



BASIC TRAINING PROGRAM **FOR NEW COMMERCIAL JUDGES**

**Introduction to Finance and Accounting
in a Bankruptcy Context**

USAID FOSTERING AN INVESTMENT AND LENDER-FRIENDLY ENVIRONMENT (FILE)

Introduction to Finance and Accounting in a Bankruptcy Context

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FINANCIAL STATEMENT ANALYSIS

INTRODUCTION

The goal is to learn not only *what* is happening, but *why* it is happening.

- ***DEFINITION***

Financial statement analysis is a systematic examination and interpretation of information to assess a business's past performance for the purpose of predicting future profitability and capacity to repay debt.

- ***FOCUS***

Financial statement analysis focuses on the company's past, current and projected financial performance as reflected in its financial statements, rather than on its management style or credit history. Nevertheless, such nonfinancial considerations do help to establish the direction and depth the financial statement analysis should take.

- ***TECHNICAL ASPECT OF ANALYSIS***

Technical manipulation of the data is only a small part of what is needed to complete a comprehensive and effective financial statement analysis of a company. Once the technical process is performed and an industry analysis is completed, the results must be interpreted to determine the decisions behind the numbers.

It is also important to consider how past events and current trends might affect the company's future repayment ability.

- ***INTERPRETIVE ASPECT OF ANALYSIS***

The goal of financial analysis is to understand and correctly interpret the results of the technical data that summarize a company's financial performance.

To accomplish this, considerable background information on the company must be obtained, such as:

- Ownership
- Management
- Lines of business
- Competition (domestic and foreign)
- Markets in which the company operates
- Timing of the operation cycle
- Characteristics of the industry
- Position within the industry
- Pertinent government regulations
- Susceptibility to inflation or other changes in the general economy
- The extent to which demographic trends and consumer preferences might affect operations

Understanding of these organizational and environmental factors provide meaning to the technical examination numbers.

GOALS OF FINANCIAL STATEMENT

- Review of financial statement construction
- Identify the company's critical financial ratios
- Present the importance of achieved results compared to projected results
- Discuss the reasons of favorable/unfavorable business operations

FINANCIAL MANAGEMENT

PROCESS	TIME FRAME
<p style="text-align: center;">Analysis</p> <ol style="list-style-type: none"> 1. Obtain financial reports 2. Calculate ratios 3. Analyze trends 	<p>Business in past</p>
<p style="text-align: center;">Diagnosis</p> <ol style="list-style-type: none"> 1. Identify issues 2. Calculate financial impact 3. Determine financial reason and consequence 4. State possible solution 	
	<p>Long-term requirements and the ability to pay off (yearly)</p>
<p style="text-align: center;">Planning</p> <ol style="list-style-type: none"> 1. Prepare Income Statement Projection 2. Prepare Balance Sheet Projection 3. Ratio Projection 4. Cash Flow Projection 	<p>Short-term requirements and ability to pay off (monthly)</p>

RANGE AND FOCUS OF FINANCIAL STATEMENT ANALYSIS

The range and focus of financial statement analysis depend on the specific purpose of the examination.

FOR EXAMPLE: For bankers - Is the purpose of the loan to fund a temporary increase in inventory or to acquire new equipment?

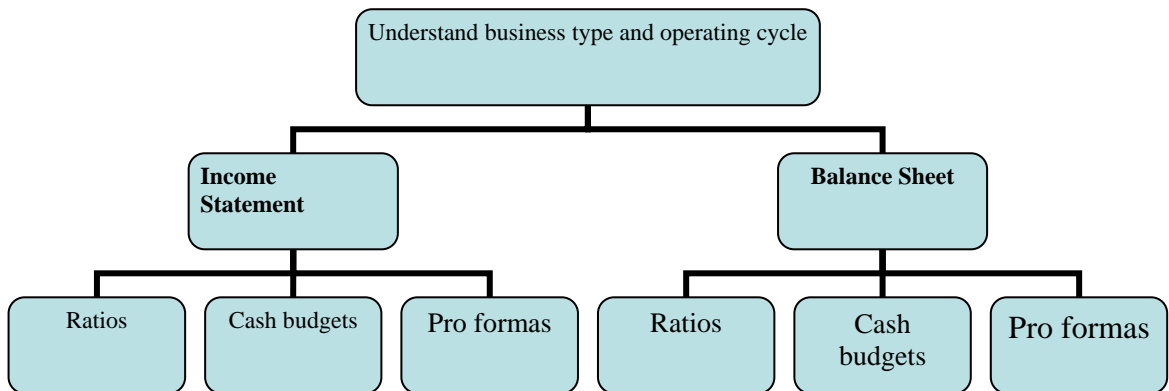
The answer to these questions will affect the nature of the financial statement analysis. Also, the size of the requested loan and its terms affect the range of financial statement analysis. A Large loan requires more effort by the bank than a small one does because a loss would have far more impact on bank earnings.

This is not to say that small loans do not involve a considerable amount of uncertainty as to potential repayment, but the smaller interest payments do not always profitably allow for an extensive analysis. For example, a KM 10,000 loan for 90 days, adequately secured with a defined source of repayment, involves less analysis than a KM 150,000 loan for five years to finance an equipment purchase would require.

SEQUENTIAL STEPS OF FINANCIAL STATEMENT ANALYSIS

A financial statement analysis starts with a preliminary investigation of the company, its background and history, and a current bank relationship; it then moves to an in-depth examination of the company's operating performance and financial structure, as evidenced by its historical and projected financial statements.

Financial Analysis Process



1. *Obtaining information*

Reliable and current financial information is critical to the analysis process. Annual financial information should not be more than 15 months old. It is also important to have the company's at least three consecutive years of annual financial statements so comparisons and trends can be determined.

2. *Processing the statements*

All statements need to be signed and dated by the customer or the customer's accountant. By signing the statement, the customer is saying that the information is true and correct. Financial statements used to be verified by Sluzba platnog prometa (SPP or Zavod za platni promet ZPP), but now all financial statements are verified by Agencija za posrednicke, informaticke i finansijske usluge (APIF).

3. *Spreading the statements*

Statement spreading is the process by which information contained in financial statements is extracted and listed in a consistent format, so trends could be quickly spotted and comparisons made. Various types of spreadsheets are available. The type of spreadsheet used depends upon such factors as the source of information to be spread, the number of statements to be spread, and the nature of the analysis (such as comparative analysis versus trend analysis).

Spreading financial statements demands attention to detail and the ability to perform complex mathematical tasks. It can also be a time-consuming, costly process.

4. *Common-sizing the statements*

When statements are common-sized, each number on the income statement is expressed as a percentage of total sales, and each number on the balance sheet is expressed as a percentage of total assets.

FOR EXAMPLE: If total sales are KM 100 and operating expenses are KM 35, common-sized operating expenses are expressed as 35 percent.

When financial statements are common-sized, the analyst is able to quickly make comparison of related information and note changes over time.

5. *Written analysis*

After the statements are spread and common-sized and other mathematical calculations (such as ratios, cash flow figures, or projections) are completed, written analysis or interpretation is appropriate. The analyst should be objective and not speculative.

The analyst should avoid the so-called “elevator technique” of stating that something went up or down. Any such directional comment should be accompanied by an explanation, reason or cause of such direction or change.

FOR EXAMPLE: The analyst should not be worded, “sales increased 4 percent”.

Rather, the analysis should read, “sales increased 4 percent due to a 3 percent price increase and a small increase in product volume sold.”

6. *Trend analysis*

Determining trends over time and making industry comparisons are two basic analytical techniques. Trend analysis compares information during similar periods or at comparable times for the same company. It is used to detect favorable or unfavorable changes in the financial position of a company as reflected in revenues, expenses, assets, or liability accounts.

7. *Comparative analysis*

Comparative analysis parallels the financial information of at least two companies, preferably of the same size and industry. This allows the analyst to draw conclusions about the relative performance of the companies.

ACCRUAL ACCOUNTING VERSUS CASH ACCOUNTING

Most companies prepare their financial statements using accrual accounting rather than cash accounting.

- **ACCRUAL ACCOUNTING** recognizes revenues when earned (that is, when sales are transacted), regardless of when the company receives cash from the sale.
All expenses (that is, the costs to produce a product or provide a service) are likewise recognized when costs are incurred rather than when cash payment is made.
- **CASH ACCOUNTING** recognizes revenues as earned when payment is received, regardless of the timing of the transaction.
Likewise, the company recognizes the cost associated with producing these revenues only when the cash is actually paid out.

TYPES OF BUSINESS OPERATING STRUCTURES

The following steps an analyst can take to help describe the basic qualities of an individual business:

- 1) Understand the working assets – those assets that are primarily used to generate revenue and are key asset components on the balance sheet.
- 2) Identify the operating cycle- define the time it takes a business to add value to raw materials or labor, sell the product or service, and collect the cash from the sale.
- 3) Analyze the cash flow cycle – understand how cash is used and generated, and the timing of financial and loan repayment.

Operating cycle:

- **Manufacturers**

A manufacturer makes product for sales. The manufacturer's operating cycle starts with cash or trade credit that is used to finance the purchase of raw materials. Using these raw materials, inventory is manufactured and then sold on credit, which is recorded as an increase in accounts receivable. When the accounts receivable is collected, cash is generated. This cash is then used to repay trade creditors or the bank debt, or to purchase more raw materials, thus beginning the cycle again.

The working assets are accounts receivable, inventory and equipment.

Manufacturers usually hold most of their assets in inventory, accounts receivable and fixed assets.

Accounts receivable, inventory and fixed assets fall in the range of 40 to 70 percent of the total assets for nearly every manufacturer.

The risks that may disrupt the completion of a manufacturer's operating cycle are:

- Inability to sell the product
- Quality of the raw material used
- Labor costs and availability
- Collection of the accounts receivable
- Efficiency of the plant operation

- **Wholesalers**

A wholesaler does not produce a product but resells finished goods to retailers, other wholesalers, or major users of the product. The main risk for wholesaler is getting caught with inventory that is no longer in demand by the market or is available elsewhere at lower prices.

The operating cycle begins with the use of cash or trade credit to purchase inventory. When the inventory is sold, accounts receivable is created, which is converted to cash upon payment, completing the cycle.

A notable characteristic of the wholesaler's operating cycle is the large amount of inventory purchased and sold. This high rate of *inventory turnover* means that a wholesaler's gross profit and net profit, as a percentage of sales, are usually low.

Accounts receivable typically constitutes another important asset, and accounts payable constitutes an important liability for wholesalers. Usually, wholesalers do not

require substantial amounts of equipment or other fixed assets, while accounts receivable and inventory could be over 60 percent of the total assets. However, certain wholesalers may have significant fixed assets (e.g. wholesalers of ice cream need refrigeration coolers to keep the product fresh).

The risks that may disrupt the successful completion of a wholesaler's operating cycle include:

- Quality of the product
- Ability to market the product
- Credit approval policies
- Collection of accounts receivable
- Relationship of accounts payable

- **Retailers**

A retailer purchases finished products from wholesalers or directly from manufacturers for resale to consumers.

The operating cycle begins with cash or accounts payable used to purchase inventory (a finished product) which then is sold to the public on credit or for cash. Thus, accounts receivable is usually minimal (typical for retailers), while fixed assets are higher, due to the high cost of leasehold improvements and equipment.

As with wholesalers, a key factor in evaluating a retailer is *inventory turnover*. Turnover is the number of times a complete stock of goods is sold in a given period.

The risks that may disrupt the successful completion of the operating cycle for a retailer include:

- Product quality and mix
- Service provided by employees
- Relationship with accounts payable

- **Service Industry**

Unlike manufacturers, wholesalers, or retailers, companies in the service industry do not sell a tangible product. Their product is a service and may come in the form of financial consultation, legal advice, or a variety of other types of services.

The operating cycle of a service company is different from that of manufacturers, wholesalers, and retailers, in that little or no inventory is involved. Cash is used in the performance of service, which may generate cash or accounts receivable. When the accounts receivable is paid, cash is created, beginning the cycle again.

Because service industries produce intangibles, they generally have few physical assets and comparatively low capital requirements. Accounts receivable or fixed assets (e.g. the storage industry) is the working asset on the balance sheet of a service company.

The risks that may disrupt successful completion of a service company's operating cycle include:

- Quality of service provided
- Credit approval process
- Accounts receivable collection system

- **Agriculture**

Numerous companies fall under the umbrella term “agricultural industry”, and they can be manufacturing, wholesaling, retailing, or service businesses. In this text, the term refers specifically to farming that produces crops or livestock.

The operating cycle of an agricultural business is similar to that of a manufacturer in some aspects. Cash is used to purchase seeds, fertilizer, livestock, or other materials for the production of inventory. Unlike manufacturing, however, the inventory of agriculture is not finished good but is a crop, milk, livestock, or other farm product. The product is sold, creating accounts receivable which, when paid, generate cash. The cash is then used for the next operating cycle.

The primary working assets for farmers are crops, livestock, or dairy products that will turn to cash within one year.

TYPE	WORKING ASSETS	STAGES IN OPERATING CYCLE	CAPITAL REQUIRED	INVEST. FIXED ASSETS	TYPICAL FINANCING NEEDS
Manufacturer	Plant and equipment	Purchase raw materials Manufacture inventory Sale creating receivable Conversion receivable to cash	Large	Large	Long-term to finance fixed assets or permanent investment in inventory and accounts receivable. May require seasonal financing for temporary build-ups in receivables and inventory.
Wholesaler	Inventory Accounts receivable	Purchase inventory Sale creating receivable Conversion receivable to cash	Function of volume and length of operating cycle	Limited	Long-term to finance permanent investment in inventory and accounts receivable. May require seasonal financing for temporary build-ups in receivables and inventory.
Retailer	Inventory Real estate	Purchase inventory Sale inventory for cash	Function of volume and length of inventory cycle plus required investment in real estate	Modest or large	Long-term to finance permanent investment in inventory and real estate. May require seasonal financing to support temporary build-ups in inventory.
Service	Accounts receivable Fixed assets	Perform service Receive payment in cash or short-term receivable	Limited or large	Nominal or large	Accounts receivable or long-term to finance fixed assets

TYPES OF FINANCIAL STATEMENT AND LEARNING OBJECTIVES OF FINANCIAL STATEMENT ANALYSIS

- **Internally Prepared Financial Statements**
- **External Financial statement**

Internally prepared Financial Statements

Internally prepared statements are the least reliable because most business owners do not possess the accounting expertise necessary for preparing them. Many companies do not have their financial statements prepared by an outside accountant or accounting firm because they claim they cannot justify the cost of compilation, review or audit.

Statements generated in-house from books and records that have not been independently verified may or may not be accurate.

Internally prepared information includes:

- Tax returns (On occasion, can be used in place of a financial statement. Information reported in tax returns can be more reliable than that reported in management reports)
- Interim financial statement (These are prepared on a monthly or quarterly basis and give insight to the entity's financial peaks and valleys)
- Management reports (These reports can provide additional insight, but the format of reports varies among companies)

External Financial Statements

External prepared financial statements are usually prepared by a certified public accountant (CPA). To be designated a CPA, a practitioner of accounting must meet the standards of the profession and be certified or licensed. Their financial statements must be prepared according to GAAP (General Accepted Accounting Principles).

CPA-prepared financial statements contain the following components:

- Opinion
- Balance Sheet
- Statement of income
- Statement of retained earnings
- Statement of cash flows
- Footnotes (allow the auditor to comment on the statements relative to GAAP standards).

Externally prepared statements can be prepared in three types:

- compilation
- review
- audit.

Compilation Financial Statements

A compilation financial statement presents the financial data obtained from the company in a basic form. The CPA does not express any degree of assurance regarding the data. This type of financial statement may include footnotes.

Compilation Statement Requirements:

- Possess a general understanding of the client's business transactions, and the form of its accounting records
- Be familiar with stated qualifications of the client's account personnel to consider the need for adjustments to the account records
- Read the financial statement and consider whether they are appropriate in form and content and free from obvious material errors

Review Financial Statements

In a review financial statement, the CPA expresses no opinion of the financial statements. Review financial statements are the second most common form of statement received by lenders.

Review Statement Requirements:

- Obtain knowledge of the accounting principles and practices of the client's industry
- Acquire a general understanding of the client's business, including its organization and how it functions
- Make inquiries of the client's personnel about accounting policies, record-keeping procedures, actions of owners and management that may affect financial statements, subsequent events, changes in business, activities, and related party transactions
- Perform analytical procedures to identify and explain unusual items or trends reflected in the financial statements
- Determine, on the basis of information furnished to the CPA, that financial statements conform to generally accepted accounting principles
- Be independent.

Audited Financial Statements

With an audit, the CPA expresses an independent opinion on the fairness of the financial statements presented. To render an opinion, the CPA must evaluate the quality of the customer's accounting systems. The CPA also must test the numbers by verifying the accounts receivable, inventory and accounts payable.

In audited financial statements, the CPA may express an unqualified opinion, a qualified audit opinion, an adverse audit opinion, or a disclaimer opinion.

An **unqualified opinion** means that the management receives the highest accolade for "presenting fairly the financial position and results of operations and changes in financial position for the period involved."

The three paragraphs of the unqualified opinion can be described as what the auditors found, how the auditors found it, and what the auditors think about the findings.

A **qualified opinion** means that the statements fairly present the financial position and results of the operations-with reservations. These reservations could include certain qualifications about the scope of the auditor's engagement at the audited company or uncertainties about the future which cannot be resolved or the effects of which cannot be estimated.

An **adverse opinion** means that the statements do not fairly present the financial position or results of operations in conformity with generally accepted accounting principles.

A disclaimer opinion is one in which the accountants cannot express an opinion because of limitations in the scope of the auditing firm's engagement, uncertainties about the future that cannot be resolved, or the effect of which cannot be estimated.

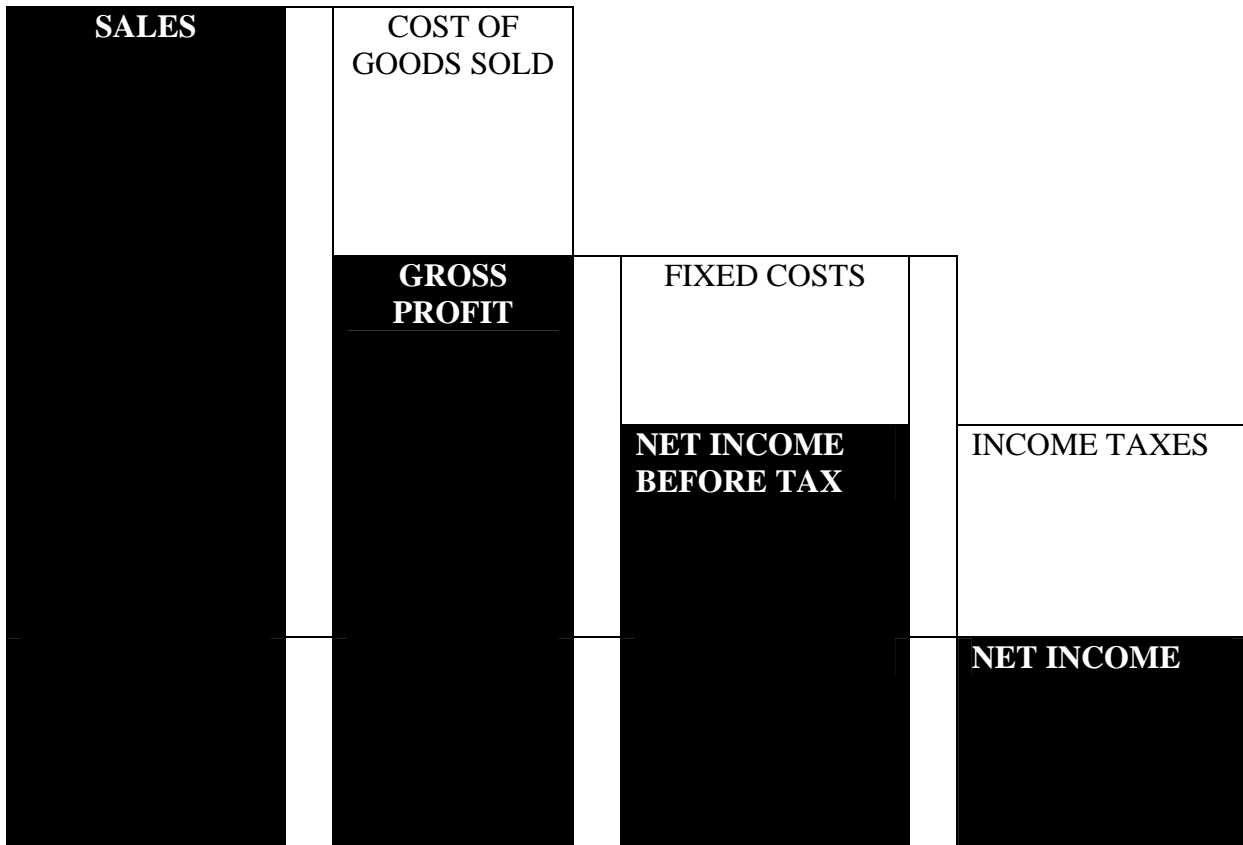
THE INCOME STATEMENT

LEARNING OBJECTIVES:

- List the basic components of an income statement
- Spread and common-size an income statement
- Identify issues that affect revenue analysis
- Differentiate among expenses that are in cost of goods sold, operating expenses, and nonoperating expenses (other income and expense) on an income statement
- Explain the difference between LIFO and FIFO inventory valuation methods
- Apply the concepts of comparison, break-even, and trend analysis to the income statement
- Glossary and Skill Builder Exercises

The income statement-also called a profit and loss statement or earnings statement- is one of the most important source of information about the company. The income statement influences most balance sheet components.

Income Statement



GROSS PROFIT= SALES-COST OF GOODS SOLD
NET INCOME BEFORE TAX= GROSS PROFIT – FIXED COSTS
NET INCOME = NET INCOME BEFORE TAX – INCOME TAXES

The following chart shows the components of the balance sheet that are taken from the income statement:

INCOME STATEMENT	BALANCE SHEET
Cash sales	Cash
Credit sales	Accounts receivable
Cost of goods sold	Inventory, accounts payable
Depreciation	Fixed assets
Net profit/ Loss	Retained earnings

Over a period of time, the income statement reflects how total revenues (or sales) and expenses lead to the net profit (or loss) for that period.

The analysis consists of examining the quality and consistency of sales/revenues and accuracy of the expenses. The income statement identifies a company's growth as evidenced by the increases in sales/ revenues and also reveals the company's viability through profitable operations.

Income statement analysis includes analyzing the break-even point of the company. A company's break-even point is the point where the revenue from sales equals total costs. Below the break-even point, the company is losing money.

SALES

The first item on the income statement is gross sales. When analyzing gross sales, the analyst should consider sales volume and price trends, sales mix, order backlogs, discounts, returns and allowances.

COST OF GOODS SOLD

The second entry on the income statement is cost of goods sold. Whenever a product is manufactured or purchased for sale, certain direct costs are incurred (a service company has little or no inventory and, therefore, generally has no cost of goods sold). These costs include inventory purchasing and direct manufacturing expenses.

GROSS PROFIT AND GROSS MARGIN

Gross profit represents a company's profitability in KM, based only on its sales, compared to its cost of goods sold.

Gross profit is calculated as difference between Net sales and Cost of goods sold, while Gross margin is calculated as Gross profit/Net sales.

$\text{Gross profit} = \text{Sales} - \text{Cost of Goods sold}$
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OPERATING EXPENSES

Operating expenses are those incurred by a company in the normal course of conducting its business, other than the just-mentioned expenses of purchasing inventory and direct manufacturing expenses (which constitute cost of goods sold).

These operating expenses often are categorized on the income statement as selling, general and administrative expenses. The last is category that includes everything from salaries of office staff to postage stamps.

OPERATING PROFIT

Also called Operating income and represents the profit from the basic operation of the company or earnings from a company's normal business operations.

An operating loss results if a company's expenses exceed its gross profit.

Operating profit/loss is calculated as difference between Gross profit and Operating expenses (Selling, general and administrative expenses).

$$\text{Gross Profit} - \text{Operating expenses} = \text{Operating profit}$$

OTHER INCOME

It is generated outside the normal operating activities of the company. This income does not result from sales of the company's products or services but from other, unrelated activities.

Typical source of other income include the following: rental income, interest income, dividend income, discounts earned...

OTHER EXPENSES

A company may have nonoperating expenses as well as nonoperating income. Such expenses might include interest expense (often show as a separate item), loss on sale of fixed assets, loss on discontinued operations, loss on sale of stock...

INTEREST EXPENSE

Interest expense is shown as nonoperating expense because not all companies borrow money, or, at least not the same amount at the same time. The cost of borrowing money depends both on the company's overall level of borrowing and whether debt is at a fixed or floating rate.

INCOME TAXES

The provision for income taxes is deducted from a company's profit figures to get to net profit after tax.

NET PROFIT

Tracing the trend in net profits during a number of years provides insight into the consistency with which management has operated the company in the past, giving some basis for assessing the likely future profitability of the business.

A company's profit record should also be compared with that of similar business and with industry average.

$$\text{Net profit} = \text{Operating profit} + \text{Other Income} - \text{Other Expense} - \text{Income Tax}$$

THE BALANCE SHEET

LEARNING OBJECTIVES:

- Define the balance sheet equation
- Evaluate asset account in terms of liquidity and value
- Explain the difference between current assets, fixed assets and noncurrent assets
- Identify and define the types of liabilities
- Explain the various equity or net worth components
- Glossary and Skill Builder Exercises

The balance sheet is a point-in-time financial picture of the company, usually as of the last day of the company's fiscal year.

The basic structure of the balance sheet can be stated as a simple equation
ASSETS = LIABILITIES + NET WORTH

Balance sheet analysis entails a line-by-line evaluation of the company's assets and liabilities (or debt) and – the difference between the two- its net worth (or equity).

The purpose of the balance sheet analysis is to determine the **LIQUIDITY** and **SOLVENCY** of the company.

Liquidity is the ability of the company to convert its assets to cash in time to pay its liabilities as they become due.

Solvency is the ability of the company to sell its assets for sufficient cash to pay all of its liabilities.

BALANCE SHEET

CURRENT ASSETS (working capital)		CURRENT LIABILITIES
	<div style="border: 1px dashed black; padding: 5px; display: inline-block;"> NET WORKING CAPITAL </div>	
FIXED ASSETS		LONG TERM DEBT (Long-term liabilities)
		CAPITAL

ASSETS

A. CURRENT ASSETS

- *CASH*

In keeping with the priority of liquidity, cash is listed first on the balance sheet. Companies can hold cash in various forms, some of which are restricted for special purpose (e.g. some companies may keep only small amount of petty cash on the premises to take care of small disbursements that cannot be paid by check or credit card).

- *MARKETABLE SECURITIES*

The second category of assets on balance sheet is marketable securities. Companies often temporary invest their excess cash in certificates of deposit, securities, etc... These investments earn income as interest or dividends until cash is needed in the business.

- *ACCOUNTS RECEIVABLE*

When a company sells merchandise or services on credit, it provides payment terms that allow the purchaser to pay within a specified time and may offer a discount as incentive for early payment.

Credit sales are shown as account receivable on the balance sheet until they are collected.

- *INVENTORY*

The three components of inventory are raw materials, work-in-process and finished goods. Wholesalers, retailers and service companies do not have raw materials.

Manufacturing companies are the only type of business that have work-in-process. Also, for a manufacturing company, the finished goods inventory includes any finished product not yet sold.

Obsolete inventory does not represent liquidity for the company, nor good collateral value for a lender to liquidate to repay debt.

- *OTHER CURRENT ASSETS*

Other current assets usually is an insignificant account (e.g. prepaid expenses and cash value life insurance).

B. NONCURRENT ASSETS

- *FIXED ASSETS*

Fixed assets include land, buildings, vehicles, machinery and equipment, leasehold improvements, and furniture. The fixed-asset account may be highly significant or small, depending on the type of business. Financial statements prepared according to generally accepted accounting principles show the value of fixed assets at book value. Book value is predicted on accounting conventions that carry assets' values based on their original historical cost (the purchase price paid by the company) minus allowable depreciation to date.

- *DEPRECIATION METHODS FOR FIXED ASSETS*

Except for land, fixed assets are assumed to lose their economic value over their estimated useful life. Each year after that, it is depreciated-that is, partially expensed on the income statement and valued at a progressively lower amount (called book value) on the balance

sheet. There are several ways to calculate depreciation and the primary methods of calculation are:

- Straight line
- Declining percentage balance
- Double-declining balance.

C. OTHER NONCURRENT ASSETS

Other noncurrent assets are those assets that are not expected to turn into cash within a year (lack of real liquidity).

- ***INTANGIBLES***

Intangibles are one of the most misunderstood accounts on the balance sheet. Items identified on the intangible account are goodwill, patents, trademarks or operating rights (e.g. telephone companies, airlines, and television stations must obtain operating rights for their areas of business).

LIABILITIES

Unlike assets, which can fluctuate in market value, most liabilities are fixed and must be paid at that value. Assets are considered as tools with which a business entity functions, whereas liabilities and net worth represent sources of cash to finance those assets.

A. CURRENT LIABILITIES

Current liabilities are those liabilities due in one year or less. A company's current liabilities include notes payable to banks, accounts payable, accruals, loan repayments to owner's or affiliates, current maturities of long-term debt and current-year income taxes.

- ***NOTES PAYABLE TO BANKS***

Notes payable to banks frequently represents the short-term financing of a company's current assets (accounts receivable and inventory).

- ***ACCOUNTS PAYABLE***

Trade accounts payable represents normal credit extended by suppliers for purchases of inventory and services. The terms of accounts payable vary by industry (e.g. the wholesaler grocery industry has short trade terms (usually 7 to 10 days), whereas a furniture retailer receives 30 to 45 day terms from its suppliers.

Stretching the time between making purchases and paying for them is called "riding the trade" and could suggest mismanagement or inadequate liquidity.

- ***DUE TO OFFICERS AND AFFILIATES***

Any amounts owed to company officers, partners, or other owners, as well as debts owed to affiliated companies, are properly carried as current liabilities if they are not subordinated. (Subordination means that the holder agrees to have a junior status to other creditors when it comes to payment).

- ***ACCRUED EXPENSES***

Accrued expenses represent unpaid costs that the company has expensed through the income statement. These expenses are items such as salaries, utilities, withholding taxes, contributions, etc.

- *CURRENT MATURITIES OF LONG-TERM DEBT*

Current maturities of long-term debt represent the principal portion of installment payment on long-term debt due. Principal payments may be due on an annual, quarterly, or monthly basis within the next 12 months.

- *INCOME TAXES PAYABLE*

Income taxes payable represents the actual tax liability due, probably by the next tax payment date. Most banks do not lend money to companies with delinquent tax liabilities

B. LONG-TERM LIABILITIES

- *LONG- TERM DEBT*

Long-term debt represents liabilities with maturities greater than 12 months. It is usually used to finance land, buildings, equipment, permanent increases in inventory levels and accounts receivable.

- *SUBORDINATED DEBT*

Subordinated debt is a junior liability (usually held by company officers or affiliated companies) that only can be repaid when specified debt obligations-the terms of the subordinated agreement-have been met.

If the loans are secured, the collateral may also be subordinated.

- *RESERVES*

Reserves represent a liability that will become due in the future. For example, when it liquidates the asset, the company charges any loss to the reserve rather than to its income statement.

- *DEFERRED INCOME TAXES*

Deferred income tax liability, the most common reserve item, is created to reconcile discrepancies that arise from using different fixed-assets depreciation methods for tax purposes and for financial reporting purposes.

C. NET WORTH OR EQUITY

The difference between a company's total assets and its total liabilities is its equity or net worth (also called owners' equity or shareholders' equity). Net worth or equity is calculated

$$\text{TOTAL ASSETS} - \text{TOTAL LIABILITIES}$$

- *STOCK*

Common stock is the minimum legal value of the company's outstanding shares of stock. Common stock entitles the holder to vote at shareholders' meetings and provides potential income to the investor through declared dividends and appreciation in value.

Preferred stock does not entail voting rights, but dividends accrue at a set rate (which is fixed at the time of issuance).

- *RETAINED EARNINGS*

Retained earnings represent after-tax net profits or losses that are kept in the company as a source of financing. Many companies retain some of their earnings to reduce their dependence on outside capital markets. Many companies pay dividends to their owners (stockholders). Retained earnings may be negative if the company has experienced more net losses than net profits over time.

WORKING CAPITAL COMPONENT

The difference between a company's current assets and current liabilities is known as net working capital.

Working capital is a company's investment in current assets, namely, cash, marketable securities, accounts receivable and inventory.

W/C COMPONENT	BASIS FOR ANALYSIS	COMMENTS
Cash	Trends in the company itself	High cash balances may indicate a weakness in management and/or a misuse of cash
Accounts Receivable	Days sales	An increasing number year over year could indicate a problem with credit and collection policy or procedures. A decrease could mean a good management of this part of the business, but also could mean that policy is too tight and sales could be lost. If a company's receivables age are greater than the industry, examine the quality of receivables along with the accounting policies regarding write off and allowance for doubtful accounts.
Inventory	Mix data	The relationship between raw materials, working in progress and finished goods needs analysis for the current year and over time. If balanced inventory is not maintained, it can indicate poor cash management, reduced orders on hand or obsolete inventory.
Other Receivables and Other Assets	Trends	If due from shareholders, affiliates or employees check their collectability to determine working capital levels or requirements.
Accounts Payable	Days purchases	Increasing days over time or higher than industry average may indicate cash shortages, poor cash management, disputed invoices, inventory build-up near the end of cycle, extended terms with certain suppliers, or deliberate use of trade credit to fuel growth. The terms from suppliers should closely mirror this figure.
Other Current Liabilities	Trends	An aged listing of these should be examined in any loan where a major component of the program is working capital or where and expansion is being undertaken.

THE CASH FLOW STATEMENT

LEARNING OBJECTIVES:

- Identify the questions a cash flow statement answers
- Explain operating, investing and financing activities
- Use a cash flow statement in financial statement analysis
- Glossary and Skill Builder Exercises

The third financial statement to be analyzed is the statement of cash flows. As its name implies, this statement of the company's business operations shows how a company obtains and uses its cash resources. The data to construct a statement of cash flows comes from the income statement and the balance sheet.

Since debt is repaid with cash, the statement of cash flows helps the analyst to determine both the company's funding needs and its sources of repayment.

The statement of cash flows shows INFLOWS and OUTFLOWS of cash categorized as:

- Operating funds flows
- Investing Activities
- Financing Activities.

INDIRECT METHOD starts with net profit and balances to the changes in cash.

1	Net income after tax
2	Depreciation
3	+/- changes on Accounts Receivable
4	+/- changes in Inventory
5	+/- changes on other Current Assets Account
6	+/- changes on Accounts Payable
7	+/- changes on Accrued Expenses
8	+/- changes on Accrued and delayed taxes on income
9	+/- changes on other Current Liabilities Accounts
10	+/- changes on other Noncurrent Liabilities
11	Operating funds flows (Operating Cash Flow)
12	+/- changes on Securities Account
13	+/- changes in Long Term Investment
14	+/- changes in Gross Fixed Assets
15	Non expected profit (loss)
16	Intangible and Other Assets
17	Investing funds flows
18	<i>Cash flow before Financing Activities (row 11 + row 17)</i>
19	+/- changes in Short Term Loan
20	+/- changes in Long Term Loan
21	+/- changes in Subordinated Loan
22	+/- changes in Capital
23	Dividends paid
24	Adjustments on Retained Earning Account
25	Other Interest

26	Financing funds flows
27	TOTAL CASH FLOW (row 11+ row 17 + row 26)
28	Beginning Cash
29	Plus Operating cash flow (row 11)
30	Investing cash flow (row 17)
31	Financing cash flow (row 26)
32	Ending Cash

DIRECT METHOD reflects the priorities of claims on operating cash flow with later items being more discretionary. The analyst uses the amounts from the income statement

Sales -net	
(Increase) decrease in receivables	
Cash from sales	
<i>(Cost of goods sold)¹</i>	
(Increase) decrease in inventories	
Increase (decrease) in payables	
Cash production costs	
Gross cash profit	
<i>(Selling, general and administrative expense)¹</i>	
(Increase) decrease in prepaids	
Increase (decrease) in accruals	
Cash operating expense	
Cash after operations	
Miscellaneous cash income ²	
Income taxes paid ³	
Net cash after operations	
Interest expense	
Dividends paid/ owner withdrawals	
Financing costs	
Net cash income	
Current portion long-term debt ⁴	
Cash after debt amortization	
Capital expenditures ⁵	
Long-term investments/ intangibles	
Financial surplus (requirements)	
Increase (decrease) short-term debt	
Increase (decrease) long-term debt ⁶	
Increase (decrease) equity ⁷	
Total external financing	
Cash after financing	
Actual change in cash	

RATIOS

(Please, see Attachment 1)

LEARNING OBJECTIVES:

- Calculate 14 key financial ratios
- Explain the meaning of these ratios
- Apply key ratios in the analysis of financial statements
- Use financial ratios to compare a company's performance with that of the industry
- List of Key Financial Ratios and Skill Builder Exercises

Ratios are not only the best known and most widely used of all financial statement analysis tools, they also are the most overrated and most widely misused.

Ratios allow the analyst to study the relationship and trends over time between various components of financial statement. While ratios are easily calculated, their correct interpretation is problematic.

A . LIQUIDITY RATIOS

In finance, liquidity means the ability to convert an asset into cash in a timely manner without the loss of market value. The assets must be converted in time to meet debt obligations as they come due.

Although it is not a ratio, *working capital* does indicate a company's liquidity.

Net working capital = Current Assets – Current Liabilities

Two ratios commonly used to get a rough indication of liquidity are the current ratio and the quick ratio:

1. *Current Ratio*

This ratio compares the absolute quantity of the company's current assets to its current liabilities at a certain point of time. A ratio of 2 to 1 (2:1) of current assets to current liabilities historically has been accepted standard for the current ratio. Generally, the higher the current ratio, the more comfortable the cushion against the effects of reduced inventory levels, uncollected receivables, and unanticipated cash needs. However, a large current ratio may signify idle cash, too much inventory, or a slow collection of accounts receivable.

$\text{Current assets} / \text{Current liabilities} = \text{Current ratio}$

2. *Quick Ratio*

This ratio is more stringent measure of liquidity than the current ratio because it includes only the most theoretically liquid current assets (those assets that a company should be able to convert to cash quickly to pay obligations). Historically, a quick ratio of 1:1 has been regarded as an indication of good liquidity.

$\frac{\text{Cash} + \text{Marketable securities} + \text{Accounts receivable}}{\text{Current liabilities}} = \text{Quick ratio}$

B. ACTIVITY RATIOS

Unlike liquidity ratios, which use elements only from the balance sheet, the following activity ratios use a mix of income statement and balance sheet variables. Generally, these ratios compare the company's sales with three balance sheet accounts – accounts receivable, inventory and accounts payable.

3. Accounts Receivable Turnover Ratio

The relationship between accounts receivable and sales can be expressed in two ways.

The first gives the number of times during the year that the average accounts receivable is collected.

$$\text{Net sales} / \text{Accounts receivable} = \text{Accounts receivable turnover ratio}$$

The second method gives the average number of days that uncollected sales are outstanding in the company's accounts receivables.

$$365 / \text{Accounts receivable turnover ratio} = \text{Average collection period}$$

(The important issue is to be consistent and use 360 or 365 days for all ratio calculations. Also, it is important to make comparisons between similar companies or to look at trends over time).

4. Inventory Turnover Ratio and Days Inventory Ratio

The inventory turnover and days inventory ratios show how often the inventory is turned or sold to generate the current sales volume. Cost of goods sold is used instead of sales in this formula because it shows the cost of inventory sold during the year.

$$\text{Cost of goods sold} / \text{Inventory} = \text{Inventory Turnover}$$

Days Inventory Ratio

The days in inventory looks like the average collections period and is calculated the same way, by dividing the days in the year by the turnover ratio.

$$365 / \text{Inventory Turnover} = \text{Days inventory ratio}$$

5. Accounts Payable Turnover Ratio and Days Payable Ratio

This ratio shows how often the company pays its suppliers. A significant lengthening of the payables turnover could reflect the fact that suppliers have granted the company additional trade credit or longer terms, or it could reflect cash flow problems that are delaying payments to suppliers.

$$\text{Cost of goods sold} / \text{Payables} = \text{Accounts Payable Turnover Ratio}$$

Days Payable Ratio

The days payable formula is also similar to those previously used:

$$365 / \text{Accounts Payable Turnover Ratio} = \text{Days payable ratio}$$

6. Sales-to-assets Ratio

This ratio shows how efficiently a company uses its assets by showing how many KM of sales are generated by each KM of assets.

$$\text{Net sales} / \text{Total assets} = \text{Sales-to-assets ratio}$$

C. LEVERAGE RATIOS

Leverage ratios show how much protection the company's assets provide for a creditor's debt, since assets must be financed either by owner's equity (net worth) or creditors' liabilities (debt).

The higher the proportion of borrowed funds to owner-contributed funds, the greater the assumed risk to lenders.

7. Debt-to-worth Ratio

Debt-to-equity ratio indicates how well the shareholders' investment in the company provides a cushion for asset shrinkage. Like the current ratio, this ratio measures a company's liability to liquidate its assets in order to satisfy debt.

$$\text{Total Liabilities} / \text{Net worth} = \text{Debt-to-worth ratio}$$

Most manufacturers have a heavy dependency on financing fixed assets, resulting in a higher debt-to-worth ratio.

8. Debt-to-capitalization Ratio

This ratio shows what percentage of the company's permanent capital is financed with debts as opposed to shareholders' investment.

$$(\text{Long-term debt} / (\text{Long-term debt} + \text{Net worth})) = \text{Debt-to-capitalization ratio}$$

D. COVERAGE RATIOS

Coverage ratios are another type of leverage ratio commonly used in financial statement analysis. They measure the extent to which a company's fixed charges from debt obligations are met or exceeded by the flow of funds from the company's operations. A company's ability to cover principal and interest payments is a key indicator of financial health, which is of crucial concern to lenders.

In contrast to leverage ratios, which assess the lender's margin of comfort in the event of liquidation, coverage ratios indicate the funds (or cash) flow margin of comfort while regarding the company as a going concern.

9. Debt Service Coverage Ratio

This ratio measures the proportion of a company's net profit and noncash expenses that will be needed to pay the principal portion of long-term debt in the coming year.

$$\frac{\text{Net profit} + \text{Depreciation} + \text{Other noncash charges}}{\text{Current maturities of long-term debt}} = \text{Debt Service Coverage Ratio}$$

10. Times-interest-earned Ratio

This ratio is a measure of a company's ability to meet interest payments. This ratio also serves as an indicator of a company's capacity to take on additional debt.

$$\frac{\text{Earning before taxes} + \text{Interest expense}}{\text{Interest expense}} = \text{Times-interest-earned Ratio}$$

11. Dividend Payout Ratio

The dividend payout ratio shows the percentage of profit after tax that a company pays to shareholders in the form of dividends.

$$\frac{\text{Cash dividends paid}}{\text{Net profit after tax}} = \text{Dividend payout ratio}$$

E. PROFITABILITY RATIOS

The examination of a company's profitability usually relates the company's profits to various standards, such as the level of sales, assets, and equity. Taken together, they give a good indication of a company's viability and its ability to survive and continue to attract new equity or debt funding in the future.

12. Return-on-sales Ratio

This ratio is a reflection of management's ability to properly price its product or service, control cost of goods sold, and control operating expenses.

$$\frac{\text{Profit before taxes}}{\text{Net sales}} = \text{Return-on-sales Ratio}$$

13. Return-on-equity Ratio

This ratio measures the efficiency with which a company uses its stockholders' equity. A high return, normally associated with effective management, could indicate an under-capitalized firm.

$$\frac{\text{Net profit before tax}}{\text{Net worth}} = \text{Return-on-equity Ratio}$$

14. Return-on-assets Ratio

This ratio measures the profitability of a company in terms of how efficiently it uses its assets. It is basically a comparison of net profit to total assets.

$$\frac{\text{Profit before taxes}}{\text{Total assets}} = \text{Return-on-assets Ratio}$$

(Remember that this ratio can be misleading if the company has significant fixed assets – buildings, land or equipment – that are undervalued on the balance sheet.)