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Investment Analysis: Evidence on the Healthcare Industry

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Abstract: This study conducts an in-depth analysis of investment opportunities in the healthcare sector, focusing on four major companies: Humana Inc., Molina Healthcare, Universal Health Services, and Cigna Corporation. The research evaluates the financial performance of these firms using various valuation metrics, including the Price-to-Earnings ratio, Earnings Per Share, Profitability Ratio, and PEG ratio. The study aims to provide insights into the relative attractiveness of these companies as investment options by assessing their financial health and growth potential. Using data from NASDAQ and ESTIMIZE, the study highlights the differential impact of financial metrics on stock performance. The findings reveal that while Cigna Corporation offers stability and consistent growth, Molina Healthcare demonstrates the potential for higher returns under improved conditions. The research contributes to the existing literature by providing a comparative analysis of healthcare companies' stock performance, considering current and projected future performance, thereby offering a comprehensive view for potential investors.

Keywords: Healthcare Sector, Stock Valuation, Financial Metrics, Investment Analysis, Profitability Ratios.

1. Introduction

The volatility and complexity of stock markets make investment analysis crucial for investors [1]. Post-COVID-19, the financial landscape has witnessed significant changes, with an increased emphasis on health-related investments as healthcare and medical insurance companies have gained market prominence [2]. Companies in the healthcare sector, such as Humana Inc., Molina Healthcare, Universal Health Services, and Cigna Corporation, now present unique opportunities and challenges for investors. This study focuses on these firms to explore the relationship between stock valuation metrics and company performance, providing a comprehensive analysis of investment decisions in the healthcare sector. This essay will analyse the different stocks to determine the company's condition and give investors suggestions for investment. After COVID-19, the importance of health and health protection has increased in human life [3]. Connecting with economics, companies and enterprises providing health and medical insurance services will have more chances for future development and can get more market positions. This research contributes by providing a detailed comparison of healthcare companies' stock performance using valuation metrics such as the Price-to-Earnings (hereafter P/E) ratio, Earnings Per Share (hereafter EPS), Net Profit Margin (hereafter NPM) and Gross Profit Margin (Hereafter GPM). Unlike traditional analyses that often focus on a

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single financial metric, this study combines multiple valuation techniques to provide a holistic view of investment attractiveness. The findings highlight the differential impact of financial metrics on stock performance and offer a nuanced understanding of healthcare firms' investment potential. Furthermore, considering the evolving economic environment, the study's focus on current and projected future performance offers insights into these firms' sustainability and growth potential.

2. Companies Overview

This essay chooses the four companies: HUMANA INC, Molina Healthcare, Universal Health Services, and Cigna Corporation. The basic information for each company is as follows.

2.1. HUMANA Inc

This company is a health insurance company founded in 1961. It focuses on providing health insurance and health care plans. As the area of HUMANA Inc. operates, it covers the discipline of medical insurance, healthcare services, medicare advantage programs, Medicaid programs, and employer-sponsored health plans. Its mission is to help humans achieve better health and get diverse solutions.

2.2. Molina Healthcare

This company provides health insurance services to low-income and vulnerable populations. It was founded in 1980. Primary Practice Areas of Molina healthcare are medical assistance (Medicaid), medical insurance (medicare) and health management services. It is committed to improving the accessibility and quality of healthcare services and providing necessary health welfare to the members.

2.3. Universal Health Services

The company is a U.S.-based healthcare company founded in 1977. Its two core business units offer various healthcare services and products. The company is devoted to resolving medical problems. The four companies compete in the USA's healthcare and insurance market. The stock price shows the company is in a modern era.

2.4. Cigna Corporation

The company is a U.S.-based global health services company founded in 1982 that offers a wide range of health, life and accident insurance policies. It is dedicated to providing comprehensive healthcare services and coverage to help clients achieve healthier lives.

3. Methodology

This essay will use basic data to analyse stock value. The common data are the P/E ratio, EPS, PEG, GPM, NPM and GP/A ratio.

3.1. P/E Ratio

The P/E ratio evaluates a firm's stock price relative to its earnings, showing how reasonably the current share price reflects its recent financial performance [4]. A higher P/E ratio for a company relative to another suggests that the market anticipates greater potential for earnings growth in the future for the company with the higher P/E ratio. It is suggested that investors buy low-P/E ratio stock. The low-price stock presents a low cost and more return on the investment. Stocks with a lower P/E

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ratio are considered more attractive investment opportunities. The P/E ratio is used to compare the valuations of companies within the same industry or sector [5].

3.2. Earnings Per Share

The EPS ratio refers to a company's net income attributable to each issued share, and it is an important financial target that measures the net profit for each common stock, typically in a fiscal year or a quarter [6]. The formula of Earnings per share is presented in Equation (1).

$$EPS = \frac{(\text{Net Profit} \ - \ \text{Preferred Dividends})}{\text{Weighted Average Shares Outstanding}} \tag{1}$$

When analysing the stock value, investors use the P/E ratio and the EPS to consider the stock condition. (Equation (2))

$$Earnings\ per\ share = \frac{\text{Share price}}{P/E\ \text{ratio}} \tag{2}$$

The lower the P/E ratio stock is, the better to invest. According to the formula, the stock is better to invest if the EPS is higher.

3.3. PEG Ratio

The PEG ratio's popularity stems from investors recognising the link between growth and the P/E ratio. High-growth companies usually have higher price-to-earnings (P/E) ratios than low-growth ones, assuming other factors are constant. Advocates of the PEG ratio suggest that the short-term growth rate should roughly match the P/E ratio when companies are properly valued, making a PEG of 1.0 a useful benchmark for screening and identifying investment opportunities [7]. The formula for GPM is presented in Equation (3).

$$Gross\ profit\ margin = \frac{\text{Gross profit}}{\text{Revenue}} \tag{3}$$

Analysing historical data and trends in gross margins will tell whether a company's profitability has improved. This helps with the analysis of the company's profitability and efficiency. It also means that the GPM measures the return on sales after deducting direct costs [8].

3.4. Net Profit Margin

NPM is a profitability ratio that compares net income to sales and reflects the company's efficiency in managing operational costs over a specific period. A higher NPM indicates better performance, showing the company can achieve substantial profits while effectively managing operational expenses [9]. The formula for GPM is presented in Equation (4).

$$Net\ profit\ margin = \frac{\text{Net income profit}}{\text{Revenue}} \tag{4}$$

3.5. GP/A Ratio

$$Gross\ profit\ to\ asset = \frac{\text{Gross Profit}}{\text{Assert}} \tag{5}$$

The formula of GP/A is presented in Equation (5). A stable or improving Gross Profit to Assets Ratio may signify robust company performance and effective asset management, enhancing its attractiveness as an investment opportunity [10]. In summary, the Gross Profit to Assets Ratio offers critical view of a company's asset utilisation efficiency and profitability, thereby assisting investors in making well-informed investment decisions.

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4. Analysis

4.1. P/E ratio

Based on data from NASDAQ and ESTIMIZE, the current (TTM) and forward (NTM) P/E ratios for each company are as follows in Table 1.

Table 1: P/E ratios

	Humana Inc	Molina Healthcare	Universal Health Services	Cigna Corporation
NTM P/E	20.64	13.51	19.36	11.32
TTM P/E	16.36	15.60	21.45	12.76

From a P/E ratio perspective, a lower P/E ratio typically indicates greater investment value. Molina Healthcare and Cigna Corporation exhibit relatively lower P/E ratios, with Molina Healthcare's NTM P/E being lower than its TTM P/E and Cigna Corporation's NTM P/E also lower than its TTM P/E. Therefore, Molina Healthcare and Cigna Corporation are more attractive investment choices based on their lower P/E ratios and the trend of declining NTM P/E ratios compared to their TTM P/E ratios.

4.2. EPS growth ratio

Based on data from NASDAQ and ESTIMIZE, the EPS growth ratios for each company are as follows in Table 2.

Table 2: EPS growth rate

	Humana Inc	Molina Healthcare	Universal Health Services	Cigna Corporation
EPS growth ratio	-0.207	0.155	0.108	0.127

From the expected EPS growth rates perspective, Molina Healthcare demonstrates the most favourable positive growth expectation, followed by Cigna Corporation.

The PEG ratio, which utilises the P/E ratio and the expected EPS growth rate to assess a company's valuation, provides valuable insights into the relative attractiveness of different firms. Molina and Universal exhibit similar PEG ratios in this analysis, with Molina at 0.781 and Universal at 0.709. Both companies appear to be undervalued based on these metrics. In contrast, Cigna's PEG ratio is 1.016, indicating that the company's growth prospects align closely with market expectations. This suggests that Cigna's developments are consistent with anticipated performance. Molina and Universal have a slight advantage in their PEG ratios, indicating a potentially more favourable valuation relative to their growth rates.

To evaluate profitability ratios, we analyse GPM and NPM based on data from NASDAQ and ESTIMIZE. The key metrics for each company are in Table 3.

Table 3: Profit margin

	Humana Inc	Molina Healthcare	Universal Health Services	Cigna Corporation
GPM	0.17	0.16	1.00	0.81
NPM	2%	3%	5%	3%

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4.3. Summarise of analysis

In summary, Universal Health Services and Cigna Corporation demonstrate superior profitability. Universal Health Services leads with the highest GPM and NPM, while Cigna Corporation follows with strong performance in both metrics. In the context of risk investment analysis, a detailed comparison between the revenue growth rate and EPS (earnings per share) growth rate provides insights into each company's financial health and future performance prospects. Here is a comprehensive evaluation.

4.3.1. Humana Inc

Humana's negative EPS and positive revenue growth rates indicate that while the company is increasing its revenue, its profitability per share is declining. This scenario often indicates rising operational costs or increased competitive pressures impacting net earnings. Investors should be cautious as this might suggest a potential squeeze on margins or inefficiencies within the company's operations.

4.3.2. Molina Healthcare and Universal Health Services

Molina Healthcare and Universal Health Services exhibit lower revenue growth rates than their EPS growth rates. This discrepancy suggests that these companies might be experiencing significant improvements in cost management or operational efficiencies, which could enhance profitability despite slower revenue growth. The alignment of Molina's EPS growth with its revenue growth rate suggests a relatively stable and efficient financial model. The company's ability to translate revenue growth into EPS growth indicates effective cost control and operational efficiency. Although Universal Health Services shows revenue growth, its gross profit has decreased compared to earlier years. Despite rising revenue, this reduction in gross profit may indicate potential issues such as higher costs of services or increased competitive pressures, leading to diminished profitability. This trend suggests that the company's long-term outlook may be less optimistic than its peers.

4.3.3. Cigna Corporation

Cigna exhibits a favourable balance between EPS and revenue growth rates, reflecting a stable and robust financial position. The company's performance metrics suggest strong profitability and efficient operations. Cigna's consistent growth in both EPS and revenue implies a well-managed business model with effective cost control and sustainable competitive advantages.

4.4. Performance forecast

For comparative analysis, assuming long-term EPS growth rates, the projected returns for Molina Healthcare and Cigna are as follows.

4.4.1. Molina Healthcare

With an EPS growth rate of 13%, the EPS of Molina Healthcare is as follows in Table 4.

Table 4: Forecast EPS of Molina Healthcare

Year	EPS
1	-6%
2	6%
3	19%

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Table 4: (continued).

4	35%
5	53%

If Molina's EPS growth rate increases to 15%, the returns in the second year will exceed Cigna's, indicating that higher growth rates could lead to significantly better performance in the short term.

4.4.2. Cigna Corporation

With an EPS growth rate of 10%, Molina Healthcare's EPS is as follows in Table 5.

Table 5: Forecast EPS of Molina Healthcare

Year	EPS
1	-2%
2	7%
3	18%
4	30%
5	43%

While slightly lower in the short term than Molina at higher growth rates, Cigna's returns are more stable and predictable. This stability reflects Cigna's strong financial health and efficient operations.

In conclusion, while Molina Healthcare may offer higher returns if its EPS growth rate improves, Cigna Corporation's more stable performance and better profitability metrics make it a more reliable investment choice. Cigna's consistent and robust financial performance suggests a lower risk and more predictable return profile than Molina, especially given current market conditions. Thus, based on the analysis, Cigna is recommended as a better investment choice due to its superior stability and profitability.

5. Conclusion

In summary, when investors are initially exposed to the financial markets, they can use the financial statement and corresponding formula to calculate financial values, such as the income statement, balance sheet and financial ratios. Multiple values are equally important: TTM P/E, NTM P/E, EPS, Profit Margin (Gross profit and Net Income), GP/A ratio. In the other hand, use the website to help know the condition of the companies and the future development predictions. The companies' conditions directly affect the stock price and the investors' decision-making strategy. This article provides an in-depth analysis of the preliminary research conducted on stock investments, underscoring the complexity of the task. It emphasises that investing in stocks is not merely about having basic market knowledge but requires sophisticated predictive modelling techniques. Accurate forecasting and effective risk management necessitate a profound understanding of quantitative analysis and market behaviours. Furthermore, the article explores the challenges of acquiring and applying advanced knowledge to make informed investment decisions in a volatile market.

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