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Final Data Translation Challenge

Financial Analysis

Costco Wholesale Corp

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OMSBA5270 Winter Quarter 2024

Introduction to Financial Data Insights for Decision Making

Professor Robert Bujan-Meyer

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# Introduction

The primary objective of this analysis is to assess the financial performance and health of Costco Wholesale Corp (COST). This analysis will provide valuable insights into the company’s financial position and long-term prospects, which can help us optimize our investment portfolios effectively.

In this paper, you will find a summary of Costco’s financial performance and health analysis, alongside an examination of stock prices movement during filing periods and the potential impact of the earnings report and global or local events on stock prices. The data utilized in this analysis has been sourced from the EDGAR database and Yahoo Finance, focusing primarily on Form 10-Q and Form 10-K SEC filing over the past 10 years. This filing data offers detailed insights into a company's financial performance on both a quarterly and annual basis.

Key financial ratios such as the Current ratio, D/E, and Net Profit Margin, along with additional data point including revenues, net income, and equity, have been strategically selected for their significance in evaluating crucial aspects of the company’s financial health. These metrics provide valuable insights into the company’s stability, growth potential, and overall investment opportunities.

I hope that this analysis will provide comprehensive financial insights to guide investment decisions and aid in the allocation of $100,000 for further in-depth analysis.

# Data Extraction and Processing

#### In this analysis, we extracted SEC financial filing reports to examine Costco Wholesale Corp financial data. Here is a brief background about the company:

Costco Wholesale Corporation is a prominent American multinational corporation within the retail industry. It operates a chain of membership-only big-box warehouse club retail stores that serves both individual customers and small- to medium-sized businesses. Costco was founded in the 1980s by Jim Sinegal and Jeffrey H. Brotman, and opened its first store in Seattle, Washington. Costco’s current CEO and director is Craig Jelinek. As of 2/22/2024, Costco Wholesale operates 875 warehouses worldwide and boasts over 129.5 million members. According to the report of annual net sales of $237.7B in 2023, it was ranked as the third-largest retailer globally.

## EDGAR API Data Retrieval Process

Data used in this analysis is sourced from the SEC EDGAR database through the "data.sec.gov" platform, which hosts RESTful APIs in JSON-format. The User-Agent specified in the request headers for this connection is “sberg@seattleu.edu”. The initial API call was made to retrieve all company data from <https://www.sec.gov/files/company_tickers.json>.

Using the obtained tickers, I then retrieved the Central Index Keys (cik\_str) to retrieve the filling history from the company facts for Costco Wholesale Corp (COST, 0000909832) through API connection to [https://data.sec.gov/api/xbrl/companyfacts/CIK##########.json](https://data.sec.gov/api/xbrl/companyfacts/CIK).

For each file obtained from SEC EDGAR database, data structure and the content were examined to identify patterns, anomalies, and the need for data cleanup. Any duplicated data found was removed. Following this, summary statistics and visualizations were used to gain understanding into the data relationships and identify trends.

For this analysis, our focus will be on data extracted from Form 10-Q and 10-K, and the data between 2013-2023. The following is a list of filling files retrieved for this analysis.

* **Revenues**: This dataset provides revenue information from fiscal year 2013 to 2016.
* **RevenueFromContractWithCustomerExcludingAssessedTax**: This is additional revenue data from fiscal year 2017 to 2023.
* **Assets**: This data provides the total assets as of the balance sheet.
* **AssetsCurrent**: This data provides current assets as of the balance sheet.
* **Liabilities**: This data provides the sum of the carrying amounts as of the balance sheet date of all liabilities that are recognized.
* **LiabilitiesCurrent:** This data provides total obligations incurred as part of normal operations that are expected to be paid during the following twelve months or within one business cycle.
* **StockholdersEquity:** This data provides a total of all stockholders' equity.
* **NetIncomeLoss**: This data provided the portion of profit or loss for the period.

# Data Analysis and Visualizations

In this analysis, our focus will be on five key investment data points and ratios: annual revenues, net income, equity, current ratio, debt-to-equity ratio (D/E), and net profit margin. These metrics are important when analyzing stock investments as they provide crucial insights into a company’s financial health and performance*.*

#### Costco Wholesale Corp.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Revenues (Millions of US $)** | **Growth Rate** | **Net Income (Millions of US $)** | **Growth Rate** | **Equity (Millions of US $)** | **Growth Rate** |
| 2023 | $242,290 | 6.76% | $6,292 | 7.67% | $25,058 | 21.39% |
| 2022 | $226,954 | 15.83% | $5,844 | 16.72% | $20,642 | 17.52% |
| 2021 | $195,929 | 17.49% | $5,007 | 25.11% | $17,564 | -3.94% |
| 2020 | $166,761 | 9.21% | $4,002 | 9.37% | $18,284 | 19.95% |
| 2019 | $152,703 | 7.86% | $3,659 | 16.75% | $15,243 | 19.10% |
| 2018 | $141,576 | 9.73% | $3,134 | 16.98% | $12,799 | 18.75% |
| 2017 | $129,025 | 8.68% | $2,679 | 14.00% | $10,778 | -10.77% |
| 2016 | $118,719 | 2.17% | $2,350 | -1.14% | $12,079 | 13.77% |
| 2015 | $116,199 | 3.16% | $2,377 | 15.50% | $10,617 | -13.70% |
| 2014 | $112,640 | 7.12% | $2,058 | 0.93% | $12,303 | 13.57% |
| 2013 | $105,156 | - | $2,039 | - | $10,833 | - |

Revenue

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*Costco annual revenues ending September 3, 2023 was****$242,290B****, about* ***6.76% increase****year-over-year.*

Net Income

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*Costco annual net income ending September 3, 2023 was****$25,058B****, about* ***21.39% increase****year-over-year.*

Equity

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*Costco annual equity ending September 3, 2023 was****$6,292B****, about* ***7.67% increase****year-over-year.*

Overall, Costco’s revenue, net income, and equity show a positive signal of a general upward trend over the analyzed period. While there were fluctuations in the growth rate, there were exceptional performance year, such as the spikes of over 15% revenue increased year over year from 2020 to 2022. This significant increase could be attributed to the impact of the coronavirus pandemic that swept through the globe in early 2020. This could be due to Costco was considered an essential business and able to continue their growth in revenue and net sales during this period. Additionally, its ecommerce business also saw a 50% increase in sales in 2020 (Jelinek, 2020 Annual Report, 2020) and a 9% increase in revenue from membership fees in 2021 (Jelinek, 2021 Annual Report, 2021). This growth was also reflected in the net income increased during that timeframe. Despite fluctuations in individual years, the overall trajectory shows a positive trend, which suggests the company's sales performance stability and its ability to generate revenue and increase profits over the long term. In term of equity, Costco experienced exceptionally growth in 2023, with an increase of over 21% from 2022.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Current Ratio** | **Growth Rate** | **D/E** | **Growth Rate** | **Net Profit Margin** | **Growth Rate** | **ROE** | **Growth Rate** |
| 2023 | 1.07 | 4.56% | 1.75 | -16.83% | 2.60 | 0.85% | 0.25 | -11.31% |
| 2022 | 1.02 | 1.96% | 2.11 | -10.10% | 2.57 | 0.76% | 0.28 | -0.69% |
| 2021 | 1.00 | -11.46% | 2.35 | 16.36% | 2.56 | 6.49% | 0.29 | 30.24% |
| 2020 | 1.13 | 11.99% | 2.02 | 3.04% | 2.40 | 0.15% | 0.22 | -8.82% |
| 2019 | 1.01 | -0.74% | 1.96 | -9.71% | 2.40 | 8.24% | 0.24 | -1.97% |
| 2018 | 1.02 | 2.87% | 2.17 | -7.60% | 2.21 | 6.61% | 0.24 | -1.49% |
| 2017 | 0.99 | 1.30% | 2.34 | 35.94% | 2.08 | 4.89% | 0.25 | 27.76% |
| 2016 | 0.98 | -3.69% | 1.72 | -17.43% | 1.98 | -3.23% | 0.19 | -13.10% |
| 2015 | 1.01 | -16.87% | 2.09 | 25.29% | 2.05 | 11.96% | 0.22 | 33.84% |
| 2014 | 1.22 | 2.14% | 1.67 | -6.29% | 1.83 | -5.77% | 0.17 | -11.13% |
| 2013 | 1.19 | - | 1.78 | - | 1.94 | - | 0.19 | - |

Costco’s Assets and Liabilities

A graph showing the growth of the company

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**Current Ratio** = Current Assets / Current Liabilities

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Apple Inc.’s average current ratio between 2017-2023 was around 1.2. Their current ratios exceeded 1 for the majority during these years indicates that they had sufficient liquid assets to cover their short-term obligations. However, in recent years, Apple shows a decline in the current ratio compared to earlier periods. The subsequent downward trend from the end of 2019 to the end of 2022 when it dropped below 1 has raised concerns about their future financial standing, specifically regarding short-term solvency risk. A current ratio decreases below 1 indicates negative working capital, which raises concerns on their ability to fund the day-to-day operations, and implies operational inefficiency in managing current assets and current liabilities.

**Debt-to-Equity Ratio (D/E)** = Total liabilities / Total shareholders' Equity

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Apple Inc.’s Debt-to-Equity steadily increase between 2013 to the end of 2022. This suggests that Apple was in a risky financial position, with their liabilities increasing for every dollar of shareholder equity. This trend could be interpreted as Apple having an unstable capital structure or a reduction in solvency, futher indicating an increasing reliance on external liability relative to equity. The reduction in solvency raises concerns about their ability to cover their obligations from their equity.

**Return on Equity Ratio (ROE)** = Net Income / Shareholder EquityA graph with a line going up

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Apple’s Return on Equity gradually increased between 2017 to the end of 2018 with approximately 10% growth. A significantly increased in their ROE can be observed between the end of 2019 to 2022 at an average 48.64% increase rate. This indicates that Apple performed very well during these four years, as the increase in ROE reflects Apple’s ability to efficiently turn shareholder equity into net income and effectively use equity capital to generate profits. However, the drop after 2022 signals a change in their direction and we need to continue monitoring their financial status to assess whether this trend will persist, including looking for signals of potential sustained decline, and whether Apple can reverse the trend and increase their ROE in the following year.

Kroger’s return on equity remains relatively stable before 2018 and then experienced a siginificant increase of approximately 43.33% between 2018-2019. The increase in ROE indicates a boost in profit generation during that period. However, their equity ratio exhibited flutuations after 2019 signifies that the= increase in 2018 might have been influenced by a major event that occurred around that time but did not have a lasting impact.

**Net Profit Margin** = Net Income / Total Revenue

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Upward trend over 10 years.

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## Stock Market Analysis

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# Strong fiscal 2021. (Jelinek, 2021 Annual Report, 2021)  In today's press release, we reported operating results for the fourth quarter of fiscal 2021 to 16 weeks ended August 29. Reported net income for the quarter came in at $1.67 billion or $3.76 per share. Last year's fourth-quarter net income came in at $1.389 billion or $3.13 per diluted share. during the fourth quarter. Those numbers including the positive impact from gas inflation and FX. Foreign currencies relative to the U.S. dollar positively impact sales by approximately 230 basis points, whereas gasoline price inflation positively impacted sales by approximately 385 basis points. (Galanti, 2021)

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From the above graph, the stock market appears to respond well to the latest annual report especially a 60-day after the report date was increase from original price at day-0 of $544.73 to $599.08, a 9.97% and continue increase 90-day after the report day to close at $650.65 or an additional 8.6%. Why?

# Conclusion

Financial ratios for both Apple Inc. and Kroger have remained relatively consistent in the year prior to 2018. Both companies are also taking risks, relying more on borrowing from external resources to fund assets rather than utilizing shareholder equity. Based on current ratios, Apple appears to be in a better financial position with sufficient liquid capital to cover short-term obligations. However, downward trends in the recent year have caused concerns about their future standing and this is something we should continue monitoring to observe the company’s solvency status. The return on equity coupled with the asset turnover ratio shows a positive signal for Apple’s financial standing as we can see a boost after 2020 and continues until 2023, however, the return on equity ratio drops afterward. The increase in return on equity could be due to the release of new products and services as Apple operates in the highly competitive market and relies on their consumer demand which can fade away over time.

For Kroger, an increase in debt has impacted current ratios. This could be due to increased obligations related to maintaining their operations and an additional Kroger delivery customer fulfillment center opened during 2022 as stated in Form 10-K (Co., 2023), which also has potential to spur growth in their business and future financial opportunities. Kroger’s return on equity and equity ratio had a noticeable boost during 2018 and 2019, however return on equity fluctuated afterwards, which indicates the earlier increase may be due to a specific event. For example, the pandemic may have led to an increase in consumer consumption. Kroger’s asset turnover ratio has increased YoY since 2020 suggesting that they are more effective at using their assets to drive sales than in prior years.

In summary, both Apple and Kroger’s financial health appears to be positive. Kroger may be a better investment opportunity for those who are looking for a stable investment with low volatility over time. It also has growth opportunities in 2024 given an in-progress merger with Albertson and expansion of their delivery customer fulfillment centers. Apple’s financials fluctuate more and appear to react to release of new or upgraded products and services. Apple could be a good fit for those investors who believe in Apple products and technology and have the time to benefit from share price increases as products are released over time.

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