**The company.**

Amazon inc started in 1995 has, grown into one of the largest e-commerce businesses in the word. And has expanded into publishing, AI and entertainment production and web services.

**Liquidity Ratios**

Liquidity ratios are used to measure a company’s ability to meet its short-term obligations. These ratios indicate whether a company has enough cash or liquid assets to pay off its current liability. Balance sheet ratios along with common size analysis can be used to evaluate a firm’s liquidity and solvency.

The current ratio is the best-known measure of liquidity, the higher the ratio the more likely that the company will be able to pay it’s short term bills. A current ratio less than 1 would indicate a negative working capital and facing a liquidity crisis, For the years 2017-19, Amazon has had a current ratio more than 1 and has improved and is steady. This ratio expresses current assets in relation to current liabilities. A higher ratio indicates a higher level of liquidity. A current ratio of 1.0 would indicate that the book value of its current assets exactly equals the book value of its current liabilities. Liquidity affects the company’s capacity to take on debt. The current ratio implicitly assumes that inventories and accounts receivable are indeed liquid. Quick Ratio is a more stringent measure as it does not include inventory and other less liquid assets, higher the ratio, the more likely that the firm is able to pay its short-term bills. Amazon’s quick ratio is seen as to be improving each year indicating that their strong and improving ability to pay their short-term bills.Cash ratio is the most conservative, however higher the ratio higher the firm’s ability to pay short term bills, which is also seen as to be improving each year for amazon. The cash ratio normally represents a reliable measure of an entity’s liquidity in a crisis. Only highly marketable short-term investments and cash are included. In a general market crisis, the fair value of marketable securities could decrease significantly as a result of market factors, in which case even this ratio might not provide reliable information.

Defensive interval indicates the number of days of average expenditures the firm could pay with their current liquid assets. The defensive interval ratio measures how long a company can pay its daily cash expenditures using only its existing liquid assets, without additional cash flow coming in. Amazon is seen to have a higher defensive interval and improving over the years indicating that their higher improving liquid assets, before running out of quick assets, assuming no additional cash inflows. A higher defensive interval ratio indicates greater liquidity.

A shorter cash conversion cycle indicates greater liquidity. A short cash conversion cycle implies that the company only needs to finance its inventory and accounts receivable for a short period of time. Amazon is the best example of firms with a negative CCC as it is often that online retailers have the same, as retailers receive funds for goods owned by third party suppliers, requiring the online retailer to hold lower inventory. This allows companies to hold on to the cash for a longer period. A Harvard Business blog post attributes the negative CCC as a key factor in Amazon’s survival of the dot-com bubble of 2000. Operating with a negative CCC became a source of cash for the company, instead of being a cost for it. However, it can be observed that the CCC days have reduced over the years indicating that the number of days that they can hold on to the cash has reduced. – **Very good point**

Amazon’s liquidity Ratio’s indicate that the company’s liquidity over the years is strong and improving, suggesting that the firm is able to successfully manage their short-term obligations.

As an online marketplace where thousands of vendors are hosted on site, Amazon’s payable days is typically higher than other companies as it is part of its 90-day credit policy. As a result of Amazon’s nature of business, its payable balances are higher than its inventories and receivables where it holds inventory on behalf of its vendors. Therefore, working capital is negative and so is the trading cycle. On a year over year basis the number has worsened in 2019, but can be supported with the argument that Amazon has started its own fulfilment services and is a fast growing company.

**Profitability Ratio**

Gross profit margin indicates the percentage of revenue available to cover operating and other expenses and to generate profit. Amazon is seen to have an improving Gross margin, which is due to their increasing revenue generation. Operating profit is calculated as gross profit minus operating costs. So, an operating profit margin increasing faster than the gross profit margin can indicate improvements in controlling operating costs, such as administrative overheads. In contrast, a declining operating profit margin could be an indicator of deteriorating control over operating costs, amazon is seen to have improved operating expenses control from 2018-2019. Generally, net profit margin offers a better view of a company’s potential future profitability, for amazon is seen to be improving and stable over the years given.

It is notable that Amazon’s Technology & content and Sales & marketing have seen sharp increases, indicating the heavy spend on AWS and Prime Video content. While the e-commerce segment is seen to be normalizing post the Covid-19 boom, sales reflect the increasing global inflation levels.

**Solvency/Debt Management**

Solvency ratios provide information regarding the relative amount of debt in the company’s capital structure and the adequacy of earnings and cash flow to cover interest expenses and other fixed charges.

Debt to Asset- measures the percentage of total assets financed with debt, which is seen to be reducing over the years for amazon. Indicating a reduced dependency on debt for its assets financing and improving solvency. Debt to capital is also seen as reducing over the years indicating stronger solvency, even the firm’s debt to equity indicating amount of debt capital relative to equity capital, which was quite high in 2017 reduced by 2019 suggesting lower dependency on debt. However, its Interest coverage ratio over the years have dropped suggesting lower solvency, offering less assurance that the company can service its debt (i.e., bank debt, bonds, notes) from operating earnings.

Amazon’s long-term liabilities have been increasing over the years as the company has increased its Financial lease commitments to facilitate the number of new fulfilment centres opened over the last year. Although the long-term debt remain rather steady, financial lease commitments have dramatically increased which has increased the debt service burden as well. However, the company has adequate levels of interest coverage and free cash flow indicating its financial health. However, the increase in the debt level would also mean that the company’s borrowing capacity in future is strained where it might have to pay higher interests to secure more debt.

**Asset Utilization**

This ratio measures how efficiently the company generates revenues from its investments in fixed assets. For amazon this is seen as quite high indicating efficient use of fixed assets in generating revenue. The asset turnover ratio for amazon is also high and improving suggesting greater efficiency.

ROA measures the return earned by a company on its assets. The higher the ratio, the more income is generated by a given level of assets, amazon has been able to improve their ROA over the years.

Amazon has a large portion of goodwill in its asset base, where the Fixed asset turnover is almost three times higher than the total asset turnover. The goodwill and intangibles are manly as a result of acquisitions in addition to the increased R&D spending on AWS which we will have to closely watch for future profitability.

**Investor/Market Ratio**

P/E at the start was quite high, suggesting the stock price was higher relative to its earnings and, probably overvalued which dropped quite a lot in the later years. While EPS also is higher in the later years indicating increasing value as investors expecting higher profits. The P/BV also is seen to have dropped over the years suggesting the market value is dropping.

ROE, ROA and ROCE all are within the health territory, however, have declined compared to previous year. Furthermore, given Amazon’s valuations, one would expect the ratios to be better as there are many other smaller companies with better returns than Amazon, however, it is notable that these valuations are backed by Amazon’s expansion.