### This comprehensive financial ratio analysis examines key performance metrics across liquidity, profitability, solvency, asset utilization, and investor ratios. The analysis provides insights into operational efficiency, financial stability, and overall business performance through detailed examination of various financial ratios from 2020 to 2022.

### 1. LIQUIDITY RATIOS

## 1.1 Current Ratio

**Interpretation**: Declining current ratio indicates reduced short-term liquidity potential concern: Ability to cover short-term obligations is weakening, Declined from 1.36 (2020) to 0.88 (2022), suggesting Apple’s ability to cover short-term liabilities is weakening. This indicates potential liquidity pressure.

## 1.2 Quick Ratio

**Interpretation**: Similar to current ratio, quick or acid test ratio shows diminishing liquid asset coverage

Suggests potential cash flow challenges. Decreased in acid test ratio from 1.33 (2020) to 0.85 (2022), highlighting reduced liquidity when excluding inventory. This trend reflects tight cash flow management.

## 1.3 Cash Ratio

**Interpretation**: Significant reduction in cash and cash equivalents Indicates decreased immediate liquidity and financial flexibility. Dropped sharply from 0.36 (2020) to 0.15 (2022) Indicates a reduction in immediate liquid cash available to meet liabilities, which could limit financial flexibility.

## 1.4 Defensive Interval

**Interpretation**: Declining ratio (0.0019 to 0.0013 over three years) implies that Apple’s current cash and liquid assets are insufficient to cover daily operational expenses for extended periods.

## 1.5 Inventory Days

**Interpretation**: Significant improvement in inventory management reduced inventory holding period indicates more efficient stock control. Inventory days improved significantly from 83.51 days (2020) to 38.79 days (2022), reflecting efficient inventory management and better demand forecasting.

## 1.6 Payable Days

**Interpretation**: Increasing payable days suggest extended payment terms with suppliers

Potential cash flow management strategy. Increased to 104.69 days in 2022, indicating extended payment terms to suppliers. While this helps cash flow, it increases reliance on vendor financing.

## 1.7 Receivable Days

**Interpretation**: Slight increase in time to collect receivables potential slight deterioration in collection efficiency. Receivable days remained stable at 26 days over the past two years, suggesting effective credit collection practices.

## 1.8 Net Trading Cycle

**Interpretation**: Negative cycle indicates efficient working capital management. Apple can fund operations before paying suppliers. Negative cycle (-70.52 days in 2022) demonstrates Apple’s ability to generate cash from operations quickly. However, this relies heavily on delaying payables.

## 1.9 Working Capital as a % of Sales

**Interpretation**: Declining working capital percentage suggests potential challenges in maintaining working capital. Dropped significantly from 13.96% (2020) to -4.71% (2022), indicating a potential strain on operational funding. Negative working capital of -$18,577M in 2022 is concerning.

### 2. PROFITABILITY METRICS

## 2.1 Gross Margin

**Interpretation**: Consistent improvement in gross profit percentage indicates effective pricing and cost management. Increased from 38% (2020) to 43% (2022), highlighting improved cost efficiency and favorable product pricing strategies.

## 2.2 EBITDA Margin

**Interpretation**: Significant improvement in operational profitability demonstrates operational efficiency. Stable at ~33.7% over the last two years, indicating consistent operational efficiency despite economic challenges.

## 2.3 EBIT Margin

**Interpretation**: Strong growth in operational profitability reflects effective cost control and operational strategies. Margins grew steadily from 25.53% (2020) to 30.93% (2022), reflecting Apple’s ability to control operating costs while increasing profitability.

## 2.4 Net Margin

**Interpretation**: Consistent improvement in overall profitability slight moderation in 2022 but still strong performance. Declined slightly from 26% (2021) to 25% (2022). While still strong, it suggests minor pressure on net income growth.

### 3. SOLVENCY/DEBT MANAGEMENT

## 3.1 Debt to Equity (D/E)

**Interpretation**: Rising leverage increased financial risk and reliance on debt financing. Increased substantially to 5.96 in 2022, reflecting growing reliance on debt financing, which raises financial risk.

## 3.2 Debt to Total Assets

**Interpretation**: Growing proportion of assets financed by debt potential increase in financial vulnerability. Rose slightly to 0.86 in 2022 from 0.82 (2021), showing that a greater proportion of Apple’s assets is funded by debt.

## 3.3 Long-term Debt to Capital

**Interpretation**: Increasing long-term debt proportion suggests more capital being sourced through long-term borrowing. Increased to 0.66 in 2022, which suggests Apple is leveraging more long-term debt relative to equity and retained earnings.

## 3.4 Times Interest Earned

**Interpretation**: Excellent ability to cover interest expenses strong improvement in debt servicing capacity. Improved slightly to 41.69 in 2022, indicating Apple’s strong capacity to meet interest payments despite rising debt levels.

## 3.5 Debt Coverage

**Interpretation**: Significant improvement in debt coverage indicates robust ability to meet debt obligations. Remained stable (~9.6), reflecting Apple’s solid ability to cover debt obligations with operating cash flows.

### 4. ASSET UTILIZATION

## 4.1 Total Asset Turnover

**Interpretation**: Reduced efficiency in asset utilization suggests potential need for more effective asset deployment. Declined from 1.70 (2020) to 1.12 (2022), signaling lower efficiency in generating revenue from total assets.

## 4.2 Fixed Asset Turnover

**Interpretation**: Decreased efficiency in fixed asset usage indicates potential overcapitalization or underutilization. Dropped significantly from 3.05 (2020) to 1.82 (2022), indicating potential underutilization of fixed assets or slower revenue growth relative to investments.

## 4.3 Inventory Turnover

**Interpretation**: Reduced inventory turnover suggests changes in inventory management strategy. Steady improvement from 2020 (83.51) to 2022 (38.79), showcasing better inventory management and faster stock movement.

## 4.4 Return on Assets (ROA)

Interpretation: Consistent improvement in asset profitability demonstrates effective asset utilization for generating profits. ROA improved from 0.20 (2020) to 0.34 (2022), reflecting enhanced profitability from the company’s asset base.

### 5. INVESTOR/MARKET RATIOS

## 5.2 Earnings Per Share (EPS)

**Interpretation**: Strong and consistent EPS growth indicates improving profitability and shareholder value. Increased steadily to $6.15 in 2022, supported by improved profitability and effective share management.

## 5.5 Dividend Payout Ratio

**Interpretation**: Reduced dividend distribution suggests retention of earnings for reinvestment

## 5.6 Dividend Per Share

**Interpretation**: Consistent growth in dividend payments demonstrates commitment to shareholder returns. Grew from $0.81 (2020) to $0.92 (2022), aligning with the company’s earnings growth.

## Additional Investor Metrics

##### **Return on Equity (ROE)**

**Interpretation**: Improving shareholder returns indicates more efficient use of equity capital. Improved significantly to 1.97 (2022) from 0.88 (2020), reflecting strong shareholder returns driven by growing net income.

##### **Return on Capital Employed (ROCE)**

**Interpretation**: Significant improvement in capital utilization demonstrates enhanced efficiency in generating returns. Increased from 0.30 (2020) to 0.60 (2022), suggesting more efficient use of capital to generate returns.