**Report on Amazon PLC Financial Ratios (2020–2022)**

This report provides a detailed analysis of Amazon PLC's financial performance from 2020 to 2022, focusing on key financial ratios across liquidity, profitability, solvency, asset utilization, and investor/market perspectives.

**1. Liquidity Ratios**

Amazon's liquidity position has shown a decline over the three years:

Current Ratio decreased from 1.05 in 2020 to 0.94 in 2022, indicating reduced short-term financial flexibility. A value below 1 reflects a potential inability to meet short-term obligations without additional financing.

Quick Ratio (excluding inventory) followed a similar downward trend, from 0.86 in 2020 to 0.72 in 2022, further highlighting reduced liquidity.

Cash Ratio, a more conservative measure, fell from 0.67 in 2020 to 0.45 in 2022, suggesting reduced cash reserves relative to liabilities.

Defensive Interval dropped from 133.40 days in 2020 to 106.79 days in 2022, implying a reduced capacity to operate without relying on revenue inflows.

Efficiency Metrics:

Inventory Days remained stable, indicating consistent inventory management practices.

Payable Days decreased from 113.48 in 2020 to 100.59 in 2022, showing faster supplier payments.

Receivable Days increased, reflecting potential challenges in collecting receivables.

Net Trading Cycle improved, moving from -53.06 days in 2020 to -27.03 days in 2022, signifying enhanced cash flow efficiency.

**2. Profitability Ratios**

Profitability has been under pressure in 2022, with Amazon moving into negative margins:

Gross Margin improved steadily from 39.57% in 2020 to 43.81% in 2022, showcasing effective cost management at the gross level.

EBITDA Margin and Net Margin saw sharp declines, turning negative at -1.15% and -0.53%, respectively, in 2022. This reflects operational inefficiencies and heightened expenses.

EBIT Margin also fell significantly from 5.93% in 2020 to 2.38% in 2022, indicating reduced profitability from core operations.

**3. Solvency/Debt Management Ratios**

Amazon's reliance on debt has grown marginally:

Debt-to-Equity Ratio increased from 3.45 in 2020 to 2.17 in 2022, demonstrating a high level of leverage but a slight improvement in equity coverage.

Debt-to-Total Assets remained stable at around 0.68, suggesting that nearly 68% of the company’s assets are financed through debt.

Times Interest Earned declined significantly from 14.05 in 2020 to 5.72 in 2022, reflecting reduced capacity to cover interest obligations.

Debt Coverage: Negative values in 2022 indicate challenges in servicing debt through operational cash flows.

**4. Asset Utilization Ratios**

Asset efficiency has been declining:

Total Asset Turnover dropped from 1.20 in 2020 to 1.11 in 2022, indicating reduced efficiency in generating revenue from assets.

Fixed Asset Turnover also declined from 2.05 in 2020 to 1.63 in 2022, reflecting underutilization of fixed assets.

Inventory Turnover weakened slightly, showing slower inventory movement relative to sales.

Return on Assets (ROA) turned negative in 2022, reflecting inefficiencies in asset utilization.

**5. Investor/Market Ratios**

Market perceptions and shareholder returns were significantly affected in 2022:

Price-to-Earnings (P/E) Ratio turned negative, indicating a lack of profitability per share in 2022.

Earnings per Share (EPS) fell into negative territory, highlighting a year of losses.

Price-to-Book Value (PBV) showed a decrease from 17.44 in 2020 to 5.81 in 2022, reflecting a decline in market valuation relative to book value.

Return on Equity (ROE) and Return on Assets (ROA) turned negative in 2022, marking a poor return on shareholder investments.

**Conclusion**

Amazon PLC's financial performance has been under significant strain in 2022 compared to prior years. Declining profitability, shrinking liquidity, and increasing leverage highlight areas of concern. However, its strong gross margins and operational efficiency (as seen in inventory management) reflect resilience. Strategic cost management and revenue growth initiatives will be critical for future recovery.