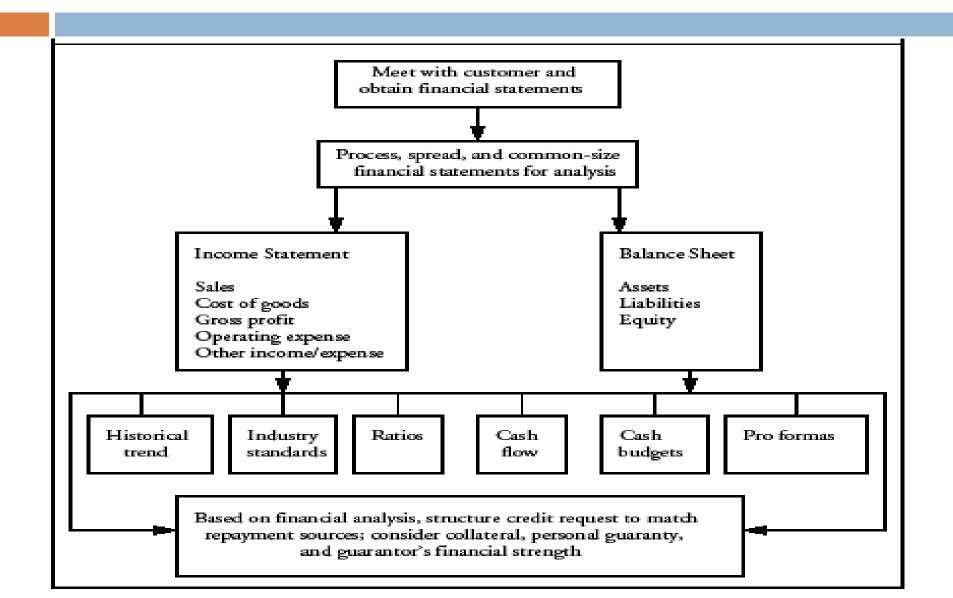
FINANCIAL STATEMENTS ANALYSIS

Financial Statement Analysis

In a financial analysis, the financial statements of the business do the "talking." By knowing what questions to ask and how to "listen" and interpret the answers, a business banker can pinpoint a business' strengths, weaknesses and critical issues.

- Financial statement analysis is a systematic examination and interpretation of the past performance of a business in order to predict future profitability and capacity of the business to repay.
- It helps the business banker decide whether a loan should be made, determine possible terms and conditions, and identify the monitoring needed until the loan is repaid.
- It focuses on the company's past, current, and projected financial performance as reflected in its financial statements, rather than on its management style or credit history.

Financial Analysis Process



Financial Analysis process

- Obtaining Statements
 - Income Statements and Balance Sheets for most recent three years
 - Interim Statements for the current year
 - Projections and Cash Budget to cover the Loan Period
 - Income Tax Return
- Processing Statements
 - Assure the dates of all statements
 - Assure weather they are audited
 - Assure the Projections, interim Statements and Cash Budget are signed by authorized person/s
 - Prepare the Spreadsheets.
- Technical Analysis
 - Common Sizing
 - Trend Analysis
 - Comparative Analysis
- Interpretive Analysis
 - Continuity Analysis
 - Determining whether a firm likely will remain in business in its present form
 - Written Analysis
 - Write not only what happened but why something happened and its implication.
 - Avoid using 'Elevator Language'

INCOME STATEMENT ANALYSIS

Income Statement Structure

Account lines		Amount	Percent of sales
Part 1	Gross sales	\$	%
	- discounts, allowances and returns	\$	%
	= net sales	\$	%
	- cost of goods sold	\$	%
	= gross profit	\$	%
Part 2	- operating expenses	\$	%
	= operating profit	\$	%
	+ other income	\$	%
	- other expenses	\$	%
	- interest expense	\$	%
	= net profit before taxes	\$	%
	- taxes	\$	%
	= net profit after taxes	\$	%

Sales and Cost of Goods Sold Analysis

Many income statements start with net sales and do not show gross sales and deductions to get to net sales. An exception to this tendency is manufacturers. In any event, a lender should inquire about discounts, returns and allowances, if they are not shown on the income statement.

<u>Sales COGS</u> Comparison

Net sales

- Assure income is not overstated.
- Sales Volumes and Price Trends. Reasons for an increase or decrease in revenue to be analyzed.
- Sales Mix. Market segments (viz. by customer, by regional area, by product line or industry grouping etc.) with revenue of at least 10% of total revenue to be analyzed.
- Backlog Orders
- Large non-recurring sales
- Sales on extended terms or to marginal customers

Sales and Cost of Goods Sold Analysis

From the lender's point of view, revenue and expense recognition are of concern because of timing differences between cash receipts or payments and the appearance or recognition of revenue or expense on the profit and loss account.

- Method of accounting for revenue and expenses
 - Income Recognition
 - At the time of sale
 - At the time of cash collection
 - As a percentage of the work completed under a contract
 - At completion of a contract.
 - Expense Recognition
 - At The Time Of Income Recognition
 - Immediate Recognition
 - Rational Allocation

Cash at the time of sales is of highest quality sales. All other methods have some risks.

- Make sure
 - When does a transaction generate cash, regardless of when revenue has been recognized?
 - Can we rely on recognized revenue as an accurate indication of the amount of cash that will ultimately be collected?

Sales and Cost of Goods Sold Analysis

Cost of goods sold is the amount expensed to the income statement for the purchase and production of goods sold.

A manufacturer has three types of inventory: raw material, work-in-process, and finished goods. The COGS is the total of the costs directly related to the manufacturing and purchase of goods, plus any work-in-process inventory, less finished goods inventory.

A wholesaler, retailer, or construction business buys products from one party and sells to another or uses it to construct something. Agricultural and service companies may not have significant costs of goods sold to calculate.

Income COGS Comparison.docx

Analyzing Cost of Goods sold:

- Inventory valuation
 - LIFO
 - FIFO
 - Weighted Average Method

In periods of rising costs, FIFO will produce lower cost of goods sold, higher closing stock and higher profit.

In periods of rising costs, LIFO results in lower stock valuations, higher cost of goods sold and thus lower reported profits than FIFO.

Check if Inventory Valuation method has been changed.

- Product costs
- Supplier relationships.
- Gross Margin
 - Check for sharp changes. Deteriorating margins indicate purchasing difficulties, manufacturing, or service inefficiencies, pricing issues, or inventory accumulation.

Operating Expenses and Net Profit Analysis

Other than the costs incurred in purchasing inventory and direct manufacturing expenses, operating expenses are those incurred by a business in the normal course of conducting its operations.

- Determine whether any costs are excessive
- Identify trends over time by comparing changes in sales to changes in expenses
- Compare with Industry
- Check for any changes in Method of Depreciation
- Seek Explanation

Operating Expenses and Net Profit Analysis

Income and expenses that occur outside the normal business operations are listed in the other income and other expense accounts on the income statement. Other income and other expenses also may be referred to as extraordinary recurring and nonrecurring income or expense.

Possible sources of other income are gains on the sale of fixed assets, plus interest income, dividend income, and rental income from leasing excess facilities and equipment to other parties. Other expenses include losses on the sale of fixed assets, losses on the sale of investments or discontinued operations, and interest expense.

- Check for the impact on Net Profit of any nonrecurring income or expense.
- Check for the correctness of Interest Expenses
- Explanation as to why Asset was sold, if there is any loss or profit on sale of fixed asset is reported.
- For reported interest income, check for the whereabouts of the fund.
- Rental income may mean Business has excess space/capacity

Case Study on Income Statement.docx

Suggested results of case study on income statement.docx

Thank you

BALANCE SHEET ANALYSIS

Balance Sheet

A balance sheet, also known as a statement of financial condition, is like a digital photograph of a point-in-time and shows a summary of a company's or individual's assets, liabilities and equity on a given day.

Balance Sheet Equation

Asset – Liabilities = Equity

- Analysis of balance sheet entails
 - ASSET Analysis: This term covers the analysis of the quality and liquidity of assets (ease of conversion to cash) and the asset mix (relative investments in stock, fixed assets, and so on).
 - LIABILITY Analysis: This term covers the analysis of the company's record of matching liabilities to the asset conversion cycle. Are long term assets funded with long term financing?
 - EQUITY Analysis: retention, drawings, cushion available etc.
 - Start with the Trend Analysis first and prepare your 'why' questions.

A balance sheet lists assets first, in order of liquidity, followed by liabilities listed in order of payment priority, and then equity (net worth).

Assets are anything a business owns that has commercial, exchange, or monetary value.

Businesses usually carry the assets at cost, unless fair market value is lower.

Assets may be property or claims against others (accounts receivable).

Assets may be tangible (physical in character) such as land, buildings and equipment, or intangible such as goodwill, copyrights, and patents.

Cash

- Where is it deposited?
- Try to figure out the average balance.
- Is any of it restricted i e, pledged to another lender or available only for specific purposes such as liquidation of deferred liabilities or purchase of fixed assets?
- Is any of the cash in foreign currencies and therefore subject to fluctuations in value relative to rupees
- Is the cash sufficient, insufficient or in excess for business operation?

To be listed as a current asset, the intent must be to sell or to cash in the marketable security as it matures in the coming year and use the proceeds in operations.

Marketable Securities

- Are they truly marketable i.e., convertible to cash at short notice? Are any of them restricted or pledged to another lender? Are they long term investments that should be more appropriately regarded as non current assets?
- What is the value of these securities? (They may be carried at cost, but market value should be determined if a thorough analysis of this account is required.)
- What types of securities are included in this category? Are there any low grade securities?
- Do these securities really represent a temporary and short term investment of surplus cash? Does the company truly have excess funds for investment? Is the company borrowing money from the bank to carry the securities?
- Are the securities subject to decline in value due to trading or interest rate risk?

Accounts
Receivables or
Trade Debtors
are a result of
Credit Sales

Analysis of Receivable report.docx

Accounts Receivables

- Is the growth of Accounts Receivable consistent with sales growth?
- What is the breakdown of debtors according to age?
- What portion of the debtors is considered uncollectible? Is the provision for estimated bad debts adequate to absorb bad debt losses?
- Are they highly concentrated among a limited number of borrowers or in a small geographical area?
- What is the company's experience with bad debt losses and recoveries?
- Are any debtors already pledged to creditors other than your bank?

Inventory consists of merchandise purchased for resale, or finished goods manufactured and held for sale, together with related raw materials and work-in-process.

Inventory

- Whether inventory has moved in the same direction as trade payables?
- What method does the company use in valuing its inventory?
- What is the breakdown of stock into its components? What is the general character of the stock? Is it subject to fashion or technological obsolescence? Is it perishable? Does it have specialized or general uses?
- Is it insured against fire and other hazards?
- Is it pledged to other creditors?
- If taken as security, can an interest be perfected?

Dues from
Affiliates,
Shareholders,
Officers; and
prepaid expenses
may not bring in
any value in
liquidation and
therefore may be
treated as Long
Term Assets.

Amounts due from affiliates

- Do these amounts from associated or subsidiary companies really qualify as current i.e., subject to regular liquidation in the short run?
- Are they restricted to trade transactions, or are they related to advances made for longer term purposes (such as loans for working capital)?
- Are they collectible in case of liquidation?
- Amounts due from employees
 - What circumstances created these debts?
 - When will they be repaid?
 - Do they make up a significant proportion of current assets?
- Prepaid expenses
 - These represent disbursements already made, but benefits will be enjoyed in the future. As it will not convert into cash in the course of operations, the account is often reclassified as non current.

Fixed assets—
items of a longterm nature
required to operate
a business—are
not expected to
convert to cash
within 12 months
or the normal
operating cycle of
a business.

Depending on the type of business, the size of the fixed assets can vary significantly.

Fixed Assets

- What are the values of the different components of fixed assets?
- If market valuations are provided, who did the assessments, and how reliable are they?
- Is a portion of the company's fixed assets already pledged as security?
- What would be the value of fixed assets in case of liquidation and who would be the first and second in line for the proceeds?
- Is any portion of Fixed Asset not being used in the ordinary operation?
- What useful life of the plant remains?
- Are the machines efficient enough to compete?
- Is their any revaluation reflected?
- If FA is leasehold improvement, Collateral value may be down.
 1/22/2018

Assets with no physical existence are reported as intangibles.

Long Term Investment

- What circumstances gave rise to these investments?
- How liquid are they?
- Would they have any realizable value in case of liquidation?

Intangible Assets

■ The value is subtracted from total assets and net worth in order to arrive at TNW. This provides a more conservative basis to judge the value of a borrower's assets.

Deferred Assets

This has the same characteristics as prepaid exp. and intangibles. The value could be deducted from total assets and net worth for the sake of conservatism.

Current liabilities are amounts due for repayment within 12 months. They are usually repaid with cash generated from converting current assets during the normal operating cycle of the business.

Current liabilities indicate a company's short-term ability to finance operations.

- In analyzing any liability, a business banker determines the following:
 - To whom the money is owed
 - Reason for borrowing or obligation
 - Repayment terms
 - Any assets pledged as collateral
 - Any debt agreements in place that may restrict the business

Overdraft / Short Term Debt

- How many are there and to whom are they payable?
- Is a more detailed breakdown available?
 - Secured vs. Unsecured
 - Amounts Payable to Your Banks vs. Other Banks
 - Amounts Payable To Shareholders vs. Other Insiders
- What are their terms, rates, and maturities?
- Does the borrower intend to renew any of these debts?
- Are proceeds of the loan you are now processing intended to pay off any of these debts?
- Is there a possibility that these funds have been used to finance long term assets?

Current Portion Of Long Term Debt

- Does this account accurately include all such obligations? (Occasionally you may run across a balance sheet that neglects to segregate the current portion of long term debt. This practice will have the effect of understanding current liabilities.
- Debt financed with balloon or bullet maturities faces the possibility that in future years current maturities might increase substantially. The lender must determine whether future earnings can repay balloon installments.

Also referred to as account payables, trade payables, or simply payables, trade creditors are amounts owed to vendors and suppliers for delivered products or services used in normal operations, and other bills that must be paid in one year or less.

For many businesses, trade creditors, which represent an ongoing debt obligation, are a crucial, noninterest-bearing source of financing.

Trade Creditors

- Do these amounts accurately represent trade liabilities? (any other amounts should be shown separately if these involve significant amounts)
- Is the customer staying current?
- Will any of the proceeds of the loan you are now processing be used to pay off trade creditors?
- Are the Trade Creditors and inventory Moving in tandem?
- What is the diversity and stability of suppliers? What are the terms?

- Accrued Expenses
 - Can a breakdown be obtained to identify the most significant items in accrued expenses?
- Deferred Liabilities and Unearned Revenues
 - What is the specific nature of these obligations?
 - Will failure to comply with these obligations result in fines or refunds to customers?

Noncurrent or long-term liabilities are amounts due beyond one year. They include long-term debt, bonds and debentures, subordinated debt etc.

Unlike current liabilities, which generally are repaid by the conversion of current assets to cash, long-term liabilities are usually repaid from excess cash generated over a series of operating cycles.

Therefore, an assessment of future profitability accompanies any evaluation of a business's ability to sustain repeated operating cycles to support its long-term obligations.

Long Term Debt

- As the Term is longer, Risk is higher.
- The questions listed under short term loans also apply to long term loans.
- long-term liabilities are evaluated for terms, purposes, interest rates, security (collateral) pledged, and whether current levels supply adequate financing support for fixed assets or permanent working capital levels.
- Additional provisions can include financial covenants and other expectations of the business over the loan term.

Subordinated debt is a liability having a lien against the borrower's assets that is secondary (or junior) to other obligations or a claim for payment, only after holders of the primary (or senior) debt obligations are paid.

The subordinating of collateral results when one lien holder takes a junior position to another lien holder.

Contingent Liabilities are those that are dependent upon some action/omission or occurrence.

Subordinated Obligations

- Does the subordination agreement really provide the bank with solid protection?
- If the debt is from owners of the business, and adequately subordinated, amount may be added to equity when calculating tangible net worth.
- Contingent Liabilities
 - How much is likely to be payable? To whom?
 - Under what conditions will the contingent obligation become an actual liability?
 - Is the liability secured? By what assets?

Equity Analysis

Equity is the claims of the owners, rather than creditors, against the assets of a business. Unlike creditors, business owners must absorb all losses in assets, and their claims are recognized only after all creditor obligations are fulfilled.

Equity also is referred to as net worth.

Equity

- Determine the amount of equity available and how it has changed over time.
- The amount of equity represents a cushion available to creditors when assets are liquidated.
- If there is little or no equity, full repayment of all liabilities is questionable.
- Higher the equity, safer is the Loan
 1/22/2018

Equity Analysis

An intangible asset is an asset that lacks physical substance and is very hard to evaluate.

Examples: Goodwill, Patents, Customer lists, Brand Value, Operating Rights, Copy Rights etc.

When evaluating the equity of a business, intangibles and other assets of limited value should be deducted from the reported total equity (net worth) to obtain tangible net worth.

Tangible Net Worth

- Tangible Net Worth gives a truer picture of the value of the owner's investment in the business.
- Leasehold Improvements and Dues from owners also should be deducted.
- While in most cases intangibles have limited value, it is important to note that some intangibles (such as, patents, customer lists, copyrights, and operating rights) may have significant value in a loan workout situation, especially when the business is still operating. Lenders should always consider including these assets in the bank's collateral package.

Dry Supply BS and Income Statement spread.docx

Exercise on Balance Sheet Analysis.docx

Suggested results on excercise on balance sheet.docx

Thank you

RATIO ANALYSIS

Ratio Analysis

Lenders cannot fully compare the performance of a business against itself or industry standards simply by reviewing actual account line items and results on income statements and balance sheets.

Ratios are used to examine other facets of a business in addition to profitability. How quickly inventory is sold, how rapidly accounts receivable are collected, how efficiently assets are used, and other related questions are explored and analyzed using ratio calculations and interpretation.

- Ratios allow a business banker to examine the relationship between two or more accounts on the financial statement.
- Ratios also permit a business banker to compare the financial performance of different companies of various sizes in the same industry. Where a large company is expected to generate more liquidity (as measured in Rs) than a small company, liquidity ratios place both companies on an equal footing and enable meaningful comparison.
- Finally, ratios help a business banker to begin learning about the management of the business. Management's actions or inaction (whether responding to the competition, industry conditions or the economy) drives the financial statements, which in turn determines the ratios.

Types of Ratios

Liquidity Ratios

Show the ability of a business to meet current obligations and sustain its operations by using cash or converting current assets to cash

Leverage Ratios

Measure the degree of risk borne by the owners of the business versus its creditors

Profitability Ratios

Evaluate a company's ability to realize its operational objectives

Efficiency Ratios

Show how quickly receivables are collected, how quickly inventory is sold, and how many sales dollars are generated by fixed assets and total assets

Coverage Ratios

Measure the extent to which the fixed charges from debt obligations of a business are met or exceeded by the cash flow from operations

Liquidity Ratios

- Current Ratio
 - Current ratio(x) = Current assets / current liabilities
 - The current ratio is used to analyze the financial stability of a business.
 - It offers an approximate measure of a firm's ability to pay its current obligations (represented by current liabilities) on time or within its operating cycle.
 - Generally, the higher the current ratio, the greater the liquidity cushion a business has to meet its current obligations.
 - □ The current ratio, however, does not tell the business banker about the quality of the current assets or the timing of the liabilities.

Current Ratio

- Example and inference
 - Dry Supply's Current ratio(x) for 2017
 - = Current assets / current liabilities = Rs.201/Rs.109 = 1.8x
 - □ Dry Supply's current ratio of 1.8x means that it has Rs.1.80 worth of current assets for every Rs.1.00 of current liabilities. Dry Supply's current assets could shrink approximately 46 percent in value before they no longer could be converted to sufficient cash to pay its short-term creditors. It appears Dry Supply has a good current ratio.
 - However, it does not show if the Rs.1.80 of current assets is cash (favorable), uncollectible accounts receivable (unfavorable) or obsolete inventory (also unfavorable). Neither does the ratio indicate whether the liabilities are due in one day or ten months.

Liquidity Ratios

Quick Ratio

Quick ratio(x) = (Cash + marktble sec. + net accounts receivable)

Current Liabilities

- Also known as the acid test ratio, the quick ratio is a narrower measure of liquidity because it counts only the current assets that can quickly be converted to cash.
- Unlike the current ratio, inventory and other less liquid current assets are excluded from the quick ratio.

Dry Supply's Quick Ratio =
$$22+0+112 = 1.2x$$

109

Quick ratio of 1.2x means that it has Rs.1.20 of liquid current assets for each Rs. of current liabilities. This quick ratio, which is above the 1.0x suggests that the company does not depend on inventory to pay off its short term liabilities. It appears to be good.

Liquidity Ratios

- Working capital (Rs.) = Current assets current liabilities
 - Although working capital is a dollar amount and not stated as a ratio, it is a measure of liquidity.
 - Working capital, calculated as current assets minus current liabilities, reflects a company's net investment in current assets— cash, marketable securities, accounts receivable, and inventory.
 - A company's ability to meet current obligations or to take advantage of business opportunities depends on having an adequate supply of working capital.
 - For a business banker, working capital represents the cushion a business has to work with in repaying short-term debt.

At the end of 20xz, Dry Supply's working capital (in thousands of rupees) was the following:

Working capital = Current assets - current liabilities = Rs.201-Rs.109 = Rs.92

Dry Supply's current assets exceeded its current liabilities by Rs.92,000 at year-end 2017—an amount almost equal to the total level of current liabilities. This represents a fairly large cushion to work with as the business meets its current obligations.

- Financial Leverage measures the degree of risk shouldered by the owners of a business versus its creditors.
- Risk to creditors increases, the higher the financial leverage. Highly leveraged businesses, for example, are generally less equipped to deal with business cycle fluctuations and therefore are more prone to failure.
- Without sufficient equity, a business may be unable to sustain its operations during an economic downturn. Which is risky for a commercial lender. And, if liquidation does occur, creditors potentially have more to lose than owners.
- Financial leverage increases and decreases are often related to fixed asset purchases and repayment of the long-term debt. If a business recently purchased significant fixed assets, the financial leverage may be temporarily higher than the industry. The analytical issue for a business banker is whether the business has sufficient cash flow to repay the debt, which will cause financial leverage to decrease again to acceptable levels.

- Debt to worth, or "leverage" ratio" (x) = Total liabilities/ net worth
 - This ratio is the primary measurement of leverage by most lenders, and is often called the "leverage ratio" or "debt equity ratio"
 - When this ratio exceeds 1.0x, then the risk of the creditors is greater than that of the owners. Leverage levels of up to 2.0x are acceptable in many lending situations; however, the typical debt to equity ratio varies by industry. Some businesses, such as banks, have total liabilities far in excess of their equity.

For Dry Supply for 2017,

Debt to worth ratio (calculated in '000 of rupees) = $\frac{176}{94}$ = 1.9x

With a ratio of 1.9x, it appears that over the short term Dry Supply's creditors are incurring a larger share of the financing risk than its owners. At 2015 this ratio was 3.3x, and at 2016 it was 2.7x for a decreasing trend over the three year-ends as total liabilities remained fairly stable and earnings increased net worth. A key question for a business banker is if this positive trend is expected to continue.

- Other variants
 - Tangible Leverage Ratio(x)
- = Total liabilities/(net worth intangible assets)

Because intangible assets may be of little value in liquidation, lenders often subtract them in order to determine the true net worth of the business.

In some cases, lenders further subtract from net worth other assets of limited value, such as due from officers and employees, receivables from affiliated businesses, and leasehold improvements.

Other variants

Tangible Effective Leverage Ratio(x)

= <u>(Total liabilities – subordinated debt)</u>

(net worth + subordinated debt –intangible assets)

The concepts of unsubordinated liabilities and capital funds are used for this ratio.

Make sure that this treatment is done only for debts subordinated to your bank and under acceptable conditions.

- The yardstick by which all businesses ultimately are measured is their record in making a profit.
- Profitability ratios, also called operating ratios, evaluate a company's ability to realize its objectives.
- Taken together, they give the business banker a good indication of the ability of a business to grow, remain solvent and repay debt.
- Profit ratios are usually expressed as percentages.
 - □ Gross profit margin (%) = Gross profit / net sales
 - Operating profit margin (%) = Operating profit / net sales
 - □ Pretax profit margin (%) = Pretax profit / net sales
 - Net profit margin (%) = Net profit / net sales

Business Sectors and Profit Margins

- Because service businesses and retailers tend to have more costs and expenses in the operating expenses category on the income statement, these types of firms tend to have higher gross profit margins than agricultural businesses, manufacturers, and wholesalers.
- Agricultural businesses, manufacturers, and wholesalers tend to have more expenses within the cost of goods sold category.
- At the operating profit level, wholesalers tend to lag agricultural businesses, manufacturers, and retailers. Service businesses tend to have higher levels of operating profits than all of the other business types.

Dry Supply's Profit Margins

Year	2015	2016	2017
Gross profit margin	27.9%	28.8%	31.3%
Operating profit margin	2.3%	3.0%	5.0%
Pretax profit margin	2.2%	2.8%	4.4%
Net profit margin	1.0%	1.5%	2.5%

- Over the three years shown, Dry Supply improved its gross profit margin, and along with relatively steady operating expense levels, the improvement in gross profit margin resulted in improvement in operating profits margins and net profit margins.
- Increasing net profit margin reflects management's decisions on product pricing, plant efficiency and ability to control overhead expenses.
 1/22/2018

- Return on Assets (ROA) ratio
 - Return on assets ratio (%) = Pretax profit/ total assets
 - The return on assets ratio measures the profitability of a business in relation to its efficiency in using its assets.
 - It reflects management's decisions on credit policies, inventory controls, fixed asset utilization, and profit.
- Dry Supply ROA = 40/270 = 14.8% which is good increase over last two years. Figure would be more meaningful when compared with others in the industry.

- Return on Equity (ROE) ratio
 - □ Return on equity ratio (%) = *Pretax profit | net worth*
 - The return on equity ratio shows the efficiency with which owners' equity or net worth is being used to generate profit. For example, if owners' equity is small relative to total liabilities (resulting in a higher leverage ratio), then a business banker should expect to see a higher return on equity ratio.
 - But, a high return on equity may also indicate an undercapitalized rather than an efficient business, especially if the leverage ratio is fairly high.

Dry Supply's ROE = 40/94 = 42.6%

In 2017, Dry Supply returned about 43 cents for every rupee invested by its owners, compared to about 35 cents in 2015 and 37cents in 2016. This is certainly a good performance by almost any standard, but particularly noteworthy in this case because Dry Supply's debt-to-equity is low.

- Current ratio, quick ratio, and working capital do not address the issue of the timing of debt payment versus the timing of inventory sales and the collection of accounts receivable.
- To determine these timing issues, three ratios, expressed as days, measure management's ability to use company assets efficiently. They compare sales or cost of goods sold to three balance sheet accounts: accounts receivable, inventory, and accounts payable. Or, in other words, how many days (on average) does it take to do the following:
 - Manufacture, hold, and then sell inventory
 - Collect accounts receivable
 - Pay accounts payable (vendors)

These relationships also determine how many times in a year the balance sheet accounts "turnover" by taking a year (365 days) and dividing by the days calculated above.

- Accounts receivable turnover (day)
 - Acc. Rec. turnover (days) = (Net accounts receivable x 365 days) / net sales
 - Sometimes called the accounts receivable collection period or day's accounts receivable ratio, this measurement gives the average number of days it takes for a business to collect credit sales made to its customers.
 - Increasing or 'higher than industry' ratio may indicate delinquency. Aged listing of receivables to be checked. Credit terms and collection practices also to be examined.

Dry Supply's Acc. Rec. Turnover = (117-5)*365/918 = 44.5 days

On average, Dry Supply's accounts receivable were collected in 45 days. With payments received within 44 to 45 days (all three years), Dry Supply's customer base has been consistent in payment and generally pays its bills on time.

- Inventory turnover (days)
 - Inventory turnover ratio (days) = (Inventory x 365 days) / cost of goods sold
 - Sometimes called the inventory holding period ratio or day's inventory ratio, the inventory turnover ratio measures the average length of time inventory is held, including storage time for raw materials or components, time to manufacture or convert the materials, then the shipment and/or storage of finished goods until sold.
 - A low inventory holding period indicates an efficient use of resources and excellent liquidity. Extremely low inventory holding period may indicate under-stocked business.
 - For accurate picture of the actual physical turnover of inventory, cost of goods sold is used in the formula rather than net sales, thus excluding profit and overhead expense.

Dry Supply's Inventory Turnover = 67*365/631= 38.8 days

Ratio shows the company to be managing its inventory consistently (39days for the last two years and a small decrease from 41 days in 2015) and is likely carrying the correct amount of inventory.

- Accounts payable turnover (days)
- Accounts payable turnover ratio (days) = (Accounts payable x 365 days)
 cost of goods sold
- Sometimes called accounts payable payment period ratio or day's payables ratio, it measures how quickly a company pays its trade creditors.
- Over time, a significant increase in this ratio may indicate a cash flow problem, or it may mean an easing of credit terms offered by vendors.
- A decrease in the payment period may indicate that trade credit is being paid early and discounts are being taken, or it may be an indication that suppliers are withdrawing credit or shortening payment terms.

Dry Supply's Accounts Payable Turnover = 31*365/631= 17.9 days

On average, Dry Supply pays trade creditors in 18 days. Again, this figure should be compared to previous years (24 days in 2015 and 25 days 2016). Dry Supply shortened its payment time from 2015 to 2017. At 18 to 25 days, Dry Supply probably is within expected trade terms of 30 days. A business banker will want to determine if this will continue into the future, since this action has an effect on the firm's cash flow.

Sales to total assets

Sales to total assets = Net sales / total assets

- This ratio is not expressed in days but measures how efficiently a business uses its entire base of assets. It measures the rupees of net sales that each rupee of assets produces. The higher the ratio, the more efficient the business.
- However, if the ratio is very high as compared to the industry, the business may have a large percentage of assets comprised of equipment that is getting too old, obsolete, or fully depreciated, and may not be serviceable in the near future.
- If the ratio is too low compared to the industry, the business may have just acquired new fixed assets and may be poised for growth and expansion.

Dry Supply's Sales to total assets ratio = 918/270 = 3.4x

For Dry Supply, the sales-to-total assets ratio is relatively high, because the fixed assets are almost 70 percent depreciated. This might explain the need for equipment financing. At the previous two year-ends, the ratio was3.7x (2015) and 3.6x (2016). This trend shows that slightly fewer sales rupees are being generated for each rupee of assets over the last three years. In other words, the utilization of the entire base of assets—from accounts receivable to inventory to net fixed assets—has not been as efficient, although the relative level of efficiency appears to be good.

- The ability to cover principal and interest payments is of crucial concern to business bankers and other creditors.
- Coverage ratios measure the extent a firm's fixed charges from debt obligations are met or exceeded by the cash flow from its operations.
- In contrast to financial leverage ratios, which assess the bank's margin of comfort in the event of liquidation, coverage ratios indicate the cash flow margin of comfort while the business is a going concern.
- Traditional cash flow coverage, interest coverage, fixed charge coverage, and dividend pay-out are the most common coverage ratios.

- Traditional Cash Flow Coverage
 - Traditional cash flow coverage = (Net profit + depreciation + non cash expenses)/ CMLTD*
 - *CMLTD = Current maturities of long-term debt
 - Sometimes called the gross cash flow coverage ratio, the traditional cash flow coverage ratio compares cash- based net income with principal payments due on debt obligations in the coming year.
 - Cash-based net income is determined by adding depreciation and any other non-cash expenses to net income.

The traditional cash flow coverage ratio cannot be computed for Dry Supply because it does not have any long-term debt over the three-year period.

Interest Coverage

- Interest coverage = (Pretax income + interest expense) / interest expense
- The ratio shows the proportion of a firm's earnings needed to pay interest on its debt.
- This is used when a business has debt that consists of a revolving line of credit and debt servicing means interest payment. This is of little use when there is a term loan.
- A ratio greater than 1.0x is almost mandatory, because a lower ratio indicates the earnings of the business are insufficient to cover its interest expense.

Dry Supply's Interest Coverage = (40+11)/11 = 4.6x

With an interest coverage ratio of 4.6x, Dry Supply's interest expense could increase significantly before the company, at its current level of earnings, would be unable to pay its interest expense from profits. In 2015 this ratio was 4.3 and in 2016 it was 4.7, for a favorable trend over three consecutive years.

Fixed Charge Coverage

- Fixed charge coverage = (Net profit + interest expense + depreciation) / (CMLTD + interest exp.)
- The fixed charge coverage ratio widely known as the Debt Service Coverage ratio shows the proportion of a firm's cash flow available to cover various fixed charges.
- The lower the ratio, the smaller the margin of safety to repay debt and other fixed charges.
- If a firm's fixed charge coverage ratio falls below 1.0x, it is not generating enough cash to repay its fixed obligations and will need additional funding (perhaps borrowed funds) in the coming year to service these obligations.

Dry Supply's Interest Coverage = (23+11+13)/(0+11) = 4.3x

Because Dry Supply does not have any long-term debt, there are no current maturities factored into the calculation above. However, if a business banker where to impute an amortization for the Rs.59,000 of short-term notes payable, the ratio would change. For instance, if the short-term debt had an imputed amortization of roughly five years, then CMLTD would be approximately Rs.12,000 and the ratio would decrease to 2.0x. [Rs.47 / (Rs.12 + Rs.11)].

- Dividend payout ratio
- Dividend payout ratio = Cash dividend paid / net profit
- The dividend payout ratio does not show a coverage, but shows the percentage of net profit a business pays to owners as dividends. These funds are not available for paying fixed obligations, so this ratio usually is calculated along with the coverage ratios.
- For example, if a business had a net profit Rs.50 (in thousands of rupees) the calculation would be the following:

Previous year end retained earning	10
+current year's profit	+ 50
- current year-end retained earnings	-44
= Dividends paid	16

Dividend payout ratio = 16/50 = 32%

Dry Supply has not paid dividends for the three years that we have been analyzing, so the dividend payout ratio is 0 percent. All of the earnings of the business have been retained and are available to cover debt service and fixed obligations, as well as to support growth in current assets and fixed assets.

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Thank you