**Financial Health Report for Amazon Inc.**

**Overview**

The financial data for Amazon Inc. over the years 2020, 2021, and 2022 reveals significant shifts in the company's financial health. This analysis covers key aspects of liquidity, profitability, solvency/debt management, asset utilization, and investor/market ratios to provide a comprehensive overview of Amazon's financial condition.

**Liquidity**

Amazon's liquidity ratios show a declining trend, with the current ratio dropping from 1.1x in 2020 and 2021 to 0.9x in 2022. This suggests that the company's ability to cover short-term liabilities with its current assets has weakened. The quick ratio, which fell from 0.9x to 0.7x, further emphasizes the declining short-term liquidity, excluding inventory from the assets considered. The cash ratio also decreased from 0.7x to 0.5x, highlighting a reduction in cash reserves relative to short-term obligations.

The defensive interval, which measures the number of days a company can cover its expenses with liquid assets, shortened from 120.9 days to 93.2 days. This reduction indicates a decreased buffer for unexpected expenses. Additionally, the increase in inventory days from 34.6 to 42.4 and the rise in receivable days from 21.4 to 26.7 suggest slower inventory turnover and collection cycles. The net trading cycle has increased from -37.6 to -30.9 days, reflects a longer time to convert working capital into sales, further stressing liquidity.

**Profitability**

Despite the liquidity challenges, Amazon's profitability metrics indicate strong performance in gross margins. The gross margin increased from 39.6% to 43.8% over the period, reflecting improved cost control or higher pricing power. However, EBITDA margins saw a decline from 12.5% to 10.5%, suggesting rising operational costs or reduced efficiency.

EBIT margins fell significantly from 5.9% to 2.4%, highlighting reduced profitability at the operating level. The net margin also turned negative in 2022, dropping from 5.5% to -0.5%, indicating that Amazon faced challenges in translating revenue into net profit, potentially due to increased expenses.

**Solvency/Debt Management**

Amazon's debt management ratios reflect a stable but leveraged position. The debt to equity ratio remained consistent at around 0.9 to 1.0, indicating steady leverage. The debt to total assets ratio stayed at 0.3, suggesting consistent debt levels relative to the company’s asset base. The long-term debt to capital ratio increased to 1.0 in 2022, indicating higher reliance on long-term debt.

Times interest earned, which measures the ability to cover interest expenses with operating income, dropped significantly from 13.9 to 5.2. This decline suggests a reduced capacity to manage interest expenses. Similarly, debt coverage fell from 16.5 to 9.0, indicating a decreased ability to cover debt with cash flow. Free cash flow per share also declined from 4.8 to 2.6, reflecting lower cash generation available to shareholders.

**Asset Utilization**

Asset utilization ratios reveal a decline in operational efficiency. Total asset turnover decreased from 1.4 to 1.2, indicating less effective use of assets to generate sales. Fixed asset turnover also dropped from 4.2 to 3.0, reflecting reduced efficiency in utilizing fixed assets. Inventory turnover decreased from 10.5 to 8.6, suggesting slower inventory movement. The return on assets (ROA) turned negative at -0.6% in 2022, highlighting a loss relative to asset base and indicating significant operational or financial challenges.

**Investor/Market Ratios**

The investor/market ratios show a mixed picture. The price to equity (P/E) ratio shifted from 76.4x to -314.4x, as earnings per share (EPS) turned negative at -0.27 in 2022. The price to book value (PBV) ratio decreased from 17.4x to 5.9x, indicating a lower market valuation relative to book value. Book value per share increased from 9.34 to 14.33, showing growth in net assets per share.

Return on equity (ROE) turned negative at -1.9%, indicating a loss for shareholders. Return on capital employed (ROCE) also decreased from 13.8% to 4.2%, reflecting reduced returns on capital. The enterprise value to EBITDA (EV/EBITDA) ratio decreased from 33.9x to 17.1x, suggesting a lower valuation relative to earnings before interest, taxes, depreciation, and amortization.

**Conclusion**

Amazon Inc. faced notable financial challenges in 2022, particularly in liquidity and profitability. While the company maintains strong gross margins and consistent leverage, issues with cash flow, operational efficiency and net profitability have emerged. Investors should closely monitor these trends and consider potential impacts on future performance. The company's ability to address these issues and restore profitability will be crucial for its financial health moving forward.