LESSON 3

2/ Leverage ratios

Leverage ratios indicate how companies use debt. While debt can help a company get a higher return on its cash investment, too much debt increases the probability of bankruptcy.

A/ Debt to equity ratio

Often referred to as" D/E ratio," the debt to equity ratio measures a company's liabilities against its shareholder equity. This ratio answers the question: For every dollar of equity, how much debt is there?"

D/E ratio = Total liabilities / Shareholders' equity

In this equation:

- **Total liabilities** are all of the debts or obligations that detract from a company's value.
- **Shareholders' equity** is total assets minus total liabilities.

The D/E ratio is used to analyze a company's financial leverage, or how a company is using its debt to finance its operations and assets. Put another way, it compares a company's liabilities (all the debts it still owes) to its equity (assets minus liabilities), producing a number that tells you whether the company's debt is helping it grow.

Using debt can be a good thing, as it can increase the return shareholders get on the money they invested in the business. For this reason, you wouldn't expect the D/E ratio to be 0, or even less than 1. But a number that is high can indicate increased risk of bankruptcy, if the company is taking on more debt than it could ever pay back.

<u>B/ Interest coverage ratio</u>

Interest coverage is the ratio of operating profit to annual interest charges. Operating profit is used in this ratio instead of net income because operating profit is calculated excluding interest payments.

Interest coverage ratio = Operating profit / Annual interest charges

This ratio should tell you how much money a company has left over to pay interest. It's often used by banks to determine whether a loan should be approved, because it indicates if a company likely has enough money to pay back its debt, plus interest.

<u>3/ Liquidity ratios</u>

Liquidity is all about cold, hard cash—though it also extends to the liquid assets a company can convert to cash quickly. Cash is life in business, so these ratios tell you if a company will have enough cash in the near term to meet its obligations.

A/ Current ratio

The current ratio is a ratio of the company's current assets to current liabilities. This ratio measures a company's ability to produce cash to pay for its short-term financial obligations, also known as liquidity.

Current ratio = Current assets / Current liabilities

A ratio above 1 means the value of a company's current assets is more than its current liabilities. A number less than 1, on the other hand, means that liabilities outweigh assets. For the company, this could point towards financial issues with creditors, growth, or production, and could ultimately lead to bankruptcy.

Liquidity ratio provide a key warning system to a company, letting it know if it's running low on available funds. The ratios measure the amount of liquidity, namely cash and easily converted assets, for covering your debts, and provide a broad overview of your financial health.

*****Liquidity ratios vary by industry**

What constitutes a healthy ratio depends on the industry in which your company operates.

A clothing store will have goods that quickly lose value because of changing fashion trends. Still, these goods are easily liquidated and have high turnover, which means the company could function with a current ratio close to 1.0.

An airplane manufacturer has high-value, non-perishable assets such as work-in-progress inventory, as well as extended receivable terms. Businesses like these need carefully planned payment terms with customers; the current ratio should be much higher to allow for coverage of short-term liabilities.

B/ Quick ratio

A quick ratio differs from a current ratio in one aspect: it subtracts inventory from current assets. Inventory is your actual product, and therefore the only aspect of your current assets that can't be converted into cash quickly (you'd need to sell all of it off to turn into cash).

Current ratio = Current assets – Inventory / Current liabilities

4/ Efficiency ratios

Efficiency ratios measure how efficiently assets and liabilities are being managed.

A/ Asset turnover ratio

Asset turnover is a ratio of net sales to average total assets. It answers the question: how well assets are being used to create sales?

Assets turnover ratio = Net sales / Average total assets

This is a key indicator of how well a company's investment in assets (a new factory for example) is helping it generate sales.

B/ Inventory turnover ratio

The inventory turnover ratio illustrates how many times a company has sold out inventory over a given time period. It's calculated using financial information found on both a company's income statement and balance sheet. Cost of Goods Sold is found on the income statement, while the inventory values at the beginning and ending of the month (or whatever time period you wish to calculate) is indicated on the balance sheet.

Inventory turnover ratio = COGS / Average inventory

In this equation:

- **COGS** or the cost of goods sold is the direct cost of making and distributing a product.
- **Average inventory** is the value of inventory at the beginning and end of the given time period, added together and divided by 2.

A high inventory turnover ratio is typically better than a low one, though there are deviations from this rule. A high ratio could indicate stellar sales, but it could also mean that demand for a company's product or service exceeds the supply.

C/ Days sales outstanding ratio

Days sales outstanding is a ratio of average accounts receivable to net sales per day, divided by days in a year. This ratio answers the question: How many days does it take, on average, for customers to pay their bills.

Days sales outstanding ratio = (Average accounts receivable / Net sales) / 365

While getting customers to pay outstanding bills may seem like it's outside of the business's control, this ratio can still tell you something about how the business operates. If the number is too high, it means that the company needs to improve its ability to collect on invoices.

4/ Use ratios to drive strategy

The insights that come from the ratios you use should shape the direction of your business plan. “Status quo can kill the potential of a business,” says Bourret. “You always want to be adapting and innovating, and ratios can help you do that.” For example, if you’re not turning over your receivables fast enough, you may have a cash flow problem. You can address that by changing your procedures or company culture to collect payments more proactively. Or if you see your inventory is turning over too slowly, maybe you need to look at your product mix and either add something new or get rid of something old.

5/ **Limitations of Ratio Analysis**

Ratio analysis can help investors understand a company's current performance and likely future growth. However, companies can make small changes that make their stock and company ratios more attractive without changing any underlying financial fundamentals. To counter this limitation, investors also need to understand the variables behind ratios, what information they do and do not communicate, and how they are susceptible to manipulation.

Ratios also can't be used in isolation. Instead, they should be used in combination with other ratios or financial metrics to give a fuller picture of both a company's financial state and how it compares to other companies in the same industry.