

The Interpretation of Financial Statements

Balance Sheets: What a company owns & owes

Income Statement: What a Company Earns

This will help you buy your stocks like you choose your groceries & not how you buy your perfume!

Balance sheets in general

only Applicable to Current date

Assets: what the Company has/owns

- + physical Property
 - + Cash (money that the Company holds)
 - + Investments
 - + Money owed to the Company (accounts receivable)
 - + good will * (Intangible, Arbitrary)
- = Total Assets

Liabilities: what the Company owes

- + accounts payable (Debt from operations)
- + Bonds or Notes outstanding (formal Debt)
- + Reserves
- + Capital & Surplus (Equity or ownership interest of stockholders)
money owed to the stockholders by the business.

Capital Surplus or Stockholders Equity

Equity = Total Assets - Total Liabilities

it is on the Liabilities side, since it is money owed to the stockholders, & is used to "balance sheet"

Short Example

Assets:

5000

Liabilities

4000

Capital & Surplus = 1000

$$\begin{aligned} \text{Total Assets} &= \text{Liabilities} \\ &= \text{Liabilities} + \text{Capital & Surplus} \end{aligned}$$

this Really Means

Assets + 5000

Liabilities - 4000

Stockholders + 1000

Equity:

Debits & Credits

Financial statements are all based on 2 concepts

- Debits: Entry which Increases assets
- Credits: Entry which Increases Liabilities (charges)

Since Capital & Surplus are Liabilities \therefore

Entries that increase Capital & Surplus are Credits

Entries that decrease Capital & Surplus are Debits

Business Books are always balanced by a double entry system

Every Debit entry is always accompanied by credit entry \therefore keeping the books balanced.

so that:

$$\text{Total Assets} = \text{Total Liabilities}$$

At the end of the reporting period, operating Income is computed & added as debit or credit to Assets & Liabilities on the balance sheet.

a trial balance is computed without consideration of the operating results.

The total of all credit balances must be equal to the total of all debit balances.

ordinary operations of a business involves
Income & Expense Accounts:

- Sales
- Wages Paid

these Intermediary results are gathered into the

① Surplus Account

- Income Entries are additions to surplus so they are **Liabilities or Credits**
- Expense Entries are deductions from surplus so they appear as **Debit or Asset Counts**

② Trial Balance

Shows all the various amounts as they appear on the books before calculations of profits & losses at the end of the period.

③ Balance Sheet.

assets & liabilities are calculated after the time period has been closed out.

Total Assets & Total Liabilities

"The size of a company may be measured in either total assets or total sales depending on the Industry Sector"

for Investment grade, find Companies with relative Large size.

Capital & Surplus

"The Stockholders Interest on the business."

Capital = money paid in by stockholders
and represented by shares of stock (**Stockholders Equity**)

Surplus = profits not paid out as dividends

Share's par Value = Shows how much **Capital** was paid in for every share by the original subscribers

In Modern Times is better to take both the Capital & Surplus together as the total equity of Stockholders.

Property Account (non-current Assets):

This is analogous to non-current assets or fixed Assets

- Land
- Buildings
- Equipment
- office
furnishing

Depending on the Capital Intensive Nature of

the business the property account might be larger or smaller than other businesses.

Since There is no real Market for fixed Assets the fair Value is often either cost, or arbitrary.

Be Carefull with inflated fixed Assets Valuations This inflates book Value & makes the Company look like a bargain !

While it is important to analyze book Value other measures of Value have to be used as well to avoid buying onto overvalued Companies by manipulations of book Value.

Depreciation & Depletion

All fixed assets, except for land are subject to a gradual loss of value through age & use.

The allowance for this loss is known as depreciation, obsolescence, depletion & amortization.

Depreciation is usually calculated based on

- Cost
- Years of useful life
- Scrap Value when Retired.

Typical Values for depreciation Are:

- | | |
|-------------------------------|-------------------|
| - Buildings 2-5% | - Machinery 7-20% |
| - Furniture & Fixtures 10-15% | |
| - Automobiles & Trucks 20-25% | |

Net Value of a Fixed Assets

The net value of a fixed asset is usually

Net Value = Cost of Asset - Accrued Depreciation.

Depreciation is usually deducted from Income & added to the balance sheet as an addition to the accumulated reserve for depreciation which decreases assets value or increases liabilities

After the property has retired the gross cost of the property is subtracted from the fixed assets & the depreciation accrued to date is taken out of the depreciation reserve."

If a fixed asset is retired before its normal period, the loss on this property is charged to Surplus & not to current earnings

Depletions A similar concept but now the gradual loss in value is due to the depletion of natural resources.

NON-CURRENT INVESTMENTS

Companies have important investments other companies in the form of securities or advances.

- Some of these investments are held for income or market profit only
- Others are for business purposes, by buying securities of subsidiaries

Only when the subsidiaries are fully owned their financials are merged with the parent otherwise they are considered non-current assets

SPECIAL EFFORT SHOULD BE MADE TO REALIZE THE SAFETY OF THESE INVESTMENTS.

INTANGIBLE ASSETS

Assets that cannot be touched or weighed or measured e.g.

- good will
- Patents
- Trademarks.
- Leaseholds

while good will it is an essential part of many businesses it is often over stated, it should only be looked in the light of good results & good customer loyalty

Patents are also goodwill but depend largely on what earnings they will bring in the future so their marked value is often arbitrary

To assess the real value of Intangibles look at the income amount & earnings power & put little attention to balance sheet valuation

PREPAID EXPENSES

Often companies pay in advance for a service it is to receive in the future. e.g.

Prepaid rent. (\$0,000) one year.

- at the beginning of the year balance sheet will have \$0,000 as an asset.
- each month it will change $1/12^{\text{th}}$ th of that value to income as expenses & write down the asset on the balance sheet by $1/12^{\text{th}}$.
- at the end of the year the \$ 50,000 prepaid asset would be written down to \$

Prepaid expenses are usually considered as assets in the balance sheet & are paid from income of the company until the prepaid asset in the balance sheet is \$

Deferred Charges

Very similar to prepaid expenses in that they are put down as prepaid assets in the balance sheet & then marked down to \$ with periodic charges to the income surplus. However different from prepaid expenses, charges do not carry provides services.

BE CAREFULL, while Deferred expenses are Considered assets for accounting purposes, These are not tangible assets, they are as intangible as Goodwill.

CURRENT ASSETS

Those assets which are immediately convertible into cash or which, in a reasonably short time (1 year or less) can be converted into cash. Sometimes also called liquid, quick or floating assets.

Current Assets have 3 categories

- Cash & Cash Equivalents
 - Cash on hand or in the bank (including CD's)
 - Call Loans > Secured by Marketable Securities
 - Time Loans > Secured by Marketable Securities
 - Government & Municipal Securities
 - Other Marketable Securities
 - Special Deposits
 - Cash Surrender Value of Insurance policies
- Receivables: money due to the company for services sold
 - Accounts Receivable
 - Notes Receivable
 - Interest Receivable
 - Due from Agents
 - Unmeasured Services (Public Utilities)
- Inventories held for sale or as raw material for conversion into goods to sell.
 - Finished Goods (Salable)
 - Work In progress (Convertible)
 - Materials & Supplies (Consumable)

A LOT OF THESE ASSETS SUCH AS INVENTORIES MIGHT BE HARDER OR LENGTHY TO SELL USE MARGIN OF SAFETY

CURRENT LIABILITIES.

Debt contracted by the business payable within a year

The most Important Kinds of Current Liabilities

- ▶ Notes, Bills, or Loans Payable e.g.
 - Bank Loans
 - Commercial paper outstanding
- ▶ Acceptances payable
- ▶ Accounts Payable
- ▶ Dividends & Interest payable
- ▶ Bonds, mortgages, or serial obligations due within a year, including those called for redemption
- ▶ Advances (from customers, affiliates, stockholders, etc.)
- ▶ Consumers Deposits
- ▶ Unclaimed checks & Refunds
- ▶ Accrued Interests, Wages & Taxes
- ▶ Reserves for federal taxes.

WORKING CAPITAL

THE CURRENT POSITION OF AN ENTERPRISE, IS given by 2 factors:

① Net Current Assets or WORKING CAPITAL.

excess of current assets to current liabilities

② Current Ratio

The ratio of Current assets to current liabilities

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working Capital is crucial in determining the financial strength of an enterprise.

IT IS A MEASURE OF THE COMPANY'S ABILITY TO CARRY ON ITS NORMAL BUSINESS COMFORTABLY WITHOUT FINANCIAL STRINGENCY, TO GROW & EXPAND WITHOUT MORE DEBT, & TO MEET EMERGENCIES WITHOUT DISASTER.

A small working capital makes the business unable to turn around in difficult times. & could indicate potential bankruptcy

To determine the minimum working Capital Needed Company

The amount of working Capital per dollar of sales if a company does business for cash & enjoys a rapid turnover of inventory, it need a much lower working Capital as compared to other businesses accepting long term payments

Bonds & Preferred stocks

a good bond or preferred is expected to be entirely covered by the net current assets alone.

Working Capital Suggestions

- A good bond or preferred stock should be entirely covered by Net Current Assets alone.
- For stocks, there should be an excess of Quick assets over all current liabilities. Net Quick Assets ≥ 0.
- A business with a rapid turnover of inventory needs a much lower working capital than does a business accepting long term payments

$$\frac{\text{Working Capital}}{\text{Sales}}$$

if inventory turnover is fast working capital can be slightly lower, otherwise working capital should make up for the lack of cash inflow.

"However keep in mind that the absolute minimum for current ratio is 2"

CURRENT RATIO

This is simply the ratio between Current Assets & Current Liabilities.

FOR A COMPANY TO BE IN SOUND POSITION, THE CURRENT ASSETS SHOULD WELL EXCEED CURRENT LIABILITIES, this means they will have no trouble paying their debts & using their working capital to grow their business.

What constitutes a satisfactory current Ratio?

This depends with the liquidity of the current assets. The more liquid the current asset the less margin for current ratio needed.

① A current ratio of 2 to 1 is considered the minimum standard for a safe investment.

Another important test of financial soundness is the "QUICK RATIO or ACID TEST" here you are only looking at the most liquid current assets excluding inventories as compared to the current liabilities,

② A quick ratio of 1 is considered minimum standard and indicates a company can currently pay all of its debt using its available cash.

INVENTORIES

It is common belief that large inventories are bad for businesses, with a few exceptions e.g. when commodity prices rise & the company can unload its inventory at a handsome price. Though this is unlikely

The Inventory figure should be studied in relation to various factors:

THE INVENTORY TURNOVER RATIO.

Used to measure the management efficiency on inventory. IT MEASURES HOW MANY TIMES PER PERIOD A BUSINESS SELLS AND REPLACES INVENTORY

- A low Value: Indicates possible overstocking which could create obsolescence & inventory write down costs
 - A High Value: Indicates efficiency by keeping low inventories per unit sold
 - A Very High Value: Indicates possible understocking which could create shortages & loss of business
- ① Understand the reason for the inventory levels
 - ② Compare turnover ratio with that of the industry sector

THE INVENTORY TURNOVER RATIO:

$$ITR = \frac{\text{Annual Sales}}{\text{Inventory}}$$

THE TRUE INVENTORY TURNOVER RATIO:

$$TITR = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Average Inventory % Calculated from the balance sheet from the average of the beginning & the end of the accounting period.

Annual Sales = Market price for goods Sold

Cost of Goods Sold = Real Price paid for goods Sold

Another good measures for the levels of Inventory needed for a certain business is %

- ① Inventory / net Profits
- ② Inventory / Current Assets
- ③ Inventory / Working Capital

These figures are very usefull when looked over several years to determine whether Inventory levels have been raising or not over the years, & to assess management efficiency.

RECEIVABLES

The amount of receivables varies widely for a variety of factors:

- **Type of Industry:** for capital intensive industries that sell heavy machinery ... payments might take a long time, while for grocery stores the receivables should be very short
- **Bank Credit:** Companies with poor credit might have to stand longer receivables

RECEIVABLES SHOULD BE ANALYZED IN RELATION TO ANNUAL SALES IN ANHISTORICAL BASIS

If Receivables are too large historically, there is an increase potential for bad amounts & losses.

CASH

Cash is considered to be: Cash proper, Cash Assets, Cash Equivalents, Certificates of Deposit, Call loans, marketable securities ... etc.

IN THEORY A COMPANY SHOULD NOT KEEP ANY MORE CASH ON HAND THAN REQUIRED FOR TRANSACTIONS AND USUAL BUSINESS AS WELL AS FOR EMERGENCIES.

Excess cash should be returned as dividends or used to grow the business

"Companies with deteriorating financials are likely to incur into increasing long term debt at higher interest rates"

Seek companies that have kept debt restrained to short term & low amounts historically

AVOID COMPANIES WITH BOOMS & BUSTS IN DEBT LEVELS.

For those companies with large cash holdings, seek to see whether their net working capital per share is greater than the price, **The Companies can be considered bargains under the assumption that the market in the long term will rise price to agree with intrinsic value.**

NOTES PAYABLE

The most important item among the current liabilities is the notes payable

- bank loans
- borrowing from affiliates
- borrowing from individuals.

Seasonal borrowings are normal for businesses & their short term poses no interest risk losses, However permanent bank loans indicate that the company is in heavy need of long-term capital.

When cash holdings are significantly greater than notes payable these situations can be considered normal, however if the borrowings are larger than the cash & receivables combined this is a sign that the company might not be able to repay its loans.

In cases where the situation is not clear check to see whether debt has been growing faster than sales & profits, if it has that's a clear sign of weakness.

RESERVES

Reserves can be divided in 3 classes

- 1 Those representing a "liability"
- 2 Those representing an offset against some asset
- 3 Those which are really surplus.
 - 1 These are for the most part current liabilities set up for:
 - taxes
 - accident claims
 - pending litigations
 - refunds to customers etc

2. offsetting reserves are those used for
- Depreciation & Depletion
 - Losses on Receivables or bad accounts
 - for decline in inventories
- "are these for current or future losses on inventory?

- reserves due to account for past/current losses in Value should be deducted from inventory, reserves for future losses are called **Reserve for Contingencies** which is in reality part of Surplus
- reserves due to account for losses in marketable securities if they are past/current they should be deducted from investments, if they are for future losses they are part of Surplus

Contingency Reserves

These are the reserves set up to cover against future losses, however there can be quite confusing if misused e.g.

a Company can set up a Contingency reserve for future losses, next year inventory value drops, so there is a loss which is deducted from the reserve, if the reserve is not replenished the loss will not be charged to Income, so... where does the loss belong? The loss should be charged to income since is needed to replenish the reserve.

THE INVESTOR NEEDS TO LOOK AT THE RESERVES LEVELS OVER MULTIPLE YEARS & WHETHER LOSSES

WERE CHARGED TO INCOME !



₼ 100,000

50,000

BOOK VALUE OR EQUITY

"The Idea behind Book Value was the Value of those tangible assets that could be resold & distributed to the shareholders when liquidating a business, However this is misleading since the real value of these assets is usually significantly lower than that used on the balance sheet because

- A loss would most probably be incurred in the sale of inventory
- The value of the fixed assets due to their unliquid nature will suffer a considerably loss in value.
- Due to the business need for rapid sales it would also probable accept unfavorable prices

So Book Value: Really measures what investors have put into the business, including undistributed earnings.

"there is a rough relationship between invested capital & average earning, but it mainly provides a way to identify pricing through different companies"

DO REMEMBER: Highly profitable companies tend to attract competition thus reducing their margins/profits, low profitable companies tend to scare competition away thus making companies more profitable in the long term!

CALCULATING Book VALUE

In Simple terms book Value Simply means:

"The Value of a Company Shown by the books or balance sheet"

Example

"Assets"

Fixed Property	:	1,000,000
Good will	:	500,000
Current Assets	:	500,000
<hr/>		
		2,000,000

"Liabilities"

Capital Stock	:	1,700,000
Surplus	:	100,000
Co. Liabilities	:	200,000
<hr/>		
		2,000,000

To find The book Value

+ Capital Stock	:	1700 000
+ Surplus	:	100,000
- Good will	:	500,000
<hr/>		
B.V or equity	:	1,300,000

BU per share: $1,300,000 / 17,000 = 76.47$

The book Value including good will is called book Value including Intangibles.

Book Value of Bonds & Stocks

The balance sheet of a company having bonds, Preferred & Common stocks might look like :-

Assets

Fixed property	₹ 1,000,000
Good will	₹ 500,000
Current Assets	₹ 500,000
	<hr/>
	₹ 2,000,000

* 17,000 shares

Liabilities	
embodied to 100 upon dissolution	
7% pfd. Stock	₹ 600,000 (\$100 par)
Common Stock	₹ 600,000 (No Par)
1st Mortgage	₹ 500,000
Bonds (6%)	
Current Liabilities	₹ 200,000
Surplus	₹ 100,000
	<hr/>
	₹ 2,000,000

To find the bonds Net Book Value

+ 1st Mortgage	₹ 500,000
Bonds (6%)	
+ 7% pfd. Stock	₹ 600,000
(\$100 par) → 0	
+ Common Stock	₹ 600,000
(No Par)	
+ Surplus	₹ 100,000
- Good will	₹ 500,000
	<hr/>

1,300,000 net tangible Assets applicable

- ∴ net tangible Assets
1st Mortgage Bonds
= 1,300,000
500,000
- ∴ each 1,000 bond would have a net book value of 2,600

To find the preferred Net book Value

+ 7% pfd. Stock	600,000
(\$100 par)	
+ Common stock	600,000
(No Par)	
+ Surplus	100,000
- Good will	500,000
	<u>800,000</u>

$$\text{Shares of Preferred} = \frac{\text{net tangible Assets}}{6000}$$

∴ we have \$133.33
a share net book value

net tangible Assets
applicable

To find the Common Net book Value

The first step when there is preferred stock is to look at the Liquidating Value of the preferred
frequently preferred stock is entitled to more than par in liquidation, in this case \$105

∴ Liquidating Value of preferred

7% pfd. Stock

630,000

(\$105 par)

+ net tangible Assets
Applicable to preferred

800,000

- 7% pfd. Stock

630,000

(\$105 par)

= 170,000 net tangible assets
Applicable to common

∴ Common Net book Value

170,000

17,000 shares

= \$10 per share

If there are accumulated dividends these must also be taken

into consideration.

Liquidating Value & Net Current Asset Value.

Liquidating Value differs from Book Value in that it is supposed to make allowance for loss of value upon liquidation.

Different Case Scenarios:

- Railroads, Utilities, natural monopolies: Liquidation is very very rare. Since these are necessities
- Bank, insurance company, typical investment trusts: Liquidation values can be calculated very accurately since most of their assets are very liquid
- Industrial enterprises: The liquidating value is dependent on the capitalization structure of the business
it has to be calculated only including those assets which are liquid "Current Assets". An interesting fact is when the net working capital per share exceeds the price of the security

EARNING POWER

while the net current Assets Value is important, In most cases the most important factor is the earning power, Earning power refers to the earnings that may be reasonably expected over a period of time in the future.

Normally the "human" investor can't predict the future so he has to find gems taking the past & current earnings as a guide for future prospects.

In most cases a more conservative & accurate approach can be found by taking the average of the earnings over a longer picture than can yield from the current numbers.

Calculating Earnings

for bond Issuers The most important figure is the number of times the total interest charges (& equivalents) are earned. **COVERAGE OF FIXED CHARGES**

be conservative with the interest charges includes

- other interests
- rentals
- amortizations of bonds discount.
- preferred dividends

Coverage of interest or fixed charges so is

$$\text{Coverage} = \frac{\text{total interest & fixed charges}}{\text{income Available}}$$

→ income taxes deducted.

The income available is found by

taking net income & adding the fixed charges

SEEK A CONSERVATIVE COVERAGE > 2 to 1 at LEAST

THE MAINTENANCE & DEPRECIATION FACTOR

Notes By making excessive or insufficient allowances for these items net income can be under - or over stated.

Analyze the maintenance & depreciation allowances with that of the sector, if it is significantly different recalculate earnings with that from the sector.

In Case is Smaller:

The Company's net Earnings Should be revised down

In Case is Larger:

The Company's net Earnings Should be revised up.

↳ an opportunity for bargains might arise from this!

THE SAFETY OF INTEREST AND PREFERRED DIVIDENDS

SAFETY OF BONDS: Analyze by coverage of fixed charges.

SAFETY OF PREFERRED DIVIDENDS: Analyze by coverage of fixed charges plus preferred dividends

Take a 5 to 10 years average (10 yrs recommended)

THEN APPLY

STANDARDS OF SAFETY

	Bonds		Preferred Stock
Utilities	1 3/4 times	Utilities	2 times
Railroads	2 times	Railroads	2 1/2 times
Industrials	3 times	Industrials	4 times

If the Company does not belong to this sectors use

Averages of Sector G as a guideline.

Second Factors

- THE OPERATING RATIOS A measure of operating efficiency
indicates whether a company can absorb reductions in volume or in selling price. compare against sector
- THE RATIO OF FIXED CHARGES TO GROSS REVENUE
indicates capital intensive nature of business compare against sector.
- THE MAINTENANCE & DEPRECIATION CHARGES
try to find discrepancies between these & the sector, can indicate over-under stated income compare against sector
- Nature & amount of charges to surplus.
Excessive charges limit the amount of cash available to common, this is unfair with investors, compare against sector.

Compare all of this factors with the sector & among the same company over multiple years

TRENDS

trends are most important in the analysis of common stock. favorable trends tend to draw investors & further increase in price **However always consider:**

1. How certain am I that a trend will continue.
2. The satisfactory performance might draw more competitors & deteriorate the "trend in Earnings" (Business Cycle)
3. How large a price are you paying for the expectations on future earnings

COMMON STOCK PRICES & VALUES

The price of Common Stock are mainly determined by the expectations & estimates of future earnings.

normally future expectations determine whether a Company's P/E ratio should be higher or lower ☺

"Two companies with equal current earnings & equal dividends might have different P/E ratios only due to expectations & estimates."

these valuations are usually right in normal economic situations But in Booms & Busts these valuations prove to be **overly Exaggerated**, these valuations are also incorrect when company's experience Unpopularity or short term losses or unfavorable conditions

CONCLUSIONS

Security Analysis deals with:

- ① Financial Statement Analysis of the Company previous chapters ↑
- ② The Current Economic Conditions :-
 - The outlook for the industry
 - General business & security market conditions
 - Inflation / Depression
 - artificial market influences
 - Popularity of Security

this factor requires common business knowledge

In general the investor that buys securities when prices are

LOW & SELL THEM WHEN PRICES ARE HIGH will have satisfactory yet not spectacular results.

ANALYSIS BY THE RATIO METHOD

① Margin of Profit%

$$\text{MOP} = \frac{\text{Operating Income}}{\text{Total Sales}}$$

This ratio is used to know the operating efficiency of the company.

Intuition e.g.

a P.M. of 9.2% indicates that for every dollar of sales, the company has 9.2 cents after paying all expenses & costs of operations

② Earnings on Invested Capital

$$\text{EIC} = \frac{\text{Total Income}}{\text{Bonds} + \text{Preferred Stock} + \text{Common Stock} + \text{Earned Surplus}}$$

Intuition e.g.

a EIC of 4.95% means that the company earned 4.95% on the money invested in the business

③ Times Interest Charged Earned.

$$\text{TICE} = \frac{\text{Total Income}}{\text{Interest Charges}}$$

this is the main consideration for safe bonds

Make sure that this ratio is at least $2\frac{1}{2}$ for industrials (3 recommended) it should also be at or above the average for the sector.

④ Times Interest Changes & Preferred Dividend Earned.

$$TPDE = \frac{\text{Total Income}}{\text{Interest Charges} + \text{Preferred Dividends}}$$

This is the main consideration for safe bonds & Preferred Stock.

For an industrial company sound preferred stock investment the TPDE should be at least 4 times, also compare with the sector's average.

⑤ Earnings per share on the common stock

Net Income available for Common Stock divided by # of shares of common stock outstanding.

$$EPS = \frac{\text{Net Income available to common}}{\# \text{ of shares outstanding.}}$$

This is how much of earnings is each share entitled to.

⑥ Depreciation as a percentage of cost of plant

$$DPCP = \frac{\text{Depreciation (Provision for...)}}{\text{Cost of Plant (Property Account)}}$$

Intuition: e.g. a DPCP of 2% means that the average life of all property account is ~50 years since

$$\frac{2\% \text{ depreciation expense}}{1\$ \text{ of property}}$$

so after 50 years the 2% would have become 1\$ & the Property account will be considered obsolete
Compare that it is within average for the sector.

Sometimes for a more conservative approach take:

$$DPCP = \frac{\text{depreciation}}{\text{net Plant Assets}}$$

Compare to average of
Sector

using our last example this would yield 33 years

⑦ Depreciation as a percentage of Sales or Revenue
this ratio is useful for comparisons

$$DPSR = \frac{\text{Depreciation}}{\text{Total Sales}}$$

e.g. a ratio of 0.046 would indicate that 4¢ from every dollar of sales are spent to cover depreciation

⑧ Net Income Transferred to Surplus as a percentage of Net Income available for Dividends

i.e. Amount transferred to Surplus divided by net income

$$TSAD = \frac{\text{transferred to Surplus}}{\text{net Income}}$$

intuition, this indicates how much earnings are being retained by the company

e.g. a TSAD of 53.5% would mean that the company keeps in its Surplus 53.5¢ for each dollar it earns instead of giving it to stockholders.

this calculations should be made over a number of years to know whether the company has been pursuing a conservative dividend policy

a 30 - 40% retained Earnings are normal, compare with Sector's Average

⑨ Inventory Turnover

$$ITO = \frac{\text{Sales}}{\text{Inventories}}$$

* use Cost of Sales, more accurate/conservative

intuition this indicates how many times inventory is turned over for each year, a high ratio is usually good because it prevents obsolescence of inventory, however an excessive ratio might cause shortages & loss of sales.

again compare this with the sector's average over multiple years preferably >2 times per year

⑩ Number of Days Average Account Receivable is Outstanding

$$NARO = \frac{\text{Accounts & Notes receivable}}{\text{Sales} / 365 \text{ days}}$$

intuition: this ratio is used to determine the credit policy of a company.

e.g. a NARO of 52 days means the company had its average accounts receivable outstanding for 52 days.

⑪ Capitalization Ratios

Intuition: how is the business obtaining its capital?

A) Bond Capitalization

Amount of bonds outstanding divided by the sum of the bonds, Preferred Stock, Common Stock & Surplus

$$CR = \frac{\text{Funded Debt} \text{ (also from Subsidiaries)}}{\text{Funded Debt} + \text{Preferred Stock} + \text{Common Stock} + \text{Total Surplus}}$$

B) Preferred Stock Capitalization.

Preferred Stock divided by the sum of the bonds, Preferred Stock, Common Stock & Surplus

$$PSC = \frac{\text{Preferred Stock}}{\text{Funded debt} + \text{Preferred Stock} + \text{Common Stock} + \text{Total Surplus.}}$$

C) Common Stock & Surplus Capitalization

The sum of Common stock and the surplus divided by the sum of bonds, Preferred Stock, Common Stock & Surplus.

$$CSC = \frac{\text{Common Stock} + \text{Surplus}}{\text{Bonds} + \text{Preferred Stock} + \text{Common Stock} + \text{Surplus}}$$

You should do all the capitalization calculations & figure out how the business is being financed.

A normal company should never be financed by more than 25% to 30% of Bonds. COMPARE WITH SECTOR

⑫ Current Ratio

Current Assets divided by Current Liabilities

$$CR = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

Intuition, this is used to know whether a company can meet all of its current obligations & still have money left.

e.g. a ratio of 5 to 1 means the company has 5 dollars of current assets for every dollar of current liabilities.
|
(1 year or less)

A Current Ratio of 2 to 1 is the absolute minimum, again compare with sector.

⑬ Quick Assets Ratio

Current Assets less Inventory divided by Current Liabilities

$$QAR = \frac{\text{Total Current Assets} - \text{Inventories}}{\text{Total Current Liabilities}}$$

Intuition. This is called the "acid test ratio", does the company have enough "cash" to pay its creditors? This excludes inventories since these can turn out to be obsolete or overvalued.

A value of 1 to 1 is the absolute minimum.

(14) Book Value of Common Stock

The sum of Common Stock & Surplus divided by the number of shares of common stock outstanding

$$BVCS = \frac{\text{Common Stock} + \text{Surplus}}{\text{Common Stock}}$$

it is important to deduct all intangibles to get a better picture, this ratio in itself is not that important except for the fact that it might help find undervalued securities by NCAV standards

(15) Price Earnings Ratio or Market Ratio

Selling price of the stock divided by the earnings per share.

$$PE = \frac{\text{Market Price of Stock}}{\text{Earnings Per Share}}$$

This ratio is mainly used in comparative analysis to decide whether a stock in a given sector is over or under priced, The maximum P/E to consider is 15 under other extremely good factors Normally however you should be entitled to at least 10% of earnings so a PE of 10.