Pennsylvania Association of Community Bankers

Fundamentals of Credit Analysis

How to Interpret Financial Statements for Improved Loan Decisions

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2021

INTRODUCTION

Risk Assets (typically loans and leases) make up 50% to 80% of most banks' total assets. The importance of the Loan Portfolio is also reflected in the income statement, as the net interest and loan fees make up the bulk of most commercial bank's earnings. The investment community also understands the value of a quality Loan Portfolio. It, along with the deposit base, is a critical factor in establishing a value for banks. Asset Quality become increasingly important as regulators assign capital requirements based on asset quality ratings.

WHAT IS RISK AND CREDIT RISK?

Risk is defined as the potential that events, expected or unexpected, may have an adverse impact on the bank's earnings and capital.

Credit Risk is the potential that a bank borrower or counterparty will fail to meet its obligations in accordance to agreed terms

Regulators define nine categories of risk they focus upon each time they visit a financial institution for a Safety and Soundness Examination. Those risks are as follows;

- ❑
- ❑
- ❑
- ❑
- ❑
- ❑
- ❑
- ❑
- ❑
- ❑
- ❑

The list above are not the only risks banks face each day however, these are the ones regulators believe are most critical.

Bank management must control all risks however, one of these risks is more damaging than others. So, in your opinion, which risk poses the greatest threat to any financial institution survival?

Therefore, Risk (Credit) Management is:

- A continuous process (not a static exercise) of identifying risks that is sometimes subject to quick and volatile changes.

- A subjective evaluation driven by the experience of the lending and credit policy management team of your financial institution.

- Effective credit risk management is achieved through:
    - A comprehensive credit policy; augmented by
    - Supporting underwriting and portfolio management guidelines; implemented by Qualified staff; executing

    - Efficient processes and procedures from application through payoff

CREDIT & RISK REVIEW

One of the most significant roles of commercial banks in economic development is as arbiters of risk when banks analyze requests for loans and other credit related products and services from individuals and businesses. As such, Banks are in the business

- Observing Risk
    - There is a possibility of risk

- Identifying Risk
    - There is a definite Risk

- Measuring Risk
    - How deep and intense is the risk

- Accepting Risk
    - Is the Risk in compliance with our Credit Policy?

- Managing Risk
    - How can we contain the risk to insure it is acceptable to the bank throughout the life of the loan and minimize the bank's losses on loans that will go bad

The successful banker knows that a key to having a high-quality portfolio is to:

1. Take an acceptable (as defined by your loan policy) level of risk.
2. Manage those loans once they are on the books.
3. Minimize the bank's losses on loans that go bad.

Our focus during this class will be on measuring and accepting risk.

Financial statements and tax returns are used:

- To evaluate loan request
- Identify risk and properly structure credit facilities

WHAT IS A CREDIT ANALYST?

A credit analyst's job is to analyze and summarize the financial condition of an entity to determine the debt repayment capability of the entity. In doing so, the analyst considers both financial and non-financial factors that may impact the ability to repay.

Being a Credit Analyst is a highly recognized and visible skill to possess in the banking industry and could lead to management positions if performed effectively. It is a great skill for those who choose to become a commercial / consumer lender or choose to become a career Credit Analyst.

Credit Analyst strive to do their best work in hope of either moving on to a more lucrative position in Commercial Lending, or simply attaining a certain amount of celebrity within the profession for being very good at what they do as a Credit Analyst

There are many techniques that can be applied to reach the goal of being a Lender or Professional Analyst. The technique that seems to be most effective is the ability to analyze what is relevant and being as brief as possible in analytical commentary without leaving anything that might sway a credit decision either for or against the loan request

Those who can achieve the right balance between too much and too little detail to arrive at commentary that is "just right" will be recognized as being very good credit analysts indeed So, how can Analyst develop a sense of what is important? Following are a few traits of top-notch analysts observed over the years:

- Well Versed in the Details of Accounting
- Keep up with Changes in Accounting Practices

- Competent Writers in the English Language
- Continue Their Self-Education as Opportunities Present Themselves
- Produce Own Financial Summaries

WHY CREDIT ANALYSIS IS VITAL TO THE BANKING INDUSTRY?

Improved analysis contributes by:

- Improved loan quality leads to directly to better safety and soundness
- Improved earnings, as fewer dollars are committed to the loan loss reserve
- Allows loan officers to act as financial advisors to their customers
- Enhances coaching skills

The skills developed in this session should be quite useful in:

- Developing new business,
- Maintaining credit quality,
- Implementing loan covenants,
- Identify potential problem loans

PRINCIPLES OF ACCOUNTING

Accounting is a highly technical and vast field of study…And, this is a one-day course…Therefore, it is impossible to address all that's involved in accounting. However, you should gain a basic understanding of major accounting assumptions and its application to produce reliable financial statements

Accounting is the cornerstone for analyzing financial statements and tax returns. To improve analytical skills, it starts with have a good working knowledge of accounting. Once you understand how financial statements are constructed, it makes it easier for you to analyze and understand the results.

After all, would you consider taking your car in for repairs to an auto mechanic who tells you, "*I would love to fix your car, but I don't know how the engine works….*" How can you analyze financial statements and tax returns if you do not know how they are constructed?

ACCOUNTING DEFINED

So, what is Accounting? It is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by the users of the information. (AAA)

Accounting is the "language" employed to communicate financial information.

Accounting is primarily concerned with the design of the system of records, the preparation of reports based on the recorded data, and the interpretation of the reports.

FUNCTIONS PERFORMED BY ACCOUNTANTS

- Observe, identify and measure economic events in financial terms
- Record, classify, and summarize measurements of those economic events for conciseness (using a company's chart of accounts which is a list of all accounts set up to handle a company's accounting transactions. The accounts are numbered in order, usually starting with 1000 (assets) and continuing through to 9000 (miscellaneous gains and losses)
- Report on financial events by preparing financial statements and special reports

Generally accepted accounting principles (GAAP):

The rules financial accountants must follow when handling accounting transactions and preparing financial statements. Financial accountants can't just throw numbers on the income statement, balance sheet, or statement of cash flows; a level playing field must exist between

businesses so that the individuals reading the financial statements can compare one company to another.

INFLUENTIAL ORGANIZATIONS

The American Institute of Certified Public Accountants (AICPA)

The AICPA is the world's largest association representing the accounting profession, with nearly 418,000 members in 143 countries. AICPA members represent many areas of practice, including business and industry, public practice, government, education and education and consulting; membership is also available to accounting students and CPA candidates.

The AICPA sets ethical standards for the profession and U.S auditing standards for audits of private companies, non-profit organizations, federal, state and local governments. It develops and grades the Uniform CBA Examination.

Financial Accounting Standards Board (FASB)

Since 1973, the Financial Accounting Standards Board (FASB) has been the designated organization in the private sector for establishing standards of financial accounting that governs the preparation of financial reports by nongovernmental entities. Those standards are officially recognized as authoritative by the Securities and Exchange Commission (SEC) and the American Institute of Certified Public Accountants.

Such standards are important to the efficient functioning of the economy because decisions about the allocation of resources rely heavily on credible, concise, and understandable financial information.

The mission of the FASB is to establish and improve standards of financial accounting and reporting that foster financial reporting by nongovernmental entities that provides decision-useful information to investors and other users of financial reports. That mission is accomplished through a comprehensive and independent process that encourages broad participation, objectively considers all stakeholder views, and is subject to oversight by the Financial Accounting Foundation's Board of Trustees.

The FASB is part of a structure that is independent of all other business and professional organizations. That structure includes the Financial Accounting Foundation (Foundation), the FASB, the Financial Accounting Standards Advisory Council (FASAC), the Governmental Accounting Standards Board (GASB), and the Governmental Accounting Standards Advisory Council (GASAC).

Governmental Accounting Standards Board (GASB)

The Governmental Accounting Standards Board (GASB) is the independent organization that establishes and improves standards of accounting and financial reporting for U.S. state and local governments. Established in 1984 by agreement of the Financial Accounting Foundation (FAF) and 10 national associations of state and local government officials, the GASB is recognized by governments, the accounting industry, and the capital markets as the official source of generally accepted accounting principles (GAAP) for state and local governments.

Accounting and financial reporting standards designed for the government environment are essential because governments are fundamentally different from for profit businesses. Furthermore, the information needs of the users of government financial statements are different from the needs of the users of private company financial statements. The GASB members and staff understand the unique characteristics of governments and the environment in which they operate.

The GASB is not a government entity; instead, it is an operating component of the FAF, which is a private sector not-for-profit entity. Funding for the GASB comes in part from sales of its own publications and in part from state and local governments and the municipal bond community. Its standards are not federal laws or regulations and the organization does not have enforcement authority. Compliance with GASB's standards, however, is enforced through the laws of some individual states and through the audit process, when auditors render opinions on the fairness of financial statement presentations in conformity with GAAP.

Securities and Exchange Commission (SEC)

The mission of the U.S. Securities and Exchange Commission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.

The SEC oversees the key participants in the securities world, including securities exchanges, securities brokers and dealers, investment advisors, and mutual funds. Here the SEC is concerned primarily with promoting the disclosure of important market-related information, maintaining fair dealing, and protecting against fraud.

Crucial to the SEC's effectiveness in each of these areas is its enforcement authority. Each year the SEC brings hundreds of civil enforcement actions against individuals and companies for violation of the securities laws. Typical infractions include insider trading, accounting fraud, and providing false or misleading information about securities and the companies that issue them. Though it is the primary overseer and regulator of the U.S. securities markets, the SEC works closely with many other institutions, including Congress, other federal departments and agencies, the self-regulatory organizations (e.g. the stock exchanges), state securities regulators, and various private sector organizations. In particular, the Chairman of the SEC, together with the Chairman of the Federal Reserve, the Secretary of the Treasury, and the Chairman of the Commodity Futures Trading Commission, serves as a member of the President's Working Group on Financial Markets.

ACCOUNTING ASSUMPTIONS

Accounting principles and assumptions are the essential guidelines under which businesses prepare their financial statements. These principles guide the methods and decisions for a business over a short and long term. For both internal and external reporting purposes, it is important to understand the concepts presented below because they serve as a guideline to the analysis of financial reporting issues.

Economic Entity Assumption

Under the economic entity assumption, an economic activity can be identified to a separate entity accountable for that activity. In other words, this assumption states that businesses must keep their transactions separate from their owners', business units' or other businesses' transactions. For example, the business activities of the neighborhood coffee house are to be kept separate from the financial activities of its owners or managers. The financial statements for the coffee house will only reflect the revenue and expenses for the coffee house. Thus, it is possible to compare the financial statements of this coffeehouse with its competitors' reports, since these statements should be reported separately under the economic entity assumption. Important to note, a separate entity does not necessarily mean a legal entity. For example, financial statements for a parent company and its subsidiaries (i.e. separate legal entities) can be presented together (i.e. consolidated financial statements).

Revenue Recognition Principle

Under this principle revenue is to be recorded when it is realized (or realizable), and when it is earned and not when it is received. Revenue is realized when goods or services are exchanged, is realizable when assets received can be converted to cash and is earned when all necessary requirements are met entitling the company to the benefits represented by the revenue (e.g. services performed).

For example, suppose a neighborhood coffee house orders 100 coffee mugs from a coffee wholesaler in June. The coffee house takes delivery of the new mugs in July and pays for the order in August. The wholesaler does not recognize the revenue from this sale in June, when the order was placed, or in August, when the cash was received. For recording purposes, the revenue is recognized by the wholesaler in July, when the coffee mugs were delivered to the coffeehouse.

This principle is used for the recognition of revenue for both goods and services. For example, if an attorney is hired with an agreed upon retainer fee of $2,500 in May, and the services are not performed until July, the attorney does not recognize the revenue until July. The attorney must earn the income before it can be recorded as such, even though he/she received cash for the service at an earlier date.

Historical Cost Principle

The historical cost principle deals with the valuation of both assets and liabilities. The value at the time of acquisition is used to value most assets and liabilities. For example, say the coffee wholesaler purchased an office building in 1990 for $1.2 million. Over time this asset has most likely appreciated in value. However, in accordance with the cost principle, the original (historical) price of the building is what is recorded as the cost of the building in the books of the business.

Note that another basis for valuing elements of financial statements is coming into play. The new basis is fair value. With the convergence of global standards, fair value is used more in the United States to value elements of financial statements.

Fair Value Principle

Fair value accounting is a financial reporting approach in which companies are required or permitted to measure and report on an ongoing basis certain assets and liabilities (generally financial instruments) at estimates of the prices they would receive if they were to sell the assets or would pay if they were to be relieved of the liabilities.

In September 2006, the Financial Accounting Standards Board (FASB) issued an important and controversial new standard, Statement of Financial Accounting Standards No. 157, which provides significantly more comprehensive guidance to assist companies in estimating fair values

Some parties (generally financial institutions) have criticized fair value accounting, including FAS 157's measurement guidance. Those criticisms have included:

- Reported losses are misleading because they are temporary and will reverse as markets return to normal
- Fair values are difficult to estimate and thus are unreliable
- Reported losses have adversely affected market prices yielding further losses and increasing the overall risk of the financial system.

Matching Principle

This principle mandates that the expenses of a business need to line up with its revenue. The expense or cost of doing business is recorded in the same period as the revenue that has been generated as the result of incurring that cost. In the case of the coffee wholesaler, when the 100 coffee mugs were delivered in July they changed from being a part of inventory (asset) to a cost of goods sold entry (expense) in the month that the revenue from the sale was recognized. At this point, the difference between the revenue and expense is determined as the gross profit from the sale.

Full Disclosure Principle

This principle states that all past, present and future information that may have had an impact on the financial performance of the company needs to be fully disclosed. The historical performance of a company is readily available but examining the numbers does not always provide the entire financial picture of a company. Sometimes there are alternative situations that need to be reported. Pending or current lawsuits are one example of a transaction that could severely impact a company's bottom line. In addition, incomplete financial transactions or any other conditions that could impact the company's performance must also be disclosed. Most of these transactions are disclosed in the footnotes to the financial statements.

Money Measurement

Economic activity is initially recorded and reported in terms of a common unit of measure (US dollar).

Continuity or Going Concern

The entity is assumed to have an indefinite life unless strong evidence exits to the contrary.

Periodicity

An entity's life can be subdivided into time periods for purposes of reporting its economic activities.

THE ACCOUNTING EQUATION

Assets = Liabilities + Stockholders' Equity

After each economic event is recorded into the records of an economic entity, the Accounting Equation must always balance after the transaction is documented. This will ensure that the Balance Sheet Assets will equal the Liabilities and Stockholders' Equity and the results of the Income Statement is properly reflected in Retained Earnings.

Bottom Line: "***The equation must always be in balance".***

RULES OF DEBITS AND CREDITS

Assets = Liabilities + Stockholders' Equity

Asset Accounts	
Debit *	Credit
Debit for Increase	Credit for Decrease

Liability Accounts	
Debit	Credit*
Debit for Decrease	Credit for Increase

Stockholders' Equity Accounts	
Debit	Credit*
Debit for Decrease	Credit for Increase

Cost and Expense Accounts	
Debit *	Credit
Debit for Increase	Credit for Decrease

Revenue Accounts	
Debit	Credit*
Debit for Decrease	Credit for Increase

DEBITS	CREDITS
Increase assets	Decrease assets
Decrease liabilities	Increase liabilities
Decrease stockholders' equity	Increase stockholders' equity
Decrease revenues	Increase revenues
Increase expenses	Decrease expenses
Increase dividends	Decrease dividends

*Normal balance

Recording Transactions in T-Accounts

Transactions for 2019

(DR) Cash (CR)	Accounts (DR) Rec. (CR)	Prepaid (DR) Rent (CR)

(DR) Truck (CR)	Notes (DR) Pay. (CR)	Accounts (DR) Pay. (CR)

Capital (DR) Stock (CR)	Delivery Service (DR) Sales (CR)	Salaries (DR) Exp (CR)	Rent (DR) Exp.. (CR)

Depreciation (DR) Exp. (CR)	Gain/Loss From Sale of Asset (DR) (CR)	Accumulated (DR) Dep. (CR)	Interest (DR) Exp.. (CR)

Transactions for 2017

March 1:	Stockholders invested $50,000 cash to start business.
March 1:	Paid $1,200 to rent building for three months from this date.
March 1:	Purchased delivery truck for $6,000 on account.
March 10:	Performed delivery services for a customer for $5,000 cash.
March 11:	Paid one-half of amount due on delivery truck.
March 15:	Billed a customer $4,000 for delivery services performed.
March 17:	Paid salaries for the month, $2,000.
March 19:	Collected $2,500 of amount due from a customer.
March 21:	Annual Depreciation Expense on Truck for $1,500
March 23:	Sold Truck for $5,000 in cash which is $500 in excess of Book Value
March 29:	Utilized one month of the Pre-paid Rent Expenses
March 31:	Paid Remainder of Bank Loan plus 1,000 in interest
March 31:	Close the Books and prepare a Balance Sheet & Income Statement

ASSETS					**Liabilities & Net Worth**			
Cash					Accounts Payable			
Accounts Receivable					Notes Payable			
Pre-Paid Rents					Interest Payable			
Truck					Capital Stock			
Less: Accumulated					Retained Earnings			
	Depreciation							
Total Assets					Total Liabs. & Net Worth			
Sales								
Salaries								
Depreciation								
Rent Expense								
Interest Expense								
Gain on Sale of Asset								
Net Profits								

FINANCIAL STATEMENT COMPONENTS

- Opinion Letter
- Balance Sheet
- Income Statement
- Statement of Retained Earnings
- Statement of Cash Flows
- Financial Notes

Opinion Letter

When an independent Certified Public Accountant completes an audit of a client's financial statement, an opinion is rendered based upon the client's compliance with generally accepted accounting (auditing) principles. The likely opinions are Unqualified, Qualified, Disclaimer and Adverse. These are explained in more detail in the following section.

Types of Opinion Letters

Unqualified Opinion

In rendering an Unqualified Opinion, the auditor is saying that all financial information that was available, in order and met all auditing standards. After closing the examination, the auditor did not have major concerns or serious unanswered questions. For a company's management team, this opinion is the equivalent of receiving a gold star.

Unqualified Opinion with Explanatory Language Added

In such a case, the audit is still Unqualified, but the auditor felt it was necessary to add certain explanatory language to their report. Doing so is not regarded as a qualification. The auditors could be pointing out some inconsistency in applying accounting principles or mentioning an uncertainty that could have a material impact on the company's financial statements

Qualified Opinion

An auditor will write this type of letter to management when most of the company's financial statements are in order and meet auditing standards, except for one or more accounts or transactions. The accounts or transactions in question will be named in the opinion letter. The

financial information provided to the auditor was not complete or the company's accounting methods do not follow Generally Accepted Accounting Principles.

Disclaimer of Opinion

When an auditor is not able to express an opinion, it is generally because the company did not provide enough financial information for an audit. Opinion letters with such a disclaimer are relatively rare, but they may be viewed as indications that the company refused to cooperate with the auditor after engaging their services. Such a letter casts doubt on the quality of the company and its management

Adverse Opinion

This is a failing grade. The auditor is saying that the financial statements are not accurate or complete. The statements do not present the company's financial position or results in accordance with Generally Accepted Accounting Principles. Such as opinion letter is a warning that the financial statements do not give a fair view of the company

Balance Sheet

Reflects a firm's solvency

Reports a firm's assets, liabilities and stockholders' equity (aka net worth and capital) as of a specific moment in time

- Assets
  Things of value, which are owned by the business such as cash, accounts receivable, inventory and equipment
- Liabilities
  Debts owed by the firm such as notes payable, accounts payable, etc.
- Stockholders' Equity
  The owners' interest in the business. It consists of owners' investments or withdrawals, profits made, which have not been withdrawn or losses incurred. Profits and losses are combined in an account called retained earnings.

Income Statement

Reports a firm's profitability for a stated period. Profitability is measured in each period by comparing the revenues generated with costs and expenses incurred to produce those revenues.

Statement of Retained Earnings

This statement reflects the change in retained earnings from one accounting period to another by determining if retained earnings increased by the exact amount of profits earned for the period or losses incurred for the period. If retained earnings did not increase by the same amount as profits earned, it could mean that a dividend was declared, or the owners withdrew funds out of the company.

Statement of Cash Flows

Shows the cash inflows and cash outflows from operating activities, investing activities and financing activities.

- Operating Activities
  Generally, includes the cash effects of transactions and other events that enter the determination of net income. It is the cash generated or used in producing profits or losses.

- Investing Activities
  Generally, includes the cash effects of transactions involving the acquisition or disposal of fixed assets

- Financing Activities
  Generally, includes the cash effects of transactions and other events involving creditors and owners

Financial Notes

Notes to the Financial Statements (as they are referred to) provide more detailed information about significant accounts on the balance sheet and income statement. They may cover areas such as:

- Accounts Receivable: Amount of allowance for doubtful accounts and charges to earnings.

- Inventory: State the inventory costing method and the components of inventory

- Fixed Assets: State the depreciation method utilized, the estimated useful lives of assets and the components of fixed assets

ACCOUNTANT PREPARED FINANCIAL STATEMENTS

TYPES OF FINANCIAL REPORTS

Compilation

Non-disclosure
Full disclosure

- The CPA puts information provided by the client in proper financial statement form.
- It is in accordance with GAAP
- It does not express any assurances
- The CPA is not required to make inquiries of management or perform other procedures to verify, corroborate, or review information provided by the client.

Review

- CPA makes certain inquiries of management and performs analytical procedures.
- Not required to understand the company's internal structure, test accounting records, observe inventory, confirm receivables, or obtain other corroborating evidence, as required in an audit engagement.

Audit

CPA goes beyond a review and on a test basis, examines evidence supporting the amounts and disclosures in the financial statements.

INTERPRETATION OF FINANCIAL STATEMENTS

BALANCE SHEET ANALYSIS

The balance sheet is a picture of a company at a given point in time. The balance sheet identifies all assets, liabilities and net worth of a company. The accounting or balance sheet equation is:

Assets = liabilities + net worth.

Assets consist of current assets, fixed assets, intermediate assets and other assets as follows:

CURRENT ASSETS

- Cash
- Marketable Securities
- Accounts Receivable
- Allowance for Doubt Account (Contra Account)
- Inventory
- Pre-paid Expenses
- Income Tax Refund

CURRENT LIABILITIES

Short Term Notes Payable
Line of Credit
Current Portion of LTD
Accounts Payable
Accrued Expenses
Income Tax Payable

FIXED ASSETS

- Land
- Buildings
- Equipment
- Furniture & Fixtures
- Leasehold Improvements
- Operating Leases
- Capital Leases
- Accumulated Depreciation (Contra Account)

LONG TERM DEBT

Long Term Notes Payable
Mortgage Payable
Deferred Taxes
Due to Officers

OTHER ASSETS

- Due from Stockholders
- Employee Advances
- Due from Related Companies
- Other Receivables
- Deposits
- Intangibles
- Deferred Assets
- Investments
- Other Non-Operating Assets

NET WORTH

Common Stock
Preferred Stock
Paid-In-Capital (Surplus)
Retained Earnings
Treasury Stock

INCOME STATEMENT ANALYSIS

The income statement shows the amount of sales/revenues generated and cost/expenses incurred. The bottom line of an income statement indicates whether the entity earned a profit or incurred a loss. Unlike a balance sheet, which captures the value of assets, liabilities and net worth at a specific point in time, the income statement captures activity over a period. The business has generated revenues from sales and paid total expenses. The typical income statement is structured as follows:

Sales

- Cost of Goods Sold

= Gross Profit

- Operating expenses (selling expenses, general and administrative expenses)

= Operating income

- Non-operating expenses (interest expense, other nonrecurring expenses)

+ Non-operating income (interest income, other nonrecurring income)

= Net income before tax

± Taxes

= Net profit after tax

HOW THE INCOME STATEMENT AND BALANCE SHEET ARE RELATED

Economic events will typically start through an entry onto the Income Statement and the results of that event will find its way to the Balance Sheet. In other words, whatever occurs on the Income Statement will end up on the Balance Sheet.

Another perspective is that the Balance Sheet is the end results of what occurred on the Income Statement. Using the chart below, match the items on the Income Statement with the corresponding Balance Sheet Account shown below the chart. This will strengthen your understanding of the Income Statement / Balance Sheet relationship and should enhance your understanding of Ratio and Cash Flow Analysis.

Income Statement		**Balance Sheet**
Sales for Cash	→→→→→	_____
Sales on Account	→→→→→	_____
Billed for Work not completed	→→→→→	_____
Work Completed but under billed	→→→→→	_____
Retainer Fee Before Work Performed	→→→→→	_____
Cost of Goods Sold	→→→→→	_____ _____
Operating Expenses	→→→→→	_____ _____
\Depreciation Expense	→→→→→	_____
Interest Expense	→→→→→	_____
Interest (Investment) Income	→→→→→ →→→→→	_____ _____
Non-Operating Exp.	→→→→	_____
Income Tax Expense	→→→→→	_____
Profit	→→→→	_____

Loss →→→→ _____

Dividend Declared →→→→→ _____

Receipt of Cash in Excess of
Par Stock Value →→→→→ _____

Cash Invested without Stock Issuance →→→→→ _____

Principal Payment on Long Term Debt →→→→→ _____

Accounts Receivable	**Current Portion of Long-Term Debt**
Inventory	**Other Liabilities**
Income Tax Payable	**Dividend Payable**
Notes Payable	**Interest Payable**
Accrued Expenses	**Cash**
Accounts Payable	**Retained Earnings**
Pre-Paid Expenses	**Investments**
Billings in Excess of Cost	**Cost in Excess of Billings**
Capital Surplus	**Paid in Capital**
Deferred Revenue	**Unearned Revenue**
Current Portion of LTD	**Accumulated Depreciation**

Current Asset Analysis

Current assets are listed first on the balance sheet because they are the most liquid. They convert to cash in less than twelve months.

CASH

Cash consists of cash in banks, cash on hand and marketable securities. It would appear to be the most liquid asset and usually is. However, it may be pledged as collateral and not readily available to the company. Conservative companies generally have more cash on hand. Other conservative companies have less cash since they use the cash to quickly pay down short-term bank debt to lower interest costs. Rapidly growing or poorly managed companies have less cash available. Lenders should not make decisions based on cash balances kept in the bank unless the cash will be placed in a savings certificate to be pledged to secure the loan. Many charged-off loans had cash balances, and some very high cash balances, before they got into trouble. Companies need a minimum amount of cash to operate and the lender should be sure enough cash is available.

ACCOUNTS RECEIVABLE

Accounts receivable are amounts owed to a company for a product sold on credit or a service provided for credit. Accounts receivable are listed second on the balance sheet because they turn to cash more quickly than inventory. The number of accounts, average size, validity and length of relationship are all key issues. For example, the lender will want to know if the business has 50 accounts averaging $50 each or 50 accounts averaging $1,000 each. Both present collection issues. If in default, it may not be worth the bank's time to pursue all 50 accounts averaging $50; however, it would be worth pursuing the 50 accounts averaging $1,000 each.

Validity is another issue for the lender. Will the borrower's customer pay the amount owed? The receivable may not be valid due to poor product quality. Or was the service or product really sold and does the company owing the money have the ability to repay? Credit approval and collection processes are key issues in collecting accounts receivable.

The lender will establish advance rates on the accounts receivable depending on the age, mix and collection experience of the company. The advance rates will vary by industry and experience.

Allowance for Bad Debt is the amount available to charge off bad debts. The allowance is based on past charge-off experience and the current aging. Bad debt expense is charged on the income statement each month and accumulates on the balance sheet. When the company has a loss, the allowance is charged. If no allowance is listed, then the company directly charges the income statement when a bad debt occurs. This can result in large profit variations depending on the years' experience.

ACCOUNTS RECEIVABLE MECHANICS

- Advance Rate
- Dilution
- Invoice Size
- Account Debtors
- Concentration

- Advance Rate should be based upon:
  - Dilution Rates
  - Invoice Size
  - Nature of Account Debtors
  - Concentration
  - Advance Rate means the amount lender is willing to lend against the asset

- Dilution
  - **Measures how much of each sale dollar comes back to the seller or is not collected due to. Includes:**
    - Credit Memos
    - Returned Goods (defective)
    - Mispricing
    - Invoice Errors
    - Advertising Allowances
    - Trade Discounts
  - **Should be calculated monthly and calculate the 12-month average**

- The typical Advance Rate against Accounts Receivable assumes a 5% or less Dilution Rate.
- The higher the Dilution Rate, the lower the Advance Rate

A/R Advance Rates	Dilution Rate
80% - 85%	5% - 6%
75% – 80%	6% - 10%
70% - 75%	11%-15%
60% and lower	over 15%

Accounts Receivable Aging Schedule

DARCY COMPANY
Accounts Receivable Aging Schedule
December 31, 2011

			Number of Days Past Due			
Customer	**Account Receivable Balance**	**Not Yet Due**	**1-30**	**31-60**	**61-90**	**Over 90**
X	$5,000					$5,000
Y	$14,000		$12,000	$2,000		
Z	$400				$200	$200
All others	$808,600	$560,000	$240,000	$2,000	$600	$6,000
Estimated uncollectible percentage	$828,000	$560,000 1%	$252,000 5%	$4,000 10%	$800 25%	$11,200 50%
Estimated amount uncollectible	$24,400	$5,600	$12,600	$400	$200	$5,600

Balance in the accounts receivable account in the

Desired credit balance in the allowance for uncollectible accounts

INVENTORY

Inventory consists of supplies that are used to produce products or goods. These can include:

- Raw material
- Work in process
- Finished goods

Raw material and work in process are only found on manufacturer balance sheets. Raw material consists of the raw product used to make a product. It does not include labor. Work in process is the amount of products in the process of completion (raw material plus labor). Finished products are the finished product including all costs of raw material and labor.

Inventory for a farm operation may include:

- Grain/feed on hand
- Cash invested in growing crops
- Livestock held
- Supplies (chemicals, etc.)

Lenders and Analysts should know if the inventory is valued utilizing Specific Identification, Average Cost, LIFO or FIFO methods to determine the advance rate for collateral purposes. Also, the borrower's relationship with suppliers will need to be considered. Suppliers may also be purchasers of the product or service and may have offsetting accounts payable for the lender to consider.

INVENTORY
COMPARISON OF COSTING METHODS

	FIFO		LIFO	
SALES		$12,000		$12,000
Less: Cost of Goods Sold				
Opening Inventory	-0-		-0-	
+ Purchases:				
500 units @ $8	4,000		4,000	
200 units @ $9	1,800		1,800	
400 units @ $10	4,000		4,000	
600 units @ $11	6,600		6,600	
Total Goods Available for Sale	16,400		16,400	
Less: Ending Inventory	(7,600)✸		(5,800) ♦	
= Cost of Goods Sold		(8,800)		(10,600)
Gross Profit		3,200		1,400
Less: Income Taxes		(960)		(420)
= Net Profit		$2,240		$980

✸ 600 Units @ $11 = $6,600
100 Units @ $10 = $1,000
$7,600

♦ 500 Units @ $8 = $4,000
200 Units @ $9 = $1,800
$5,800

Determining Ending Inventory Under Weighted-Average Method Using Perpetual Inventory Procedure

	Purchased			Sold			Balance		
Date	Units	Unit Cost	Total	Units	Unit Cost	Total	Units	Unit Cost	Total
Beg. Inv.							10	$8.00	$80.00
Mar. 2	10	$8.50	$85				20	8.25 [a]	165.00
Mar. 10				10	$8.25	$82.50	10	8.25	82.50
May 28	20	8.40	168				30	8.35 [b]	250.50
July 14				20	8.35	167.00	10	8.35	83.50
Aug. 12	10	9.00	90				20	8.675 [c]	173.50
Sept. 7				10	8.675	86.75	10	8.675	86.75
Oct. 12	20	8.80	176				30	8.758 [d]	262.75
Nov. 22				20	8.758	175.17*	10	8.758	87.58
Dec. 21	10	9.10	91				20	$8.929 [e]	$178.58

A new unit cost is calculated after each purchase.

The unit cost of sales is the most recently calculated unit cost.

Balance of $178.58 would agree with balance already existing in the merchandise inventory account.

a $165.00 / 20 = $8.25
b $250.50 / 30 = $8.35
c $173.50 / 20 = $8.675
d $262.75 / 30 = $8.758
e $178.58 / 20 = $8.929
* *Rounding difference*

Key questions for the lender or analyst regarding the Current Assets are:

•Is the cash available to the company?

•What is the minimum cash needed?

•What is the age, mix and validity of accounts receivable?

•Are any of the accounts receivable not collectable and what concentrations are there?

•What is the inventory composed of and how does the company maintain a limited supply?

FIXED ASSETS

Fixed assets include equipment, land, buildings and leasehold improvements. Equipment consists of the various pieces of equipment used to produce a product or provide a service. Equipment is valued at cost less depreciation. The amount of depreciation is determined by the age, type and depreciation method used. Depreciation is a non-cash expense recognized on the income statement and deducted from the fixed asset account. Equipment can also be very specialized or used by many industries. Land is valued at cost and does not depreciate. Buildings are listed at cost less depreciation. Depending on the time the land and building is owned, it may represent a source of hidden equity to the lender.

Leasehold improvements are improvements made to buildings rented or leased by the company. They include such items as carpet, lighting and wallpaper. Leasehold improvements represent no collateral value to the lender. Equipment, land and building collateral value will vary by the type, age and specialty of the asset. For example, a dentist office has less collateral value than an office warehouse building, which can be used by many users.

The capacity of the fixed assets and their efficiency is also an issue. If the fixed assets are not used to their maximum capacity, growth may be limited in the future or products possibly not shipped on time. For example, a farmer can only harvest so much acreage with one combine.

Questions to be posed regarding fixed assets include:

Is there excess capacity that could be rented out?

For a manufacturer, are assets being used efficiently and is the plant laid out properly?

Does the company have the ability to repay new term debt?

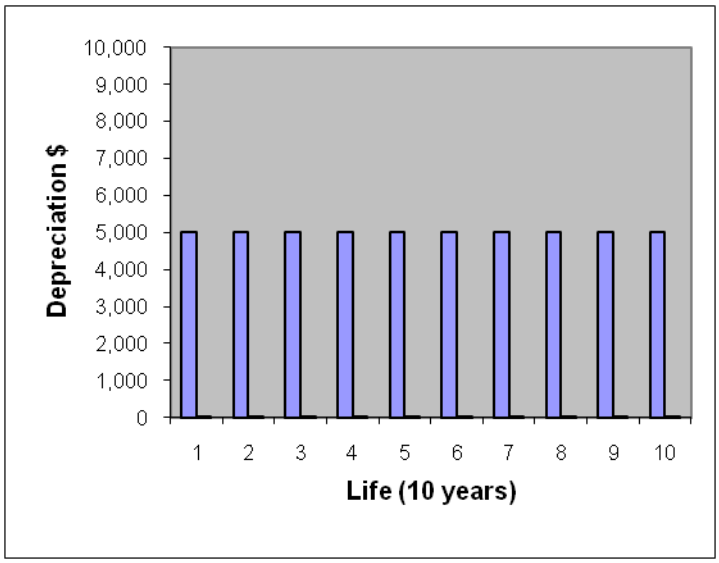
Will the company need to replace this equipment frequently and what is the cost impact?

All these questions are important to the lender because they impact profitability.

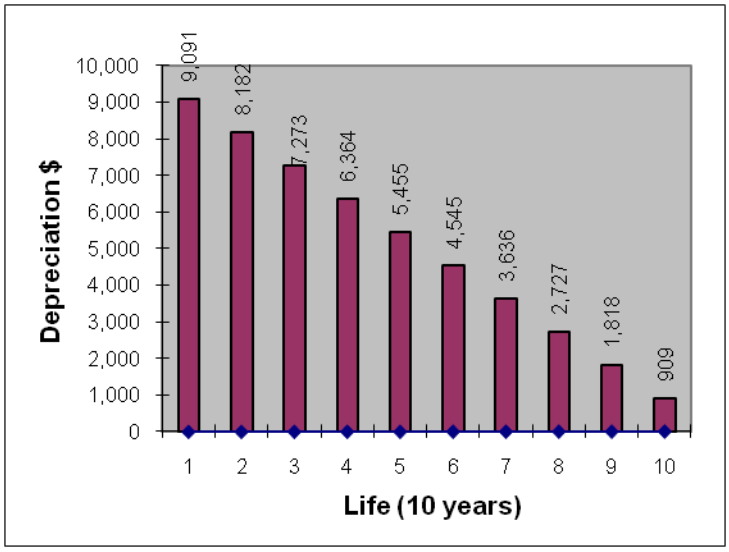
The lender must consider the age and technology of the equipment. If the equipment is old, it may need excessive maintenance causing the company to need a new equipment loan soon. Some equipment, such as telephone and computer equipment, has a short technological life.

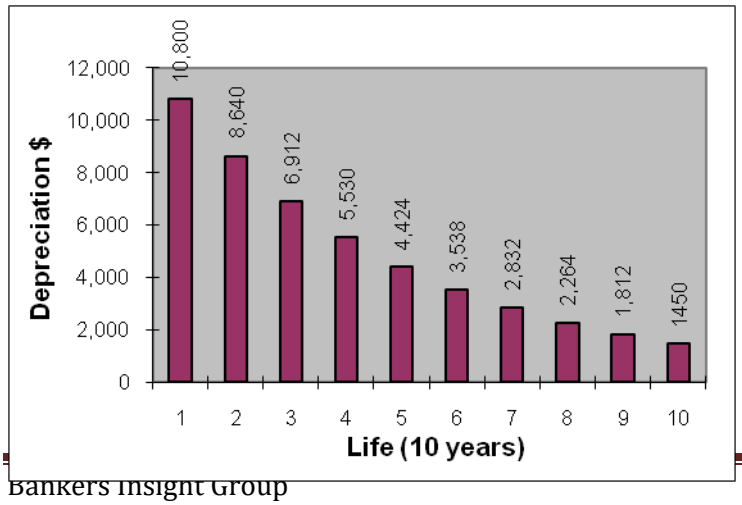
Summary of Depreciation Methods

Method	Base	Calculation
Straight-line	Asset _ Estimated cost salvage value	_____base Number of years of useful life
Units-of-production	Asset _ Estimated cost salvage value	Base x _____units produced this period Estimated total units of production
Sum-of-the-years'-digits	Asset _ Estimated cost salvage value	Base x number of years of useful life remaining___at beginning of accounting period_ SOYD
Double-declining-balance	Asset _ Accumulated cost depreciation	Base x (2 **x** Straight-line rate)



Sum-of-the-Years'-Digits Method





Other Assets

Other assets are intangibles, prepaid assets, goodwill, investments and deposits. Intangibles and goodwill are assets from the sale of a business. An example of an Other Asset that may be purchased and is intangible is a company's name. Prepaid assets are amounts paid in advance for a service to be provided later. Annual insurance payments are an example of prepaid assets. For agricultural businesses, prepaid assets are listed as a current asset. Investments include such things as funds invested in other businesses outside the operating business and long-term investments such as real estate partnerships. Deposits are amounts paid in advance. For example, rental deposits on real estate are paid in advance and returned when the lease is canceled.

Current Liabilities Analysis

Like assets, liabilities are listed in order of their liquidity as well. They are classified as either current or long-term. Current liabilities are those due in less than twelve months. Long-term liabilities are due in over one year. Current liabilities are notes payable to banks, notes payable to others, accounts payable, accrued expenses and current maturities of long-term debt.

NOTES PAYABLE

Notes Payable, generally to banks, are short-term borrowings usually used to finance current assets. The loans may be due to seasonal or one-time orders. Loans over the winter to finance snow blowers are an example of a short-term seasonal note. The loans are due in a single payment at the end of the season. Another example is a company, which receives a one-time order and needs a short-term note to finance the accounts receivable. The loan is due in a single payment and repaid when the receivable is collected. Further information on structuring commercial and agricultural loans will be discussed in the next two modules.

The interest rate, terms and collateral are all issues the lender must consider. If the interest rate floats, the cost of the loan may increase and the profit from the sale of the service or product will decrease. If the note becomes due before the product is sold for cash or before the accounts receivable is collected, will a lender be willing to renew the note?

Notes payable to others are amounts owed to suppliers or others. If notes are owed to suppliers for inventory, the lender should understand why the inventory couldn't be sold quickly under normal terms to pay the supplier. If the note is for an equipment purchase, the lender will want to know why the debt is not structured as a long-term debt. Any liability in this account is unusual and should be thoroughly understood by the lender.

ACCOUNTS PAYABLE

Accounts payable are amounts owed to suppliers for product purchased. The amount is interest-free financing and due usually in 30 days or less. The lender will want to know how many suppliers and the amount of debt owed to each. Also, most suppliers set credit limits. The lender must know if the company is at its limit or if it has the availability to purchase more products. If

the company has only one supplier, there is more risk than if they have many. If the single supplier decides not to sell additional product to the company, they may not be able to stay in business.

ACCRUED EXPENSES

Accrued expenses are amounts recognized as expenses on the income statement but not yet paid. They include accrued interest, wages payable, profit sharing, bonuses, vacation and taxes. The timing of the payment must be known along with the length of time until the company needs to

fund the expense. Taxes accrued for longer than the current period are a warning sign of problems and the lender will want to determine the company's ability to stay in business.

CURRENT PORTION OF LONG-TERM DEBT

Current maturities of long-term debt are the principal portion of the long- term debt due in the coming year. It may include current principal payments on leases and other fixed charges.

When calculating the Debt Coverage Ratio, the denominator in the calculation should be the current portion of long-term debt for the prior year because that will be the amount paid in the current year. r

LONG-TERM DEBT

Long-term bank debt is the amount owed over one year. The interest rate, terms, and collateral are all issues for the lender to consider. The lender also needs to know if there are any loans which have a long-term amortization, but a shorter-term due date. If so, will the loans be renewed when they come due?

Other long-term debt typically is the amount owed to stockholders or officers of the company. In privately held corporations, the owners will frequently take large personal salaries to lower corporate taxes. The owner then lends the excess salary to the company. When the company repays the loan, the amount is not taxed to the owner. In those cases, the debt should be subordinated to the bank. This means the officer or stockholder agrees to be paid after the bank debt is repaid.

The lender's key questions should include:

- Will the company need any long-term debt in the future?
- If so, what are they planning to purchase?
- The company has been leaving profits in the company; will they continue to do so?

NET WORTH

Net Worth is made up of stock issued by the company to its owners, retained earnings and treasury stock. Stock may be listed as common or preferred. Most privately held companies only have common stock. Retained earnings are profits left in the company. Treasury stock is stock repurchased by the company from its stockholders.

INCOME STATEMENT ANALYSIS

The income statement shows the amount of sales/revenues generated and cost/expenses incurred. The bottom line of an income statement indicates whether the entity earned a profit or incurred a loss. Unlike a balance sheet, which captures the value of assets, liabilities and net worth at a specific point in time, the income statement captures activity over a period. The business has generated revenues from sales and paid total expenses. The typical income statement is structured as follows:

Sales

- Cost of Goods Sold

= Gross Profit

- Operating expenses (selling expenses, general and administrative expenses)

= Operating income

- Non-operating expenses (interest expense, other nonrecurring expenses)

+ Non-operating income (interest income, other nonrecurring income)

= Net income before tax

+ Taxes

= Net profit after tax

Sales

Analysis of the income statement starts with sales, which is the revenue a business receives for selling its products or services. Revenues from sales are usually recognized when the product is shipped, or the service is provided. However, the accounting method may vary from industry to industry. For example, a construction company may recognize revenue when the project is complete or use the percentage of completion method. If using the completion method and the project is *25%* completed during the first quarter, then revenues for the first quarter of the project are recognized. If using the completion accounting method, no revenues would be recognized until the project is finished

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An important factor when analyzing revenues is the impact of accrual basis of accounting and cash basis of accounting on revenues. Accrual accounting matches revenues with costs and expenses regardless if cash is collected (from revenue) or spent on costs and expenses. Cash accounting recognizes revenue, costs and expenses when cash is received or paid. Accrual accounting is a better measure of how the borrower has managed assets and how profitable the operating entity is.

A good indicator of a company's performance is the change in sales level over several statements. By comparing revenues over several years, the lender can begin to determine management's decisions over time. It is worthwhile for the lender to note the change in dollars and percentage over time.

Cost of Goods Sold

Cost of goods sold are the **"direct"** costs incurred primarily by manufacturers for producing their product. For wholesalers and retailers, the cost of goods sold is the price paid to purchase finished goods. For service businesses, there is no cost of goods sold as no product is purchased or manufactured for resale. For farms, there are no cost of goods sold on the Schedule F since all cost of production expenses are included as expenses on the Schedule F.

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Cost of goods sold for a manufacturer is calculated as follows:

Beginning inventory

+ Raw Material

+ Labor Costs

+ Manufacturing Overhead

= Cost of goods available for sale

- Work in Process

- Ending Inventory

= Cost of Goods Sold

The cost of goods sold for wholesalers and retailers is calculated as follows:

Beginning inventory

+ Purchases of Finished Products

- Less Ending Inventory

=Cost of Goods Sold

Operating Expenses Analysis

Operating expenses are costs not directly related to the production or making a product or purchasing finished goods. Operating expenses are considered controllable expenses in contrast to cost of goods sold. For example, the business owner may have only two or three supplier choices at similar costs but may control spending expenses by choosing to rent or buy a building, pay employees by commission or flat wages and so forth. For farm operations, operating expenses are related to the production of crop and livestock products.

Operating expenses are usually variable or semi-fixed but may become fixed. For example, if an owner decides to purchase a building, then the mortgage payment becomes a fixed payment. By separating the operating expenses this way, the lender can better determine the total costs a company must cover whether it sells any product or not. Operating expenses for business operations include the following:

- Owner's salary
- Sales salaries
- General salary expenses
- Rent
- Marketing expenses
- Insurance
- Utilities
- Maintenance
- Profit sharing

Operating expenses for farm operations include all expenses involved in producing the crop or livestock product, such as:

- Feed
- Seed
- Fertilizer
- Owner withdrawals
- Repairs
- Depreciation

Certain expenses may get out of hand if not monitored and the lender must be prepared to ask why expenses are changing and what impact the changes have on the company. Again, operating expenses are best expressed in total dollars and as a percentage of sales.

CREDIT ANALYSIS

Credit (Risk) Analysis is one of the most important functions performed by banks. Since interest and fee income from loans represent the largest source of revenue for banks, it is vital that thorough credit analysis be performed before loans are approved and funded. Credit Analysis not only considers the financial condition of prospective borrowers, but also considers non-financial factors which may impact the ability to repay loans.

Proper Credit Analysis starts with analyzing the financial statements followed by reporting the findings in a Credit Memorandum, then recommending a loan structure that provides the borrower what they need while providing the bank with the highest possible chance of being repaid. There is a very thin line between Financial Analysis and Credit Analysis because many of the techniques utilized to make an assessment overlap. However, the biggest difference is that Credit Analysis is appropriate when ***money*** is on the line. It focuses on analyzing financial and non-financial factors with the primary objective of determining the ability of a borrower.

TYPES OF ANALYSIS

- **Common Sizing:** Balance Sheet items as a % of Total Assets

  Income Statement items as a % of Net Sales

- **Percent Change:** Amount change shown as a percentage
- **Ratios:** Mathematical relationship among logically related factors
- **Cash Flow:** Determination of cash generation or usage from items on the Income Statement and from the changes in the Balance Sheet items from one period to another period
- **Comparative:** Matching or contrasting to similar peer or industry data
- **Trend:** Analysis of changes over at least a 3-year period
- **Indexing:** Changes related to a designated base year
- **Forecasting:** Forecasting financial statements to observe the likely results based upon management's assumptions
- **Breakeven:** Determination of the level of Sales required to cover Fixed Costs
- **Working Capital:** Determine ability to meet current debt payments and to measure working assets efficiency
- **Sustainable Growth:** Rate at which a company can grow and maintain a certain level of leverage (Debt to Worth position)

Ratio Analysis

I believe all borrowers should be scrutinized to determine their five vital signs of survival, which are critical for an entity's success. The method I recommend to check those vital signs is referred to as:

LLAMOPCAFLO
(Pronounced: la-mop-ca-flo)

The five vital signs for all economic entities are:

LIQUIDITY

LEVERAGE

ASSET MANAGEMENT

OPERATIONS

CASH FLOW

If you stop and think about it, an entity's financial woes occur in its inability to pay current debts as they come due (Liquidity); or debt on their balance sheet is more than the owners' equity (Leverage); or management is not utilizing their assets (or may have the wrong assets) to generate sufficient sales or to create profits (Asset Management); or the company may lose money as a result of their operations (Operations); or the company may not be able to generate sufficient cash flow to sustain the company or to pay down long-term debt (Cash Flow). If LLAMOPCAFLO is utilized, these issues will easily be uncovered.

Please be aware that LLAMOPCAFLO measures an entity's financial factors only. Non-Financial factors such as the character of management or the condition of the economy are not measured through LLAMOPCAFLO therefore; it is recommended that two elements of the Five C's of Credit should be utilized in conjunction with LLAMOPCAFLO in order to develop a full assessment of an entity. Those two elements are the first and last measurements of the Five C's of credit, namely Character 9of management) and Conditions (of the economic environment. As a result, LLAMOPCAFLO has now been transformed into:

LLAMOPCAFLOCC
(Pronounced: La-Mop-Ca-Flock)

Before LLAMOPCAFLOCC is measured, a simple calculation can be performed to determine if the proportion of Assets, Liabilities and Net Worth are in line with the type of business being analyzed. This Measurement is called Common Sizing the Balance Sheet and Margining the Income Statement

COMMON SIZING

Balance Sheet

Calculation:	Asset Accounts / Total Assets	Liability Accounts / Total Assets	Equity Accounts / Totals Assets

Income Statement

Calculation:	Cost of Goods Sold / Sales	Gross Profit / Sales	Expenses / Sales	Operating/Net Profit / Sales

For the Balance Sheet, Common-Sizing allows the analyst to determine which asset accounts represent the majority of invested cash and where support of those assets is derived (either debt or equity). It also allows the analyst to measure the shift in assets, liabilities and net worth as a percentage of Total Assets.

For the Income Statement, Common-Sizing (or margining) allows the analyst to determine the increase and decrease of income, costs and expenses in relations to the change in sales. It is not unusual for operating expenses to increase when sales increase. This is expected. However, if the increase in expenses as a percent of sales (Operating Expenses divided by Sales) exceeds previous periods percentages, this increase should be vested further.

LIQUIDITY

Liquidity is a measure of the quality and adequacy of current (short-term) assets to meet current (short-term) obligations as they come due.

Current Ratio

Calculation: $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

This ratio gives a general indication of a firm's ability to pay its current obligations. Generally, the higher the Current Ratio, the greater the cushion between current obligations and a firm's ability to pay. A benchmark for this ratio has been 2 to 1. The higher the ratio reflects more current assets available to cover Current Liabilities. However, the composition and quality of Current Assets is a critical factor in the analysis of an individual firm's liquidity.

Quick Ratio

Calculation: $\frac{\text{Cash + Marketable Securities + Accounts Receivable}}{\text{Current Liabilities}}$

Also known as the "Acid Test Ratio", it is a refinement of the Current Ratio and is a more conservative measure of liquidity. The numerator from the Current Ratio is adjusted by omitting inventory (because of obsolesce, slow moving items and encumbered items). The ratio expresses the degree to which a company's Current Liabilities are covered by the most liquid Current Assets. Generally, any value of less than 1 to 1 implies a dependency on inventory or other Current Assets to liquidate short-term debt

Working Capital

Calculation: Current Assets minus Current Liabilities

Working Capital is the amount of Current Assets remaining after the Current Liabilities are paid. This excess cash can be used to repay long term debt, invest in long term assets or pay a dividend. The higher the working capital the stronger the entity.

	2017	2018	2019
Current Ratio	1.98	2.41	2.94
Quick Ratio	0.67	0.71	1.10
Working Capital	1,878,000	2,005,000	2,352,000

Getting Behind the Numbers Hint:

The stronger the ratio trend the more you need to check the quality of the current assets serving as the numerator. Here are some check points:

1. Check to see if there are any restrictions to Marketable Securities or can they be liquidated with ease and within a short period of time

2. Check the quality of Accounts Receivable by examining an aging schedule, dilution rate, issuance of credit memos and credit terms

3. Check the quality of Inventory by reviewing the inventory lists and noting items that do not turnover regularly

The next set of ratios is known as Activity Ratios and is included in with the Liquidity because they determine when these assets are to be converted into cash. In order to know the rational why certain accounts on the balance sheet are matched with certain accounts on Income Statement, the following chart may prove helpful.

I recall when studying accounting in college, one of my college professors stated that the Income Statement causes items on the Balance Sheet to appear. I did not quite grasp the concept back then, but I certainly understand it now because, whatever happens during the operations of a company will end up on the balance sheet as an asset, liability or in the equity section.

Income Statement		**Balance Sheet**
Sales	→→→→→	Accounts Receivable
Cost of Goods Sold	→→→→→	Inventory Accounts Payable
Operating Expenses	→→→→→	Accrued Expenses
Income Tax Expense	→→→→→	Income Tax Payable
Dividend Declared	→→→→→	Dividend Payable

Accounts Receivable Turnover in Days

Calculation: $\frac{\text{Accounts Receivable}}{\text{Net Sales}} \times 365$

This figure expresses the average number of days that Accounts Receivable are outstanding. Generally, the higher the ratio (i.e., the greater number of days outstanding), the greater the probability of delinquencies in Accounts Receivable.

Inventory Turnover Days

Calculation: $\frac{\text{Inventory}}{\text{Cost of Goods Sold}} \times 365$

This figure expresses the average number of days it takes for cash used to purchase raw material or finished goods inventory to be sold to the end user. Generally, the higher the number of Inventory days outstanding, the more the need for cash to carry this inventory.

Accounts Payable Turnover in Days

Calculation: $\frac{\text{Accounts Payable Turnover Rate}}{\text{Cost of Goods Sold}} \times 365$

This figure expresses the average number of days that Accounts Payable are outstanding. Generally, the higher the ratio (i.e., the greater number of days outstanding), the greater the probability of the company being delinquent with its suppliers and other creditors.

	2017	2018	2019
A/R Turnover Days	52	45	49
Inventory Turnover Days	128	135	116
Accounts Payable Turnover Days	53	28	27

ASSET CONVERSION CYCLE

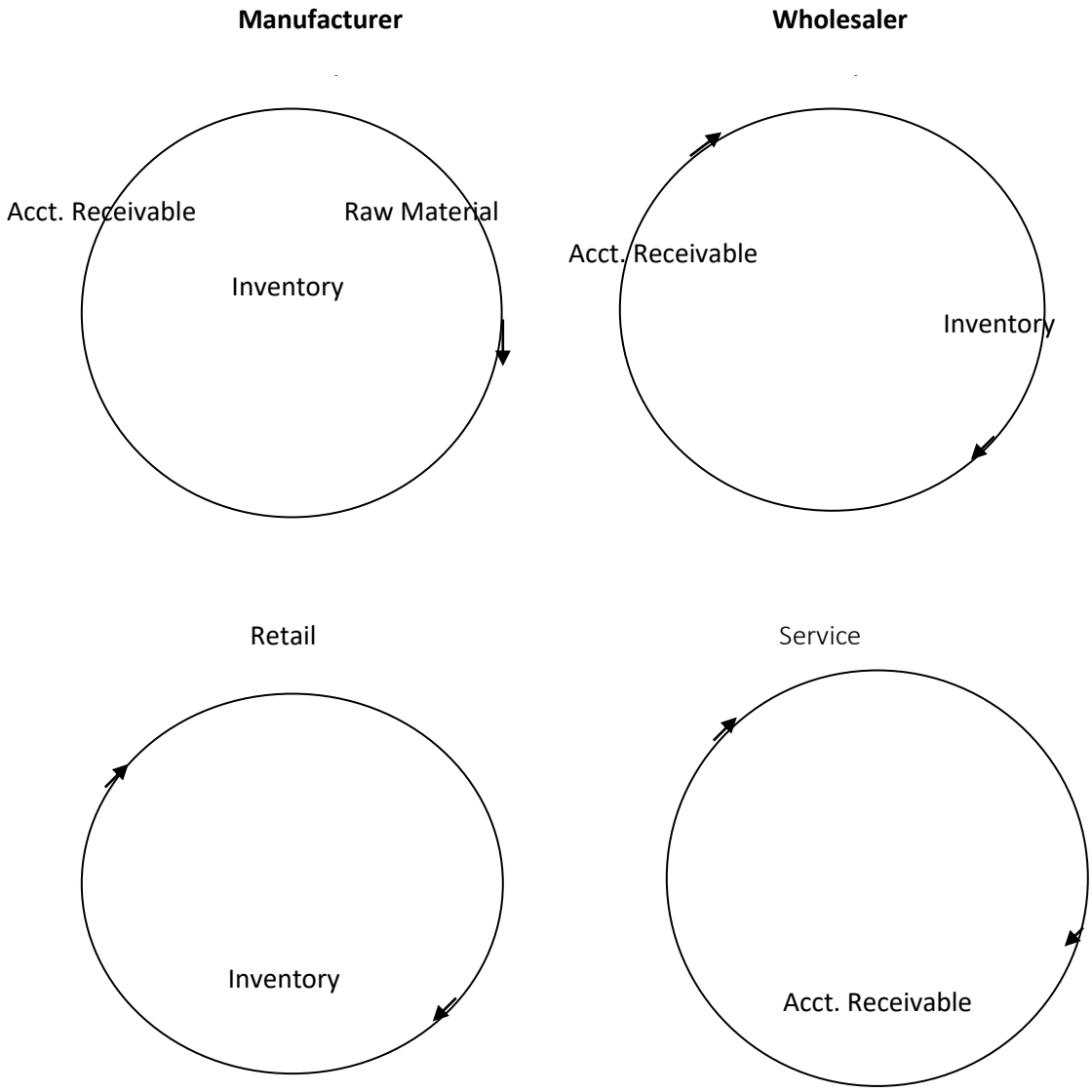
The Asset Conversion Cycle is the process of converting a company's assets into cash. It:

- Provides understanding of borrowing needs
- Differentiates between borrowing purpose and borrowing cause
- Determines the why, when and how much

The Asset Conversion Cycle consists of:

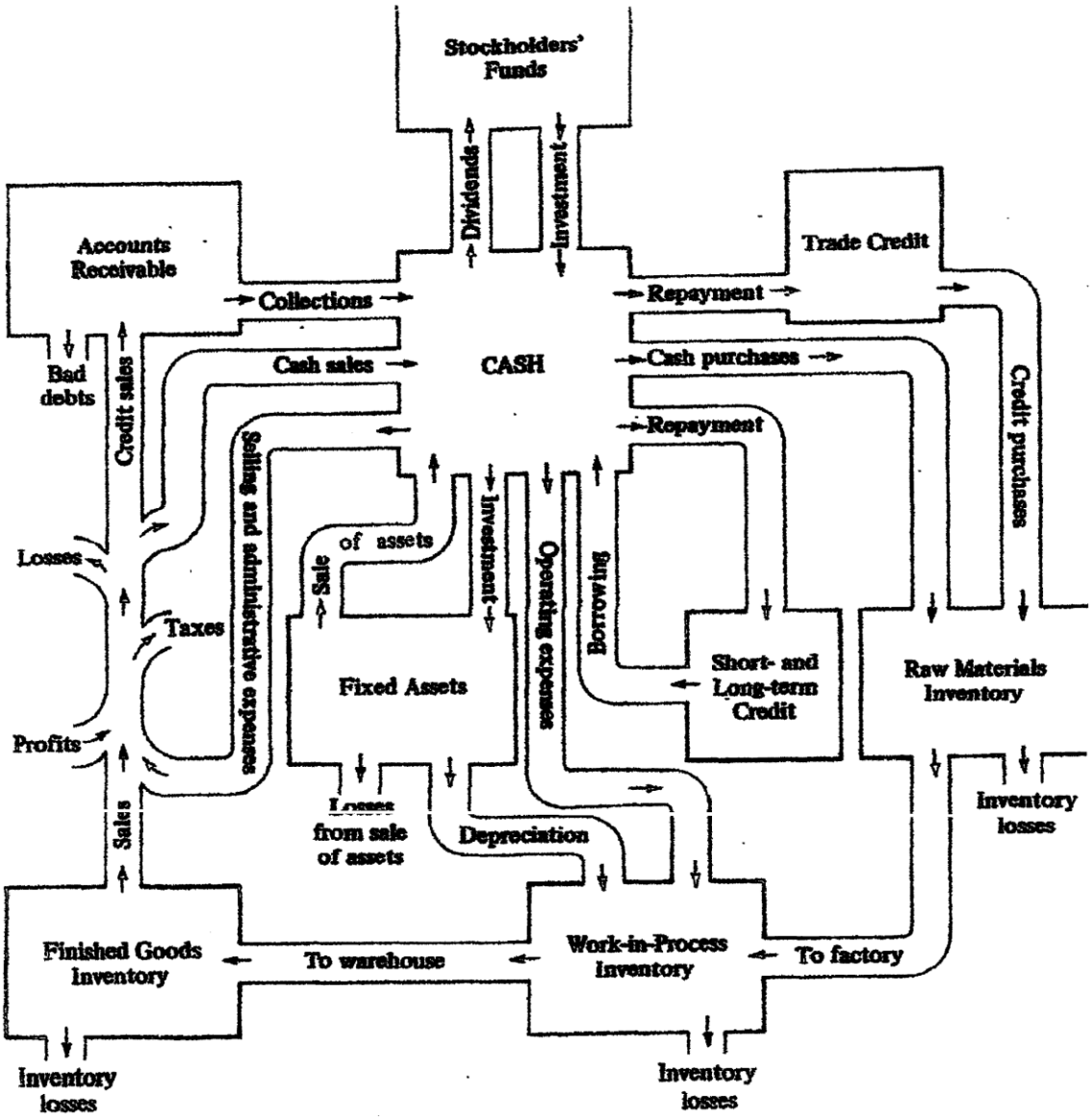
- The Operation Cycle (Usually last for 1 year or less)
- Fixed –Asset Cycle (Covers several years)

Operating Cycle Comparison



Components of Operating Cycle

- Cash
- Purchase of goods of raw materials
- Manufacturing of inventory
- Sale of inventory and creation of account receivable
- Conversion of A/R to cash through collection


Stockholders' Funds
Dividends
Investment
Accounts Receivable
Collections
Trade Credit
Repayment
Bad debts
Credit sales
Cash sales
CASH
Cash purchases
Credit purchases
Repayment
Selling and administrative expenses
Investment
Sale
of assets
Operating expenses
Borrowing
Losses
Taxes
Fixed Assets
Short- and Long-term Credit
Raw Materials Inventory
Profits
Sales
Losses
from sale of assets
Depreciation
Inventory losses
Finished Goods Inventory
To warehouse
Work-in-Process Inventory
To factory
Inventory losses
Inventory losses

LEVERAGE

Leverage refers to the proportion of funds invested in an entity by the creditors in the form of loans and the owners in the form of equity. Highly leverage firms (those with heavy debt in relation to net worth) are more vulnerable to business downturn than those with lower debt to worth positions. While leverage ratios help measure this vulnerability, it does greatly depend on the requirements of industry groups.

Debt to Net Worth

Calculation: $\frac{\text{Total Debt}}{\text{Tangible Net Worth}}$

This ratio indicates the extent to which the company's funds are contributed by creditors compared to the owners. It expresses the degree of protection provided by the owners for the creditors. A low ratio generally indicates greater long-term debt paying ability. A firm with a low debt/worth ratio usually has greater flexibility to borrow in the future. A highly leveraged company has a limited ability to absorb more debt.

Debt to Total Assets

Calculation: $\frac{\text{Total Debt}}{\text{Total Assets}}$

This ratio indicates the extent to which the assets of a company are supported by debt. It should always be below a 1 to 1 mark. The lower the ratio the less creditors have at risk in relations to the investment by owners. It is another way to view leverage by determining if creditors or owners are providing the majority support of the assets.

	2017	2018	2019
Debt to Tangible Net Worth	1.33	1.09	0.93
Debt to Total Assets	51.7	52.2	48.3

ASSET MANAGEMENT (EFFICIENCY) RATIOS

Asset Management or Efficiency Ratios measures management's ability to utilize assets to generate revenue or create value (i.e. generate a profit).

Asset Efficiency or Asset Turnover Ratio

Calculation: $\frac{\text{Total Sales}}{\text{Total Assets}}$

This ratio measures management's ability to use its Total Assets to its best advantage. Since sales are the numerator, it measures the ability of Total Assets to generate sales. A lower ratio from earlier periods indicates that the existing assets owed at the time the ratio was calculated were not as efficient in generating sales as in the past. This ratio is useful when considering a loan request to increase operating and non-operating assets.

Net Fixed Assets Efficiency or Turnover Ratio

Calculation: $\frac{\text{Total Sales}}{\text{Net Fixed Assets}}$

This ratio is most useful for companies in which Fixed Assets represent a major portion of Total Assets. It measures the extent to which Fixed Assets can generate revenue or sales. A falling ratio indicates the existing Net Fixed Assets are not as efficient in generating sales as they were in previous periods. It is most useful when considering a term loan request to acquire equipment or other Fixed Assets.

Fixed Asset Usage Ratio

Calculation: $\frac{\text{Accumulated Depreciation}}{\text{Gross Fixed Assets}}$

This ratio is useful in determining how much usage the Fixed Assets has experienced. It is most useful to lenders considering a request to finance new equipment. If the usage is less than 50%, further justification should be required for new or replacement Fixed Assets.

Fixed Asset Life Ratio

Calculation: $\frac{\text{Net Fixed Assets}}{\text{Depreciation Expense}}$

Similar to the ratio above, this ratio indicates how much life is left in the Fixed Assets by taking the Net Fixed Assets and dividing it by the current year's depreciation expense. This ratio should complement the above ratio. For example, if the Fixed Assets Usage Ratio indicates usage of 90%, you would not expect the Fixed Assets Life Ratio to show 8 years of life left.

	2017	2018	2019
Asset Turnover Ratio	1.86	1.81	2.02
Net Fixed Asset Efficiency Ratio	11.4	9.2	10.1
Fixed Asset Usage Ratio	0.67	0.65	0.66
Net Fixed Asset Life Ratio	5.2 years	6.4 years	4.8 years

OPERATING PERFORMANCE

These ratios indicate management's ability to manage a company towards profitability.

Gross Profit Margin

Calculation: $\frac{\text{Gross Profit}}{\text{Net Sales}}$

This ratio expresses Gross Profit as a percentage of Net Sales. It measures how many dollars out of each dollar of sales remains to cover all operating expenses (those that are not directly related to the costs required to produce the good or service). The higher the margin, the more funds available to cover operating expenses.

Operating Profit Margin

Calculation: $\frac{\text{Operating Profit}}{\text{Net Sales}}$

This ratio expresses Operating Profit as a percentage of Net Sales. It measures how many dollars or cents out of each dollar of sales remains to cover other non-operating expenses including: Interest, Extra-Ordinary Expenses, Taxes, etc. The higher the margin, the more funds available to cover these items.

Net Profit Margin

Calculation: $\frac{\text{Net Profit}}{\text{Net Sales}}$

This ratio expresses Net Profit as a percentage of Net Sales. It measures how many dollars or cents out of each dollar of sales remains as profit. The higher the margin, the more profitable the company.

	2017	2018	2019
Gross Profit Margin	22.8%	25.8%	28.7%
Operating Profit Margin	6.1%	6.0%	9.4%
Net Profit Margin	1.9%	2.6%	5.2%

Return on Stockholders Equity

Calculation: $\frac{\text{Net Income}}{\text{Stockholder's Equity}}$

This ratio expresses the profitability of the company's operations to owner after income taxes. It can be compared to alternative investments available to the owners.

Return on Investment (Assets)

Calculation: $\frac{\text{Net Income}}{\text{Total Assets}}$

This ratio measures the effective utilization of the assets of the company in generating profits or creating value.

	2017	2018	2019
Return on Equity	8.3%	9.8%	20.5%
Return on Assets	3.4%	4.7%	10.6%

HIGHWAY SAFETY EQUIPMENT COMPANY

	2017	2018	2019
LIQUIDITY			
Current Ratio	1.98	2.41	2.96
Quick Ratio	0.67	0.71	1.10
Working Capital	1,878,000	2,005,000	2,453,000
A/R Turnover Rate	7.1	8.1	7.4
A/R Turnover Days	52	45	49
Inventory Turnover Rate	2.9	2.7	3.1
Inventory Turnover Days	128	135	116
Accounts Payable Turnover Rate	6.9	13.0	13.5
Accounts Payable Turnover Days	53	28	27
LEVERAGE			
Debt to Tangible Net Worth	1.33	1.09	0.93
Debt to Total Assets	51.7	52.2	51.7
ASSET MANAGEMENT			
Sales to Asset	1.86	1.81	2.02
Sales to Net Fixed Assets	11.4	9.2	10.1
Accum Dep. / Gross Fixed Asset	0.67	0.65	0.66
Gross Fixed Asset/Deprec. Exp	5.2 years	6.4 years	4.8 years

OPERATIONS

Gross Profit Margin	22.8%	25.8%	28.9%
Operating Profit Margin	6.1%	6.0%	9.4%
Net Profit Margin	1.9%	2.6%	5.2%
Return on Equity	8.3%	9.8%	20.5%
Return on Assets	3.4%	4.7%	10.3%

CASH FLOW

Cash Flow measures the ability of a borrower to meet its financing obligations including Interest Expense, Principal Payments on Long-Term Debt and other fixed charges such as Lease Payments.

Interest Coverage Ratio

Calculation: $\frac{\text{Earning (profit) before Interest, Taxes, Depreciation \& Amortization}}{\text{Annual Interest Expense}}$

This ratio is a measure of a firm's ability to meet interest payments. It measures the number of times all interest paid by the company is covered by earnings before interest charges and taxes. A high ratio may indicate that a borrower would have little difficulty in meeting the interest obligations of a loan. This ratio also serves as an indicator of a firm's capacity to take on additional debt.

$$\frac{500 + 97 + 0 + 196}{97}$$

$$= \quad 8.3 \text{ Times}$$

Cash Flow / Debt Coverage Ratio

Calculation:

	Tradition	UCA
Net Profit	500	500
Plus: Non-Cash Charges	196	196
± Change in Accounts Receivable	0	(282)
± Change in Inventory	0	(187)
± Change in Accounts Payable	0	132
± Change in Accrued Expenses	0	49
= Cash After Operating Cycle	**696**	**408**
Minus: Dividends Declared	0	(243)
± Change in Net Worth	0	0
= Cash After Financing Cost	**696**	**165**
Less: Current Portion of Long-Term Debt	(134)	(134)
= Cash Available for Other Debt	**562**	**31**
± Change in Gross Fixed Assets	(219)	(219)
= Financing Surplus (Requirement)	**343**	**(188)**

The Cash Flow calculation shown above is more comprehensive than the traditional formula of Net Profit plus Depreciation because it considers changes in working capital requirements of companies which either generate or use cash. By using the above calculation, the analyst can see the impact upon cash at various target points as shown by the bold lines in the formula. The definitions of cash at each target point are as follows:

Cash After Operating Cycle:	This is the Cash remaining after considering the operating performance of the entity plus or minus the impact of the change in Net Working Investment (Accounts Receivable plus Inventory minus Accounts Payable plus Accrued Expenses.
Cash After Financing Cost:	This is the Cash remaining after considering the impact of any dividends paid and/or owners' withdrawals from the company.
Cash Available For Other Debt:	This is the Cash available to meet future debt payments. It measures the company's ability to take on additional debt. It is measured before Fixed Assets increases or decreases because changes in Fixed Assets are generally at the discretion of management.
Financing Surplus (Requirement):	This is the Cash Surplus or Requirement the company experienced after considering the major items that impact cash. If a Financing Surplus resulted, the cash was used to pay down existing debt, pay dividends or reinvested in the form of Fixed Assets or Equity. If a Financing Requirement resulted, the company was required to utilize its own cash, borrow, or raise equity to meet all their obligations incurred during the previous year.

CASH FLOW ANALYSIS

"NET PROFITS DON'T REPAY LOANS"

As a banker, you are primarily interested in three things:

- What will the customer do with the loan proceeds?
- How much will your customer need to borrow?
- When will they be able to generate enough cash to repay the loan?

The net profit line on the income statement will not answer either of those questions. Net profits are not cash; they are the result of the accounting techniques and policies used to prepare the statements. Even if all the items on the income statement represented cash, you would not expect to see the company's net profit sitting in the cash account. A growing company should invest some of those profits in additional inventory, fixed assets or accounts receivable.

If net profits do not repay loans, then what does? **Cash, Cash and only Cash** can repay a loan. The cash may come from a variety of sources. Profits are one source. Other sources include the sales of assets, infusion of capital, loan proceeds and extensions of additional credit from suppliers. The lender's challenge is to identify cash inflows and outflows, analyze what has caused them and which ones are most significant for each borrower, and evaluate how future cash flows might differ from past ones.

- Cash can come from:
  - Profits
  - Sales of assets
  - Infusion of capital
  - Loan proceeds
  - Extensions of additional credit from suppliers

  - Our challenge is to identify cash inflows/outflows, analyze what has caused them and which ones are most significant, and how future cash flow may differ from the past.

ACCOUNTING METHOD: CASH BASIS VS. ACCRUAL BASIS

Financial Statements and Tax Returns can be prepared on Cash or an Accrual Basis. The difference in the two accounting methods is vast. Both methods have their advantages and disadvantages. Unfortunately, bankers often do not have a say in type of accounting method the client will present unless while a problem loan situation in which the banker mandates the type of accounting method.

Accrual Basis

Financial statements prepared on an Accrual Basis will recognize all economic events regardless of the collection of cash at the point of sale or the payment of costs and expenses at the time the costs and expenses are incurred. Simply stated, the Accrual Method records all economic transactions that a normal entity will incur on a day-to-day basis. The advantage of the Accrual Method is that the user will see all the accounting transactions in a given period thus providing the opportunity to perform a thorough analysis on the entity. The disadvantage is that the Accrual Method does not indicate the amount of cash generate or used by the entity.

Cash Basis

Financial statements prepared on the Cash Basis will recognize economic events only when cash is collected from sales and paid out for costs and expenses. It is meant to present a more conservative look at the performance on an entity by ignoring transactions that do not generate cash or use cash. Companies that use this method do not want to “Count Their Chickens Before They Hatch”, so to speak.

Since the Cash Basis only reflects cash transactions, there is no need to perform a Cash Flow Analysis because the financial statements are on a Cash Basis already. The disadvantage is that the user of the financial statements will not see all the economic events an entity incurred and as such, a thorough analysis of the entity cannot be performed.

Cash Basis of accounting is often used by law, accounting, engineering, architectural firms and many other similar service-related businesses because collections of amounts due from clients may take longer than other entities that provide a vital product that is critical to the production of goods and services.

Companies utilizing the Cash Basis will not show accrual accounts on their balance sheets such as Accounts Receivable, Accounts Payable and Accrued Expenses and as such, the loan officer should request for an ageing of those accounts so that a thorough analysis can be performed.

CASH BASIS OF ACCOUNTING VERSUS ACCRUAL BASIS OF ACCOUNTING

	Cash Basis	Accrual Basis	Balance Sheet		Statement of Cash Flow
Sales	600,000	1,000,000	Accounts Receivable	(400,000	600,000
Cost of Goods	(400,000)	(700,000)	Accounts Payable	300,000	400,000
Gross Profit	200,000	300,000			200,000
Operating Expenses	(100,000)	(200,000)	Accrued Expenses	100,000	100,000
Operating Income	100,000	100,000			100,000
Taxes	(20,000)	(34,000)	Income Tax Payable	14,000	(20,000)
Net Income	80,000	66,000		14,000	80,000

WHEN IS IT APPROPRIATE TO PERFORM A CASH FLOW ANALYSIS?

The two Principles of Lending addresses when Cash Flow Analysis is required to be

- Principle Number 1: Short Term Loans including, Lines of Credits and Single Payments Notes (with maturity dates of one year or less) are repaid from the Asset Conversion Cycle. The ACC is the time it takes for an entity to invest its cash initially to produce its products and services and for the cash to be returned to the company after selling or providing the services.

- Principle Number 2: Loan Term Loans (with maturity dates of more than one year) are repaid from the ability of the entity to generate Cash Flow

So, the obvious answer is Cash Flow Analysis is required whenever we entertain a loan request that will be repaid in more than one year however, it is recommended that Cash Flow Analysis should always be completed for all loan requests, even for a Line of Credit request. Why is it necessary for a Line of Credit request you ask? Often times, bank customers will misuse their Working Capital Lines of Credit and use it for the acquisition of long term assets or the entity fails to reduce the line upon collection of Accounts Receivable thus creating a permanent layer of outstanding under the Line of Credit that cannot be repaid from the normal Asset Conversion Cycle. Therefore, Cash Flow Analysis is required.

CASH FLOW METHODOLOGIES

Cash Flow can be determined by utilizing one of three methods utilized in the financial services industry. The methods include the Indirect Direct and UCA.

Indirect Method

The Indirect Method is recognized by Generally Accepted Accounting Principle and is often used by preparers of financial statements. The Indirect Method starts by converting Net Income or Loss into cash flow or a cash loss. Flowing is an example of how the Indirect Method is applied into a Statement of Cash Flows

STATEMENT OF CASH FLOWS

Shows the cash inflows and cash outflows from operating activities, investing activities and financing activities.

- OPERATING ACTIVITIES
  Generally, includes the cash effects of transactions and other events that enter into the determination of net income. It is the cash generated or used in producing profits or losses

- INVESTING ACTIVITIES
  Generally, include the cash effects of transactions involving the acquisition or disposal of fixed assets

- FINANCING ACTIVITIES
  Generally, include the cash effects of transactions and other events involving creditors and owners

An example of the Indirect Method is shown on the attached Highway Safety Manufacturing, Inc Statement of Cash Flows

UCA Method

The Uniform Cash Analysis Method was created by bankers for bankers. Although it is not officially recognized by Generally Accepted Accounting Principles, it works for bankers because it rearranges items on the Cash Flow Statements in an order that makes more sense when analyzing the ability of a company to service debt. Even though the UCA Method is not GAAP compliant, it is safe to use because the result of a properly calculated UCA is a balancing to the change in the Cash position from the beginning of the period to the ending of a period. This is the same for the Indirect Method which follows GAAP.

What is Required When Calculating Cash Flow for a Commercial Client?

The calculation of Cash Flow requires the input from the Income Statement and the Balance Sheet. Both statements can display the generation and use of cash. The Income Statement is, within itself, a Statement of Potential Cash Flow as shown below:

• INCOME STATEMENT

– Sources
  • Sales/Revenue
  • Other Income
  • Gain on Sale of Assets –

- Uses
  • Cost of Goods Sold
  • Operating Expenses
  • Interest Expense
  • Income taxes
  • Loss on Sale of Assets and Other Expenses

One major problem committed in calculation Cash Flow properly is that we stop after considering the Income Statement. Why you may ask, because the Traditional and EBITDA Models stops at the Income Statement. Consider the following two calculations:

Traditional Model	EBITDA
Net Income	EBITDA
+ Depreciation and Other Non-Cash Charges	Annual Debt Service
+ Interest	
Available Cash Flow	
/ Annual Debt Service (P & I)	
= Debt Coverage Ratio < 1.25 X	=Debt Coverage Ratio

These models have four major fallacies:

- They completely ignore the input of the balance sheet as all potential sources of cash is derived from the Income Statement Only
- This Model assumes that the Available Cash Flow or EBITDA can and will be collected
- This Model considers Cash Flow generated or used within a period while true Cash Flow analysis must have a beginning period and an ending period
- "We bankers think we are all that", meaning that we believe we are first in line to be repaid from potential Cash Flow while ignoring other demands on that cash such as increasing Inventory (which would be considered if the Balance Sheet is included in the analysis)

In order to calculate Cash Flow properly, the Balance Sheet must be included because:

- Sources and Uses of Cash can be determined from the Balance Sheet also.
- The Balance Sheet records the place where cash was either generated or spent

In order to determine the impact of the Balance Sheet in determining Cash Flow, one must know the Rules of Cash Flow as follows:

RULES OF CASH FLOW BALANCE SHEET

INCREASE	DECREASE	SOURCE	USE
Asset			X
	Asset	X	
Liability		X	
	Liability		X
Net Worth		X	
	Net Worth		X

HIGHWAY SAFETY EQUIPMENT COMPANY, INC. (HSE)

Highway Safety Equipment Company, Inc. Manufacturing Company manufactures construction site caution signs such as those you often see on construction sites on the highways including yellow and orange cones, barrels, flashing lights, manhole covers and skirts to protect workers going into and out of the manholes. HSE is a family own business that was founded 50 years ago when the freeway system in the US began to explode. The company has enjoyed success especially over the past 25 years as construction and repair became necessary to maintain an aging freeway system.

Most of the business HSE obtains is strictly on a bid basis. The company has become very astute in the bidding process by landing a high percentage of jobs sought. Management attributes this to a combination of knowing the company's cost structure, skill level of the workers, understanding of the bidding process and a little luck. Rarely HSE loses money on any job. When a loss occurs, it is due to a higher than usual rate of damage to the construction objects cause by drivers speeding through construction sites. Liability is a real issue for HSE because occasionally, speeders will sue the company sighting the construction objects caused them to crash because of where they are placed. This is a real issue because construction workers may place the construction objects in areas that could cause a problem. Their focus is on protecting themselves as opposed to placing the objects strategically to maximize protection and prove safe for the drivers. HSE manufactures its products in two plants, one in Washington and the other in Illinois.

You are a Commercial Relationship Manager at your bank and you made a call on Highway Safety Equipment Company, Inc. HSE has been on your prospect list for years because it has a reputation of being a well organized and managed organization and has been operating in your community for the past 30 years.

On your recent visit, you met with Jay Johnson, Chief Financial Officer, who surprised you by providing a window of opportunity. It appears the relationship with Bank of Washington , their present bank, is deteriorating to the point where HSE is now open to new possibilities. Of course, being the conservative banker you are, you wonder what caused the souring relationship.

As you receive the financial information, Jay informs you that HSE is contemplating acquiring a sophisticated piece of equipment that will cost $1,000,000. HSE is in the business of manufacturing road side safety equipment such as those orange cones and barrels you see on highway construction sites as well as man hole covers and the skirts that enclose man holes when work is being performed. This new equipment will make HSE more efficient than any of its competitors.

Your assignment is to thoroughly analyze HSE with the information provided and prepare a presentation to your Loan Committee for the $1,000,000 term loan. The annual principal payment on the proposed loan is $225,000. In your analysis, assume all supporting information you would ordinarily request is satisfactory to your bank.

AB & C, P.C.

CERTIFIED PUBLIC ACCOUNTANTS

Independent Auditor's Report

To the Stockholders and Board of Directors
Highway Safety Equipment Company, Inc. ("The Company")

We have audited the accompanying balance sheets of The Company (an S-Corporation) as of December 31, 2019 and 2018, and the related statements of operations and retained earnings and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with general accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying Supplementary Schedules I-III are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly presented in all material respects in relation to the basic financial statements taken as a whole.

AB & C, P.C.
April 10, 2020

Highway Safety Manufacturing, Inc.
Balance Sheet
As of December 31

ASSETS

	2017	%	2018	%	2019	%
CURRENT ASSETS:						
Cash	$ 3,291		$ 107,036		$ 52,039	
Accounts Receivable, Net	1,291,080		1,009,314		1,280,430	
Inventory	2,465,806		2,279,892		2,205,935	
Prepaid Expenses	21,613		16,224		17,076	
Notes Receivable - Current Portion	19,188		11,227		12,464	
Total Current Assets	3,800,978		3,423,693		3,567,944	
PROPERTY, PLANT AND EQUIPMENT						
Land	37,765		37,765		37,765	
Buildings	483,743		492,831		498,436	
Machinery & Equipment	1,108,534		1,117,421		1,216,916	
Autos & Trucks	52,505		52,505		54,569	
Office Furniture & Fixtures	272,410		429,017		490,330	
Patterns & Molds	66,158		105,957		140,668	
Patents	405,064		339,057		355,386	
	2,426,179		2,574,553		2,794,070	
Less Accumulated Depreciation	(1,631,044)		(1,680,054)		(1,852,934)	
Net Property, Plant & Equipment	795,135		894,499		941,136	
OTHER ASSETS:						
Investment - ABA Partnership	71,883		71,818		-0-	
Investment - Rabbi Trust	-0-		-0-		21,456	
Notes Receivable - Shareholders, Net	125,440		106,530		94,066	
Cash Value - Officers' Life Insurance	18,207		19,124		19,592	
Deposits	15,313		37,049		57,974	
Patents Pending	25,899		19,723		21,287	
Total Other Assets	256,742		254,244		214,375	
TOTAL ASSETS	$4,852,855		$ 4,572,436		$ 4,723,455	

The accompanying report and notes to financial statements are integral parts of these statements.

Highway Safety Manufacturing, Inc.
Balance Sheet
As of December 31,

LIABILITIES AND STOCKHOLDERS' EQUITY

	2017	2018	%	2019	%
CURRENT LIABILITIES					
Accounts Payable	$1,008,775	$ 476,569		$ 506,961	
Notes Payable - Bank	455,759	500,000		150,000	
Notes Payable - Current Portion	100,623	132,643		134,140	
Accrued Commissions	59,196	55,287		43,077	
Accrued Salaries & Bonuses	211,030	173,357		305,956	
Accrued Other Liabilities	87,264	79,706		75,442	
Total Current Liabilities	1,922,647	1,417,562		1,215,576	
LONG-TERM LIABILITIES:					
Notes Payable	350,391	372,674		313,379	
Mortgages Payable	598,361	587,951		576,479	
Deferred Compensation	0	140,668		309,267	
Less: Current Portion of Long Term Debt	(100,623)	(132,643)		(134,140)	
Total Long-Term Liabilites	848,129	968,650		1,064,985	
Total Liabilities	2,770,776	2,386,212		2,280,561	
STOCKHOLDERS' EQUITY:					
Common Stock, No Par, 50,000 Shares Authorized, 22,205 Shares Issued and Outstanding	25,000	25,000		25,000	
Paid-In Capital	11,766	11,766		11,766	
Retained Earnings	2,045,313	2,149,458		2,406,128	
Total Stockholders' Equity	2,082,079	2,186,224		2,442,894	
TOTAL LIABILITIES AND EQUITY	$ 4,852,855	$ 4,572,436		$ 4,723,455	

The accompanying report and notes to financial statements are intergral parts of these statements.

Highway Safety Manufacturing, Inc.
Statement of Operations and Retained Earnings
For the Years Ended December 31,

	Amount			Percent of Sales	
	2017	2018	2019	2018	2019
Sales	$ 9,037,606	$ 8,256,972	$ 9,544,948	100.00%	100.00%
Cost of Goods Sold	6,977,156	6,123,634	6,806,593	74.16	71.31
Gross Profit on Sales	2,060,450	2,133,338	2,738,355	25.84	28.69
Operating Expenses:					
Selling Expenses	695,555	778,642	819,194	9.43	8.58
Administrative Exp E	502,015	669,735	801,974	8.11	8.40
Total Oper Exp	1,197,570	1,448,377	1,621,168	17.54	16.98
I Operating Profit (Loss)	862,880	684,961	1,117,187	8.30	11.71
Other Inc/(Exp)	(101,498)	(131,056)	(96,485)	(1.59)	(1.01)
Income Before Deferred Compensation and Profit Sharing	761,382	553,905	1,020,702	6.71	10.70
Bonuses	280,116	175,656	324,305	2.13	3.40
Deferred Compensation		140,668	168,599	1.70	1.77
Profit Sharing Contribution	25,980	22,400	28,051	.27	0.29
Income Before Discontinued Operations	455,286	$ 215,181	499,747		
Loss From Discontinued Operations at Subsidiary	(283,431)	0	0		
NET INCOME	171,855	215,181	499,747	2.61%	5.24%
Beginning Balance Retained Earnings	1,873,458	2,045,313	2,149,458		
Less Distributions to Shareholders	-0-	(111,036)	(243,077)		
Ending Balance Retained Earnings	$2,045,313	$ 2,149,458	$ 2,406,128		

Highway Safety Manufacturing, Inc.
Statement of Cash Flows
For the Years Ended December 31,

	2018	2019
Cash Flows From Operating Activities:		
Net Income	$ 215,181	$ 499,747
Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities:		
Depreciation and Amortization	175,830	234, 182
Gain on Sale of Assets	(3,746)	(15,702)
Increase/Decrease in Accounts Receivable	281,766	(271,116)
Decrease in Inventory	185,915	73,957
Increase/Decrease in Prepaid Expenses	5,389	(852)
Increase/Decrease in Accounts Payable	(532,206)	30,392
Increase/Decrease in Accrued Liabilities	(49,140)	116,125
Increase in Deferred Compensation	140,668	168,599
Net Cash Provided by Operating Activities	419,657	835,332
Cash Flow From Investing Activities:		
Purchase of Equipment	(288,238)	(298,012)
Proceeds from Sale of Assets	16,790	23,207
Collections from Notes and Investments	26,871	83,045
Increase in Investment - Rabbi Trust	-0-	(21,456)
Increase in Other Assets	(16,412)	(22,957)
Net Cash Used By Investing Activities	(260,989)	(236,173)
Cash Flows From Financing Activities:		
Borrowing under Line of Credit	400,000	225,000
Payments on Line of Credit	(355,760)	(575,000)
Proceeds from Notes Payable	120,000	71,820
Payments on Notes Payable	(108,127)	(132,899)
Distributions to Shareholders	(111,036)	(243,077)
Net Cash Used By Financing Activities	(54,923)	(654,156)
Net Decrease/Increase in Cash	103,745	(54,997)
Cash at Beginning of Year	3,291	107,036
Cash at End of Year	$ 107,036	$ 52,039

The accompanying report and notes to financial statements are integral parts of these statements.

SUPPLEMENTARY SCHEDULE I

Schedule of Cost of Goods Sold
For the Years Ended December 31,

	Amount		Percent of Sales	
	2018	2019	2018	2019
Beginning Inventory	$ 2,465,806	$ 2,279,892		
Purchases	3,520,337	4,171,767		
Freight	71,432	104,905		
Less Ending Inventory	(2,279,892)	(2,205,935)		
Cost of Material Sold	3,777,683	4,350,629	45.75	45.58
Direct Labor	580,052	708,436	7.03	7.42
Factory Burden Consumed	1,765,899	1,747,528	21.38	18.31
COST OF GOODS SOLD	$ 6,123,634	$ 6,806,593	74.16	71.31
	Schedule of Factory Burden			
Auto and Travel Expense	$ 4,395	$ 5,008	.0	.05
Depreciation	113,242	138,263	1.3	1.45
Employee Benefits	19,174	26,295	.2	.28
Engineering Expenses	41,336	39,421	.5	.41
Indirect Labor-Supervision	88,671	91,601	2.2	2.01
Labor-Engineering & Research	114,915	123,538	1.3	1.29
Indirect Labor-Other	327,036	407,316	3.9	4.27
Insurance	157,544	110,280	1.9	1.16
Insurance-Employee Health	126,138	102,633	1.5	1.08
Insurance-Employee Life	12,481	9,349	.1	.10
Miscellaneous	50,823	51,028	.6	.53
Patent Expense	51,277	39,426	.6	.41
Repairs and Maintenance	69,367	56,232	.8	.59
Rent	88,480	90,100	1.0	.94
Research and Development	37,841	14,886	.4	.16
Shipping Supplies	20,005	33,756	.2	.35
Shop Supplies and Tools	65,833	71,966	.8	.75
Taxes-Payroll	98,484	104,275	1.1	1.09
Taxes-Other	53,867	46,071	.6	.48
Utilities	61,811	68,340	.7	.72
Warranty Expense	63,179	17,744	.7	.19
TOTAL FACTORY BURDEN	$ 1,765,899	$ 1,747,52	21.3	18.31

See accountant's report.

SUPPLEMENTARY SCHEDULE II

Schedule of Selling Expenses

For the Years Ended December 31,

	Amount		Percent of Sales	
	2018	2019	2018	2019
Advertising	$ 157,624	$ 164,749	1.92%	1.73%
Customer Relations	19,442	19,389	.24	.20
Demonstrator Equipment	31,755	27,383	.38	.29
Depreciation	5,590	8,757	.07	.09
Dues and Subscriptions	578	535	.01	.01
Employee Benefits	3,441	1,421	.04	.02
Insurance	15,104	12,455	.18	.13
Insurance-Employee Health	11,362	8,470	.14	.09
Insurance-Employee Life	1,117	943	.01	.01
Sales Auto Expense	11,344	15,412	.14	.16
Sales Commissions	242,947	246,024	2.94	2.58
Salaries	176,239	167,756	2.13	1.76
Taxes	19,069	15,479	.23	.16
Telephone	16,418	24,752	.20	.26
Travel	32,431	51,581	.39	.53
Miscellaneous	34,181	54,088	.41	.56
TOTAL SELLING EXPENSE	$ 778,642	$ 819,194	9.43%	8.58&

Schedule of Other Income and Expense

Interest Income	$ 13,476	$ 12,190	.16%	.13%
Miscellaneous Income (Expense)	(5,719)	(27,207)	(.07)	(.29)
Reorganization Expense	(18,944)	-0-	(.23)	(.00)
Gain on Sale of Assets	3,746	15,702	.05	.16
Interest Expense	(123,615)	(97,170)	(1.50)	(1.01)
TOTAL OTHER INCOME AND EXPENSE	$ (131,056)	$ (96,485)	(1.59) %	(1.01) %

See accountant's report.

SUPPLEMENTARY SCHEDULE III

Schedule of Administrative Expenses
For the Years Ended December 31,

	Amount		Percent of Sales	
	2018	2019	2018	2019
Auto	$ 4,156	$ 7,322	.05%	.08%
Bad Debts	-0-	19,312	.00	.20
Depreciation	21,852	49,375	.26	.52
Director's Fees	2,000	3,705	.02	.04
Dues and Subscriptions	3,585	3,380	.04	.04
Employee Benefits	6,814	12,403	.08	.13
Insurance	16,759	40,987	.20	.43
Insurance-Employee Health	22,657	17,004	.27	.18
Insurance-Employee Life	4,124	2,339	.05	.02
Miscellaneous	11,053	19,702	.14	.20
Office Repairs and Maintenance	14,055	27,062	.17	.28
Office Supplies and Expense	34,244	40,453	.41	.42
Postage	5,747	6,903	.07	.07
Professional Fees	52,519	34,630	.63	.36
Salaries-Office	195,306	215,431	2.38	2.26
Salaries-Officers	202,548	220,825	2.46	2.31
Taxes-Miscellaneous	1,696	1,585	.02	.02
Taxes-Payroll	28,783	30,327	.35	.32
Taxes-Property	2,172	1,851	.03	.02
Telephone	24,059	27,530	.29	.29
Travel	15,606	19,849	.19	.21
TOTAL ADMINISTRATIVE EXPENSES	$ 669,735	$ 801,975	8.11%	8.40%

See accountant's report.

Notes to Financial Statements

For the Years Ended December 31, 2019 and 2018

Note 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

This summary of significant accounting policies of The Company (the Company) is presented to assist in understanding the Company's financial statements. The financial statements and notes are representations of the Company's management who is responsible for their integrity and objectivity.

Business Activity

The Company was organized in 1967 for the purpose of manufacturing and marketing products to the utility industry in the United States, Canada, and foreign markets. The Company manufactures its products in Littleton, Colorado and markets them through a nationwide distributor and representative network.

Inventories

Inventories are stated at the lower of average cost or market. Inventories as of December 31, 2019 and 2018 are as follows:

	2019	2018
Raw Materials	$ 1,132,959	$ 1,033,360
Work in Process	349,072	329,13
Finished Goods	683,038	899,059
Demonstrators	40,866	18,342
Total Inventory	$ 2,205,935	$ 2,279,892

Prepaid Expenses

Prepaid expenses consist of prepaid insurance and loan fees and are amortized over the contractual period.

Property, Plant & Equipment

Property, Plant and Equipment are stated at cost less accumulated depreciation and are depreciated over the estimated life of each asset. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized. Expenditures for major renewals and betterments that extend the useful lives of assets are capitalized, costs of maintenance and repairs are charged to income as incurred. Depreciation has been provided utilizing both straight-line and accelerated methods.

Depreciation expense for the years ended December 31, 2019 and 2018 is as follows:

	2019	2018	Estimated Useful Life
Buildings and Improvements	$ 13,417	$ 13,516	20-40 Years
Autos and Trucks	8,286	914	5 Years
Machinery and Equipment	104,389	95,576	7-10 Years
Office Furniture and Fixtures	60,066	33,091	5-10 Years
Patents	29,805	29,173	10-17 Years
Patterns and Molds	18,219	3,560	7-10 Years
Total	$ 234,182	$ 175,830	

Fixed assets capitalized as acquired under capital leases consist of equipment with a cost of $555,789 and accumulated depreciation of $392,363.

Note 1 – SUMMARY OF SIGNIFICANT ACCOUNTING PLOICIES (Continued)

Miscellaneous

Research and development expenditures are expensed as incurred.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Income Taxes

The Company elected to be taxed as an S corporation beginning in 1991. Under these provisions, The Company does not pay taxes on its corporate income but passes through that income to its shareholders who are liable for income taxes on their proportionate share. The Company pays an annual franchise tax to the state of California.

Note 2 – ACCOUNTS RECEIVABLE

The Company follows the allowance method of providing for uncollectible accounts receivable. The allowance for doubtful accounts was $5,400 and $8,682 at December 31, 2019, and 2018, respectively. Charges to earnings for the years ended December 31, 2019 and 2018 were $19,312 and $-0-, respectively.

Note 3 – NOTES PAYABLE – SHORT TERM

The Company's short-term debt consists of the following:

	2019	2018
Bank line of credit of $1,000,000 collateralized by accounts receivable, contract rights, intangibles, inventory and equipment of The Company, accruing interest at the bank's prime rate plus one-quarter percent. The note is due in June, 2020. The note is guaranteed by the principal shareholder of The Company	$ 150,000	$ 500,000
Current portion of long-term debt	134,140	132,643
Total Short-Term Debt	$ 284,140	$ 632,643

Note 4 – LONG TERM LIABILITIES

The Company's long-term debt consists of the following:

Capital leases on equipment purchased under non-cancelable lease agreements. The economic substance of the leases is that The Company is financing the acquisition of those assets through the leases. Payable in monthly installments of $4,556 including principal and interest at 8% with the final payment due September, 2023.	$ 136,460	$ 189,082
Note payable to a financial institution collateralized by a pressbrake, payable in monthly installments of $1,476, including interest at 8.58%. The final payment is due February, 2022.	61,877	-0-
Note payable to a financial institution collateralized by accounts receivable, inventory and equipment of the Company, payable in monthly principal installments of $3,229, plus interest at the bank's prime rate plus three-quarters percent. The final payment is due October 1, 2023.	32,292	71,042
Note payable to a financial institution collateralized by computer equipment of The Company payable in 60 monthly principal installments of $2,483 plus interest at the bank's prime rate plus three-quarter's percent. The final payment is due March 1, 2023.	82,750	112,550
Mortgage payable collateralized by the Company's main building at 2500 S. Tejon St., Littleton, CO. The mortgage is payable in monthly installments of 5,691 payable for 20 years with the remaining unpaid balance due on October 4, 2032. The mortgage accrues interest at the rate of 9.75% per annum.	576,479	587,951

Note 4 – LONG TERM LIABILITIES
(Continued)

Amount accrued under a deferred compensation agreement payable to managing officers of The Company under terms of the agreement (see note 8).	309,267	140,668
Subtotal	1,199,125	1,101,293
Less current portion of long-term debt	(134,140)	(132,643)
Total Long-Term Debt	$ 1,064,985	$ 968,650

The following is a schedule of maturities of long-term debt:

2020	134,140
2021	107,856
2022	93,706
2023	33,596
2024	21,562
Thereafter	808,265
	$1,199,125

The following is a schedule of minimum lease payments required under the capital leases:

2020	54,675
2021	54,675
2022	41,006
2024	-0-
	$ 150,356

Note 5 – EMPLOYEES RETIREMENT PLAN AND TRUST

The Company has adopted an employee's profit sharing retirement plan which includes employee contributions through a 401K plan with The Company matching one half of employee contributions up to a maximum of 2% of eligible annual salaries. All employees of The Company are eligible to participate after reaching age 21 and one year of employment. In addition, the plan allows the Board of Directors, at its discretion, to make additional contributions to the plan. The Company's profit sharing contribution for the years ended December 31, 2019, and 2018 was $28,051 and $22,400, respectively.

Note 6 – CORPORATION INCOME TAXES

The Company elected to become an S-corporation beginning in 2000. Therefore, no income taxes are recorded by The Company as the shareholders are liable for income taxes on the corporation's income allocated to them.

Note 7 – RELATED PARTY TRANSACTIONS

The Company had the following related party transactions:

The Company sold a building to a partnership of its principal shareholders in 2014. The partnership assumed the existing mortgage and executed a promissory note to The Company for $173,968 which is payable over a 15 year period with monthly payments of $1,922, including principal and interest at 10.5%. The Company remains contingently liable for the mortgage. The balance on the note was $106,530 and $117,757 as of December 31, 2019, and 2018, respectively. The Company also entered into a lease agreement for this facility for a period of five years with monthly rental payments of $5,833. The Company is responsible for taxes, insurance and maintenance of the property. The lease expires in April, 2024.

Note 8 – DEFERRED COMPENSATION

The Company entered into a deferred compensation agreement during 2018 with two executive management officers to provide for compensation for future retirement. The agreement requires the company to accrue deferred benefits equal to 12% of operating income as defined in the agreement. The accrued benefit each year is limited to no more than 50% of the net income after a provision for taxes. The Company accrued $168,599 and $140,668 under the terms of the agreement for the years ended December 31, 2019 and 2018, respectively. The plan requires funding through a Rabbi Trust of 15% per year of the accrued benefits until fully funded. The benefits normally vest at the rate of 10% per year with varying provisions as specified under the agreement. The benefits are payable on sale of The Company or the employee's termination, death or retirement.

Note 9 – OPERATING LEASES

The Company leases two plant facilities in Colorado for its operations. Lease obligations are as follows:

Raritan Property – Monthly rental is $5,833 with the lease expiring in April, 2024 (See Note 7). The lease has a renewal option at similar terms every two years.

Warehouse Property – Monthly rental is $1,675 with the lease expiring in December, 2024.

The Company is obligated under several operating leases for office and telephone equipment,

The following is a schedule of minimum lease payments required under these operating leases:

2020	96,820
2021	23,333

Note 10 – CASH FLOW INFORMATION

The Company considers all short-term investments with an original maturity of three months or less to be a cash equivalent.

Cash paid for interest and income taxes for the years ended December 31, 2019, and 2018, consists of the following:

	2019	2018
Interest	$ 96,392	$ 123,645
Income Taxes	$ 800	$ 800

LOUISIANA FRESH FISH COMPANY

LOUISANA FRESH FISH COMPANY

Louisiana Fresh Fish Company (Louisiana Fresh Fish) is a wholesaler of fresh and frozen fish and sea foods, including shrimp, crabs, and scallops. Located in New Orleans, Louisiana off the Gulf of Mexico, the company sells to restaurants, grocery stores, farmers market and fish markets in the Midwest, Southeast and the Mid-Atlantic coast.

Louisiana Fresh Fish employs a quick-freezing technique that has become very popular. This technique, which partially accounts for the company's higher than average gross margin, enables grocery stores and fish markets to display and sell their fish as "fresh frozen". That and the consumer trend towards more fish and less red meat have produced strong sales growth for Louisiana Fresh Fish. In 2018, the frozen products comprised 55 percent of sales, up from 40 percent in 2017 and 34 percent in 2016. This technique now enables Louisiana Fresh Fish to sell products to clients as far west as the Rocky Mountains as "fresh fish".

Louisiana Fresh Fish buys from commercial fishing companies, most of which are family-owned fleets of one to three vessels for which Louisiana Fresh Fish is the major customer. Louisiana Fresh Fish makes payments to some fishermen at the dock but has arranged terms of up to 30 days with others, particularly when the product will be frozen and stored before it is shipped.

Bjorn Johansson originally from Hammerfest, Norway started as a commercial fisherman himself and is still known as "Captain". He founded the company in the late 1980s with the assistance of low-rate industrial development financing that was especially targeted to rural, low-wage counties. He is an interesting combination of practical, self-sufficient waterman and sophisticated entrepreneur.

Although the Captain is still the only stockholder, the company now has a board of directors and obtains audited financial statements. A reliable regional auditing firm performs the audit. The audit opinion is "Qualified" as to inventory because the auditors do not make a physical inspection and verification of Louisiana Fresh Fish's fresh or frozen inventory. The Captain meets at least quarterly with his banker, participates in a commercial fishermen's council on current and potential regulation, and has been interviewed about possible food and safety regulations that could affect fish and seafood processing.
The company's fixed assets consist of refrigerated warehouses, processing machinery and equipment used in the fresh frozen procedure and several freezers.

Although the company owns and operates no fishing vessels, it occasionally assists its suppliers with advances for down payments on new trawlers or, more often, repairs to old ones. These advances are reported as other non-current assets when handled by the company. The Captain provides some advances from his personal funds and company funds. The advances are at below-market interest rates, are always backed by a promissory note, and sometimes involve a secondary lien on the vessel. Total outstanding advances made by the company and by the Captain have never exceeded $200,000. Although the collection record is good, this procedure makes his banker nervous. His objective for doing this is to preserve a loyal group of suppliers, and he believes that the benefits outweigh the costs.

The Captain's wife and two sons own a small fleet of refrigerated trucks that are used to pick up fish and deliver the product to nearby customers. Other shipments are made by air. The trucking company, Charleston Shippers, has no customers other than Louisiana Fresh Fish Company.

Louisiana Fresh Fish Company
Balance Sheet
Years Ended December 31
(000)

ASSETS	**12/31/16**	**12/31/17**	**12/31/18**
Cash	195	126	69
Accounts Receivable, Net	475	683	994
Inventory	241	300	743
Prepaid Expenses	19	23	29
Other Current Assets	0	37	38
Total Current Assets	930	1,169	1,873
Gross Fixed Assets	782	856	1,076
Less:Accumulated Depreciation	(224)	(323)	(465)
Net Fixed Assets	558	533	611
Other Non-Current Assets	94	24	32
TOTAL ASSETS	**1,582**	**1,726**	**2,516**
LIABILITIES AND EQUITY			
Notes Payable-Line of Credit	0	25	375
Long-Term Debt-Current Port.	26	23	15
Accounts Payable	138	231	465
Interest Payable	2	2	3
Income Tax Payable	0	2	0
Accured Expenses	70	86	181
Dividends Payable	0	0	30
Other Current Liabilities	10	12	7
Total Current Liabs.	246	381	1,076
Long-Term Debt	302	280	265
Common Stock	150	150	175
Preferred Stock	0	0	0
Paid in Capital	0	0	0
Retain Earnings	884	915	1,000
Total Equity	1,034	1,065	1,175
TOTAL LIAB AND EQUITY	**1,582**	**1,726**	**2,516**

Louisiana Fresh Fish Company
Income Statement
Years Ended December 31
(000)

	12/31/16	12/31/17	12/31/18
Net Sales	5,937	8,481	11,025
Cost of Goods Sold	4,472	6,402	8,240
Gross Profit	**1,465**	**2,079**	**2,785**
Operating Expenses			
Salaries	1,015	1,446	1,859
Utilities	50	70	93
Insurance	21	28	36
Telephone	15	20	27
Other Taxes	5	6	9
Bad Debt Write-off	6	6	9
Advertising	88	132	171
Interest Expense	29	41	54
Delivery Expenses	99	147	195
Depreciation	84	111	154
Total Operating Expenses	1,412	2,007	2,607
Income Before Taxes	**53**	**72**	**178**
Gain (Loss) from Sale of Fixed Asse	0	7	(5)
Extraordinary Income	0	0	19
Income Taxes	20	28	77
Net Income	**33**	**51**	**115**

RATIO WORKSHEET
LOUISIANA FRESH FISH

	2016	2017	2018
Sales Growth%	N/A	42.8%	30.0%
LIQUIDITY			
Current Ratio	3.78	3.07	1.74
Quick Ratio	2.80	2.18	0.99
Working Capital	684	788	797
Receivable Turnover (days)	29.2	29.4	32.9
Inventory Turnover (days)	19.6	17.1	32.9
Payable Turnover (days)	11.1	13.2	20.6
LEVERAGE			
Leverage Ratio (Debt/Worth)	0.52	0.62	1.14
Leverage Ratio (Debt/Assets)	0.34	0.38	0.53
ASSET MANAGEMENT			
Sales-to-Assets	3.78	4.91	4.38
Sales to Net Fixed Assets	10.6	15.6	18.0
Fixed Assets Usage Ratio	29.0%	38.0%	43.0%
Net Fixed Life Ratio			3.97
OPERATIONS			
Gross Profit Margin	24.7%	24.5%	25.3%
Operating Profit Margin	0.9%	0.9%	1.6%
Net Profit Margin	0.6%	0.57%	1.0%
Return on Equity	3.2%	4.8%	9.8%
Return on Assets	2.1%	3.0%	4.6%

1	Sales Revneue (net)			
2	*Accounts Receivable			
3	**Cash collected from sales (1 + 2)**			
4	Cost of goods sold (less noncash COGS)			
5	*Inventory			
6	*Accounts payable			
7	Cash paid for production (Sum 4,5,6)			
8	**Cash from trading activities (3 + 7)**			
9	SG&A expense (less noncash SG&A)			
10	*Prepaid expenses			
11	*Accrued expenses			
12	Cash paid for operating costs (Sum 9,10,11)			
13	**Cash after operations (8 + 12)**			
14	Other Income (expense)			
15	*Other current and noncurrent accounts			
16	Income tax expense			
17	*Deferred income taxes			
18	*Income taxes payable			
19	Taxes/other income (expense)(Sum 14-18)			
20	**Net cash after operations (13 + 19)**			
21	Interest expense			
22	*Interest payable			
23	Dividends declared or owner's withdrawals			
24	*Dividends payable			
25	Paid for dividends and interest (Sum 21-24)			
26	**Cash after financing costs (20 + 25)**			
27	Current portion long-term debt (prior year)			
28	**Cash after debt amortization (26 + 27)**			
29	*Fixed assets			
30	*Investments			
31	*Intangibles			
32	Paid for plant and investments (Sum 29-31)			
33	**Financing surplus (requirement) (28+32)**			
34	*Short-term debt (notes payable)			
35	*Long-term debt			
36	*Preferred stock			
37	*Common stock			
38	*Paid In Capital			
39	Total external financing (Sum 34-38)			
40	**Financing surplus (requirement)(33+39)**			
41	**Proof: *Cash and marketable securities**			

1	Sales Revneue (net)			
2	*Accounts Receivable			
3	**Cash collected from sales (1 + 2)**			
4	Cost of goods sold (less noncash COGS)			
5	*Inventory			
6	*Accounts payable			
7	Cash paid for production (Sum 4,5,6)			
8	**Cash from trading activities (3 + 7)**			
9	SG&A expense (less noncash SG&A)			
10	*Prepaid expenses			
11	*Accrued expenses			
12	Cash paid for operating costs (Sum 9,10,11)			
13	**Cash after operations (8 + 12)**			
14	Other Income (expense)			
15	*Other current and noncurrent accounts			
16	Income tax expense			
17	*Deferred income taxes			
18	*Income taxes payable			
19	Taxes/other income (expense)(Sum 14-18)			
20	**Net cash after operations (13 + 19)**			
21	Interest expense			
22	*Interest payable			
23	Dividends declared or owner's withdrawals			
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25	Paid for dividends and interest (Sum 21-24)			
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31	*Intangibles			
32	Paid for plant and investments (Sum 29-31)			
33	**Financing surplus (requirement) (28+32)**			
34	*Short-term debt (notes payable)			
35	*Long-term debt			
36	*Preferred stock			
37	*Common stock			
38	*Paid In Capital			
39	Total external financing (Sum 34-38)			
40	**Financing surplus (requirement)(33+39)**			
41	**Proof: *Cash and marketable securities**			

	FAST CASH ANALYSIS (000)			
1	Net Profit			
2	Plus: Interest			
3	Plus: Non Cash Charges (Depreciation)			
4	± Change in Accounts Receivable			
5	± Change in Inventory			
6	± Change in Accounts Payable			
7	± Change in Accrued Expenses			
	± Recurring/Non-Recurring Income & Expenses			
8	**Cash After Operating Cycle**			
9	± Change in Net Worth* (Dividends/Withdrawals)			
10	**Cash After Financing Cost**			
11	Less: Current Portion of Long Term Debt			
12	**Cash Available for Other Debt**			
	*Reconcile Net Worth to obtain results			
				86

SPREADING FINANCIAL STATEMENTS

Spreading Financial Statements is one of the initial steps taken by the Credit Analyst. It involves the inputting of information from a customer's or prospect's Balance Sheet and Income Statement into a computer software program or manually onto a spread sheet to facilitate an easier comparison of the information over several periods. When the information has been inserted into a computer software program, key calculations are then produced including Credit and Financial Ratios, Cash Flow Analysis utilizing the Indirect and Uniform Cash Analysis Methods and the Reconciliation of Retained Earnings and Net Worth.

The key to remember in the Spreading Financing Statements is to be consistent in the input process so that the output comparison process can be more accurate. For example, items spread as Cost of Good Sold should be included in that category for each year being analyzed. Otherwise, comparing Margins from year to year will be inaccurate and meaningless. Even if it means re-spreading prior period financial statements, you would be better off by doing this as opposed to reaching the incorrect conclusion about historical performance due to the misplacement of information in the wrong category.

The next key is to provide enough information on the spread financial statements to allow the user to make a proper assessment without overwhelming the user with immaterial and unnecessary data.

A financial spread output of Bulldog-Tech Manufacturing follows. Please review it and discuss the quality of the Spread Sheet and make any recommendations to improve upon the output.

Ranier Manufacturing, Inc.

Balance Sheet	12/31/2008	% Assets	12/31/2009	% Assets	12/31/2010	% Assets
Cash (Bank Funds)	$3,291	0.07%	$107,036	2.34%	$52,039	1.10%
Accounts Receivable	$1,291,080	26.60%	$1,009,314	22.07%	$1,280,430	27.11%
Gross Accounts Receivable	$1,291,080	26.60%	$1,017,996	22.26%	$1,285,830	27.22%
Allowance For Doubtful Accounts	$0	0.00%	($8,682)	-0.19%	($5,400)	-0.11%
Inventory	$2,465,806	50.81%	$2,279,892	49.86%	$2,205,935	46.70%
Raw Materials	$0	0.00%	$1,033,360	22.60%	$1,132,959	23.99%
Work In Process	$0	0.00%	$329,130	7.20%	$349,072	7.39%
Finished Goods	$0	0.00%	$899,059	19.66%	$683,038	14.46%
Demostrators	$0	0.00%	$18,342	0.40%	$40,866	0.87%
Other Current Assets	$40,801	0.84%	$27,451	0.60%	$29,540	0.63%
Prepaid Expenses	$21,613	0.45%	$16,224	0.35%	$17,076	0.36%
Current Port Notes Rec. Stockholders	$19,188	0.40%	$11,227	0.25%	$12,464	0.26%
Total Current Assets	$3,800,978	78.32%	$3,423,693	74.88%	$3,567,944	75.54%
Gross Fixed Assets	$2,426,179	49.99%	$2,574,553	56.31%	$2,794,070	59.15%
Accumulated Depreciation	$1,631,044	33.61%	$1,680,054	36.74%	$1,852,934	39.23%
Net Fixed Assets	$795,135	16.38%	$894,499	19.56%	$941,136	19.92%
Gross Intangible Assets	$0	0.00%	$0	0.00%	$0	0.00%
Accumulated Amortization	$0	0.00%	$0	0.00%	$0	0.00%
Net Intangible Assets	$0	0.00%	$0	0.00%	$0	0.00%
Other Assets	$256,742	5.29%	$254,244	5.56%	$214,375	4.54%
Notes Rec. Stockholders - Long Term	$125,440	2.58%	$106,530	2.33%	$94,066	1.99%
Investments - Partnerships & Trust	$71,883	1.48%	$71,818	1.57%	$21,456	0.45%
Cash Value - Officer's Life Insurance	$18,207	0.38%	$19,124	0.42%	$19,592	0.41%
Deposits	$15,313	0.32%	$37,049	0.81%	$57,974	1.23%
Patents Pending	$25,899	0.53%	$19,723	0.43%	$21,287	0.45%
Total Assets	$4,852,855	100.00%	$4,572,436	100.00%	$4,723,455	100.00%
Accounts Payable	$1,008,775	20.79%	$476,569	10.42%	$506,961	10.73%
Short Term Debt	$455,759	9.39%	$500,000	10.94%	$150,000	3.18%
Notes Payable / Current Portion of Long Term Debt	$100,623	2.07%	$132,643	2.90%	$134,140	2.84%
Other Current Liabilities	$357,490	7.37%	$308,350	6.74%	$424,475	8.99%
Accrued Salaries & Bonuses	$211,030	4.35%	$173,357	3.79%	$305,956	6.48%
Accrued Other Liabilities	$87,264	1.80%	$79,706	1.74%	$75,442	1.60%
Accrued Commissions	$59,196	1.22%	$55,287	1.21%	$43,077	0.91%
Total Current Liabilities	$1,922,647	39.62%	$1,417,562	31.00%	$1,215,576	25.73%
Notes Payable / Senior Debt	$848,129	17.48%	$968,650	21.18%	$1,064,985	22.55%
Notes Payable	$350,391	7.22%	$372,674	8.15%	$313,379	6.63%
Mortgages Payable	$598,361	12.33%	$587,951	12.86%	$576,479	12.20%
Deferred Compensation	$0	0.00%	$140,668	3.08%	$309,267	6.55%
Less: Current Portion of LTD	($100,623)	-2.07%	($132,643)	-2.90%	($134,140)	-2.84%
Notes Payable / Subordinated Debt	$0	0.00%	$0	0.00%	$0	0.00%
Other Long Term Liabilities	$0	0.00%	$0	0.00%	$0	0.00%
Total Long Term Liabilities	$848,129	17.48%	$968,650	21.18%	$1,064,985	22.55%
Total Liabilities	$2,770,776	57.10%	$2,386,212	52.19%	$2,280,561	48.28%
Preferred Stock	$0	0.00%	$0	0.00%	$0	0.00%
Common Stock	$25,000	0.52%	$25,000	0.55%	$25,000	0.53%
Additional Paidin Capital	$11,766	0.24%	$11,766	0.26%	$11,766	0.25%
Other Stock / Equity	$0	0.00%	$0	0.00%	$0	0.00%
Ending Retained Earnings	$2,045,313	42.15%	$2,149,458	47.01%	$2,406,128	50.94%
Total Equity	$2,082,079	42.90%	$2,186,224	47.81%	$2,442,894	51.72%
Total Liabilities + Equity	$4,852,855	100.00%	$4,572,436	100.00%	$4,723,455	100.00%
Total Assets - (Total Liabilities + Equity)	$0	0.00%	$0	0.00%	$0	0.00%
Contingent Liabilities	$0	0.00%	$0	0.00%	$0	0.00%
Comments						

Ranier Manufacturing, Inc.

Income Statement	Audit Accrual Method Jeffery Johnson Dewey Cheetum 12/31/2008	% Sales (Income)	Audit Accrual Method Jeffery Johnson Dewey Cheetum 12/31/2009	% Sales (Income)	Audit Accrual Method Jeffery Johnson Dewey Cheetum 12/31/2010	% Sales (Income)
Sales (Income)	$9,037,606	100.00%	$8,256,972	100.00%	$9,544,948	100.00%
Cost of Sales (COGS)	$6,977,156	77.20%	$6,123,634	74.16%	$6,806,593	71.31%
Depreciation (COGS-related)	$0	0.00%	$113,242	1.37%	$0	0.00%
Gross Profit	$2,060,450	22.80%	$2,133,338	25.84%	$2,738,355	28.69%
Depreciation	$0	0.00%	$27,442	0.33%	$196,395	2.06%
Amortization	$0	0.00%	$0	0.00%	$0	0.00%
Overhead or S,G,& A Expenses	$1,197,570	13.25%	$1,420,935	17.21%	$1,424,773	14.93%
G & A Payroll Expense	$0	0.00%	$574,093	6.95%	$604,012	6.33%
Rent	$0	0.00%	$0	0.00%	$0	0.00%
Advertising	$0	0.00%	$157,624	1.91%	$164,749	1.73%
Profession Fees	$0	0.00%	$52,519	0.64%	$34,630	0.36%
Sales Commission	$0	0.00%	$242,947	2.94%	$246,024	2.58%
Other Operating Income	$0	0.00%	$0	0.00%	$0	0.00%
Other Operating Expenses	$0	0.00%	$0	0.00%	$0	0.00%
Total Operating Expenses	$1,197,570	13.25%	$1,448,377	17.54%	$1,621,168	16.98%
Operating Profit	$862,880	9.55%	$684,961	8.30%	$1,117,187	11.70%
Interest Expense	$0	0.00%	$123,615	1.50%	$97,170	1.02%
Other Income	$0	0.00%	$17,222	0.21%	$27,892	0.29%
Other Expenses	$407,594	4.51%	$363,387	4.40%	$548,162	5.74%
Bonuses	$280,116	3.10%	$175,656	2.13%	$324,305	3.40%
Deferred Compensation	$0	0.00%	$140,668	1.70%	$168,599	1.77%
Profit Sharing Contributions	$25,980	0.29%	$22,400	0.27%	$28,051	0.29%
Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA)	$455,286	5.04%	$479,480	5.81%	$793,812	8.31%
Net Profit Before Taxes	$455,286	5.04%	$215,181	2.61%	$499,747	5.24%
Taxes Paid	$0	0.00%	$0	0.00%	$0	0.00%
Extraordinary Gain	$0	0.00%	$0	0.00%	$0	0.00%
Extraordinary Loss	$283,431	3.14%	$0	0.00%	$0	0.00%
Net Income	$171,855	1.90%	$215,181	2.61%	$499,747	5.24%
Comments						

Ranier Manufacturing, Inc.

Statement of Equity	12/31/2008	% Assets	12/31/2009	% Assets	12/31/2010	% Assets
Preferred Stock	$0	0.00%	$0	0.00%	$0	0.00%
Common Stock	$25,000	0.52%	$25,000	0.55%	$25,000	0.53%
Additional Paid-in Capital	$11,766	0.24%	$11,766	0.26%	$11,766	0.25%
Other Stock / Equity	$0	0.00%	$0	0.00%	$0	0.00%
Total Stock	$36,766	0.76%	$36,766	0.80%	$36,766	0.78%
Beginning Retained Earnings	$1,873,458	38.61%	$2,045,313	44.73%	$2,149,458	45.61%
Net Income	$171,855	3.54%	$215,181	4.71%	$499,747	10.58%
Dividends Paid / Withdrawals	$0	0.00%	$111,036	2.43%	$243,077	5.15%
Other Changes to Retained Earnings	$0	0.00%	$0	0.00%	$0	0.00%
Unexplained Changes to Retained Earnings	$0	0.00%	$0	0.00%	$0	0.00%
Ending Retained Earnings	$2,045,313	42.15%	$2,149,458	47.01%	$2,406,128	50.94%
Ending Equity as Calculated Above	$2,082,079	42.90%	$2,186,224	47.81%	$2,442,894	51.72%
Actual Equity from Balance Sheet	$2,082,079	42.90%	$2,186,224	47.81%	$2,442,894	51.72%
Difference (Unexplained Change in Equity)	$0	0.00%	$0	0.00%	$0	0.00%
Comments						

Ranier Manufacturing, Inc.

UCA Cash Flow Statement	12/31/2009	12/31/2010
Sales (Income)	$8,256,972	$9,544,948
Decrease (Increase) in Accounts Receivable	$281,766	($271,116)
Cash Collected from Sales	$8,538,738	$9,273,832
Cost of Sales (COGS)	($6,123,634)	($6,806,593)
Decrease (Increase) in Inventory	$185,914	$73,957
Increase (Decrease) in Accounts Payable	($532,206)	$30,392
Cash Paid to Suppliers	($6,469,926)	($6,702,244)
Cash from Trading Activities	$2,068,812	$2,571,588
Overhead or S,G,&A Expenses	($1,420,935)	($1,424,773)
Other Operating Expenses	$0	$0
Other Operating Income	$0	$0
Decrease (Increase) in Other Current Assets	$13,350	($2,089)
Increase (Decrease) in Other Current Liabilities	($49,140)	$116,125
Cash Paid for Operating Costs	($1,456,725)	($1,310,737)
Cash after Operations	$612,087	$1,260,851
Other Income	$17,222	$27,892
Other Expenses	($363,387)	($548,162)
Taxes Paid	$0	$0
Other Income (Expense) and Taxes Paid	($346,165)	($520,270)
Net Cash after Operations	$265,922	$740,581
Dividends Paid / Withdrawals	($111,036)	($243,077)
Interest Expense	($123,615)	($97,170)
Cash Paid for Dividends and Interest	($234,651)	($340,247)
Net Cash Income	$31,271	$400,334
Current Portion Long Term Debt	($100,623)	($132,643)
Cash after Debt Amortization	($69,352)	$267,691
Decrease (Increase) in Gross Fixed Assets	($148,374)	($219,517)
Increase (Decrease) in Accumulated Depreciation	$49,010	$172,880
Depreciation Expense	($27,442)	($196,395)
Change in Net Fixed Assets	($126,806)	($243,032)
Decrease (Increase) in Intangible Assets	$0	$0
Decrease (Increase) in Other Assets	$2,498	$39,869
Change in Investments	$2,498	$39,869
Cash Paid for Plant and Investments	($124,308)	($203,163)
Extraordinary Gain	$0	$0
Extraordinary Loss	$0	$0
Extraordinary and Non-Cash Items	$0	$0
Financing Surplus (Requirements)	($193,660)	$64,528
Increase (Decrease) in Short Term Debt	$44,241	($350,000)
Increase (Decrease) in Long Term Liabilities	$253,164	$230,475
Increase (Decrease) in Preferred Stock	$0	$0
Increase (Decrease) in Common Stock	$0	$0
Increase (Decrease) in Additional Paid-in Capital	$0	$0
Increase (Decrease) in Other Stock	$0	$0
Other Changes to Retained Earnings	$0	$0
Unexplained Changes to Retained Earnings	$0	$0
Total External Financing	$297,405	($119,525)
Cash after Financing	$103,745	($54,997)
Total Change in Cash & Equivalents	$103,745	($54,997)
Beginning Cash & Equivalents	$3,291	$107,036
Ending Cash & Equivalents	$107,036	$52,039
Unexplained Change in Cash on Balance Sheet	$0	$0
Comments		