

The following publicly traded companies were compared according to their Annual 2024 Reports.

- Microsoft (technology)
- JPMorgan Chase (banking)

The income statements, balance sheets and cash flow statements can be found in the appendix.

Microsoft:

1. Liquidity Ratios

a. *Current ratio = current assets/current liabilities*

$$159,734/125,286=1.27$$

b. *Quick ratio = (current assets – inventory)/ current liabilities*

$$(159,734- 1246)/125,286=1.27$$

2. Profitability Ratios

a. *Net profit margin = (net income/revenue) * 100*

$$(88,136/245,122)*100= 35.9\%$$

b. *ROA return on assets = (net income/total assets) * 100*

$$(88,136/512,163)*100=17.2\%$$

c. *ROE return on equity = (net income / shareholders equity) * 100*

$$(88,136/268,477)*100=32.8\%$$

3. Efficiency Ratios

a. *Asset turnover = revenue/total assets*

$$245,122/512,163 = 0.48$$

b. *Operating margin = operating income/revenue*

$$109,433/245,122 = 0.45$$

4. Solvency Ratios

a. *Debt to equity ratio = total liabilities/shareholders equity*

$$243,686/268,477 = 0.91$$

b. *Interest coverage ratio = operating income/interest expense*

$$109,433/2,935 = 37.3$$

JP Morgan Chase

1. Liquidity Ratios

- a. *Cash ratio* = *(cash + cash equivalents)/total liabilities*
 $23,372/3,658,056=0.0064$
- b. *Loan – to – deposit ratio LDR* = *total loans/total deposits*
 $1,347,988 /2,406,032= 0.56$
- c. *Liquid assets to total assets* = *(cash + marketable securities)/total assets*
 $(23,372+406,852+274,468)/ 4,002,814 =0.18$

2. Profitability Ratios

- a. *Net interest margin (NIM)* = *((interest income – interest expense)/*
*average earning assets) * 100*
 $(92,583/2,768,375)*100 = 3.3\%$
Although JP Morgan does not specifically state this in the balance sheet, the average earning assets of banks typically include loans, securities, federal funds sold, deposits with banks
- b. *Return on assets ROA* = *(Net Income / Total Assets) * 100*
 $(58,471/ 4,002,814)*100 = 1.5\%$
- c. *ROE return on equity* = *(net income /shareholders equity) * 100*
 $58,471/344,758 = 17\%$

3. Efficiency Ratios

- a. *Cost to income ratio* = *operating expenses/operating income*
 $91,797 / 177,556=0.52$
- b. *Assets per employee* = *total assets/ number of employees*
 $4,002,814 / 317,233=12.6$

4. Solvency Ratios

- a. *Tier 1 capital ratio* = *tier 1 capital/risk weighted assets*
 16.8%
- b. *Total capital ratio* = *(tier 1 + tier 2 capital)/risk weighted assets*
 18.5%
- c. *Debt – to equity ratio* = *total liabilities/shareholders equity*
 $3,658,056 / 344,758 = 10.6$

Comparisons:

In terms of liquidity ratios, Microsoft has both a strong current and quick ratio of approximately 1.27%. This indicates that the company has more current assets than current liabilities and subsequently shows that the company has good short term financial health. Meanwhile, JP Morgan has a low cash ratio (0.0064). This could be explained by the fact that the bank could have cash reserves smaller relative to their liabilities however this is not typical for a bank. Banks typically aim for a higher cash ratio in order to maintain liquidity and their obligations to customers etc.

The profitability ratios are also much higher in Microsoft relative to JP Morgan. Microsoft has a net profit margin of 35.9%, ROA of 17.2% and ROE of 32.8% whilst JP Morgan has values of 3.3%, 1.5% and 17% respectively.

Microsoft's assets turnover is 0.48, this demonstrates moderate revenue generation per asset dollar. JP Morgan has a cost-to-income ratio of 52% where over half of the operating income is attributed to operating expenses. This can be explained by the fact that in banking, scale and regulatory costs are high. However when it comes to assets per employee, JP Morgan has a value of 12.6 which shows a high asset intensity per staff member.

Microsoft's debt to equity ratio is 0.91. JP Morgan's debt-to-equity ratio is very high at 10.6 which would indicate that for lenders and investors this is a risky investment as the bank may be unable to repay debts.

The aforementioned values for Microsoft exhibit strong liquidity, high profitability as well as efficient asset use. However, the asset turnover itself is moderate which could suggest that there is room for improvement in their asset utilisation. Meanwhile, JP Morgan has a large asset base with very strong capital ratios (Tier 1 at 16.8% and total capital ratio at 18.5%). Although these are advantageous, JP Morgan also has low liquidity ratios which make it a high-level risk for investors.

Microsoft's high profit margins are typical for a technological firm of their size. Due to software sales and intellectual property, Microsoft is able to retain a high profit margin with a low reliance on physical assets. This in turn leads to higher ROE and ROA values.

Although the calculations demonstrated negative insight into JP Morgan's liquidity and profitability, JP Morgan is a highly established firm that has a reputation much greater than these values. This is because banks generally have high profit margins due to their unique business model. Since banks operate by leveraging deposits to generate loans and investments, banks are able to obtain high profitability. The disparity in the values obtained in the calculations could be attributed to human error and incorrect interpretation of the financial statements.

The large differences between both Microsoft and JP Morgan can be underpinned by the difference in their financial strategies. Whilst Microsoft invest heavily in R&D and innovation in order to drive margins, JP Morgan must focus on risk management and regulatory compliance.