Financial Performance evaluation of Bayer AG and Pfizer Inc-A comparative ratio analysis

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Table Of Contents

Snapshot

An accounting ratio is a relative calculations of selected numerical values taken from an enterprise's financial statements. It is the way of systematically manipulating figures taken from the financial statements of a company to generate information that are used as **a part of investment decision making process**

- **Time series or Trend Analysis:** To evaluate the performance of one firm, its current ratios will be compared with its past ratios. It gives an indication of changes and reflects whether the firm's financial performance has changed over that period of time
- **Cross-Sectional Analysis:** To compare ratios of one firm with another firm in the same industry at the same point in time. This comparison shows the relative financial position and performance of the firm
- **Industry Analysis:** To determine the financial condition and performance of a firm, its ratios may be compared with average ratios of the industry to which the firm belongs. It helps to ascertain the financial standing and capability of the firm in the industry to which it belongs.

Ratio Analysis: Advantages and disadvantages

Advantages

- Ratios help compare current performance with previous records
- Ratios help compare a firm's performance with similar competitors
- Ratios help monitor and identify issues that can be highlighted and resolved

Disadvantages

- Ratio analysis information is historic – it is not current
- Ratio analysis does not take into account external factors such as a worldwide recession
- Ratio analysis does not measure the human element of a firm

Table Of Contents

Pharmaceutical Industry Overview

Pharmaceutical industry has come a long way to where it stands today, and they have been the top performers in an era of aging population, high healthcare cost and ongoing development of profitable costly medicines. Investors seeking to invest in pharmaceutical company have a wide variety of publicly traded companies to choose from. To take wise decision, they need to consider key financial ratios that are helpful in the analysis and equity evaluation of pharma firms. Financial ratio analyses play a vital role in analyzing the financial situation of the company.

As per Financial year 2016, the following were the top 5 pharmaceutical companies around the globe based on net sales revenue. Close competitors Pfizer Inc. and Bayer AG have been selected for the purpose of the study

Company	Net Sales Revenues*	EBITDA*	EBIT*	Net Income*
Johnson & Johnson	71,890	23,915	20,161	16,540
Pfizer	52,824	14,824	9,067	7,215
Bayer	51,743	11,903	7,762	5,013
Roche	51,336	18,140	14,280	9,744
Novartis	49,386	15,147	8,972	6,712

Source for Table-Annual reports (2016), *($M)

Pfizer is a global biopharmaceutical company engaged in discovering, developing, manufacturing of healthcare products

Business Description

- Year of Incorporation: 2 June1942
- Headquarted: New York City, United States
- CEO : Ian C. Read
- Business Focus: Pharmaceuticals
- Company type: Public
- Annual Sales ($ B): 52.82

About Pfizer

Pfizer is an American global pharmaceutical corporation is among the world's largest pharmaceutical companies.
Its portfolio includes medicines, vaccines and medical devices, as well as consumer healthcare products.
Pfizer was founded in 1849 by cousins Charles Pfizer and Charles F. Erhart in New York City as a manufacturer of fine chemicals. Its discovery of Terramycin (oxytetracycline) in 1950 put it on a path towards becoming a research-based pharmaceutical company.

Company Segment

- Pfizer Essential Health (IH)
- Pfizer Innovative Health

The Company's contract manufacturing business, Pfizer CentreOne, consists of its contract manufacturing and active pharmaceutical ingredient sales operation, including manufacturing and supply agreements with Zoetis Inc., and Hospira's One-2-One sterile injectables contract manufacturing operation.

Bayer is a German multinational chemical, pharmaceutical and life sciences company, founded in Barmen in 1863

Business Description

- Year of Incorporation: 1 Aug 1863
- Headquarted: Leverkusen, Germany
- CEO : Werner Baumann
- Business Focus: Life Sciences
- Company type: Public
- Annual Sales ($ B) : 49.20

BAYER

About Bayer

- Bayer is a German multinational chemical, pharmaceutical and life sciences company Life Science company with a more than 150-year history and core competencies in the areas of health care and agriculture
- Bayer's primary areas of business include pharmaceuticals, consumer health, crop science, animal health and polymer business

Company Segment

- Pharma - ceuticals
- Consumer Health
- Crop Science
- Animal Health

Corporate Function and Business Services

Currenta (60%)	Covestra (53%)

Rationale

- The purpose of this study was to evaluate and compare the financial health of the two selected pharmaceutical companies, Bayer AG and Pfizer Inc.
- This study is designed for comparing the financial performance, judging efficiency, locating weakness of the selected pharmaceutical firms
- The need of financial analysis is to interpret the information contained in financial statement so as to judge future earnings, ability to pay interest, debt maturities and profitability. The data gives an intuitive understanding of how the company conducts business.

Financial ratio analysis has been extensively employed to assess the financial performance of operations for a long time by investors, creditors, and managers. It permits them to obtain more valuable information from financial statements than they can receive simply from reviewing the absolute numbers reported in the documents (Andrew & Schmidgall, 1993)

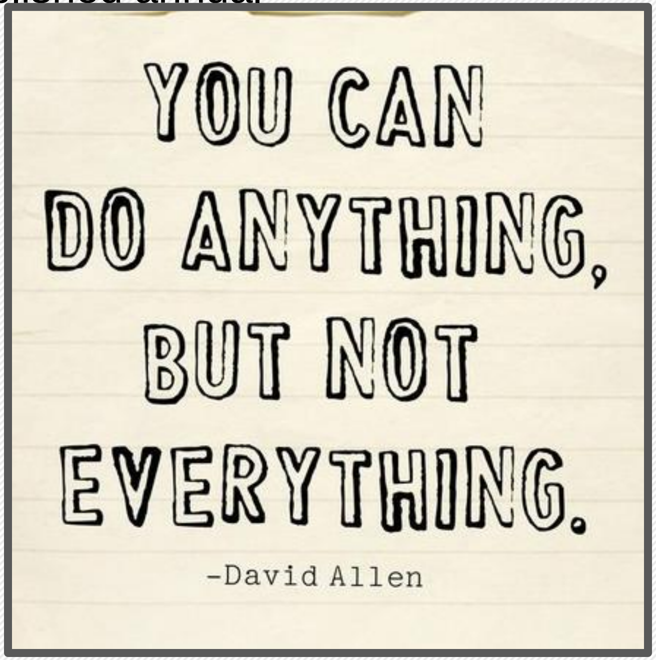
Objective

To assess and compare the selected Pharmaceuticals firms over a period of two financial year (2015 and 2016) on their performance related to-

- Liquidity ratios
- Profitability ratios
- Debt coverage ratios
- Asset management ratios
- Market value ratios

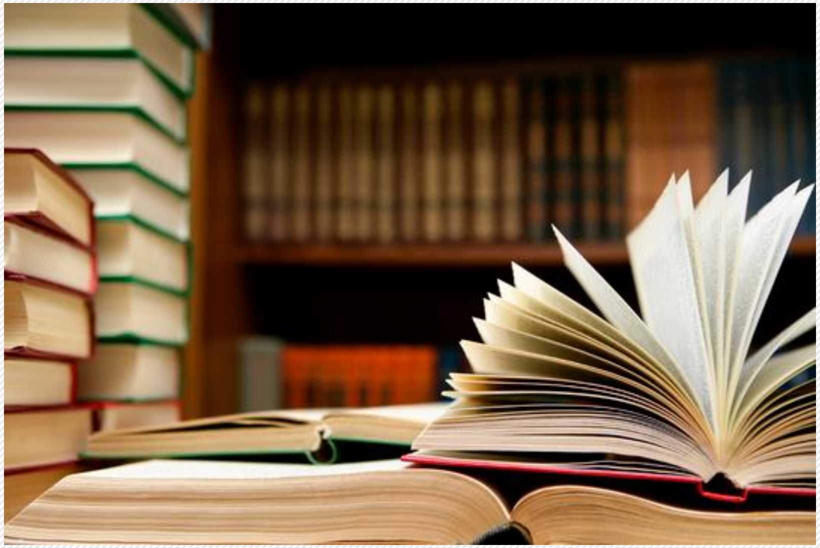
Limitation

- The present study is based on ratio analysis which has its inherent limitations
- As researcher being an external analyst, the scope of access to internal data related to the financial performance of Pharmaceutical industry was limited
- This study is based on secondary data taken from published annual reports of selected Pharmaceutical companies



Review of Literature

- A non-systematic literature review was undertaken to identify the financial ratios included in articles in journals, industry publications, and articles in magazines and research paper’s.
- To identify ratio’s, searches of academic databases using keywords such as “financial management”, “profitability and liquidity” and “Market Value”, “Debt and asset management” “comparative ratio analysis” “price/earning ratio” were undertaken



Use of financial ratios to assess the firm performance is not new. A simple literature search can find thousands of publications on this topic. The studies often differentiate themselves from the rest by developing and using different independent variables (financial ratios) and/or employing different statistical or machine learning based analysis techniques.

Table Of Contents

Material And Methods

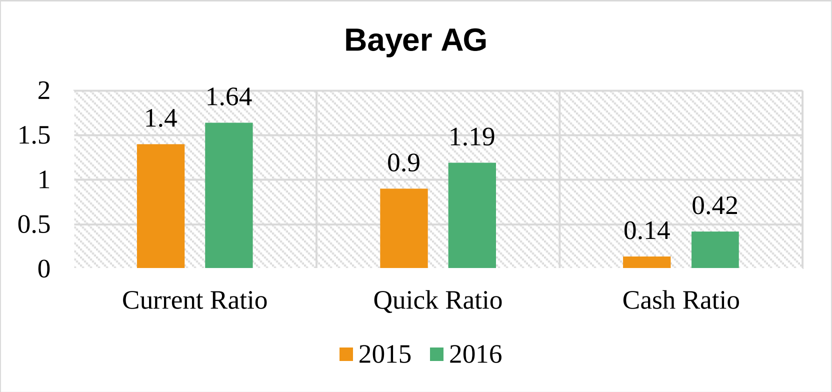
- **Type of study**: Exploratory in nature (Quantitative and Descriptive)
- **Nature of Data (information) collected**: Secondary data
- **Sampling technique:** Convenient sampling technique
- **Study duration:** Three months i.e. 6th Feb 2017 to 5th May 2017
- **Data collection tools:**
  - **Method for data collection and duration :** key numerical data of FY 2015 and FY 2016 collected from selected company's-
    - Balance sheet
    - Income statement
    - Cash Flow
  - **Sources of secondary data**
    - Annual report, 10 K filling
    - Company website
    - Internet
    - Confidential sources

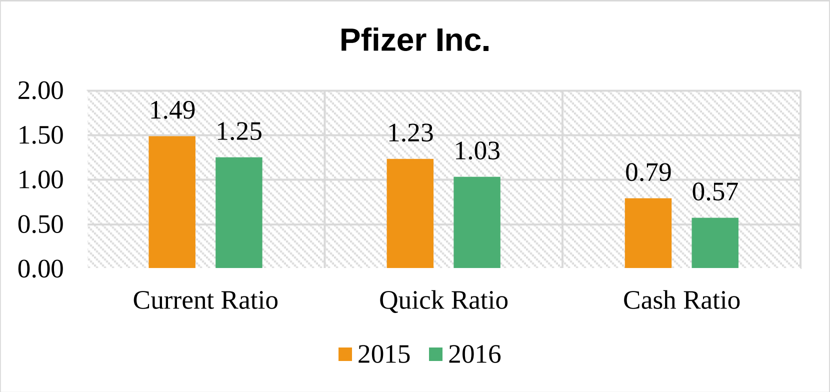
Data Analysis Tools:
Formula to be used for Calculations

- **Liquidity**
  - Current Ratio=Current assets /Current liabilities
  - Quick Ratio=(Current Assets-Inventories)/Current Liabilities
  - Cash Ratio=Cash / Current Liabilities
- **Profitability**
  - Net profit margin=Net profit after tax/sales
  - Gross Profit margin ratio=Gross profit/sales
  - Return on Total Assets=Net profits after taxes / total assets
  - Operating Profit Margin=Operating profits / Sales
- **Debt Coverage**
  - Debt Ratio =Total liabilities / Total assets
  - Time interest earned = EBIT / Interest charged
  - Book value per share = Common stockholder's equity / Outstanding shares
- **Assets Management**
  - Total assets turnover=sales/total assets
  - Fixed assets ratio=sale/net fixed assets
- **Market Value**
  - Earnings per share ratio = Net income /weighted average number of share outstanding
  - Market/Book ratio= Market price per share/Book value per share
  - P/E ratio= Market value per share/earning per share

Table Of Contents

Liquidity is the ability of a company to meet its financial obligations as they come due, ability to pay its short term debts

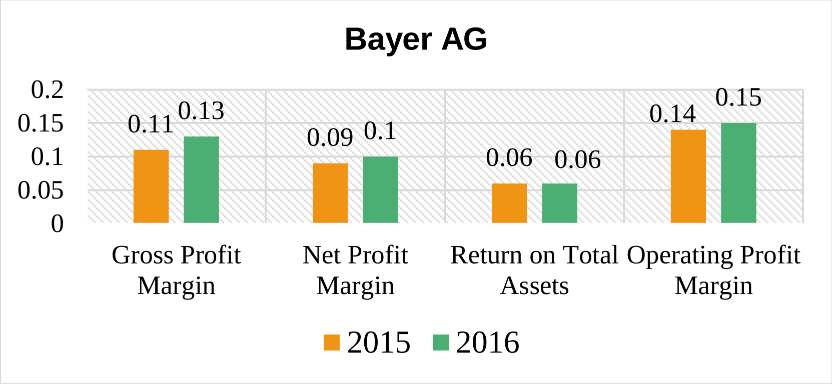


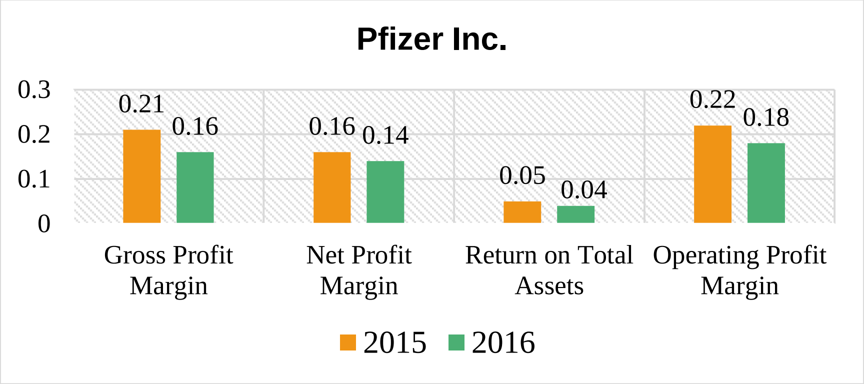


Metrics	Higher the ratio better the performance
Current Ratio	Pfizer performance is better than Bayer for FY2016, but Pfizer performance has decreased over the year, whereas Bayer shows a positive trend.
Quick Ratio	Bayer's quick ratio rose, suggesting it had more asset to cover its liabilities compared to Pfizer whose quick ratio was 1.03 down from 1.23 in 2105, suggesting Bayer had an edge over Pfizer on this metric
Cash Ratio	Bayer and Pfizer performance was considered poor on this font as both were way below one, implying none of the company had enough funds to cover its liabilities.

Bayer has moved to a higher liquidity compared to last year and but Pfizer out-performed Bayer in the FY2016

Profitability Ratio, measure of the firm's overall profitability, performance and sustainability

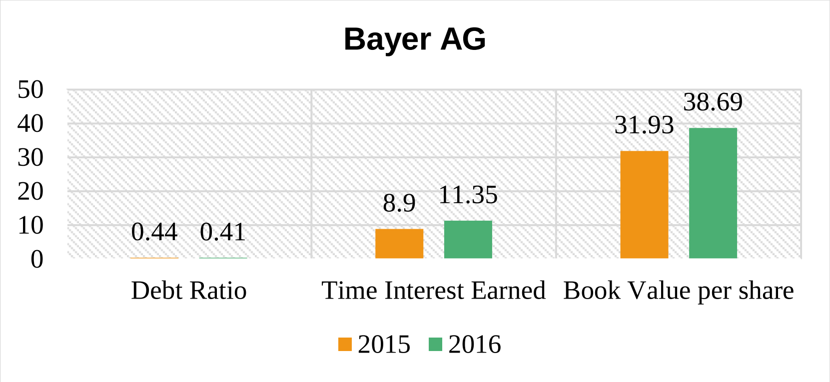


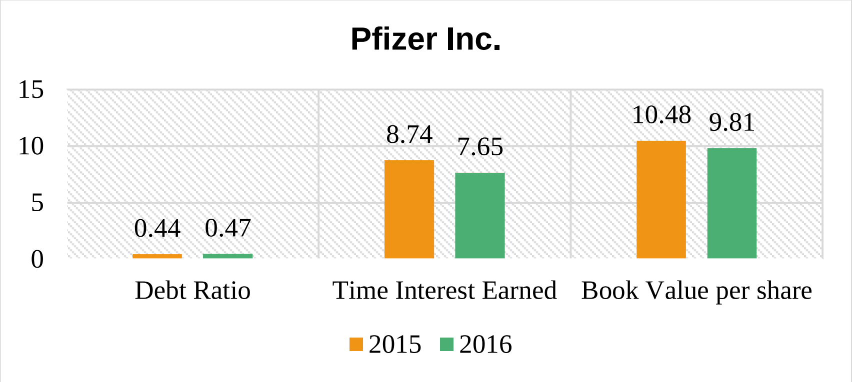


Metrics	Higher the ratio more the profitability
Gross profit margin	Even though Pfizer’s gross margin profit has decreased from 2015, still it performs better than Bayer AG.
Net profit margin	On comparing, Bayer had a lower net profit margin in 2016 compared to Pfizer
Return on total assets	Bayer was able to earn more on every dollar invested compared to Pfizer.
Operating profit margin	Bayer's showed an increasing trend in operating profit margin suggesting an improvement in profitability. But Pfizer again outperformed Bayer on this indicator.

Pfizer Inc. performed better on profitability ratio’s than Bayer AG in FY2016, suggesting it had a better ability to convert its sales into cash.

Debt Coverage Ratio, measures a firm's total liabilities as a percentage of its total assets

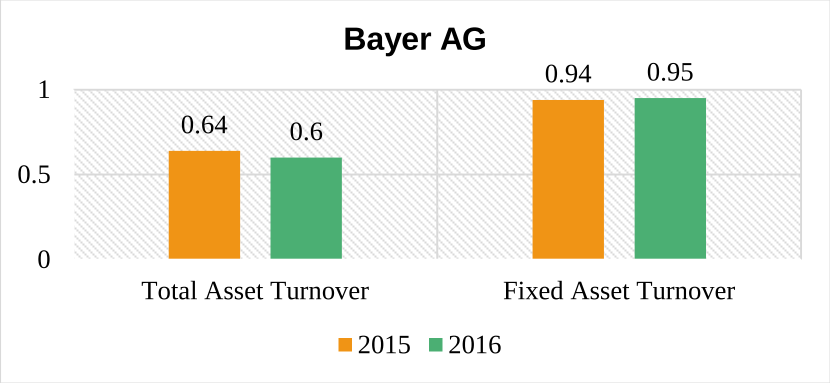


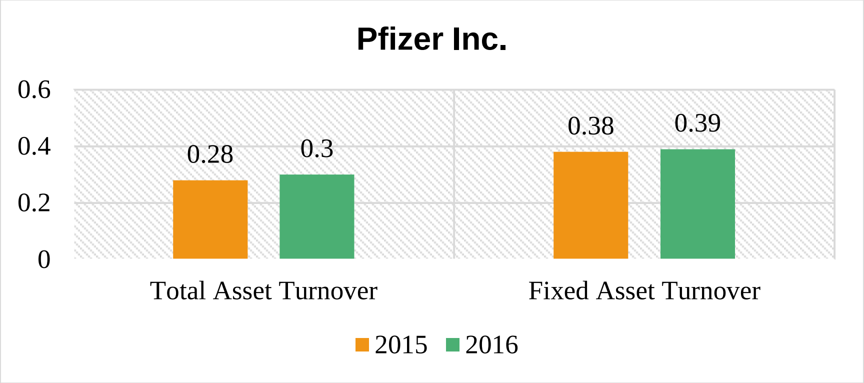


Debt Coverage Ratio	
Debt Ratio	**A lower debt ratio suggests more stable business**, both Bayer and Pfizer lied in reasonable range, but on comparison Bayer had the lowest debt ratio.
Time interest earned	**Higher time interest ratio earned are considered favorable** as it shows the company can afford to pay its interest payments when they come due. Bayer performed better than Pfizer.
Book value per share	Market value of shares of both the companies are **higher** than its book value, showing that market participants are willing to pay more for its common share. But the value of book value per share was considerably higher, making Bayer a clear winner.

Bayer AG out performed Pfizer Inc. suggesting more stability and with potential for longitivity.

Asset Management Ratio, measure the firm's success in managing its assets to generate sales

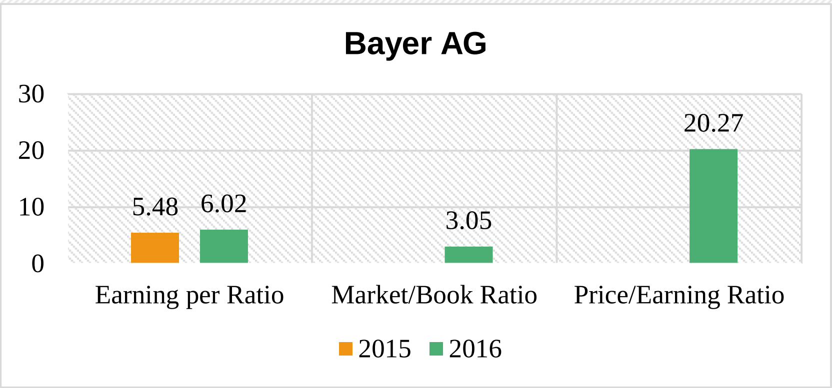


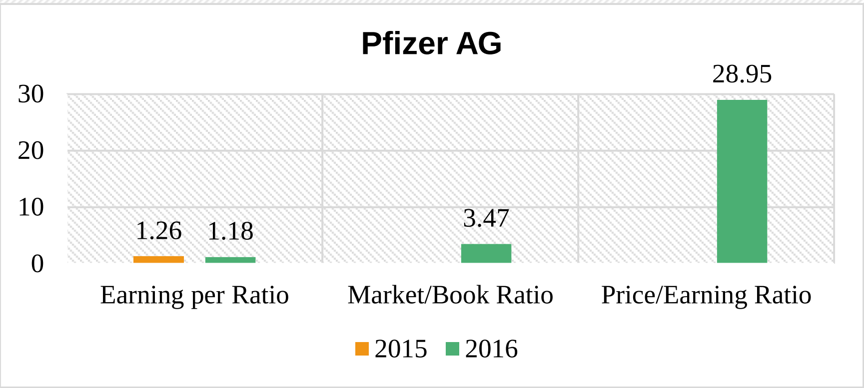


Asset Management Ratio	Higher the ratio better the utilization of assets
Total asset turnover	Bayer was more efficient in generating sales from its assets compared to Pfizer with the total assets ratio of 0.60 in 2016
Fixed asset turnover	Bayer AG is better utilizing its fixed assets to generate sales compared to Pfizer Inc.

Bayer Ag was more stable and better at utilizing its assets compared to Pfizer Inc.

Market Value Ratio, evaluate the current share price of a publicly-held company's stock





Market Value Ratio	Higher the ratio better the anticipated earnings
Earning per ratio	Bayer AG's EPS was considerably higher than Pfizer suggesting Bayer's was in a stronger financial position and, therefore, a reliable company to invest money
Market/Book ratio	Bayer AG is at lower market to price ratio compared to Pfizer indicating that Bayer is thought to be undervalued by stockholders relative to its share price
Price earning ratio	Pfizer Inc. P/E ratio is 28.95, higher than Bayer AG, a higher ratio suggesting that investors anticipate higher performance and growth from Pfizer Inc. in the future

While Bayer stock's P/E ratio is less than the Pfizer suggesting that the company's earnings may be peaking but the market expects a decline in its growth expectations

Table Of Contents

- Introduction
- Overview
- Methodology
- Data Analysis and Result
- Conclusion
- Discussion

Conclusion

Indicator	sub-indicator	Bayer AG	Pfizer Inc
Liquidity Ratio	Current Ratio	⇧	⇩
	Quick Ratio	⇧	⇩
	Cash Ratio	⇧	⇩
Profitability ratio	Net Profit Margin	⇧	⇩
	Gross Profit Margin	⇧⇩	⇩
	Return on Total Assets	⇧	⇩
	Operating Profit Margin	⇧	⇩
Debt coverage ratio	Debt Ratio	⇩	⇧
	Time interest earned	⇧	⇩
	Book value per share	⇩	⇩
Assets Management	Total Assets Turnover	⇩	⇧
	Fixed Assets Turnover	⇧	⇧
Market Value	Earning per Ratio	⇧	⇩
	Market/Book Ratio	⇔	⇔
	Price/earnings ratio	⇔	⇔

Bayer AG's performed better on following parameter:

- **Liquidity ratio**
- **Debt coverage ratio**
- **Asset management ratio**

Pfizer Inc. outperformed Bayer on the following parameter:

- **Profitability ratio**
- **Market value**

	Neutral performance
	Good performance(in comparison to the other company)
	Poor performance (in comparison to the other company)
⇩	Decrease in Ratio in 2016 compared from 2015
⇧	Increase in Ratio in 2016 compared to 2015
⇩ ⇧	No change in 2016 compared to 2015
⇔	2016 ratio not available

Table Of Contents

- Introduction
- Overview
- Methodology
- Data Analysis and Result
- Conclusion
- Discussion

Discussions:

Bayer AG	Pfizer Inc.
• Relative underperformance over the last year has improved more recently. • It's current Price/Book of 3.05 is about median in its peer group. • Bayer AG is as Harvesting because of the market's relatively low growth expectations despite its relatively high returns. • Bayer AG has relatively low net profit margins while its asset efficiency is relatively high. Changes in annual earnings are better than the change in its revenues implying the company is focused more on earnings. • Bayer's return on assets currently suggest that it does have any operational advantages versus Pfizer. • While Bayer's revenue growth in recent years has increased, the stock's P/E ratio is less than the Pfizer suggesting that the company's earnings may be peaking and the market expects a decline in its growth expectations. • The company is likely overinvesting in a business with only median returns. Bayer has additional debt capacity.	• Relative outperformance over the last year and suggest a leading position. • It trades at a lower Price/Book multiple (3.47) than Bayer (3.05). • The market expects Pfizer to grow at about the same rate and to maintain the returns it currently generates. • Pfizer employs relatively high amounts of assets while generating relatively profit margins. • Change in the company's annual revenues seems to be coming at the expense of earnings. • Pfizer's return on assets has decreased over the last one year and is below Bayer. While Pfizer's revenues in recent years have grown faster , the market gives the stock a P/E ratio that is more than Bayer suggesting that the market has some questions about the company's long-term strategy. • The company's relatively low level of capital investment and below peer median returns on capital suggest that the company is in maintenance mode. Pfizer has the financial and operating capacity to borrow quickly.

Questions


Thank
you!!