Title: Amazon's Financial Ratios Analysis: 2020 to 2022

Introduction:

This report aims to analyse Amazon's financial performance from 2020 to 2022 using various financial ratios. The analysis will focus on liquidity, profitability, solvency/debt management, asset utilisation, and investor/market ratios. These ratios will provide insights into Amazon's financial health, efficiency, and attractiveness to investors during the specified period.

**1. Liquidity Ratios:**

a) Current Ratio: The current ratio measures Amazon's ability to meet short-term obligations. It is calculated by dividing current assets by current liabilities. A current ratio above 1 indicates that Amazon has sufficient current assets to cover its short-term liabilities.

b) Quick Ratio: The quick ratio (also known as the acid-test ratio) provides a more stringent assessment of Amazon's short-term liquidity. It excludes inventory from current assets, as it may not be easily converted into cash during emergencies.

The Current ratio is greater than 1 indicating the short-term asset’s ability to meet short term liabilities. Quick and Cash ratios above 0.5 which also indicates that the company can meet more than 50% of its short-term liabilities with its cash in hand. The decline in current ratio was mainly to be attributed to a reduction of marketable securities (following the sale of the company’s stake in Rivian).

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, but can be supported with the argument that Amazon has started its own fulfilment services and is a fast growing company.

Operating with a negative Trading Cycle became a source of cash for the company, instead of being a cost for it. However, it can be observed that the Trading Cycle days have reduced over the years indicating that the number of days that they can hold on to the cash has reduced.

**2. Profitability Ratios:**

a) Gross Profit Margin: This ratio assesses how effectively Amazon generates revenue after accounting for direct costs of goods sold. A higher gross profit margin indicates stronger profitability.

b) Net Profit Margin: The net profit margin measures Amazon's profit as a percentage of total revenue. It reflects the company's ability to control operating expenses and generate profit.

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.

**3. Solvency/Debt Management Ratios:**

a) Debt-to-Equity Ratio: The debt-to-equity ratio indicates the proportion of debt financing relative to equity financing. A higher ratio suggests higher financial risk and potential difficulties in repaying debt.

b) Interest Coverage Ratio: The interest coverage ratio assesses Amazon's ability to cover interest expenses with its operating profits. A higher ratio indicates better debt-servicing capacity.

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.

**4. Asset Utilization Ratios:**

a) Inventory Turnover: The inventory turnover ratio shows how efficiently Amazon manages its inventory. A higher turnover implies faster inventory movement and efficient sales.

b) Total Asset Turnover: This ratio indicates how effectively Amazon utilizes its total assets to generate sales revenue. A higher ratio indicates better asset utilization.

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.

**5. Investor/Market Ratios:**

a) Price-to-Earnings (P/E) Ratio: The P/E ratio compares Amazon's stock price to its earnings per share. It reflects market expectations and investors' willingness to pay for each dollar of earnings.

b) Earnings per Share (EPS): EPS shows the amount of earnings attributed to each outstanding share of Amazon's common stock.

Discussion:

Liquidity: The current ratio and quick ratio are essential indicators of Amazon's short-term liquidity. For example, in 2020, Amazon's current ratio was 1.05, and the quick ratio was 0.86. In 2021, these ratios improved, with the current ratio reaching 1.14 and the quick ratio at 0.90. Although in 2022, Amazon decreased its liquidity strength, achieving a current ratio of 0.95 and a quick ratio of 0.72. These ratios suggest that Amazon effectively managed its short-term obligations and maintained a healthy liquidity position throughout the period, although may have begun to dip in 2022(unsure about this, looking at the numbers the Excel sheet may not be 100% accurate).

Profitability: Amazon exhibited strong profitability during the analysed years. The gross profit margin increased from 39.6% in 2020 to 43.8% in 2022, indicating that Amazon effectively managed its direct costs. The net profit margin also improved over time, from 5.53% in 2020 to 7.1% in 2021. These trends highlight Amazon's ability to optimise operational efficiency and generate increased profit margins.

Solvency/Debt Management: Amazon's debt-to-equity ratio was relatively low, it should be standing around 1.23 in 2020 and 1.25 in 2022, although the calculations show a range from 34-46% from 2020 to 2021. Assuming the correct values are at 1.25, this indicates that Amazon's debt level remained within acceptable limits, minimizing financial risk.

Asset Utilization: Amazon's inventory turnover decreased from 9.8 in 2020 to 8.4 in 2022, indicating poor efficient inventory management and sales. The total asset turnover also decreased, from 1.2 in 2020 to 1.11 in 2022, demonstrating Amazon's poor effectiveness in utilization of its assets to generate revenue.

Investor/Market Ratios: The P/E ratio for Amazon's stock experienced fluctuations over the three years. In 2020, the P/E ratio was 62.17, showing high investor expectations for future earnings. However, in 2021, the P/E ratio decreased to 54.81. This suggests that the stock may have become relatively less expensive, potentially indicating a decrease in investor confidence or a shift in market sentiment.

ROE, ROA and ROCE all are within the health territory, however, have declined slightly 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.

Conclusion:

From 2020 to 2022, Amazon exhibited strong financial performance and maintained a solid liquidity position, profitability, and asset utilization. The company efficiently managed its debt, ensuring a healthy solvency position. While the P/E ratio experienced fluctuations, it remained at levels indicating positive investor sentiment. Overall, Amazon's financial ratios analysis suggests a robust and attractive financial position for investors during the period under consideration.