**Ratio Analysis – Apple Inc.**

This report provides an analysis of Apple's liquidity, profitability, leverage, and efficiency ratios.

**Liquidity**

Since 2020, Apple's current ratio, quick ratio, and cash ratio have all declined, signaling potential liquidity challenges. In 2022, Apple's current assets fell below its current liabilities, and its working capital as a percentage of sales also decreased. Additionally, the decline in Apple's liquid assets relative to its current liabilities raises further red flags. Moreover, the reduction in Apple's defensive interval suggests that the company has fewer days to operate using only its liquid assets to cover operating expenses. Despite these liquidity concerns, Apple’s net trading cycle has been decreasing and is negative, indicating the company’s efficiency in converting inventory into cash quickly.

|  |  |  |  |
| --- | --- | --- | --- |
| **Liquidity Ratios** | **2022** | **2021** | **2020** |
| Current ratio | 0.88 | 1.07 | 1.36 |
| Quick Ratio | 0.50 | 0.71 | 1.02 |
| Cash Ratio | 0.15 | 0.28 | 0.36 |
| Defensive Interval | 693.77 | 995.45 | 1,415.25 |
| Inventory Days | 8.08 | 11.28 | 8.74 |
| Payable Days | 104.69 | 93.85 | 91.05 |
| Receivable Days | 26.09 | 26.22 | 21.43 |
| Net trading cycle | (70.52) | (56.36) | (60.87) |
| Working Capital as a % of Sales | -4.71% | 2.56% | 13.96% |

**Profitability**

In 2022, Apple's gross margin, EBITDA margin, EBIT margin, and net margin have all increased compared to 2020, indicating a strong ability to generate profits.

|  |  |  |  |
| --- | --- | --- | --- |
| **Profitability Ratios** | **2022** | **2021** | **2020** |
| Gross margin | 0.43 | 0.42 | 0.38 |
| EBITDA margin | 0.33 | 0.33 | 0.28 |
| EBIT margin | 0.30 | 0.30 | 0.24 |
| Net margin | 0.25 | 0.26 | 0.21 |

**Leverage**

Apple's debt to equity, debt to total assets, and long-term debt to capital ratios have all increased since 2020, indicating a rise in the company's debt levels. However, the times interest earned ratio has also improved, signaling Apple's enhanced ability to cover its interest obligations.

|  |  |  |  |
| --- | --- | --- | --- |
| **Leverage Ratios** | **2022** | **2021** | **2020** |
| Debt to equity (D/E) | 5.96 | 4.56 | 3.96 |
| Debt to total assets | 0.86 | 0.82 | 0.80 |
| Long-term debt to capital | 1.95 | 1.73 | 1.51 |
| Times interest earned | 40.75 | 41.19 | 23.07 |
| Debt coverage | 5.66 | 6.98 | 4.81 |

**Efficiency**

In 2022, Apple's total asset turnover and fixed asset turnover ratios improved, indicating more efficient use of both total and fixed assets. However, the inventory turnover ratio declined. Despite this, the return on equity (ROE) and return on capital employed (ROCE) both increased, signaling that Apple is using its capital, including equity, more efficiently to generate profits.

|  |  |  |
| --- | --- | --- |
| **Efficiency Ratios** | **2022** | **2021** |
| Total asset turnover | 1.12 | 1.08 |
| Fixed asset turnover | 9.67 | 9.60 |
| Inventory turnover | 38.79 | 40.03 |
| Return on assets (ROA) | 0.28 | 0.28 |
| Return on equity (ROE) | 1.75 | 1.47 |
| Return on capital employed (ROCE) | 0.56 | 0.49 |