run out of investment opportunities or is too short-sighted to know what to do with the money.

Inventories are finished products that haven't yet sold. As an investor, you want to know if a company has too much money tied up in its inventory. Companies have limited funds available to invest in inventory. To generate the cash to pay bills and return a profit, they must sell the merchandise they have purchased from suppliers. Inventory turnover (cost of goods sold divided by average inventory) measures how quickly the company is moving merchandise through the warehouse to customers. If inventory grows faster than sales, it is almost always a sign of deteriorating fundamentals.

Receivables are outstanding (uncollected bills). Analyzing the speed at which a company collects what it's owed can tell you a lot about its financial efficiency. If a company's collection period is growing longer, it could mean problems ahead. The company may be letting customers stretch their credit in order to recognize greater top-line sales and that can spell trouble later on, especially if customers face a cash crunch. Getting money right away is preferable to waiting for it - since some of what is owed may never get paid. The

quicker a company gets its customers to make payments, the sooner it has cash to pay for salaries, merchandise, equipment, loans, and best of all, dividends and growth opportunities.

Non-current assets are defined as anything not classified as a current asset. This includes items that are fixed assets, such as property, plant and equipment (PP&E). Unless the company is in financial distress and is liquidating assets, investors need not pay too much attention to fixed assets. Since companies are often unable to sell their fixed assets within any reasonable amount of time they are carried on the balance sheet at cost regardless of their actual value. As a result, it's possible for companies to grossly inflate this number, leaving investors with questionable and hard-to-compare asset figures.

Liabilities

There are current liabilities and non-current liabilities. Current liabilities are obligations the firm must pay within a year, such as payments owing to suppliers. Non-current liabilities, meanwhile, represent what the company owes in a year or more time. Typically, non-current liabilities represent bank and bondholder debt.

You usually want to see a manageable amount of debt. When debt levels are falling, that's a good sign. Generally speaking, if a company has more assets than liabilities, then it is in decent condition. By contrast, a company with a large amount of liabilities relative to assets ought to be examined with more diligence. Having too much debt relative to cash flows required to pay for interest and debt repayments is one way a company can go bankrupt.

While the income statement helps the analyst to understand the profitability of a company, the balance sheet helps them to understand how much a company is worth. The balance sheet does this by reporting how much a company owes

(liabilities), how much it owns (assets), and the money held in retained earnings (equity).

In this chapter, we're going to be providing a better understanding of the balance sheet. We'll do that by first talking about the fundamentals and importance of this accounting report to investors. Next, we'll walk through each segment of this statement, while providing a high-level overview of the typical accounts found in each section. Then we'll finish up by talking about some of the key metrics used by investors to analyze a company's financial health.

The Balance Sheet - Along with the statement of cash flows and income statement, the balance sheet is one of the three most important documents used by investors to understand the financial condition of a company. Structurally, the balance sheet is relatively simple in concept. Every company's balance sheet is comprised of three elements:

Assets: often defined as an economic resource which is owned by the corporation and is expected to provide future benefits to its operation. Accounting rules allow assets to take two forms: Tangible Assets, which have a physical form such as a building or a piece of machinery. Intangible Assets, which usually involve a legal right or claim such as a patent.

Liabilities: these are the debts of a corporation. Nearly all businesses have liabilities; even the most successful and profitable of companies will make purchases on credit. Most companies also find it desirable to borrow money as a means of expanding operations more rapidly. Typical liabilities of the company include long-term debt, notes payable, and accounts payable.

Equity: also referred to as owner's equity and shareholder's equity, these are the resources that have been invested by the owners of the company. Increases in owner's equity comes from two sources: the initial and any

additional investments by the owner, as well as earnings resulting from the profitable operation of the company.

The relationship of the above three elements in the balance sheet are as follows:

Assets = Liabilities + Owner's Equity

Generally, the importance of the balance sheet stems from its ability to allow investors to analyze the amount of debt a company is carrying relative to the investments it owns and the equity, or worth, of the company.

Assets

The assets appearing on a balance sheet are further subdivided into two broad categories: current assets and non-current assets, which are also referred to as fixed assets. As a reminder, an asset is a resource that has value and is expected to provide a future benefit to the company.

Current Assets

When an asset is expected to be sold or used up in the near term (usually one year or operating cycle), it is categorized as a current asset. This class of assets includes:

Cash and Cash Equivalents: highly-liquid assets that can be readily converted into cash. This includes money market funds, and money held in bank accounts.

Short-term Investments: government bonds and marketable securities that mature in less than one year.

Inventories: goods and materials held in stock by a company that are waiting to be sold.

Accounts Receivable: bills that have been sent to customers for goods and / or services that have been rendered, but not yet paid for by the customer. While

receivables have not yet been paid, the company records in this account the value it expects to receive from customers.

Prepaid Expenses: cash that has already been paid to vendors that will eventually turn into an expense in the next 12 months. For example, a one year maintenance agreement on software may have been paid in January, but the benefits of that agreement will be expensed over the next 12 months.

Non-Current or Fixed Assets

This category of assets includes those owned by the company that has not been classified as current assets; this includes:

Plant, Property, and Equipment: these are physical assets and property that is not easily converted into cash. Depreciation represents a decrease in the value of the asset's useful life over time. Plant, property, and equipment (PP&E) is usually recorded on the balance sheet net of depreciation.

Intangible Assets: these are non-physical assets, meaning they cannot be touched or seen and usually cannot be turned into cash. The most common forms of intangible assets include copyrights, patents, trademarks, and goodwill. Most investors are skeptical of the reported value of intangible assets such as goodwill, since this represents the difference between the purchase price of an asset and its fair market value.

Long-Term Investments: bonds with maturities greater than one year as well as the holdings of any stocks of other companies. Long-term investments also include special accounts such as pension funds, sinking funds, and land held for speculative purposes.

Liabilities

A company's liabilities are debt obligations arising from transactions that have occurred in the past. The balance sheet subdivides liabilities into two broad categories: current liabilities and non-current liabilities, also known as long-term liabilities.

Current Liabilities

When a liability is expected to be liquidated in the near term (usually one year or operating cycle), it is categorized as a current liability. This class of liabilities includes:

Accounts Payable: these are bills the company has received for goods or services but has not paid for yet. The cash flow of a company can be improved by taking advantage of payment terms and delaying paying for bills until they are due.

Short Term Debt: this is money the company borrowed for a term of 12 months or less. Short term debt is usually matched against the short term borrowing needs of the company, and is usually in the form of bank loans.

Non-Current or Long-Term Liabilities

As was the case with non-current assets, these liabilities represent the money the company owes creditors with a term greater than 12 months. The most common classes of this liability include:

Notes Payable: also referred to as promissory notes, these are written promises to pay money owed a creditor under terms that include payment due dates as well as the rate of interest charged on the money borrowed.

Long-Term Debt: this is money a company has borrowed, and is typically obtained through the issuing of bonds with a repayment date that is frequently in the distant future. Investors will often evaluate the risk of a company by calculating its interest coverage ratio.

Owner's Equity

Also referred to as shareholder's equity, or simply equity, this is the third major element of the balance sheet. Owner's equity is really just another liability of the company, except in this case the liability resides with the owners

of the company. Owner's equity can be further subdivided into two broad categories: Retained Earnings and Treasury Stock.

Retained Earnings

The retained earnings of a company can be thought of as the total profits ever earned, minus all of the money paid to shareholders in the form of dividends. Since the value of retained earnings is cumulative, there can be instances where retained earnings are negative. When that occurs, this account is sometimes renamed as "accumulated deficit" or "retained losses."

Treasury Stock

If stock is issued, then subsequently repurchased by the company, it is held as treasury stock. The repurchase of stock can be an efficient way to increase shareholder value. Companies sometimes repurchase stock when they feel their shares are undervalued by the market. When stock is repurchased and the level of net income is maintained, the earnings per share will increase due to the lower number of shares outstanding.

Balance Sheet Benchmarks

Most financial ratios are derived from two financial statements, the balance sheet and the income statement. When analyzing the balance sheet, keep in mind this report is a snapshot in time. It's also important to understand that one measure doesn't tell the entire story. When analyzing the balance sheet, the best approach involves calculating several ratios and looking for trends in the data.

When calculating financial ratios, the evaluation is usually benchmarked against other companies. The best comparisons include:

Market Averages: these are market-wide averages or financial ratio "rules of thumb" that apply to "generic" companies.

Industry Averages: a better comparison than Market Averages, here the benchmark is against companies in the same or similar industries.

Same Company: finally, ratio analysis can be done using historical, current, as well as forecasts or projections for the same company.

Key Financial Ratios

The following financial ratios are the key metrics that can be calculated using only the balance sheet. This includes the current ratio, quick ratio, and leverage (debt-to-worth).

Current Ratio

Also referred to as the liquidity ratio, the current ratio measures the "solvency" or liquidity of the company. It provides the investor with a measure of the company's ability to pay current liabilities with current assets. The calculation of the measure is:

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

The higher the current ratio, the greater is the company's ability to pay its short-term obligations using short-term cash. If the current ratio falls below 1.0, the company might find it difficult to repay all its current liabilities.

Quick Ratio

Another measure of liquidity, the quick ratio removes some of the slightly less liquid assets from the current ratio equation. This test of financial strength is slightly more challenging, since it only accounts for a portion of the current assets. The calculation of the quick ratio is:

$$\text{Quick Ratio} = (\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable}) / \text{Current Liabilities}$$

The higher the quick ratio, the greater is the company's ability to pay its short-term debt obligations using short-term cash. If the quick ratio falls below 1.0, the company might find it difficult to repay all its current liabilities.

Leverage Ratio

Also known as the debt-to-equity ratio and debt-to-worth ratio, the leverage ratio gives the investor a good indication of the company's leverage. For example, if the ratio is high, then assets far exceed stock equity. This indicates the company has a lot of debt relative to equity. The leverage ratio is calculated as:

$$\text{Leverage Ratio} = \text{Total Liabilities} / \text{Net Worth (or Total Equity)}$$

While leverage ratios can vary by industry, a rule of thumb when evaluating this measure is the ratio should be no higher than 2:1. This allows for liabilities to be twice the shareholder's equity. When the ratio goes above 2:1, the company may have trouble paying creditors as well as obtaining additional long-term funding.

The two important equity items are paid-in capital and retained earnings. Paid-in capital is the amount of money shareholders paid for their shares when the stock was first offered to the public. It basically represents how much money the firm received when it sold its shares. In other words, retained earnings are a tally of the money the company has chosen to reinvest in the business rather than pay to shareholders. Investors should look closely at how a company puts retained capital to use and how a company generates a return on it.

Most of the information about debt can be found on the balance sheet - but some assets and debt obligations are not disclosed there. For starters, companies often possess hard-to-measure intangible assets. Corporate intellectual property (items such as patents, trademarks, copyrights and business methodologies),

goodwill and brand recognition are all common assets in today's marketplace. But they are not listed on company's balance sheets.

There is also off-balance sheet debt to be aware of. This is form of financing in which large capital expenditures are kept off of a company's balance sheet through various classification methods. Companies will often use off-balance-sheet financing to keep the debt levels low. (To continue reading about the balance sheet, see Reading The Balance Sheet, Testing Balance Sheet Strength and Breaking Down The Balance Sheet.)

3.2 Analyzing Income Statements

The income statement is basically the first financial statement you will come across in an annual report or quarterly Securities And Exchange Commission (SEC) filing.

It also contains the numbers most often discussed when a company announces its results - numbers such as revenue, earnings and earnings per share. Basically, the income statement shows how much money the company generated (revenue), how much it spent (expenses) and the difference between the two (profit) over a certain time period.

When it comes to analyzing fundamentals, the income statement lets investors know how well the company's business is performing - or, basically, whether or not the company is making money. Generally speaking, companies ought to be able to bring in more money than they spend or they don't stay in business for long. Those companies with low expenses relative to revenue - or high profits relative to revenue - signal strong fundamentals to investors.

Revenue as an investor signal

Revenue, also commonly known as sales, is generally the most straightforward part of the income statement. Often, there is just a single number that represents all the money a company brought in during a specific time

period, although big companies sometimes break down revenue by business segment or geography.

The best way for a company to improve profitability is by increasing sales revenue. For instance, Starbucks Coffee has aggressive long-term sales growth goals that include a distribution system of 20,000 stores worldwide. Consistent sales growth has been a strong driver of Starbucks' profitability.

The best revenue are those that continue year in and year out. Temporary increases, such as those that might result from a short-term promotion, are less valuable and should garner a lower price-to-earnings multiple for a company.

The income statement is an accounting report that allows a business, as well as investors, to understand if a company is operating successfully. The income statement is often used to help value a company's stock, and it's also used by credit rating agencies to determine its creditworthiness.

In this chapter, we're going to first review some of the basic information that appears on an income statement. Then we're going to talk a little bit about the limitations, or weaknesses, of this report. Finally, we're going to summarize what we believe are the strengths of the income statement, and how this information can be used to help value a company's stock.

Income Statement Basics - The income statement is a financial report used to provide information on the revenues, expenses, and the profitability of a company. A simplified way to express the information appearing on this statement is:

+ **Revenues**

- **Expenses**

= **Net Income**

By understanding the relationships between these three values, users of financial statements have a way to analyze the interactions between sales, operating costs, and profitability.

Limitations of the Income Statement

While there are many reporting standards that are in-place such as GAAP (Generally Accepted Accounting Principles), as well as guidance published by the FASB (Financial Accounting Standards Board); this does not mean the income statement is without limitations. In fact, it has at least two weaknesses.

Accounting Data

One criticism of the income statement has to do with the fact it does not tell the user what might happen in the future. By its very nature, the income statement provides a glimpse into the history of the company's operations.

The income statement also doesn't provide the analyst with any information about factors that might affect the future growth of the company. New products that are in the pipeline, market expansion, and competitive advantages; none of these factors appear on the income statement since it is limited to accounting data.

Accounting Methods

The second limitation of the income statement has to do with the flexibility companies have with respect to choosing an acceptable accounting method. Depreciation is a good example of how the chosen method can affect net income.

For example, if a company decides to accelerate depreciation, they hurt short-term net income and earnings (depreciation expense is larger). If they use straight line depreciation, net income in earlier years will be higher. But it will be lower in the future (all things being equal).

Market analysts pay careful attention to these details because it can tell them a lot about the quality of earnings. A company may choose to use more

liberal accounting methods to increase short-term performance; unfortunately, this is not a rare practice.

Valuing Companies Using the Income Statement

Even with its limitations, the income statement is a very important financial document when it comes to valuing securities or getting a feel for the creditworthiness of a company. With that in mind, we're going to break down this valuation section into two groups: analysis by shareholders and analysis by creditors.

Analysis by Shareholders

When investors analyze a stock, the first and arguably most important factor they look at is earnings, which are usually stated in terms of earnings per share. They are also going to look at certain financial ratios such as dividend yield, price to earnings ratio (P/E ratio), operating expense ratio, and return on investment.

Each of these measures can be found by analyzing data appearing on the income statement. The following is a brief overview of each measure.

Earnings Per Share

Earnings per share (EPS) is defined as the net income (or profits) of a company divided by the shares of common stock outstanding. Earnings per share tell the analyst how much money is available to shareholders, after taxes, and "normalizing" those profits by stating them on a per share basis.

Earnings per share can be calculated using the following formula:

(Net Income - Preferred Dividends) / Shares of Stock Outstanding

Price to Earnings Ratio

The price to earnings ratio, or P/E ratio, is the stock's price divided by the latest 12 months of earnings per share. The P/E ratio is an indicator of the premium paid for a stock, and is also an indicator of future growth expectations. A relatively high P/E ratio indicates a higher premium for the stock's "potential" future earnings.

The formula for price to earnings is as follows:

Market Value of Stock / Earnings per Share

Dividend Yield

While dividends are important to some investors, they are often a secondary consideration to others. Those that cherish dividends are usually interested in receiving a steady stream of income each year.

Investors that are less concerned about dividends are usually seeking stocks that are reinvesting in their company, and have adopted a growth strategy. These individuals are seeking stock price appreciation and capital gains.

Dividend yield is calculated in the following manner:

(Dividends per Share / Market Value of Stock) x 100

The dividend yield shows the rate earned, based on the current market value of the company's stock.

Operating Expense Ratio

The operating expense ratio is a measure that is often used to figure out how well a company is able to control their operating costs. The operating

expense ratio is a good example of a comparative measure. This means it's necessary to analyze this data using a comparative income statement (one containing multiple years) and examine the trend in operating expense ratio.

Operating expense ratio is calculated using the following formula:

$$\text{Operating Expense} / \text{Net Sales}$$

The lower the ratio, the better the company is performing. A favorable trend would be one where the ratio is declining, while an unfavorable trend would be one where the ratio is increasing.

Return on Investment

In this context, return on investment is a measure of a company's ability to use their available resources efficiently. While there are several measures of this type, each using a different divisor, the most useful measure is return on total assets.

Return on total assets is calculated as:

$$(\text{Net Income} + \text{Interest Expense}) / \text{Total Average Assets}$$

The total average assets can be found by adding the total assets at the beginning of the year plus the total assets at the end of year, then dividing by two to find the average. Return on total assets is another example of a comparative measure.

Analysis by Creditors

Lenders need reassurance they're going to be repaid money owed. They're investing in a company, and creditors can use the income statement to gain a better understanding if a company is financially healthy enough to repay a loan.

From the company's standpoint, they are willing to borrow money as long as the rate of return earned on that money is higher than the cost of borrowing. When this occurs (rate of return > cost to borrow), then shareholders benefit by this use of leverage.

Leverage is simply buying assets with money raised by borrowing, or by issuing preferred stock. The downside of leverage occurs when the rate of return on an investment is lower than the cost of borrowing. When this happens, leverage lowers net income and therefore earnings per share.

Times Interest Earned

We discuss several different measures of leverage in our chapter on Understanding Financial Ratios. There is one very important leverage measure that can be found by examining data on the income statement: times interest earned.

The number of times interest earned is a measure of how "easy" it is for a company to cover its debt payments. This measure is also called the interest coverage ratio or coverage ratio.

Creditors can calculate times interest earned from the income statement using:

$$\text{Net Income} / \text{Annual Interest Expense}$$

This ratio should always be above 1.0 and the higher the ratio, the better. If a company has no debt, then it's not possible to calculate this measure, and leverage is not a concern.

Summary

The focus of this chapter was the income statement. We talked about the strengths and weaknesses of this report, as well as the financial ratios that can be calculated using information appearing on this statement.

It's also a supplemental chapter to Understanding Net Income, where we explain the elements appearing on the income statement. Finally, we're going to finish this series with a discussion of how to construct an income statement.

3.3 Analyzing the Cash Flow Statement

This is the last, and final, chapter in our series describing cash flow concepts. In the paragraphs below, we're going to explain how to go about building a cash flow statement. While many investors will never need to create this financial report, understanding the concepts provides a greater appreciation for its value when evaluating the financial health of a company.

The cash flow statement shows how much cash comes in and goes out of the company over the quarter or the year. At first glance, that sounds a lot like the income statement in that it records financial performance over a specified period. But there is a big difference between the two.

What distinguishes the two is accrual accounting, which is found on the income statement. Accrual accounting requires companies to record revenues and expenses when transactions occur, not when cash is exchanged. At the same time, the income statement, on the other hand, often includes non-cash revenues or expenses, which the statement of cash flows does not include.

Just because the income statement shows net income of \$10 does not mean that cash on the balance sheet will increase by \$10. Whereas when the bottom of

the cash flow statement reads \$10 net cash inflow, that's exactly what it means. The company has \$10 more in cash than at the end of the last financial period. You may want to think of net cash from operations as the company's "true" cash profit.

Because it shows how much actual cash a company has generated, the statement of cash flows is critical to understanding a company's fundamentals. It shows how the company is able to pay for its operations and future growth.

Indeed, one of the most important features you should look for in a potential investment is the company's ability to produce cash. Just because a company shows a profit on the income statement doesn't mean it cannot get into trouble later because of insufficient cash flows. A close examination of the cash flow statement can give investors a better sense of how the company will fare.

Advantages of the Cash Flow Approach

The reason creditors and stock analysts are so interested in cash flow is because it's arguably the single most important indicator of a company's financial wellbeing. Unlike the income statement, cash flow is not influenced by accounting concepts like deferred income taxes or amortization of intangible assets.

It's often difficult to figure out exactly how well a company is performing when examining accruals and accounting adjustments. For this very reason, evaluating a company on a cash basis has a great deal of appeal to the financial community.

Simple Cash Flow Formula

When building a cash flow statement, it's important to keep the following in mind:

There is a starting balance of cash at the beginning of each accounting period.

There may be increases to cash via operations; the company made money on the products or services they sell.

Companies use cash throughout the year to pay for things: new assets and expenses.

Some companies may choose to raise additional cash throughout the year.

Using the above four pieces of information, it's possible to calculate a fifth value: the cash the company has at the end of the accounting period (or year). These building blocks of a cash flow statement are typically labeled as follows:

Cash and Cash Equivalents (Beginning)

+ *Cash from Operations*

- *Cash Flows from Investing Activities*

+ *Cash Flows from Financing Activities*

= *Cash and Cash Equivalents (Ending)*

In order to build a cash flow statement, we only need to be concerned with the above five elements.

Cash Flow Statements

The information from this point forward is really a tutorial explaining how to build a cash flow statement, also known as a statement of changes in financial position. As we walk through each step in the process, we'll provide insights and examples. At the end of this tutorial, we're going to provide a link to everything we've discussed in an example statement.

Cash and Cash Equivalents (Beginning)

The first step in this process is to figure out where a company left off in the prior accounting year. This will be the beginning balance for the current year. This value can be found on the company's prior statement of cash flow, the company's balance sheet, or it's possible to calculate the beginning value for cash.

Cash and cash equivalents are a current asset of a company, and this value can be found by looking at the company's balance sheet. This value can be calculated by adding cash, money market funds, certificates of deposit, savings accounts, and similar types of deposits.

In general, this is a current asset that can be readily exchanged for goods and services on short notice. In this example, we're going to start the company with \$6,000,000 at the beginning of the year.

Cash from Operations

Next, we're going to look for cash generated by the operations of the company. This is sometimes referred to as cash provided by operating activities. To calculate the cash provided by operations, we need a starting point, which is net income.

One of the advantages of evaluating a company on a cash basis is that it's not subject to accounting methods that prevent analysts from getting a clear picture of a company's financial health. Unfortunately, net income does include some of those accounting adjustments. To truly understand the cash generated from operations, it's necessary to remove from the net income value what are called "non-cash transactions."

Items not Affecting Cash

While the most common example of a non-cash transaction is depreciation; there are two classes of adjustments to net income required to calculate cash from operations:

Depreciation / Amortization of Assets

Net Changes in Current Assets and Liabilities

If a company claimed depreciation expense in their income statement, that value needs to be added back. Likewise, if a company had an increase in accounts receivable, that value needs to be subtracted from net income. We're trying to figure out how much cash exchanged hands throughout the year. A company might have sold more goods and had a rise in accounts receivable, but until that money is received it's not considered cash.

Cash from Operations Example

Let's see how the above concepts would be used in practice. In this example, the company had net income of \$8,000,000. The depreciation expense was \$4,000,000, while accounts receivables went up by \$2,000,000 and accounts payable went up by \$1,000,000.

Net Income	\$8,000,000
Depreciation Expense	\$4,000,000
Net Change to Accounts Receivables	(\$2,000,000)
Net Change to Accounts Payable	\$1,000,000
Total Adjustments to Operating Income	\$3,000,000
Net Cash Flow Provided by Operating Activities	\$11,000,000

In the above example, the non-cash expense depreciation would be added back to net income since money never really left the company's cash accounts. While a rise in accounts receivables (money not yet received) needs to be subtracted from net income (the company is still owed this money from customers).

Cash Flows from Investing Activities

The next step in building a cash flow statement is to look at money the company spent on new capital investments. If a company capitalizes an investment, that outflow of money does not show up on the income statement. That's because accounting rules allow the company to depreciate (expense) the cost of the investment over time.

From a practical standpoint, if a company purchases an asset such as new plant equipment or machinery, then they very likely paid for the asset with cash. When money leaves a company, there is an outflow of cash that needs to appear on the statement.

Cash Flows from Investing Activities Example

In this example, let's say the company purchased a new computer system for \$1,500,000, along with an assembly line machine for \$2,000,000. These were the only two capital investments made by the company in the year being examined. In this example, the company was also required to set aside \$500,000 into a special decommissioning fund.

Normally, a company might show one line item for the capital investments and label that line item as Additions to Plant. In this example we're going to show these purchases as separate line items.

Cash Flows from Investing Activities	
Purchase of New Computer	(\$1,500,000)
Purchase of Assembly Line Machine	(\$2,000,000)
Decommissioning Fund Contributions	(\$500,000)
Net Cash Used in Investing Activities	(\$4,000,000)

This section of the cash flow statement shows money that left the company to pay for assets. This information doesn't show up on the income statement because they are considered "investments." These investments will be depleted over their useful lives either through depreciation or other accounting adjustments. As this occurs, these investments appear as expenses on the income statement.

Cash Flows from Financing Activities

The final category of adjustments to be addressed on a statement of cash flows is money raised by financing activities. As was the case with cash from operations, it's possible to have both positive and negative adjustments to cash flow depending on the financing activities the company engaged in during the year.

Typical adjustments appearing in this section include changes in long and short term debt (issuing and redemption), issuing of preferred stock, issuing of common stock, retirement of stock, and stock dividends paid in cash.

Cash Flows from Financing Activities Example

In our example, the company decided to raise \$250,000 by issuing common stock. They also issued \$500,000 in short term debt, and redeemed \$3,000,000 in long term debt. Finally, they paid a cash dividend on common stock of \$2,000,000.

Net Cash Flows from Financing Activities	
Increase in Short Term Debt	\$500,000
Redemption of Long Term Debt	(\$3,000,000)
Issuance of Common Stock	\$250,000
Cash Dividends on Common Stock	(\$2,000,000)
Net Cash Provided by (Used in) Financing Activities	(\$4,250,000)

As the above table demonstrates, the company used more money in their financing activities than they generated during the year.

Cash and Cash Equivalents (Ending)

Our final task involves calculating the ending cash balance for the company. This involves adding all of the prior adjustments to determine if there was a net increase or decrease to cash. This value (either positive or negative) is then added to the starting balance to derive the ending balance.

Ending Cash Equivalents Example

Cash and Cash Equivalents at the Beginning of the Period	\$6,000,000
Net Increase / Decrease in Cash and Cash Equivalents	\$2,750,000
Cash and Cash Equivalents at the End of the Period	\$8,750,000

We began this example by stating the company started with a \$6,000,000 balance of cash. Adding all of the adjustments, there was a net increase of \$2,750,000. Therefore, the company's ending balance stands at \$8,750,000.

Cash Flow Statement Worksheet

As promised, we're going to finish this topic by providing a link to a cash flow statement spreadsheet. In this worksheet, all of the example information used throughout this tutorial can be found, including all of the necessary calculations.

This chapter finishes a three-part series on cash flow, which also included building business cases using a cash flow approach as well as interpreting the result of a cash flow business case.

CONCLUSION

Financial statements to analysis it is a collection of analytical processes that are part of business analysis. All these processes use financial statements to varying degrees and ground their primacy in business analysis.

Having established the primacy of the accounting analysis and accounting statements in business analysis with all its components, we have to bring to the fore their scope from their constitution itself, i.e., from within.

The scope of the financial statements can be determined in the light of the four major activities of a company: planning, financing, investing, and operating.

- The planning activity of a company is captured in a business plan, which describes the purpose, strategy and tactics of the company. The plan furnishes insight on the company's current and future prospects part of the business environment and strategic analysis. It unveils information on the competitively, markets movements, and company's tactics. All these actions contain uncertainty and so risk. The financial statement analysis helps us to the estimated the degree of this risk. Information on these actions is also discovered in press releases and various financial and industry publications. Also important source of information are the Letter to the Shareholders and the Management Discussion and Analysis(MD&A).

- The company must raise funds in other to carry out its plan. There are two main external sources of funds: the equity investors and the creditors. The decision about the composition of financing activities, amounts, sources, timing of repayment, and the structure of financing agreement will affect the company's growth, its risk exposure, and will determine the power of outsiders in the business decisions. Equity investors demand return in the form of earnings distribution of earnings reinvestment. Earnings distribution is the payment of dividends to the shareholders (cash, stock dividend or stock repurchase). Companies also obtain financing from creditors: debt creditors and operating creditors. The contract with creditors requires repayment of the loan with

interest at specific dates. The risk for creditors is the possibility a business will default in repaying its loan and interest.

- Investing activities refer to a company's acquisition and maintenance of investments for purpose of selling products and providing services, and for the purpose of investing excess cash. Investment in operating assets is an investment for the purpose of conducting the company's business. Securities in which excess of cash is invested are financial assets. Investments in short-term assets are called current assets. These assets are expected to be converted to cash in the short term. Investments in long-term assets are called noncurrent assets.

- Operating activities represent as the “carrying out” of the business plan given its financing and investing activities. They involve at least five possible components: research and development, procurement, production, marketing, and administration.

Whenever you're thinking of investing in a company it is vital that you understand what it does, its market and the industry in which it operates. You should never blindly invest in a company.

One of the most important areas for any investor to look at when researching a company is the financial statements. It is essential to understand the purpose of each part of these statements and how to interpret them.

Let's recap what we've learned:

Financial reports are required by law and are published both quarterly and annually.

Management discussion and analysis (MD&A) gives investors a better understanding of what the company does and usually points out some key areas where it performed well.

Audited financial reports have much more credibility than unaudited ones.

The balance sheet lists the assets, liabilities and shareholders' equity.

For all balance sheets: $\text{Assets} = \text{Liabilities} + \text{Shareholders' Equity}$. The two sides must always equal each other (or balance each other).

The income statement includes figures such as revenue, expenses, earnings and earnings per share.

For a company, the top line is revenue while the bottom line is net income.

The income statement takes into account some non-cash items, such as depreciation.

The cash flow statement strips away all non-cash items and tells you how much actual money the company generated.

The cash flow statement is divided into three parts: cash from operations, financing and investing.

Always read the notes to the financial statements. They provide more in-depth information on a wide range of figures reported in the three financial statements.

REFERENCES

Accounting Law of Azerbaijan Republic. Augusts 10, 1995. “Azerbaijan” newspaper. Baku.

Accounting Law of Azerbaijan Republic. September 2, 2004. “Azerbaijan” newspaper. Baku

ADB.2002. *Accounting and Auditing Practices in Selected Developing Member Countries:A diagnostic Study of Azerbaijan,Fiji Islands,Marshall Islands,Philippines and Sri Lanka*.Manila.

Azerbaijan Republic Tax Code. 2016. Baku-Azerbaijan.

Baku Stock Exchange. www.bfb.az (accessed April, 2017).

Barry J. Epstein, Eva K. Jermakowicz. 2008. *Interpretation and application of international accounting and financial reporting standards*. Wiley IFRS.

Walton, Peter et al. 2003. *International Accounting*. Thomson Learning.

Primary source:

BD Sensors s.r.o (Czech Branch) 2005-2008 Annual Reports.

Books:

Brigham, Eugene F., and Joel F. Houston, eds. 2004. *Fundamentals of Financial Management*. Ohio: South-Western.

Brigham, Eugene F., and Micheal C. Ehrhardt, eds. 2005. *Financial Management: Theory*

and Practice. Ohio: South-Western.

Brealy, Richard A., and Stewart C. Myers, eds. 2003. *Principles of Corporate Finance*.

Boston: McGraw-Hill/Irwin.

Cannon, Joseph P., Perrault, William D., and McCarthy, E. Jerome. 2008. *Basic Marketing: A Global Managerial Approach*. New York: McGraw-Hill.

Edmonds, Thomas P., Cindy D. Edmonds, Bor-Yi Tsay, Philip R. Olds, and Nancy W. Schneider, eds. 2006. *Fundamental Managerial Accounting Concepts*. Boston: McGraw-Hill/Irwin.

Hermanson, Roger H., James Don Edwards, and R.F.Salmonson, eds. 1989. *Accounting Principles*. Boston: BPI/IRWIN.

McLaney, Eddie, and Peter Atrill, eds. 2005. *Accounting: An introduction*. New-Jersey:

Prentice-Hall.

Ross, Stephen A., Randolph W. Westerfield, and Jeffrey Jaffe, eds. 2008. *Corporate Finance*. Boston: McGraw-Hill/Irwin press.

Spiller, Earl A. and Phillip T. May, eds. 1990. *Financial Accounting: Basic Concepts*.

Boston: Irwin.

Weygandt, Jerry J., Donald E. Keiso, and Paul D. Kimmel, eds. 2002. *Managerial Accounting: Tools for decision making*. New York: John Wiley and Sons press.

Wild, John J. 2008. *Financial Accounting: Information for decisions*. New York: McGraw-Hill/Irwin.

Web Sites:

“*Financial Statement Analysis Limitations*”, 24 Apr 2010.

http://www.cliffsnotes.com/study_guide/Financial-Statement-Analysis-Limitations.

topicArticleId-21248,articleId-21214.html (accessed April 22, 2010).