BITS PILANI HYDERABAD CAMPUS

Submitted in the fulfillment of an assignment as part of the course ECON F212 - Fundamentals Of Finance & Accounting

Comprehensive Financial Analysis and Yield Curve Study

A Multi-Company and Multi-Country Perspective

Group 36

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1 BF Utilities Ltd.:

1.1 Company Introduction

1.1.1 Nature of Business

BF Utilities Ltd. specializes in renewable energy and infrastructure development companies, which evidences the sustainability and regional growth spirit. As a wind energy power generation company, it uses renewable sources that can bring about efficient clean solutions to different energy needs. It is also using the structures developed in growth and development in key places, thus effectively positioning itself as an industry leader in a sustainable setting for energy and infrastructure. The business activity of BF Utilities Ltd. comprises two significant categories: renewable energy and infrastructure development.

1.1.2 Ownership

BF Utilities Ltd., a publicly listed company under the Companies Act, 1956, ensures transparency and investor participation. As of September 2024, the ownership of BF Utilities Ltd. is as follows: Promoter: 56.74%, Ajinkya Investment and Trading Company: 17.65%, Kalyani Investment Company Limited: 16.45%.

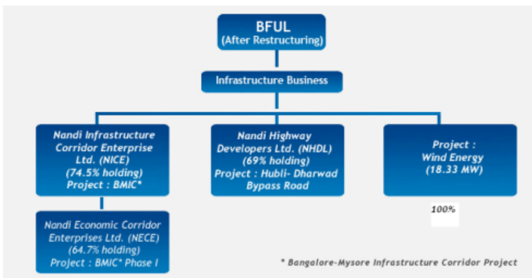
1.1.3 Business Commencement Circumstances

BF Utilities Ltd. was incorporated on September 15, 2000, in Maharashtra, India. It was established through a demerger from Bharat Forge Limited (BFL), transferring BFL's windmill and investment divisions to BF Utilities Ltd. This restructuring, approved by the Bombay High Court on January 17, 2001, became effective on March 1, 2001.

1.1.4 Industry of the Business

BF Utilities Ltd. operates primarily in renewable energy and infrastructure development sectors, which are significant players in the current economic models. Renewable energy is important in the efficient fulfillment of world energy needs while infrastructure developments focus on regional development and economic growth. BF Utilities avails itself of its expertise in wind energy generation and infrastructure development to promote sustainable operations and assure sound and long-term economics.

1.1.5 Greatness of the Company



Sustainability Initiatives: BF Utilities Ltd. produces clean power through its wind farms and is completely dedicated to the concept of sustainability of the environment through the Clean Development Mechanism (CDM) employing CERs. Nandi Economic Corridor Enterprises and Nandi Highway Developers are some of the subsidiaries through which, indirectly, it raises revenue while contributing to infrastructure building and regional economic growth.

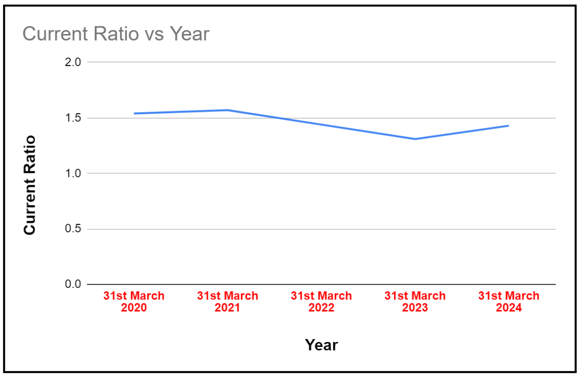
Operational Excellence: It ensures efficient energy supply through regular maintenance practices and prudent management of its financial affairs. Sustainability, along with full machine availability, remains part of its operational framework, solidifying its commitment to sustainable energy and environmental goals.

1.2 Liquidity Ratios

1.2.1 Summary

Year	Liquidity Ratios			
	Current Ratio	Acid-Test Ratio	Cash Ratio	Operating Cash Flow Ratio
31st March 2020	1.54	0.88	0.18	0.92
31st March 2021	1.57	0.94	0.17	0.54
31st March 2022	1.44	0.75	0.16	1
31st March 2023	1.31	0.73	0.13	1.13
31st March 2024	1.43	0.77	0.13	1.56
Average	1.46	0.81	0.15	1.03
Maximum	1.57	0.94	0.18	1.56
Minimum	1.31	0.73	0.13	0.54

1.2.2 Current Ratio



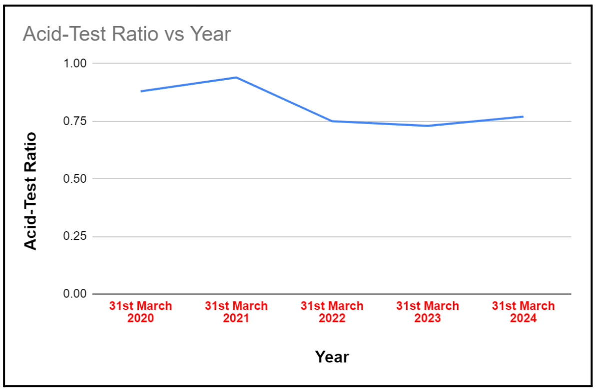
Trend Analysis

- **Stable Start (2020-2021):** The current ratio remained stable, indicating steady liquidity.
- **Decline (2021-2023):** The ratio dropped, suggesting reduced liquidity and increased financial pressure.

Economic Inference

- **Increased Financial Strain**: The decline may imply rising short-term liabilities or strained liquidity.
- **Signs of Recovery (2023-2024):** The slight increase suggests possible improvements in liquidity and financial health.

1.2.3 Acid-Test Ratio



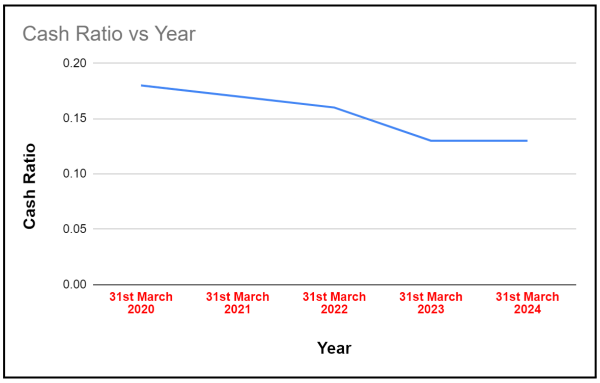
Trend Analysis

- **Slight Increase (2020-2021):** The acid-test ratio increased slightly, indicating stable liquidity without heavy reliance on inventory.
- **Decline < 1 (2021-2023):** The ratio dropped below 1.0, suggesting insufficient liquid assets to cover liabilities, raising liquidity concerns.

Economic Inference

- **Liquidity Risk:** With the acid-test ratio consistently under 1.0, the company may struggle to meet short-term obligations, signaling potential financial risk.
- **Inventory Dependence:** The acid-test ratio being much lower than the current ratio suggests high reliance on inventory for asset value, which may limit cash flow flexibility.

1.2.4 Cash Ratio



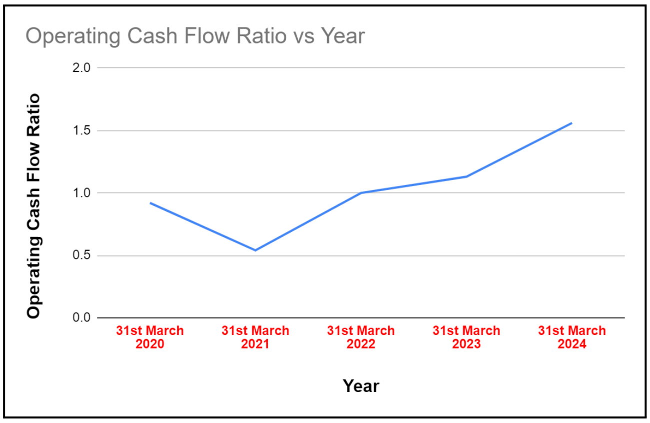
Trend Analysis

- **Initial Decline (2020-2022):** The cash ratio shows a downward trend, suggesting a potential decrease in liquidity. This might be due to increased investments or operational expenses.
- **Stabilization (2022-2024):** The ratio has leveled off, indicating improved cash management or a reduction in investment activities.

Economic Inference

- **Investment Activity:** The initial decline might be linked to expansionary strategies or capital-intensive projects.
- **Liquidity Concerns:** The overall downward trend raises concerns about the company's short-term liquidity. A lower cash ratio could hinder its ability to meet immediate obligations.

1.2.5 Operating Cash Flow Ratio



Trend Analysis

- **Initial Decline (2020-2021):** The operating cash flow ratio shows a significant decrease, suggesting a decline in the company's ability to generate cash from its operations.
- **Recovery and Growth (2021-2024)**: From 2021 onwards, the ratio exhibits a steady upward trend, indicating improved operational efficiency and cash generation capabilities.

Economic Inference

- **Improved Performance (2021-2024):** The subsequent increase suggests that the company has successfully addressed the operational challenges and implemented cost-cutting measures or revenue-enhancing strategies.
- **Stronger Financial Position:** A higher operating cash flow ratio implies a healthier financial position, as the company generates more cash from its core operations.

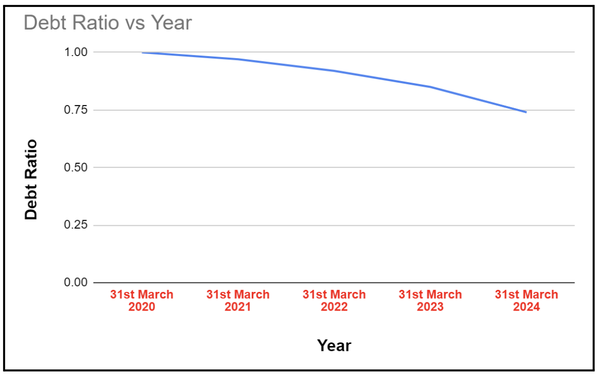
1.3 Leverage Financial Ratios

1.3.1 Summary

Year	Leverage Financial Ratios			
	Debt Ratio	Debt-Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio
31st March 2020	1	-883.05	0.16	0.30
31st March 2021	0.97	-93.16	-0.09	-0.20
31st March 2022	0.92	28.92	0.56	0.30
31st March 2023	0.85	5.78	1.50	0.50
31st March 2024	0.74	2.87	2.76	0.73

Average	0.896	-187.728	0.978	0.326
Maximum	1	28.92	2.76	0.73
Minimum	0.74	-883.05	-0.09	-0.2

1.3.2 Debt Ratio



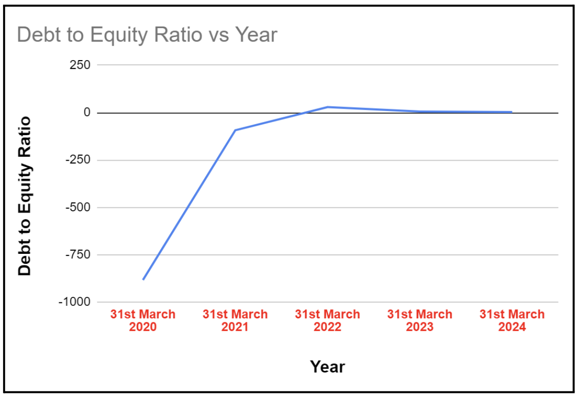
Trend Analysis

- **Gradual Decline (2020-2024):** The debt ratio shows a downward trend from 31st March 2020 to 31st March 2024, decreasing steadily each year. This indicates that the company has been reducing its debt relative to its assets over this period, possibly through debt repayment or asset growth.

Economic Inference

- **Debt Management:** The decline suggests that the company is actively managing its leverage, potentially by paying down debt or improving asset value.
- **Strengthened Financial Position:** A lower debt ratio implies increased financial stability, which may improve the company's ability to secure favorable financing or reinvest profits. The downward trend may also indicate preparation for future growth.

1.3.3 Debt-Equity Ratio



Trend Analysis

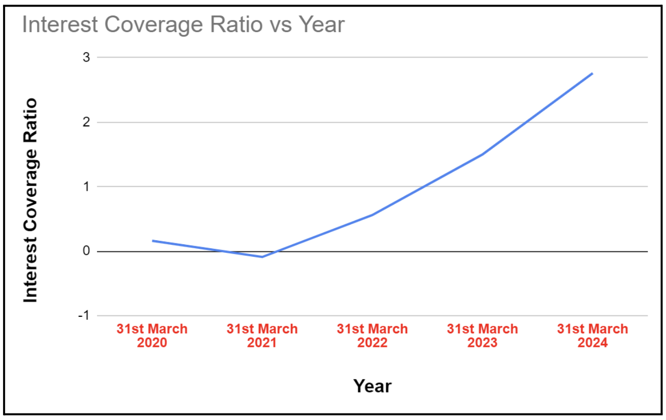
- **Sharp Increase (2020-2021):** Debt-to-equity ratio rose dramatically, moving closer to zero from a deep negative, indicating a large increase in debt relative to equity.
- **Stabilization and Slight Decline (2021-2024):** The ratio stabilized near zero through 2023, with a minor decline in 2024, suggesting improved balance between debt and equity.

Economic Inference

- **Initial Financial Pressure:** The rapid increase in the ratio from 2020 to 2021 suggests heightened financial strain due to increased debt.

- **Signs of Financial Improvement (2023-2024):** The slight decline in the ratio may indicate better debt management or an increase in equity, signaling improved financial stability.

1.3.4 Interest Coverage Ratio



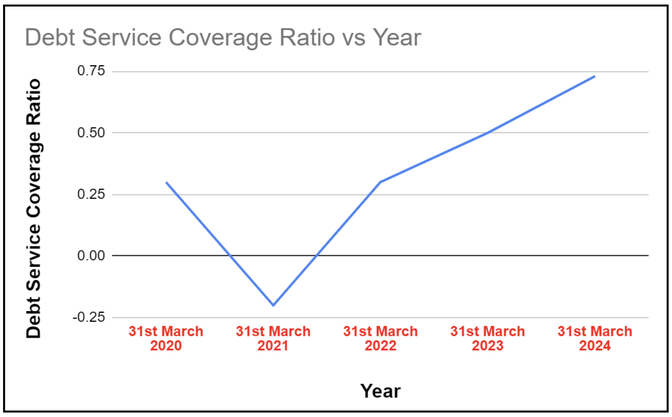
Trend Analysis

- **Initial Decline (2020-2021):** The interest coverage ratio dropped slightly, reaching a low point close to zero, indicating minimal ability to cover interest expenses.
- **Steady Increase (2021-2024):** The ratio rose gradually from 2021 onward, reaching above 2 by 2024, showing improved ability to meet interest obligations.

Economic Inference

- **Financial Strain (2020-2021):** The low ratio suggests financial pressure, with earnings barely covering interest expenses.
- **Improved Financial Health (2021-2024):** The consistent rise in the ratio indicates stronger earnings relative to interest, suggesting improved financial stability and profitability.

1.3.5 Debt Service Coverage Ratio



Trend Analysis

- **Sharp Decline (2020-2021):** The debt service coverage ratio dropped below zero by 2021, indicating severe financial difficulty, likely due to the economic impact of COVID-19.
- **Gradual Recovery (2021-2024):** From 2021 onwards, the ratio steadily increased, reaching around 0.73 by 2024, showing improvement in debt repayment capacity.

Economic Inference

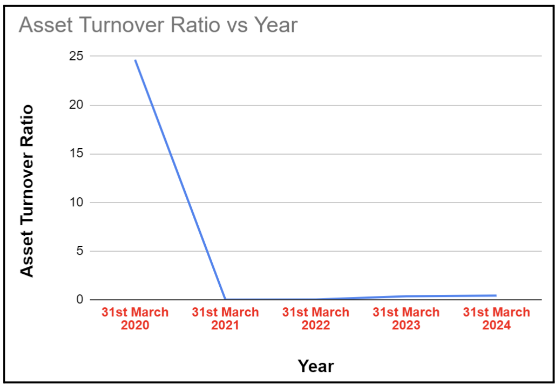
- **COVID-19 Impact (2020-2021):** The decline to a negative ratio in 2021 suggests financial strain, likely exacerbated by the pandemic, which may have reduced income and heightened debt pressure.
- **Strengthened Financial Health (2021-2024)**: The upward trend post-2021 indicates recovery, suggesting improved earnings and debt management as the economic situation stabilizes.

1.4 Efficiency Ratios

1.4.1 Summary

Year	Efficiency Ratios			
	Asset Turnover Ratio	Inventory Turnover Ratio	Receivables Turnover Ratio	Days Sales in Inventory Ratio
31st March 2020	24.65	0	1050.21	-13156.13
31st March 2021	0.01	0	727.04	7178.07
31st March 2022	0.02	0	671.94	1666.91
31st March 2023	0.35	0	532.29	307.5
31st March 2024	0.42	0	362.93	30854.34
Average	5.09	0	667.08	5370.14
Maximum	24.64	0	1050.21	30854.34
Minimum	0.01	0	362.93	-13156.13

1.4.2 Asset Turnover Ratio



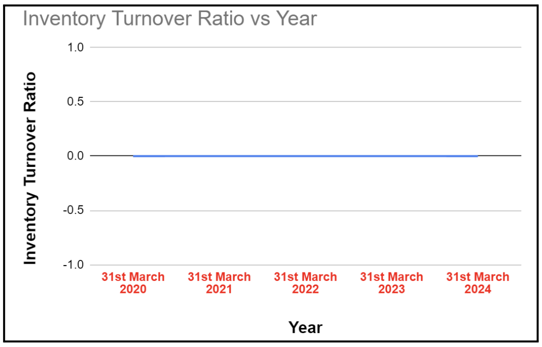
Trend Analysis

- **Sharp Decline (2020-2021):** The asset turnover ratio plummeted from 24.65 in 2020 to 0.01 in 2021, signaling a significant decrease in operational efficiency, likely due to a sharp decline in revenue generation relative to assets.
- **Consistently Low Levels (2021-2024):** Despite some improvement, the asset turnover ratio remained extremely low, reaching only 0.42 by 2024. This indicates persistent challenges in utilizing assets.

Economic Inference

- **Operational Disruption (2020-2021):** The drastic drop in 2021 suggests severe operational disruptions, potentially driven by COVID-19-related challenges, such as reduced sales, underutilized assets, or broader economic contraction.
- **Underutilized Assets (2021-2024):** The ratio's consistently low levels highlight ongoing inefficiencies, due to excess asset capacity, weak demand recovery, or suboptimal management.

1.4.3 Inventory Turnover Ratio



Trend Analysis

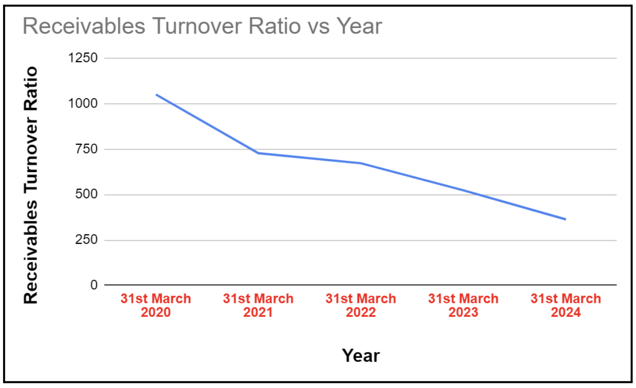
- **Consistently Zero Levels (2020-2024):** he inventory turnover ratio remained at 0 throughout the period from 2020 to 2024, reflecting the absence of inventory movement or sales tied to inventory within the company's operations.

Economic Inference

- **Alignment with Business Model:** The consistent zero ratio aligns with BF Utilities Ltd.'s business model, as the company operates in renewable energy and infrastructure development, sectors that do not typically involve significant inventory management or turnover.
- **Nature of Operations:** The company's core activities, such as wind power generation and

infrastructure projects, focus on long-term service delivery and asset management rather than the production or sale of physical goods. This naturally results in minimal or no inventory.

1.4.4 Receivables Turnover Ratio



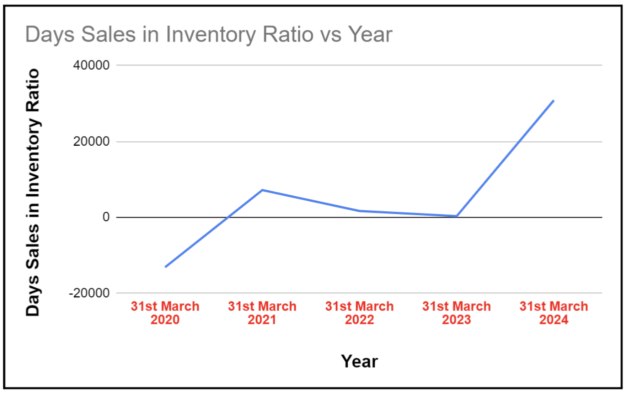
Trend Analysis

- **Steady Decline (2020-2024)**: he receivables turnover ratio dropped consistently over the period, from 1050.21 in 2020 to 362.93 in 2024. This indicates a gradual reduction in the efficiency of collecting payments from customers.

Economic Inference

- **Declining Collection Efficiency**: The steady decline in the ratio suggests that BF Utilities Ltd. has been facing challenges in converting receivables into cash. This could be due to delayed payments from clients or relaxed credit policies.
- **Impact of Long-Term Contracts**: The drop may also reflect the nature of the company's business model, where infrastructure and renewable energy projects often involve long-term contracts with extended payment cycles. This could result in slower receivable turnover, despite the ongoing operational activity.

1.4.5 Days Sales in Inventory Ratio



Trend Analysis

- **Volatile Fluctuations (2020-2024)**: Experienced extreme volatility during the period. It started with an abnormal negative value of -13,156.13 in 2020, shifted to a positive 7,178.07 in 2021, declined sharply to 307.5 by 2023, and then spiked dramatically to 30,854.34 in 2024.

Economic Inference

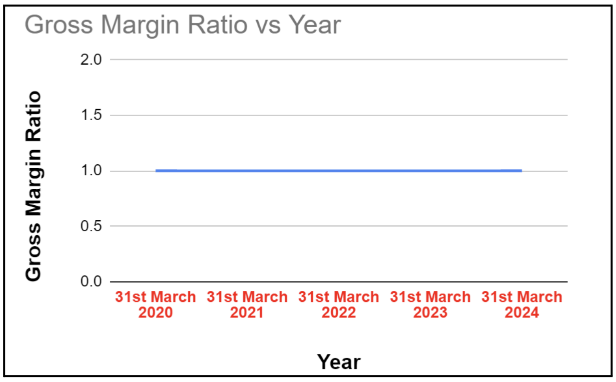
- **Fluctuations Reflect Operational Instability (2021-2024)**: The ratio's sharp movements suggest inconsistent inventory management practices or irregular project cycles, typical for industries like infrastructure and renewable energy where inventory is procured and utilized in large, irregular batches.
- **Significant Spike in 2024:** The drastic increase in 2024 could point to a sudden accumulation of unused inventory, potentially due to delayed projects, over-procurement, or inefficiencies in resource deployment.

1.5 Profitability Ratios

1.5.1 Summary

Year	Profitability Ratios			
	Gross Margin Ratio	Operating Margin Ratio	Return on Assets Ratio	Return on Equity Ratio
31st March 2020	1	0.55	0.01	-11.11
31st March 2021	1	0.62	-0.01	0.97
31st March 2022	1	0.62	0.04	1.30
31st March 2023	1	0.66	0.11	0.78
31st March 2024	1	0.62	0.12	0.63
Average	1	0.614	0.054	-1.486
Maximum	1	0.66	0.12	1.3
Minimum	1	0.55	-0.01	-11.11

1.5.2 Gross Margin Ratio



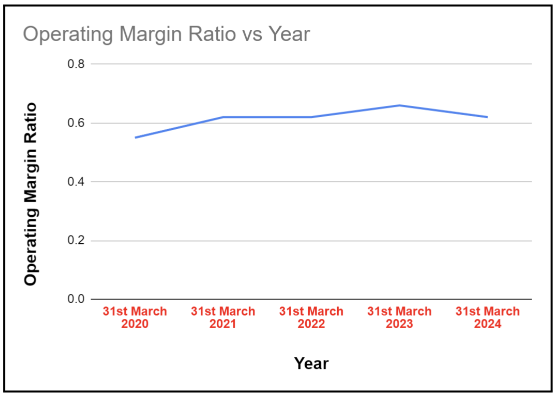
Trend Analysis

- **Consistently High Levels (2020-2024):** The gross margin ratio remained steady at 1 throughout the period, indicating that BF Utilities Ltd. consistently retained 100% of its revenue as gross profit.

Economic Inference

- **Business Model Reflection:** The consistently high gross margin ratio aligns with the company's operations in renewable energy and infrastructure development. These sectors often involve high-margin, capital-intensive projects where costs are primarily related to long-term asset.
- **Minimal Cost of Revenue:** The ratio suggests that the company either has negligible direct costs associated with its revenue or accounts for such costs differently, reflecting the unique nature of service-based and infrastructure-driven businesses.

1.5.3 Operating Margin Ratio



Trend Analysis

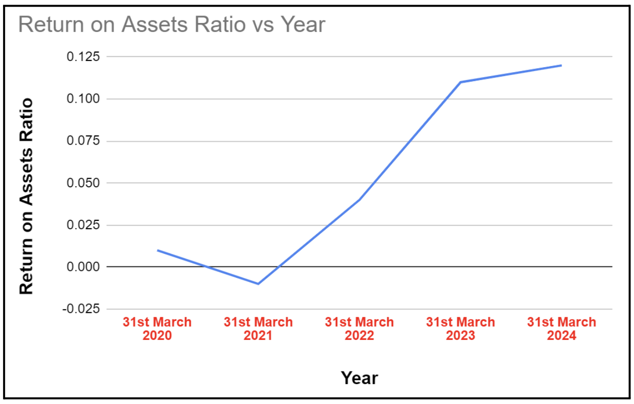
- **Gradual Improvement (2020-2023):** The operating margin ratio increased from 0.55 in 2020 to a peak of 0.66 in 2023, showing improved operational efficiency and cost management.

Economic Inference

- **Operational Efficiency Gains (2020-2023):** The steady increase in the operating margin ratio over the initial years reflects better cost control and improved revenue generation from core operations, aligning with the company's focus on renewable energy and infrastructure projects.
- **Sustainability of Margins:** Despite the slight decline, the consistent ratio around 0.62 suggests strong operational health, emphasizing the company's ability to maintain profitability in its core

business activities over time.

1.5.4 Return on Assets Ratio



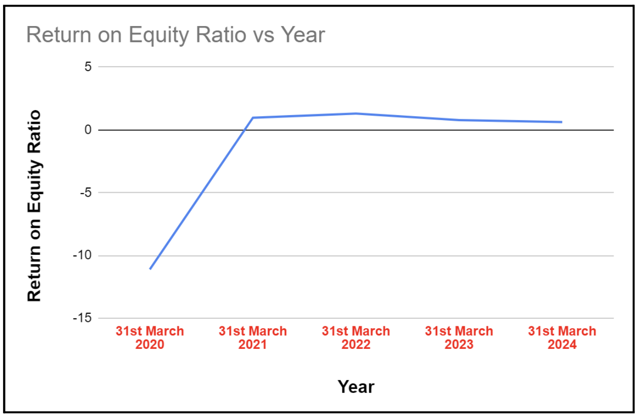
Trend Analysis

- **Initial Decline (2020-2021):** The ROA ratio fell from 0.01 in 2020 to -0.01 in 2021, indicating a decline in profitability and negative returns relative to the company's asset base.
- **Recovery and Growth (2021-2024):** The ratio steadily improved from -0.01 in 2021 to 0.12 in 2024, reflecting a consistent increase in the company's ability to generate profits from its assets.

Economic Inference

- **Profitability Challenges (2020-2021):** The decline and subsequent negative ratio in 2021 suggest operational inefficiencies or reduced earnings, potentially linked to the broader economic disruptions caused by COVID-19.
- **Improved Asset Utilization (2021-2024):** The steady rise in ROA post-2021 indicates better utilization of assets and improved profitability, possibly driven by stabilization in wind power generation and infrastructure project execution.

1.5.5 Return on Equity Ratio



Trend Analysis

- **Sharp Recovery (2020-2022):** The return on equity (ROE) ratio improved significantly from a negative -11.11 in 2020 to 0.97 in 2021 and further to 1.3 in 2022, indicating a strong rebound in profitability relative to shareholders' equity.
- **Gradual Decline (2022-2024):** The ratio decreased from 1.3 in 2022 to 0.78 in 2023 and further to 0.63 in 2024, reflecting a slowdown in profit generation.

Economic Inference

- **Initial Losses (2020):** The negative ROE in 2020 highlights significant losses for the company, likely due to disruptions in operations or high costs, potentially tied to the economic downturn caused by COVID-19.
- **Decline in Efficiency (2022-2024):** The downward trend post-2022 may suggest rising equity levels without proportional growth in profits or increasing costs, indicating challenges in maintaining prior levels of profitability.

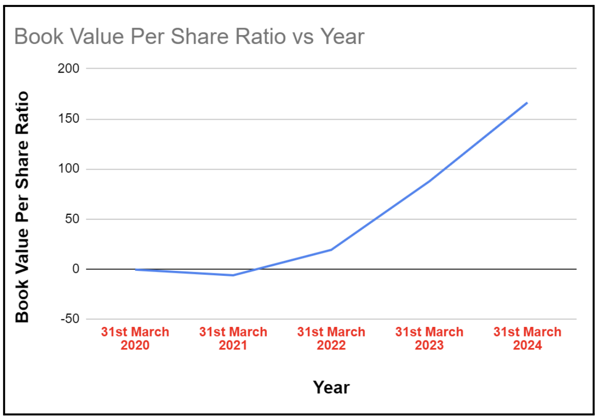
1.6 Market Value Ratios

1.6.1 Summary

Year	Market Value Ratios			
	Book Value Per Share Ratio	Dividend Yield Ratio	Earnings Per Share Ratio	Price-Earnings Ratio
31st March 2020	-0.65	0	7.26	19.59
31st March 2021	-6.21	0	-5.87	-41.41
31st March 2022	19.09	0	13.49	23.84
31st March 2023	87.62	0	33.03	9
31st March 2024	166.29	0	39.12	19.73

Average	53.23	0	17.41	6.15
Maximum	166.29	0	39.12	23.84
Minimum	-6.21	0	-5.87	-41.41

1.6.2 Book Value Per Share Ratio (₹)



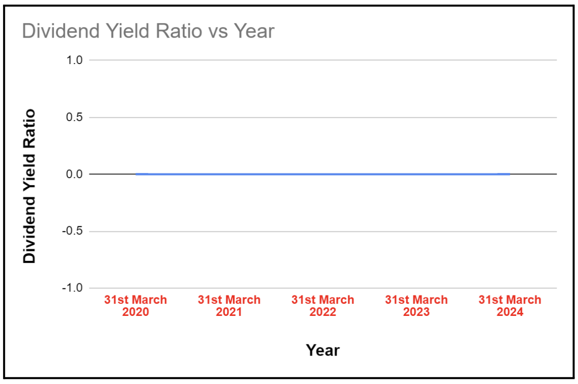
Trend Analysis

- **Significant Decline (2020-2021):** The ratio dropped sharply from -0.65 in 2020 to -6.21 in 2021, reflecting a worsening financial position and a substantial erosion of shareholder equity during this period.
- **Rapid Growth (2021-2024):** The ratio rebounded dramatically from -6.21 in 2021 to 19.09 in 2022, 87.62 in 2023, and further to 166.29 in 2024, indicating strong recovery and growth in shareholder equity.

Economic Inference

- **Negative Equity (2020-2021):** The negative BVPS in these years suggests that liabilities exceeded assets, leading to a deficit in shareholder equity, possibly due to operational losses or high debt levels exacerbated by economic disruptions like COVID-19.
- **Recovery and Strengthened Equity (2021-2024):** The sharp increase in BVPS post-2021 highlights improved financial health, likely driven by profitability.

1.6.3 Dividend Yield Ratio



Trend Analysis

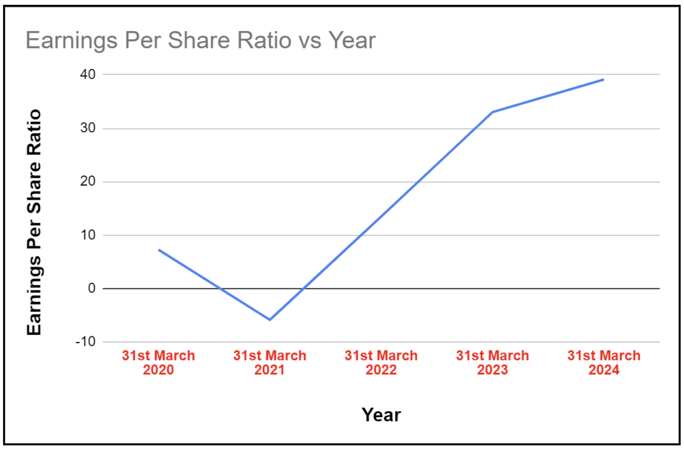
- **Consistently Zero Levels (2020-2024):** The dividend yield ratio remained at 0 throughout the period, indicating that the company did not distribute any dividends to its shareholders during these years.

Economic Inference

- **Retention of Profits:** The absence of dividends suggests that BF Utilities Ltd. prioritized reinvesting earnings into the business rather than distributing them to shareholders, which is common in capital-intensive industries like renewable energy and infrastructure.
- **Shareholder Implications:** While no dividends were issued, shareholders may benefit indirectly through equity value appreciation as the company strengthens its financial position and focuses on

long-term growth opportunities.

1.6.4 Earnings Per Share Ratio (₹)



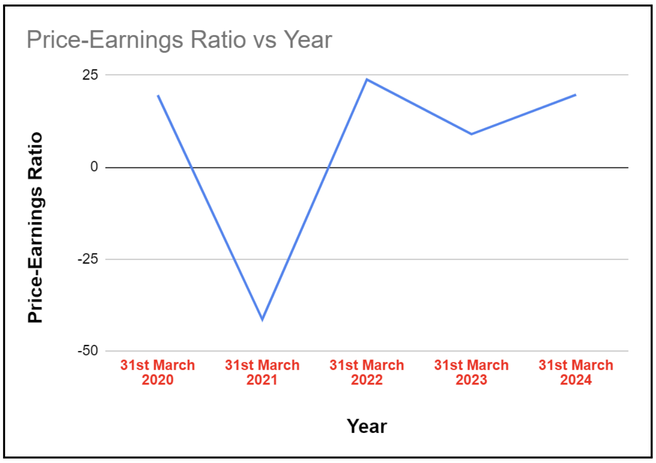
Trend Analysis

- **Initial Decline (2020-2021):** The earnings per share (EPS) ratio dropped significantly from 7.26 in 2020 to -5.87 in 2021, reflecting a period of losses and financial challenges.
- **Recovery and Growth (2021-2024):** The EPS rebounded strongly from -5.87 in 2021 to 13.49 in 2022 and continued to grow, reaching 33.03 in 2023 and 39.12 in 2024, indicating consistent improvement in profitability.

Economic Inference

- **Recovery and Profitability (2021-2024):** The strong rebound and sustained growth in EPS indicate that the company successfully navigated post-pandemic recovery, driven by improved operational efficiency and revenue generation in its renewable energy and infrastructure projects.
- **Shareholder Value Creation:** The consistent rise in EPS from 2022 onwards reflects the company's ability to generate higher earnings per share, signaling value creation and improving financial health for shareholders.

1.6.5 Price-Earnings Ratio



Trend Analysis

- **Volatile Fluctuations (2020-2024):** The price-to-earnings (P/E) ratio experienced significant volatility, starting at 19.59 in 2020, dropping to a negative -41.41 in 2021, recovering to 23.84 in 2022, then falling to 9 in 2023, and finally rising to 19.73 in 2024.

Economic Inference

- **Negative P/E (2021):** The negative P/E ratio in 2021 reflects the company's losses during this period, as earnings per share (EPS) turned negative, likely due to operational disruptions or increased costs.
- **Recovery and Valuation Stability (2022-2024):** The ratio's recovery in 2022 and its steady rise to 19.73 by 2024 suggest improving investor confidence and profitability. The lower P/E of 9 in 2023 could indicate either temporary undervaluation or increased earnings relative to stock price..

2 Gujarat Fluorochemicals Ltd.

2.1 Company Introduction

2.1.1 Nature of Business

Gujarat Fluorochemicals Limited (GFL) is an Indian Chemicals Company with over 30 years of expertise in Fluorine Chemistry. GFL holds domain expertise in Fluoropolymers, Fluorospecialities, Refrigerants and Chemicals, catering to the material requirements of modern world. They leverage competencies in Fluorine-based products through product innovation and customer partnerships in diverse end-use markets. Impacting mobility, telecommunications, healthcare and architecture,to find solutions to some of the most demanding applications.

2.1.2 Ownership

Gujarat Fluorochemicals Limited (GFCL) was incorporated as a public limited company on December 6, 2018. It was previously known as Inox Fluorochemicals Limited.

2.1.3 Business Commencement Circumstances

Gujarat Fluorochemicals Limited (GFL), established in 1987, is a leading Indian chemicals company specializing in the production of fluoropolymers, fluoro-specialty chemicals, and refrigerants. Initially part of the Inox Group, GFL began as a producer of chlorofluorocarbons (CFCs) and gradually expanded its portfolio to include a wide range of fluorine-based products. In 2019, the company underwent a demerger, separating its chemical business from its other ventures to focus on high-value specialty chemicals and sustainable solutions. With a strong emphasis on research and development, GFL has become a global supplier catering to diverse industries, including automotive, electronics, healthcare, and renewable energy, while maintaining a commitment to innovation and environmental sustainability.

2.1.4 Industry of the Business

Gujarat Fluorochemicals Limited (GFL) has established itself as a global leader in the chemical industry, with a strong focus on fluoropolymers, fluoro-specialty chemicals, and refrigerants. The company’s commitment to innovation, backed by robust research and development capabilities, has enabled it to produce high-quality, value-added products for a variety of industries, including automotive, healthcare, electronics, and renewable energy.

2.1.5 Greatness of the Company

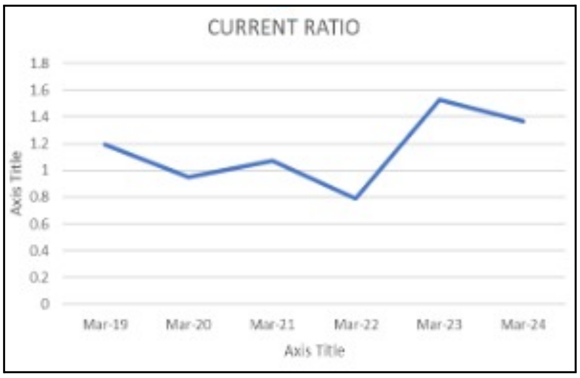
GFL's growth trajectory reflects its operational excellence, diversified portfolio, and strong financial performance. The company's strategic focus on expanding its international footprint, combined with its dedication to adhering to environmental and regulatory standards, enhances its reputation as a socially responsible enterprise. By leveraging cutting-edge technology and fostering continuous innovation, GFL has not only strengthened its market presence but also contributed significantly to the advancement of the chemical industry, making it a standout player in its field.

2.2 Liquidity Ratios

2.2.1 Summary

Year	Liquidity Ratios			
	Current Ratio	Acid-Test Ratio	Cash Ratio	Operating Cash Flow Ratio
31st March 2019	1.191	0.729	0.02725	0.708
31st March 2020	0.949	0.68	0.00557	0.328
31st March 2021	1.074	0.648	0.00243	0.278
31st March 2022	0.79	1.016	0.0685	0.539
31st March 2023	1.528	0.858	0.00362	0.5466
31st March 2024	1.368	0.738	0.00358	0.3354
Average	1.15	0.778	0.01849	0.4558
Maximum	1.528	1.016	0.0685	0.708
Minimum	0.79	0.648	0.00243	0.278

2.2.2 Current Ratio



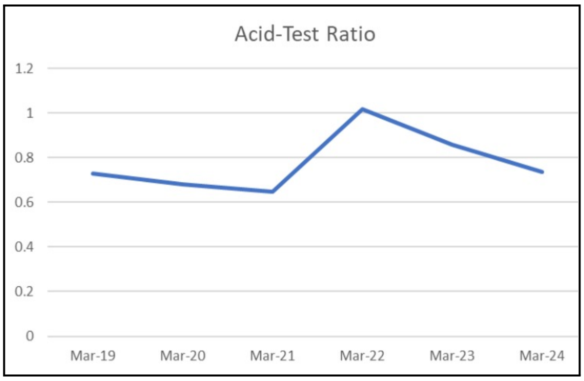
Trend Analysis

- The Current Ratio was trending downwards from 2019 (1.191) to a low in 2022 at 0.79, which implied a decline in short-term financial stability.
- It bounced up quite sharply in 2023 to 1.528 and stabilized at 1.368 in 2024, reflecting better management of liquidity.

Economic Inference

- Liquidity pressures may have arisen in the company during 2020–2022, because the short-term liabilities were rising or perhaps due to falling current assets.
- The jump in 2023 and 2024 shows corrective action in the form of better asset turns or lower liabilities.

2.2.3 Acid-Test Ratio



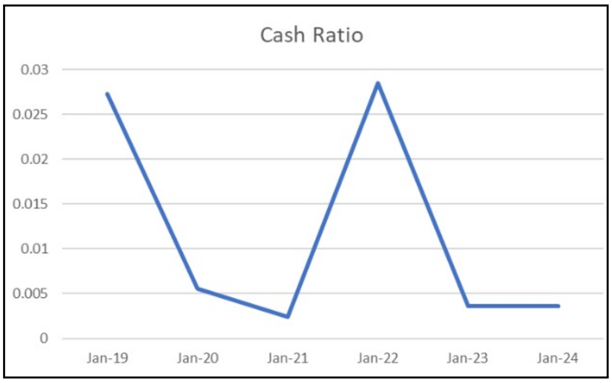
Trend Analysis

- This ratio has been falling step by step from 0.729 in 2019 to 0.648 in 2021 but jumped to 1.016 in 2022, only to drop once again in 2023 and 2024.
- The post-2022 drop points to over-reliance on inventory or less liquid assets to meet obligations.

Economic Inference

- Liquidity improvements in 2022 should have been due to better management of quick assets.
- The decline thereafter indicates that liquidity may not be sustainable without the help of inventory.

2.2.4 Cash Ratio



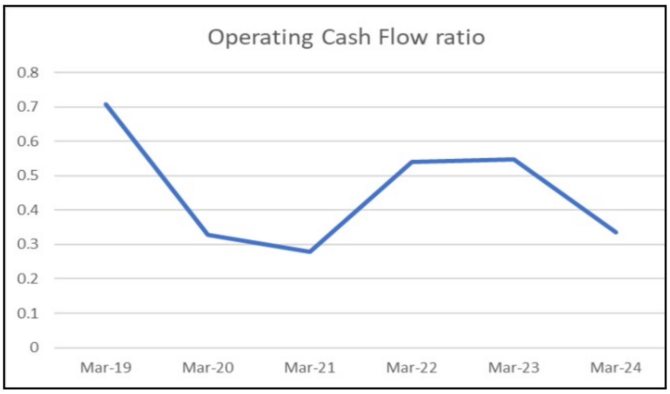
Trend Analysis

- The Cash Ratio was at its lowest all the years, reaching only 0.0685 for 2022 which is already too low since it lacks cash in the existence to pay liabilities.
- The ratio continued to decline after 2022 as well, indicating that the company does not rely too much on cash to pay short-term liabilities.
- Operational issues or strategic cash investments may have constrained the liquidity improvement range.

Economic Inference

- The consistently low cash ratio indicates the company prioritizes asset liquidity or credit arrangements over cash holdings.
- Operational challenges or strategic cash investments may have constrained liquidity improvements.

2.2.5 Operating Cash Flow Ratio



Trend Analysis

- The ratio declined from 0.708 in 2019 to 0.278 in 2021, yet picked up in 2023 at 0.5466 to decline again in 2024.
- Volatility shows that cash flow regarding liabilities is not consistent throughout the periods.

Economic Inference

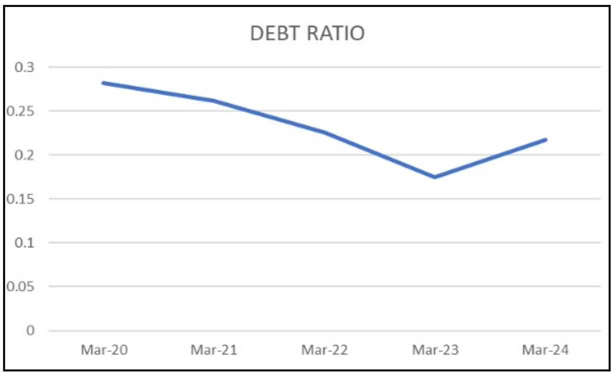
- The declining trend until 2021 could be interpreted as operational inefficiencies or a decline in cash flow generation.
- The partial recovery in 2022–2023 reveals better cash management. However, the drop in the year 2024 indicates renewed challenges to be confronted by maintaining operating cash flow.

2.3 Leverage Financial Ratios

2.3.1 Summary

Year	Leverage Financial Ratios			
	Debt Ratio	Debt-Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio
31st March 2020	0.2822	0.461	5.912	1.82
31st March 2021	0.2615	0.44	6.294	1.86
31st March 2022	0.226	0.36	15.41	3.6
31st March 2023	0.175	0.26	18.834	2.52
31st March 2024	0.217	0.33	6.835	3.29
Average	0.233	-.3702	12.494	2.8175
Maximum	0.2822	0.461	21.68	3.6
Minimum	0.175	0.26	5.912	1.86

2.3.2 Debt Ratio



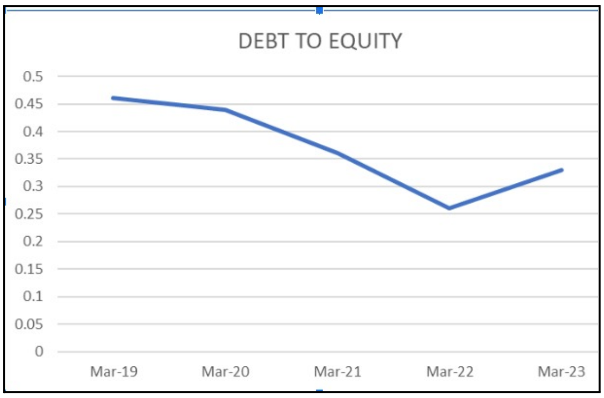
Trend Analysis

- The debt ratio has consistently declined in the period between 0.2822 in 2020 and 0.175 in the year 2023, indicating a reduction in the reliance of the company on debt for financing.
- However, the ratio increased slightly to 0.217 in 2024, indicating a potential rise in debt utilization compared to the prior year.

Economic Inference

- The downward trend up to 2023 shows the company's efforts towards improving financial stability and reducing financial risk.
- The increase in 2024 may be revealing an increased requirement of debt financing, possibly to finance expansion or operational needs.

2.3.3 Debt-Equity Ratio



Trend Analysis

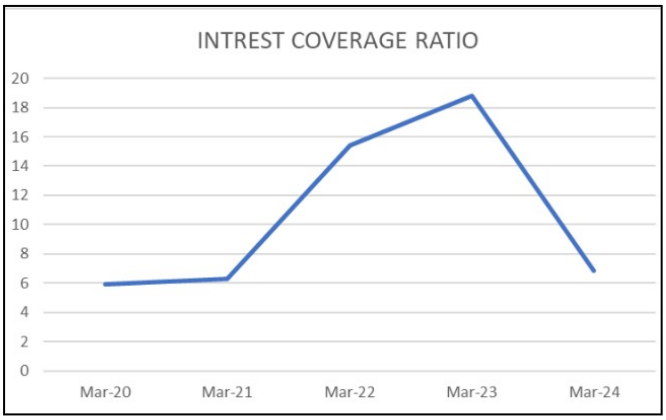
- The ratio decreased steeply from 0.461 in 2020 to 0.26 in 2023, indicating a growth in equity funding.
- But rising to 0.33 in 2024 means a slight move toward greater reliance on debt.

Economic Inference

- Year-over-year decline suggests better leverage through equity and lesser dependability on borrowed money.

- This uptick in 2024 might indicate tactical leveraging for possibly exploiting growth prospects.

2.3.4 Interest Coverage Ratio



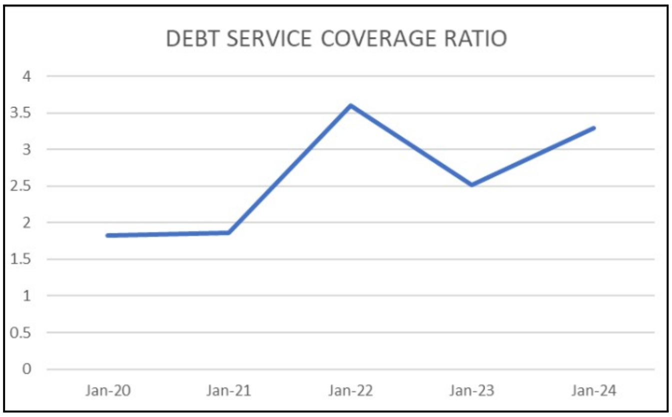
Trend Analysis

- The ratio surged dramatically from 5.912 in 2020 to a high of 18.834 in 2023, meaning more capability to service the interest.
- It then plummeted to 6.834 in 2024 and would, therefore, indicate declining ability to service the interest.

Economic Inference

- The rise up to 2023 would, therefore, mean increased earnings relative to interest costs, meaning operational efficiency.
- The decline in 2024 would mean pressure on profitability or that the interest was costly

2.3.5 Debt Service Coverage Ratio



Trend Analysis

- The DSCR rose from 1.82 in 2020 to a high of 3.6 in 2022 before it decreased to 2.52 in 2023.
- It surged again to 3.29 in 2024, which is an indication that it is recovering and returns the ability to pay debt service obligations

Economic Inference

- Improvement up to 2022 demonstrates the operations' ability to maintain much cash flow than required for debt servicing.
- The oscillation after 2022 implies discontinuity in maintaining cash flow at a specific level.

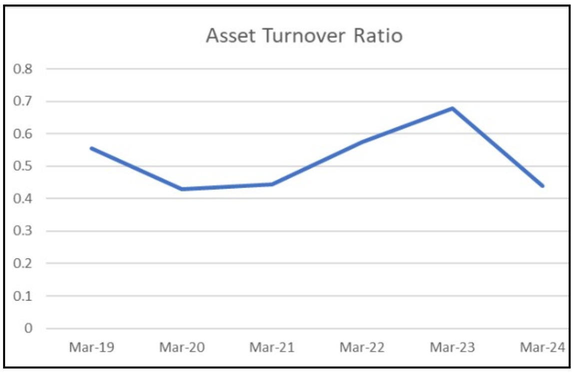
2.4 Efficiency Ratios

2.4.1 Summary

Year	Efficiency Ratios			
	Asset Turnover Ratio	Inventory Turnover Ratio	Receivables Turnover Ratio	Days Sales in Inventory Ratio
31st March 2019	0.555	8.399	4.84	43.457
31st March 2020	0.429	4.577	4.55	79.746
31st March 2021	0.444	3.65	3.64	100
31st March 2022	0.575	5.05	4.71	72.277
31st March 2023	0.679	05.84	4.81	62.5
31st March 2024	0.440	03.39	2.91	107.67

Average	0.52	05.151	4.24	77.61
Maximum	0.679	08.399	4.84	107.67
Minimum	0.429	03.39	2.91	43.457

2.4.2 Asset Turnover Ratio



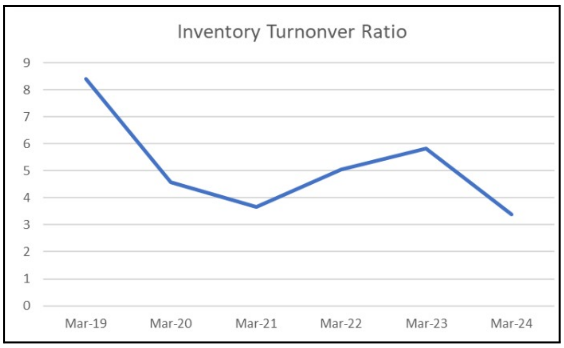
Trend Analysis

- The ratio fluctuated between 0.429 and 0.679 over the period, where the trend continued downward in FY 2020 and FY 2021, then up until FY 2023.
- FY 2024 was a sharp drop at 0.440 which shows that there was a decline in efficiency of using assets to produce revenues in FY 2024.

Economic Inference

- The uptrend till FY 2023 shows that operational efficiency is improving, may be owing to efficient utilization of assets or growth in revenues.
- This decrease in FY 2024 may be suggestive of lapses in asset productivity, which may be arising on account of declining demand or over-investment in assets.

2.4.3 Inventory Turnover Ratio



Trend Analysis

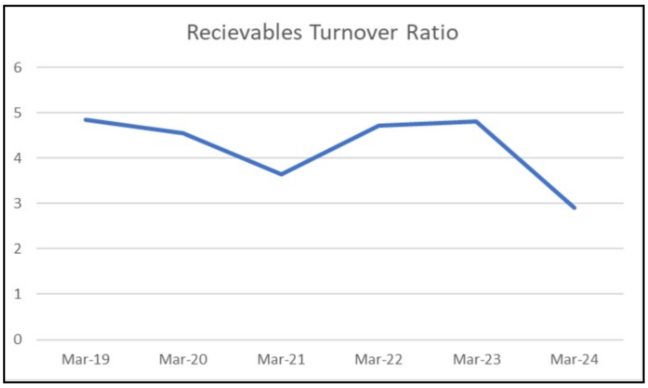
- The inventory turnover ratio declined sharply from 8.399 in FY 2019 to 3.65 in FY 2021, signifying lesser movement of inventory during that period.
- It recovered to 5.84 in FY 2023 but once again declined in FY 2024 to 3.39 indicating inefficient inventory management.

Economic Inference

- A falling ratio may indicate a failure in selling and turning over its inventories successfully, likely due to stagnant demand or inventory oversupply.
- Improved FY 2022 and FY 2023 performance is attributed to improved control of inventory, but the

FY 2024 decline indicates possible operational issues once again

2.4.4 Receivables Turnover Ratio



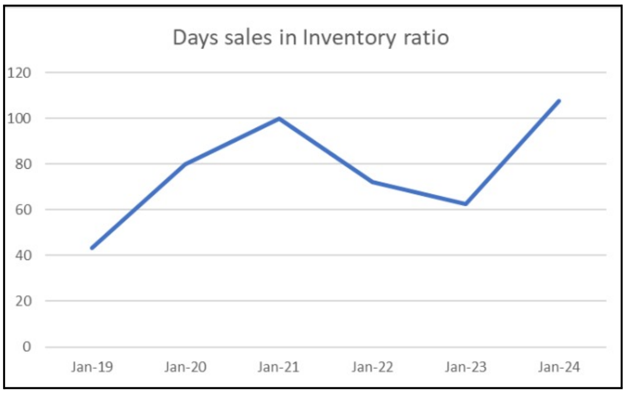
Trend Analysis

- The ratio declined steadily from 4.84 in FY 2019 to 3.64 in FY 2021 before improving again in FY 2022 and FY 2023 to about 4.8.
- FY 2024 was a sharp decline to 2.91, meaning credit collection efficiency had decreased or that credit terms have been lengthened.

Economic Inference

- Improving ratio in FY 2022 and FY 2023 indicates good credit management skills with quick collection of receivables.
- Decline in FY 2024 could also be due to the financial pressure on customers, relaxed credit policies, or delays in collecting collections.

2.4.5 Days Sales in Inventory Ratio



Trend Analysis

- The ratio worsened significantly from 43.46 in FY 2019 to 100 in FY 2021, signaling an increase in the time taken to sell inventory.
- Although it improved to 62.5 in FY 2023, it spiked again to 107.67 in FY 2024, indicating prolonged inventory holding periods.

Economic Inference

- With higher values, it is likely that inventory turnover is inefficient. It may be due to sales decline or overstocking during the FY 2020, FY 2021 and FY 2024.
- The increase in FY 2022 and FY 2023 results from better management of the inventory, but the FY 2024 spike highlights renewed inefficiencies

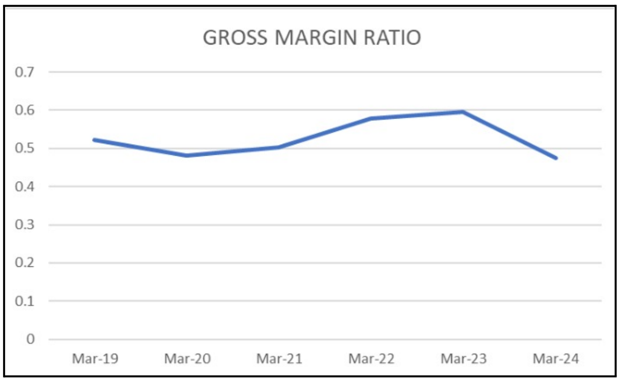
2.5 Profitability Ratios

2.5.1 Summary

Year	Profitability Ratios			
	Gross Margin Ratio	Operating Margin Ratio	Retrun on Assets ratio	Return on Equity(%)
31st March 2019	0.522	0.232	0.253	-
31st March 2020	0.481	0.126	0.032	5.3
31st March 2021	0.502	0.169	0.04	9.92
31st March 2022	0.578	0.254	0.112	20.13
31st March 2023	0.595	0.313	0.163	027.82
31st March 2024	0.474	0.134	0.045	7.31

Average	0.525	0.204	0.121	14.096
Maximum	0.595	0.313	0.253	27.82
Minimum	0.474	0.126	0.032	5.3

2.5.2 Gross Margin Ratio

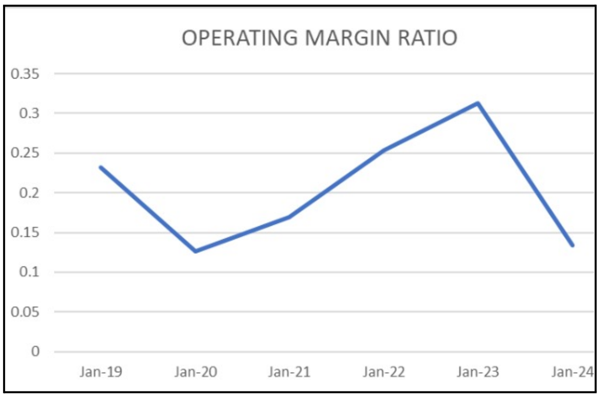


Trend Analysis
- The gross margin ratio fluctuates from 2019 to 2024, peaking in 2023 at 0.595 but sharply declining to 0.474 in 2024.
- This suggests strong recovery of profitability up until 2023 but drops significantly, reflecting increased costs or pressure on pricing by 2024.

Economic Inference

- The increasing trend up to 2023 indicates a better working efficiency and revenue gain, probably due to supporting market conditions.
- The sharp drop in 2024 might indicate increased input cost or reduced pricing power, or actually declined demand that challenges profit-making ability.

2.5.3 Operating Margin Ratio

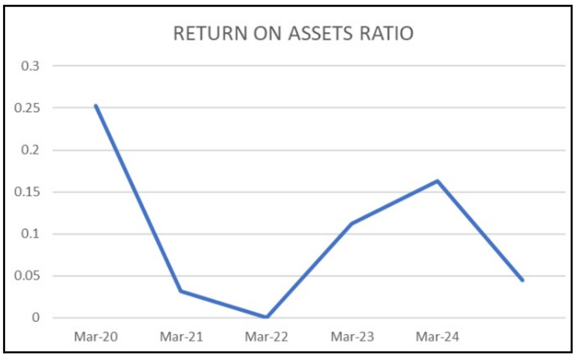


Trend Analysis
- Operating margin was on a growth curve from 0.126 in 2020 to 0.313 in 2023, showing improvement on the operational front, but plummeted sharply down to 0.134 in 2024.
- This severe drop points to an uptick in operational inefficiencies or growing competition during 2024.

Economic Inference
- The steady climb up to 2023 indicates improved expense control and higher revenue streams.
- The downdrop of 2024 points to problems that could include cost growth, revenue decline, or

negative macroeconomic factors affecting the margins. challenges impacting margins.

2.5.4 Return on Assets Ratio



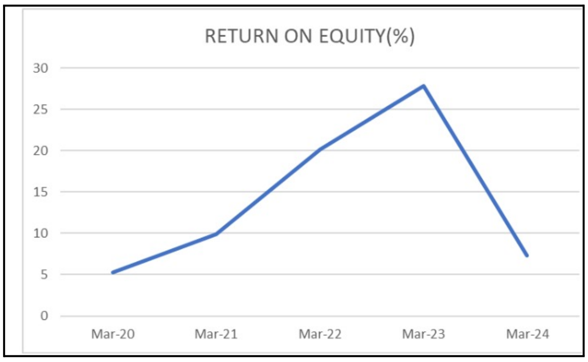
Trend Analysis

- ROA Fluctuated. It topped at 0.253 in 2019 before declining steadily after a loss in 2021 to end 2023 at 0.163, but then dropped sharply to end up at 0.045 in 2024.
- This 2024 decline is linked to poor asset utilization following some recovery in 2022 and 2023.

Economic Inference

- Better asset utilization fostering operational management such that the firm experienced a turnaround from loss in 2021 to 2023.
- The decline in 2024 may indicate that the firm has inefficiency issues and the impact of exogenous variables in the economy that toned down the profitability of the firm's assets.

2.5.5 Return on Equity Ratio



Trend Analysis

- ROE has grown significantly from 5.3% in 2020 to the maximum level of 27.82% in 2023, which gave a significant return to shareholders; it declined drastically to 7.31% in 2024.
- The decline in 2024 may indicate decreased profitability or an increased equity base without an equivalent increase in earnings.

Economic Inference

- Sustaining up to 2023 is an indication of improved profitability and efficient equity utilization.
- This decline in 2024 implies that returns to shareholders are reduced either through profitability or the dilution of equity returns.

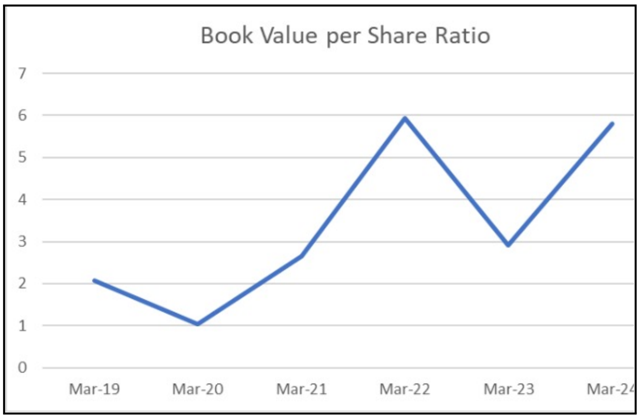
2.6 Market Value Ratios

2.6.1 Summary

Year	Market Value Ratios			
	Book Value Per Share Ratio	Dividend Yield Ratio	Earnings Per Share Ratio	Price-Earnings Ratio
31st March 2019	2.074	0.8	-	-
31st March 2020	1.027	0.686	0.0022	16.847
31st March 2021	2.661	0.344	0.0024	-28.755
31st March 2022	5.944	0.070	0.0036	40.280
31st March 2023	2.922	0.098	0.0051	24.674
31st March 2024	5.804	0.095	0.0037	81.212

Average	3.4053	0.3488	0.0034	26.8516
Maximum	5.944	0.8	0.0051	81.212
Minimum	1.027	0.07	0.0022	-28.755

2.6.2 Book Value Per Share Ratio



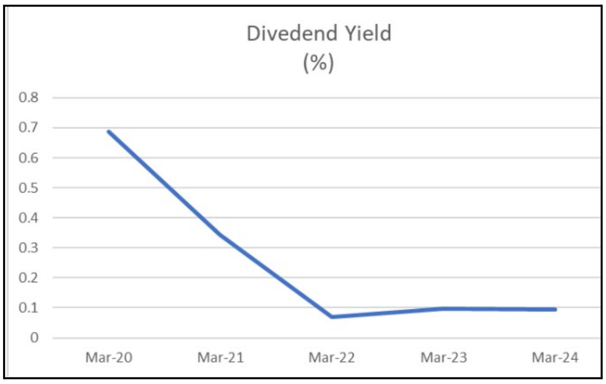
Trend Analysis

- The book value per share fluctuated differently with more volatile ups and downs; it had a reading of 2.074 in March 2019 and improved to 5.804 by March 2024, hence showing fluctuations in net worth.
- The highest jump is found to be between the periods of 2021 March and 2022 March, where it rose from 2.661 to 5.944 and then dipped the following year.

Economic Inference

- Increasing book value per share would indicate that the company is becoming stronger on its financial foundation and would attract long-term investors.
- However, fluctuations in the ratio may lead the way to instability or a change in asset management practices, which must be clearly under the scanner.

2.6.3 Dividend Yield Ratio



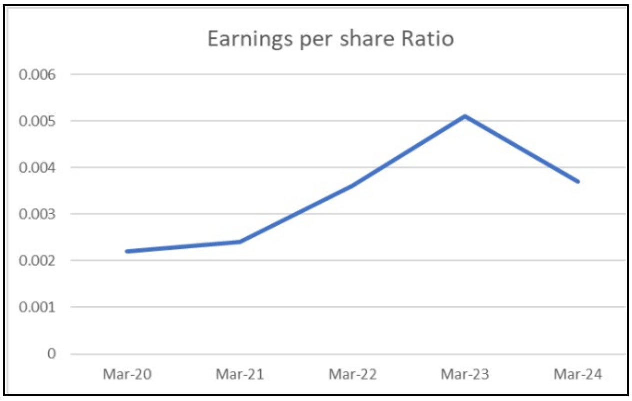
Trend Analysis

- The dividend yield has decreased year by year since 0.8% in March 2019 to 0.095% in March 2024, indicating the payout per dividend against the price of the stock has decreased.
- From 0.344 to 0.070 within the period between 2021 to 2022 is the most reflective drop at large since it mirrors a shift in the company's payout trend.

Economic Inference

- A Declining dividend yields may suggest that the firm is retaining earnings to support growth rather than paying them out, thus underpinning the underlying long-term value creation for shareholders.
- The lower yield can also suggest investment unhappiness with payout policies, since income-focused investors would be exposed to relatively weaker returns.

2.6.4 Earnings Per Share Ratio



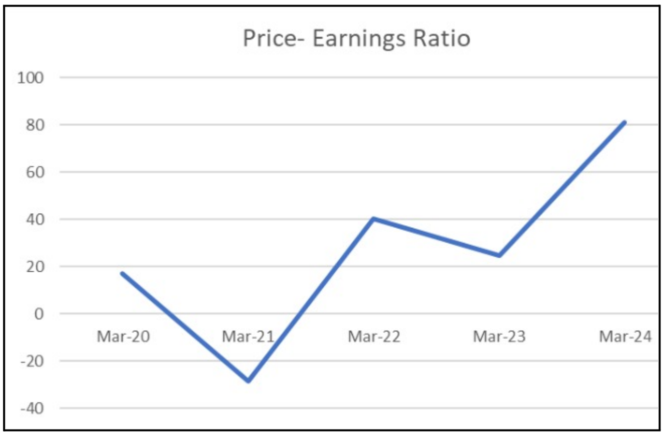
Trend Analysis

- **EPS was seen to rise steadily from 0.0022 in March 2020 to 0.0037 in March 2024, meaning there was a rise in performance.**
- **The most exciting rise, however, was that between the two years from 2022 to 2023. EPS rose by 0.0036 to 0.0051.**

Economic Inference

- A consistent rise in EPS is attributed to higher profitability combined with good cost control, which makes it very attractive to investors.
- However, the slight decline in the EPS might necessitate a closer look at whether the profit growth is sustainable or not.

2.6.5 Price-Earnings Ratio



Trend Analysis

- The P/E ratio has risen to 81.212 in March 2024 and risen since the market values this company at a substantially higher multiple of its earnings.
- The highest volatility was in 2021, where the P/E ratio turned negative (-28.755), presumably because of negative earnings or relative high share prices to earnings.

Economic Inference

- A high P/E ratio, as in the year 2024, may reflect that the market expects growth in the future but may also indicate that a stock is overpriced relative to its earnings.
- A negative P/E for 2021 indicates challenges in profitability that may have affected investor sentiment at that time.

3 Andhra Sugars Ltd.:

3.1 Company Introduction

Andhra Sugars Ltd. is a multi-product company operating in strategic industrial segments, engaged primarily in the business of manufacturing sugar, organic and inorganic chemicals and renewable energy. It's a company embodying sustainability, resource efficiency and industrial innovation. With a diversified offering, it serves multiple segments that also balances regional development and economic stability. Andhra Sugars Ltd. is one of the foremost leaders in its industry, creating value for all stakeholders and adding to the national growth.

3.1.1 Nature of Business

Key operations of Andhra Sugars Ltd. are in sugar, chemicals and renewables. The company makes industrial and pharmaceutical chemicals through its chemical division, such as caustic soda, hydrogen peroxide and chloro-alkali products for a variety of industries. Besides, its energy from renewable sources utilizes bagasse cogeneration in sugar mills where it emphasizes environmental sustainability.

3.1.2 Ownership

The Company is a public limited company as defined in the Companies Act, 1956, and all the provisions of that Act relating to general meetings are followed. — Andhra Sugars Ltd The ownership structure for Andhra Sugars Ltd. as of September 2024 is [Note 11]Promoters — ground entrusted center capHoldings by associations and the general public are about offset The firm is balancing prudently between financial management and operational efficiency to give shareholders the best value.

3.1.3 Business Commencement Circumstances

Andhra Sugars Ltd, was established in1947 with a vision to manufacture the essential industrial and consumer products in India after independence. Now that enclaves journeyed from sugar, then in decades outgrew almost everything else like chemicals, alcohols and renewable energy. Its growth sends shivers of formative spirit, the promise of India soaring in her dream of an industrialized economy.

3.1.4 Greatness of the Company

Significant Sustainable Initiatives: Andhra Sugars Ltd. is a major sustainability stakeholder in sugar with renewable energy generation integrated into the sugar operations (bagasse based power cogeneration (To cut down carbon)) It also advocates green practices in chemicals manufacturing, focusing on environmental conservation and sustainable industrialization.

Operational Excellence: The company has a diversified business model that performs well in every economic cycle — up or down. Andhra Sugars Ltd. has well-established benchmarks of quality, innovation and efficiency along product manufacture/service delivery, thereby securing a reputation as the industry leader with its very high standards.

3.2 Liquidity Ratios

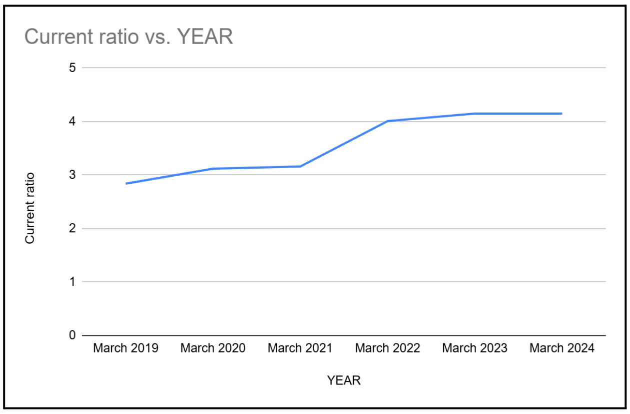
3.2.1 Summary

Year	LIQUIDITY RATIOS			
	Current ratio	Acid-Test Ratio	Cash Ratio	Operating Cash Flow ratio
31st March 2019	2.84	1.28	0.18	0.51
31st March 2020	3.12	1.42	0.13	0.81
31st March 2021	3.16	1.57	0.07	1.07
31st March 2022	4.01	1.97	0.17	1.11
31st March 2023	4.15	2.07	0.27	0.00
31st March 2024	4.15	1.82	0.18	0.88

Average	3.57	1.68	0.16	0.73
Maximum	4.15	2.07	0.27	1.11
Minimum	2.84	1.28	0.07	0.00

3.2.2 Current Ratio

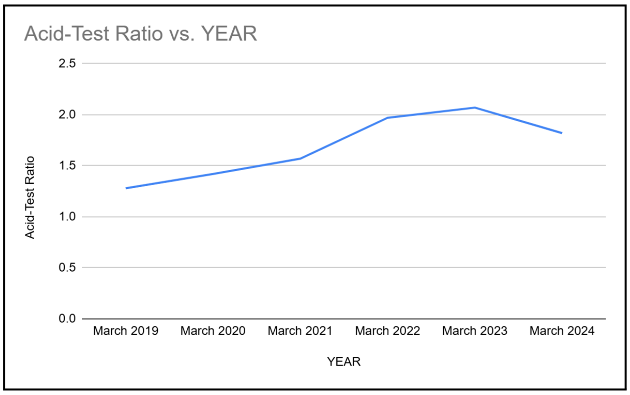
Trend Analysis:
The cash ratio is volatile, starting at 0.18 in March 2019, dropping to a low of 0.07 in March 2021, and recovering to 0.27 in March 2023, followed by a decline to 0.18 in 2024. The average is 0.16, reflecting weak immediate cash coverage.



Economic Inference:
The low cash ratio highlights potential challenges in meeting obligations using cash alone. While improvement in 2023 is a positive sign, the company should aim to maintain a consistent cash buffer to mitigate financial risks.

3.2.3 Acid-Test Ratio

Trend Analysis: On the whole, the acid-test ratio has improved from 1.28 in March 2019 to peak at 2.07 in March 2023, then dipping a bit to 1.82 in March 2024.Sentence similarity using word mover's distance Type of transaction It stays over 1 on a constant basis, as a result strong liquidity is planned to remain and also stay concentrated after accounting for any type of triggered inventory.

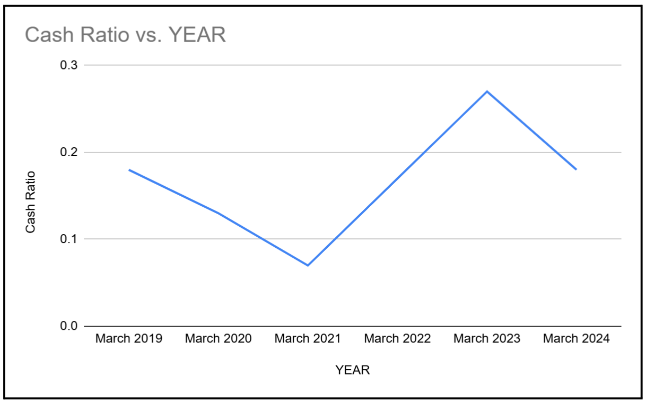


Economic Inference:

It indicates the total well being of a company where it will stand for paying off liquid assets rather than depending upon inventory. This slight downturn in 2024 indicates that cash and receivables should be closely watched.

3.2.4 Cash Ratio

Trend Analysis:



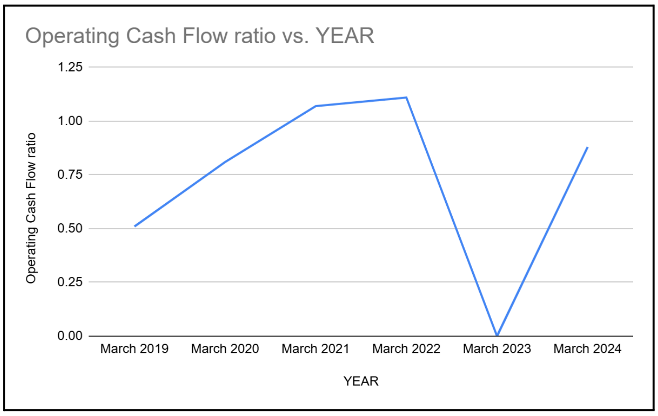
At the bottom, the cash ratio is referred to as being fairly volatile, hitting 0.18 in March 2019 and then declining to a low of 0.07 in March 2021 before rebounding back up with another drop off down to 0.18 again in March of this year (up slightly from last years figure of just over a quarter down to that cash ratio ephemeral shake). The mean is 0.16, indicating insufficient near-term cash coverage.

Economic Inference:

Again we see how a seemingly simple number (in this case the cash ratio) exposes difficulty in fulfilling obligations using strictly cash. Though progress in 2023 is a step in the right direction, the company should strive to achieve an excess of cash at all times, otherwise they risk reaching tails with their financials.

3.2.5 Operating Cash Flow Ratio

Trend Analysis:



The cash flow ratio operates the entire change at 0.00 in 2023 and 1.11 in 2022 from a low of73. In 2023 it was zero, then in 2024 bounced back up to 0.88.

Economic Inference:

This volatility indicates inconsistency in generating sufficient operating cash flows. The abnormality in the cash flow or higher operational expenses for certain years A zero ratio for 2023 will point to a truly troubling situation, as it indicates failure in cash flow management.

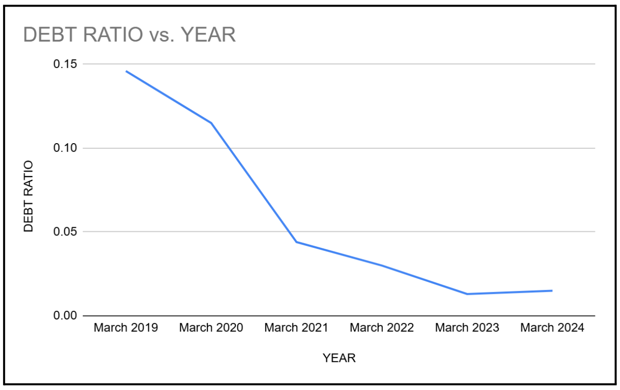
3.3 Leverage Financial Ratios

3.3.1 Summary

Year	LEVERAGE FINANCIAL RATIOS			
	DEBT RATIO	DEBT TO EQUITY	INTEREST COVERAGE RATIO	DEBT SERVICE COVERAGE RATIO
31st March 2019	0.146	0.249	25.66	-
31st March 2020	0.115	0.210	8.36	10.40
31st March 2021	0.044	0.114	3.49	3.96
31st March 2022	0.030	0.340	17.8	22.15
31st March 2023	0.013	0.140	85.97	107.14
31st March 2024	0.015	0.180	64.18	125.77

Average	0.060	0.205	34.243	53.884
Maximum	0.146	0.340	85.97	125.77
Minimum	0.013	0.114	3.49	3.96

3.3.2 Debt Ratio

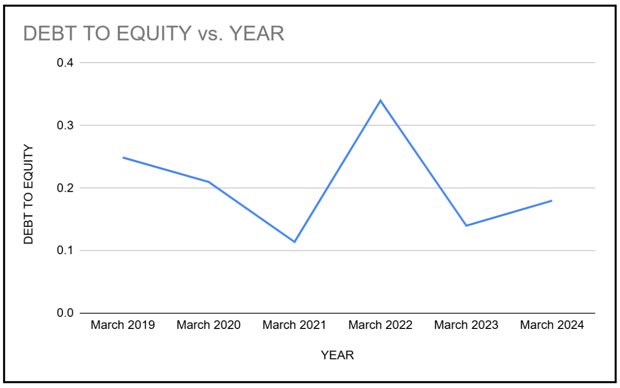


Trend Analysis:

The debt ratio has decreased remarkably, from 0.146 in March 2019 down to only 0.013 in March of this year, before slightly climbing back up again to a value of 0.015 during March 2024. 0.060, on average over the time: low leverage.

Economic Inference: A decreasing debt ratio illustrates conservative financing behaviour, meaning the company had to finance with more equity or from its own retained earnings. Low debt levels lower financial risk, but under-leverage may suggest companies are missing out on surplus external financing.

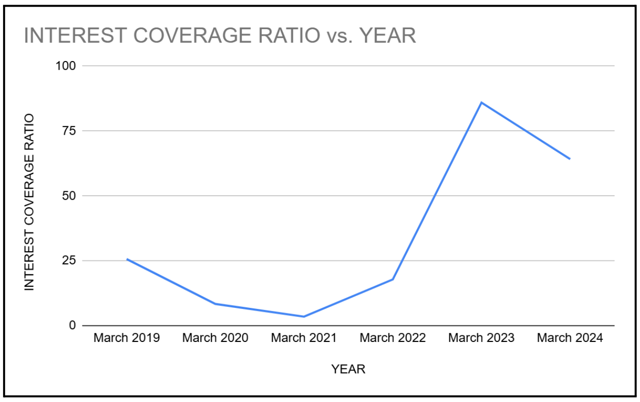
3.3.3 Debt-Equity Ratio



Trend Analysis: The debt-equity ratio shows a moderate level of fluctuation ranging from its initial value of 0.249 at March 2019, culminating in its peak at value of 0.340 (expected for the year ending on March 2022) and finally closes at value of due to highly accepted Market Risk Scandal estimate at March24(03). The overall average across all plans is 0.205, indicating a reasonably even split in capital structure as well.

Economic Inference: The debt-to-equity ratios are also at reasonable levels, which indicates a balanced approach toward utilizing debt versus equity finance. The jump in 2022 could signify some strategic borrowing, followed by a reversal or higher equity (deleveraging)in the years after. More generally, the Company is in a good position to be financed as required.

3.3.4 Interest Coverage Ratio



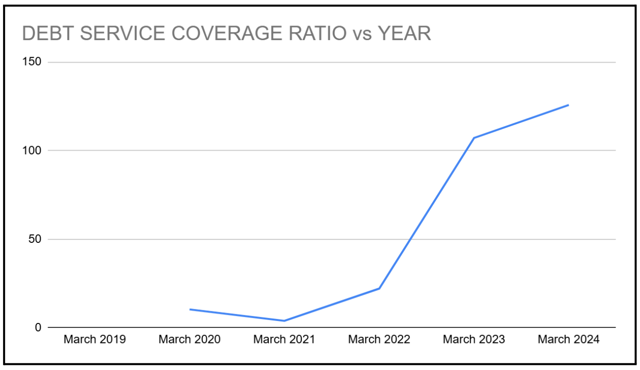
Trend Analysis:

The interest coverage ratio is extremely variable, varying from as low of 3.49 in March 2021 to an all-time high of 85.97. In March 2024 it fell slightly to still perform very well at the level of 64.18. The average is 34.24 which is a very good capacity for paying interest.

Economic Inference:

The large jump in 2023 and 2024 indicates that earnings are likely comfortably above interest costs, either due to increasing profits or debt at a lower cost.

3.3.5 Debt Service Coverage Ratio



Trend Analysis:

The DSCR shows a dramatic increase from 10.40 in March 2020, to an astonishingly high 125.77 in March 2024 with an average over period of 53.88.

Economic Inference:

DSCR improves, indicating stronger coverage of earning from operating cash flows to debt obligations This points to a positive trend as improving cash flow will need less recourse to outside capital and/or the bank for debt repayment Those elevated levels, however, could signal under-embraced financial leverage.

3.4 Efficiency Ratios

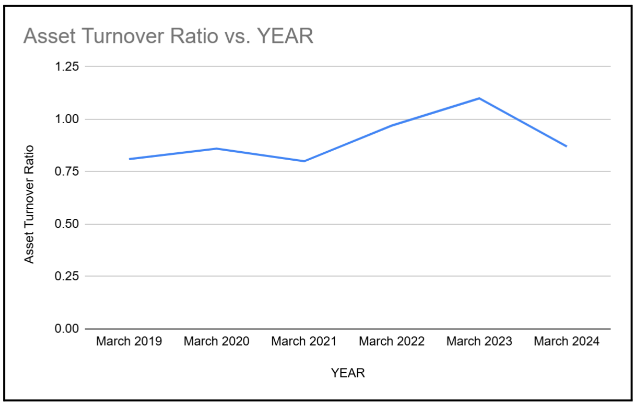
3.4.1 Summary

Year	EFFICIENCY RATIOS			
	Asset Turnover Ratio	Inventory Turnover Ratio	Receivables Turnover Ratio	Days sales in Inventory ratio
31st March 2019	0.81	2.62	7.68	136.70
31st March 2020	0.86	2.81	8.01	129.89
31st March 2021	0.80	2.74	7.13	133.21
31st March 2022	0.97	3.38	8.13	354.37
31st March 2023	1.10	4.39	8.94	272.39
31st March 2024	0.87	3.39	8.18	-
Average	0.901	3.221	8.011	205.312
Maximum	1.10	4.39	8.94	354.37
Minimum	0.80	2.62	7.13	129.89

3.4.2 Asset Turnover Ratio

Trend Analysis:

Asset turnover ratio gently varies from at 0.81 in March 2019, rising to a high of 1.10 in March 2023 and falls back to achieve a value of 0.87 in March 2024. The overall average is 0.901, suggesting the asset utilization process appears to be quite homogeneous.



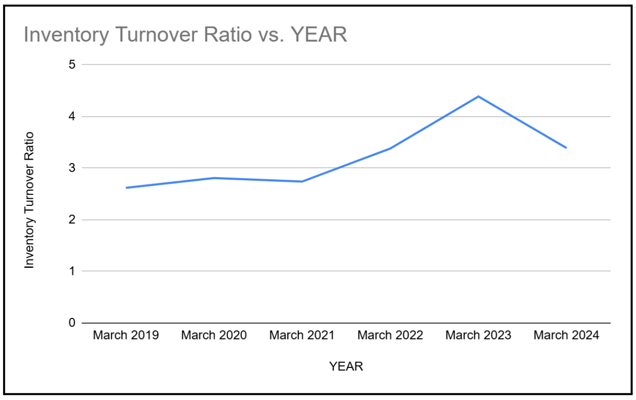
Economic Inference:

The upward trend until 2023 shows assets are generating revenue more efficiently. But the decrease in 2024 suggests decreased operating leverage, perhaps through declining sales or excessive asset investment.

3.4.3 Inventory Turnover Ratio

Trend Analysis:

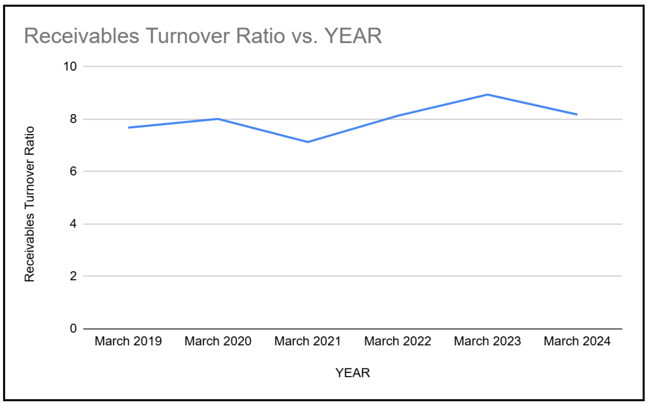
There are marked improvements for the inventory turnover ratio, which increased continuously by years from 2.62 in March 2019 to a peak of 4.39 in March 2023, then dipped slightly to 3.39 within the same months of March in 2024. The average ratio is 3.221.



Economic Inference:

This upward trend implies that the company has better control over its inventory levels and turnover, meaning their cycle effects faster. Be careful about the smaller decrease in 2024 because this could just mean overstocking or moving inventory slower.

3.4.4 Receivables Turnover Ratio



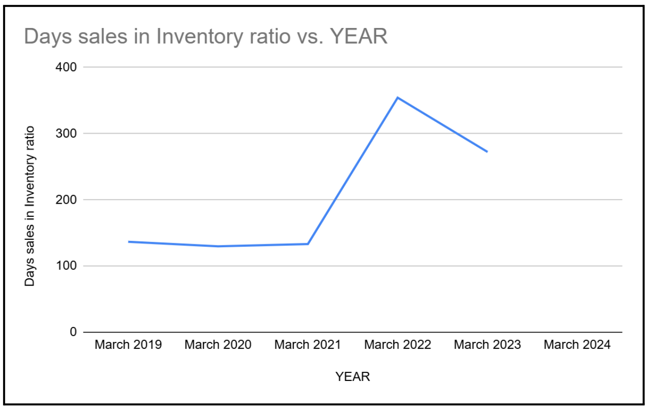
Trend Analysis:

The receivables turnover ratio has remained relatively stable, between 7.13 (in March 2021) and 8.94 (in March 2023), for an average of 8.011 over the period11. This ratio is always above 7, clearly showing that credit was used correctly.

Economic Inference:

Their stability and high values reflect the ability of the company to collect receivables very effectively. The small increase in 2023 could be the result of tighter credit practices or higher sales. This also enables you to keep this level steam and support liquidity and chore efficiency.

3.4.5 Days Sales in Inventory Ratio



Trend Analysis:

The DSI is highly variable, decreasing from 136.70 days in March 2019 to 129.89 days in 2020 but then rising to a maximum of 354.37 days in March 2022 and then returning down to the low level of around about 272.39 days in March again this year (i.e., the increase appears due to an almost complete removal of stocks at these firms). There is no data available for 2024.

Economic Inference:

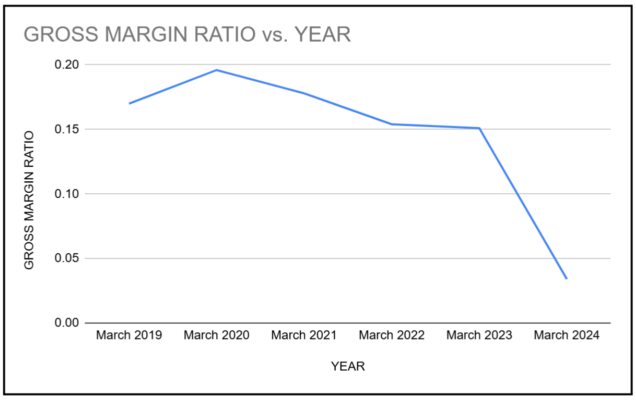
What blew up in 2022 shows that either properties are being held longer or people simply overstocked for sale here too, since buyers have less bandwidth to acquire homes at rapid rates. The 2023 improvement however indicates remedial action, but as the DSI remains high than the relevant industry average there is still more efficiency to eliminate.

3.5 Profitability Ratios

3.5.1 Summary

Year	PROFITABILITY RATIOS			
	GROSS MARGIN RATIO	OPERATING MARGIN RATIO	RETURN ON ASSETS RATIO	RETURN ON EQUITY(%)
31st March 2019	0.170	0.147	0.103	16.57
31st March 2020	0.196	0.250	0.125	18.82
31st March 2021	0.178	0.205	0.065	9.10
31st March 2022	0.154	0.201	0.098	12.70
31st March 2023	0.151	0.194	0.106	13.49
31st March 2024	0.034	-	0.032	4.05
Average	0.147	0.199	0.088	12.455
Maximum	0.196	0.250	0.125	18.82
Minimum	0.034	0.147	0.032	4.05

3.5.2 Gross Margin Ratio



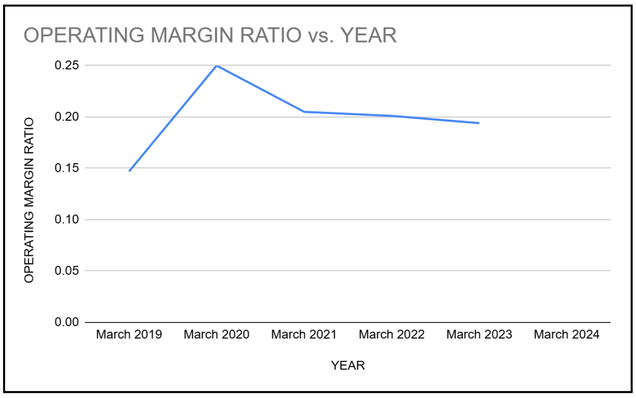
Trend Analysis:

Gross margin ratio: It shows a declining pattern from 0.170 in Mar 2019 to the highest at 0.196 for the year of 2020 followed by a significant decreasing to its lowest at 0.034 (Mar2024). Over time, the average ratio is 0.147.

Economic Inference:

The fall in gross margins — the nearly staggering tumble of 2024 — suggests rising COGS or pricing pressures. Investigations into increasing production costs or competitive challenges need to find corrective actions that will restore profits.

3.5.3 Operating Margin Ratio



Trend Analysis:

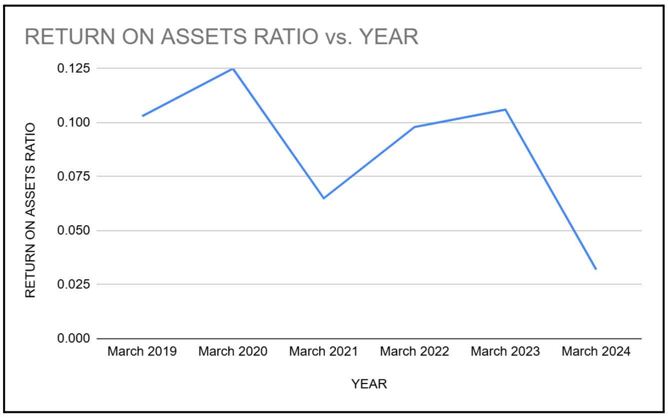
The ratio of operating margin reached its highest value of 0.250 in March 2020 and decreased over time to a value of 0.194 as at the year of assessment being 2023. 2024 data are not available; however, over better years, the average ratio of 0.199 indicates strong operating efficiency.

Economic Inference:

Falling operating margins imply that either operating expenses are higher or revenues stagnant. This could be due to market forces or internal inefficiencies. The focus on strengthening cost control and common business revenue strategies is expected to mitigate operating margins.

3.5.4 Return on Assets Ratio

Trend Analysis:



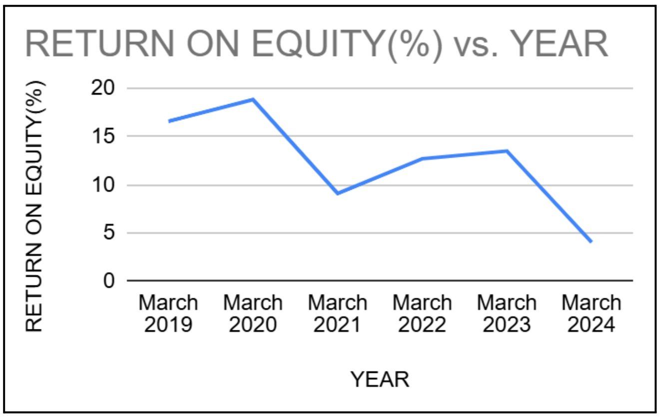
ROA found a temporary high of 0.125 in March 2020, and continues to fall steadily towards the - driven expectations of an impossible infusion business model in 2024 (0.032). The average ROA of 0.088 suggests that companies are able to utilize their asset at a modestly efficient level, but there has been a significant decline in recent years.

Economic Inference:

A declining ROA reveals lower net income earned per monitory unit of the asset base. To turn the tide, more expenses are controllable and revenue-generating strategies must be increased.

3.5.5 Return on Equity Ratio

Trend Analysis:



For example, ROE increased to 18.82% in March 2020, and then fell to 4.05% during has scheduled for the year 2024. 12.455% average ROE suggests a history of healthy returns on equity, but all in all, a glaring decline on historical performance.

Economic Inference:

The dramatic slump in ROE signals lower profitability or higher equity for the level of earnings. That might make some of the shareholders twitchy. Optimizing profitability and capital efficiency are key to recovering ROE close to pre-2020 levels.

3.6 Market Value Ratios

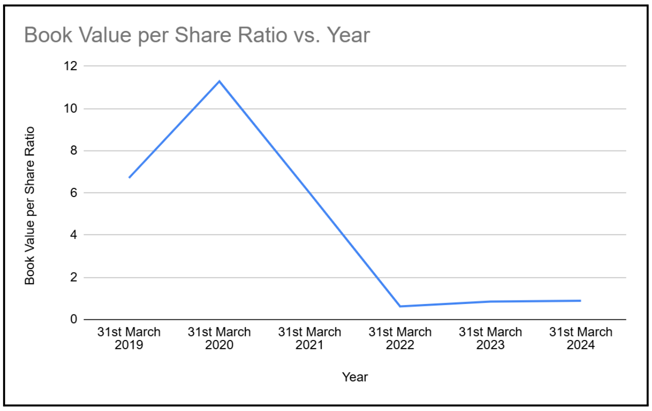
3.6.1 Summary

Year	MARKET VALUE RATIOS			
	Book Value per Share Ratio	Dividend Yield (%)	Earnings per share Ratio	Price- Earnings Ratio
31st March 2019	6.71	2.91	0.1296	588.23
31st March 2020	11.29	11.3	0.1362	256.41
31st March 2021	5.99	2.0	0.0746	769.23
31st March 2022	0.62	1.3	0.1206	1250
31st March 2023	0.85	1.6	0.1302	833.34
31st March 2024	0.89	1.0	0.0371	2500
Average	4.39	3.351	0.104	1032.86
Maximum	11.29	11.3	0.1362	2500
Minimum	0.62	1.0	0.0371	256.41

3.6.2 Book Value per Share Ratio

Trend Analysis:

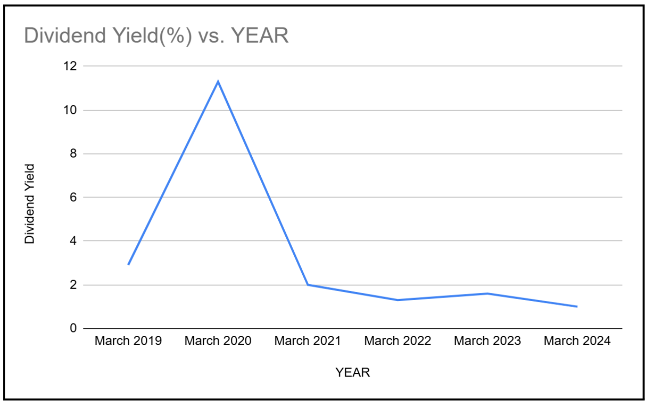
With BVPS falling from 6.71 in 2019 to a forecast of 0.89 in 2024, the biggest decrease has been seen from 2021 (5.99) to 2022 (0.62). The trend slightly stabilizes after 2022, with small increases to 0.62 for all states by 2023 and further growth to 0.89 by 2024. However, overall BVPS heads southwards for the years indicating reduced equity attributable to shareholders.



Economic Inference

The falling BVPS signals a devaluation of net assets, possibly the result of increasing liabilities or losses. The steep decline in 2022 indicates the nature of an impending important financial event, while just a recovery as part typical to post-2022 signifies restoration efforts for equity. However, the overall low value signals poor financial strength and less intrinsic to shareholders which can affect investors confidence.

3.6.3 Dividend Yield (%)



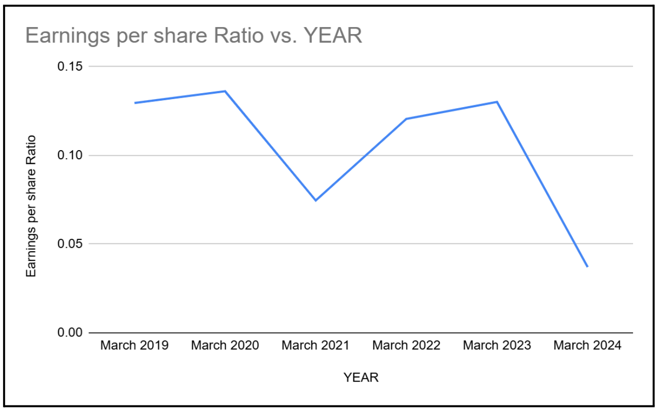
Trend Analysis:

For example, in March 2020 the dividend yield reached a maximum of 11.3%, likely due to prices being low as markets fell into panic mode and pricing assets down across the board. It never got back above 1.0% afterwards, bottoming at 1.0% in March 2024.

Economic Inference:

High dividend yield recorded in 2020 may have been due to the depressed stock prices, while lower yields since then may either record rising share prices or indicate an approach of reinvesting profits rather than dividends payout.

3.6.4 Earnings per Share Ratio



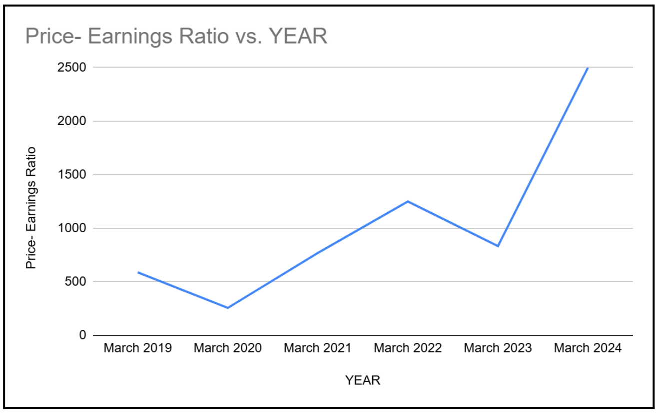
Trend Analysis:

EPS ratio has been stable throughout the years where we have had a peak of 0.1362 in March 2020, followed by major decreases to value as low as 0.0371 in March 2024.

Economic Inference:

Given the recent years of lower EPS, this reflects a decline in profitability (high operating costs or downturns in the economy, decreases in net income due to competitive pressures).

3.6.5 Price-Earnings Ratio



Trend Analysis:

The P/E ratio reflected this degree of instability, plummeting to 256.41 in March 2020 and soaring to 2500 by March 2024 These fluctuations are some of the changes in market sentiments or earnings expectations.

Economic Inference:

The high P/Es for 2024 suggest the market continues to hope or is overvalued even as EPS stands poised to tumble, which could be the result of speculative buying or decreased investor attention on earn.

4 Cummins India Ltd.:

4.1 Company Introduction

4.1.1 Nature of Business

Cummins India Ltd is very well represented in the manufacturing sector as it focuses a lot on the intricate and specific production of diversified sets of engines as well as those of sophisticated power generation systems and other related components, which are of vital importance for modern operations. A wide range of diesel and natural gas engines, advanced generator sets, and innovative power solutions characterize the complete product portfolio offered by the company, taking into account the needs of the diverse industries such as construction, mining, transportation through rail, marine applications, automobile manufacturing, and the ever-important generation of electric power. Hence, it reflects the presence of versatility and excellence in the provision of diversified sets of products.

4.1.2 Ownership

The company is listed with National Stock Exchange and Bombay Stock Exchange. It was incorporated as a joint venture involving Cummins Inc. of the United States and the Kirloskar Group of India. The company equity has been nearly dominated by Cummins Inc., which reflects a strategic role that the company plays in the global operations of Cummins Inc.

4.1.3 Business Commencement Circumstances

Cummins India Ltd. was incorporated in the year 1962. The initiative for the company was launched to satisfy the rising need for reliable and efficient energy solutions all over India. In the first stage of operation, the company manufactured engines and generator sets mainly for the Indian market. Over time, it expanded its operations and enhanced the range of products by offering the global innovations and changing requirements of the market.

4.1.4 Industry of the Business

It falls under the industrial machinery domain, mainly in the space of manufacturing power generation systems and engines. This field is integral to several types of industries, such as infrastructure development, transportation, and energy, and Cummins India's products are thus irreplaceable in the growth and development process.

4.1.5 Greatness of the Company

Cummins India Ltd. is known to be in innovation, quality, and reliability. The commitment of sustainability and environmental responsibility is well reflected in the advanced emission-compliant engines and environmentally friendly power solutions offered by it. On account of good manufacturing capabilities and customer service, the company was rewarded consistently and therefore emerged at the top in industry ranking. Overall excellence and resilience with a competitive landscape emerge through strong financial performance and dominance in the market.

4.2 Liquidity Ratios

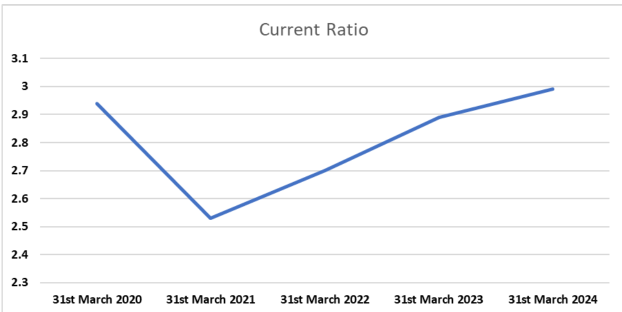
4.2.1 Summary

Year	Liquidity Ratios			
	Current Ratio	Acid-Test Ratio	Cash Ratio	Operating Cash Flow Ratio
31st March 2020	2.94	2.25	0.32	0.85
31st March 2021	2.53	2.00	0.28	0.93
31st March 2022	2.70	2.14	0.30	0.98
31st March 2023	2.89	2.32	0.33	1.07
31st March 2024	2.99	2.35	0.35	1.15
Average	2.81	2.22	0.31	0.996
Maximum	2.99	2.35	0.35	1.15
Minimum	2.70	2.00	0.28	0.85

4.2.2 Current Ratio

Trend Analysis

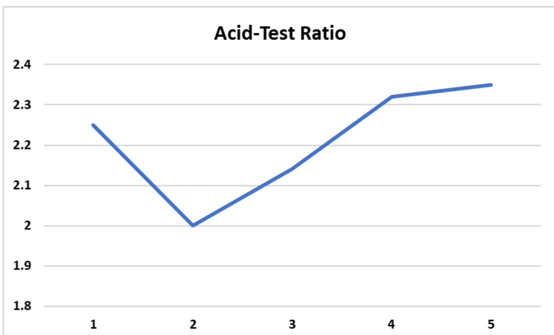
- **2020–2021**: A ***decrease*** in ratio from **2.94** to **2.53** reflects that there could be a *decrease in liquidity* due to the pandemic either through *lower revenue or increased liabilities*.
- **2021–2024**: The ratio ***improved consistently after 2021***, reaching **2.99** in 2024. This reflects *strengthened liquidity*, potentially due to *increased revenues, better asset management, or reduced short-term liabilities.*



Economic Interference

- **COVID-19 Pandemic Impact :** Companies globally faced increased *short-term liabilities with limited revenue inflows*, reflected in the drop in the current ratio from **2.94 to 2.53**.
- **Post Pandemic Recovery :** The industrial and automotive sectors picked up as economic activities normalized. Cash flow for Cummins India most likely improved and current liabilities managed properly in order to raise the ratio from 2.53 in 2021 to 2.99 in 2024.

4.2.3 Acid Test Ratio



Trend Analysis

- **2020–2021 :** A **decline** reflects the cash flow difficulties from the pandemic, such as lower revenue inflows and increased operating expenses.

- **2021–2024 : Improvement over time** indicates effective cash management, which reflects caution in preserving cash and decreasing current liabilities. Strategic treasury practices, along with recovery in industrial activity post-pandemic, further boosted the growth.

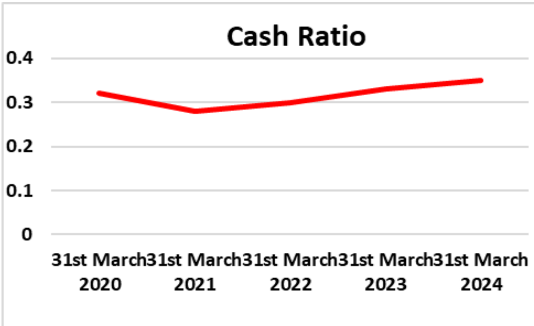
Economic Interference

- **Pandemic Effect (2020–2021)** : The acid-test ratio declined due to receivables collection slowdown during the pandemic, with liabilities remaining because of tighter liquidity conditions.
- **Post-COVID Recovery and Global Inflation** : Industrial demands and operational efficiency from 2022 have stabilized receivables and cash management that have a positive impact on the ratio. The strong financial discipline of the company thus ensured a slight upward trend in the ratio by not relying on inventories to meet obligations despite inflationary pressures.

4.2.4 Cash Ratio

Trend Analysis

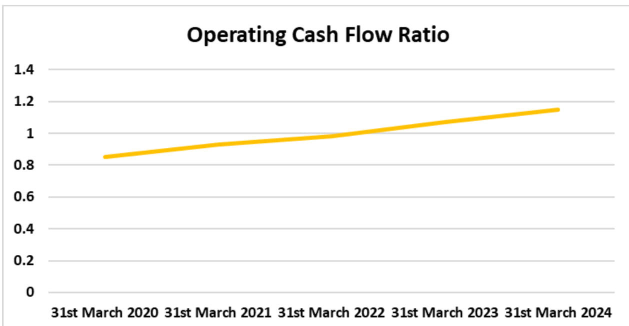
- **2020–2021** : A ***decline*** reflects issues with cash flows brought by the pandemic: revenue inflows are lower, and operating costs higher.
- **2021–2024** : ***Gradual improvement*** suggests good cash management, reflective of a focus on maintaining cash reserves and reducing current liabilities. Strategic treasury practices and recovery in industrial activity post-pandemic further facilitated the ascent.



Economic Interference

- **Pandemic Cash Strain :** Lower cash availability during 2020–2021, due to reduced demand and increased operating costs, caused a drop in the ratio.
- **Improved Cash Management :** Post-2021, the recovery in operational cash inflows led to a steady increase in the cash ratio. Cummins India likely optimized working capital to maintain liquidity without over-leveraging.
- **Currency and Interest rate Fluctuations :** Despite inflationary challenges, effective treasury management (e.g., currency hedging and managing cash reserves) contributed to growth in cash reserves.

4.2.5 Operating Cash Flow Ratio



Trend Analysis

- **2020–2021 :** Despite a challenging economic environment, the **slight increase** highlights resilience in managing operating expenses and liabilities.
- **2021–2024 : A consistent upward trend** would reflect improved profitability and stronger cash flow generation for this

company in industrial recovery and efficient cost control. Growth in revenues and better efficiencies in operating led to a higher proportion of liabilities being covered with cash flow.

Economic Interference

- **Operational Challenges of the Pandemic :** Lower revenues and fixed higher costs in 2020–2021 led to a reduction in operating cash flow relative to liabilities. However, OCF was sufficient to service a large share of current obligations, indicating resilience.
- **Post-Pandemic Recovery :** Improved sales and concentration on cash-generating activities led to gradual improvement in the OCF following 2021. Operating cash flow was further boosted by cost controls measures.
- **Industry and Policy Support :** Government incentives for manufacturing and infrastructure growth improvement in sector activity enabled the company to achieve persistent cash flow coverage improvement through 2024.

4.3 Leverage Financial Ratios

4.3.1 Summary

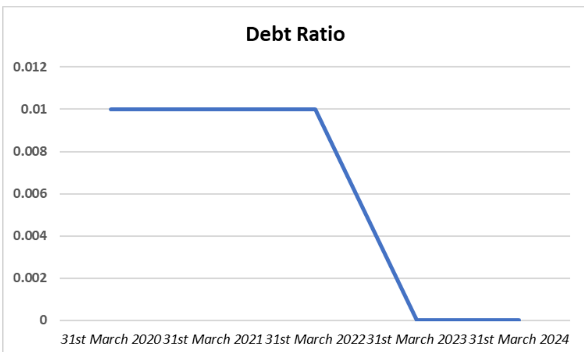
Year	Leverage Financial Ratios			
	Debt Ratio	Debt-Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio
31st March 2020	0.01	0.06	86.97	0.02
31st March 2021	0.01	0.05	105.36	0.27
31st March 2022	0.01	0.08	101.97	0.44
31st March 2023	0.00	0.07	58.73	0.50
31st March 2024	0.00	0.02	45.32	0.63

Average	0.0006	0.056	79.67	0.372
Maximum	0.001	0.08	105.36	0.63
Minimum	0.00	0.02	45.32	0.02

4.3.2 Debt Ratio

Trend Analysis

- **Gradual Decline (2020-2024) :** The debt ratio for Cummins India has shown a ***consistent decline*** from 0.01 in 2020 to near 0.00 by 2024. This suggests that the company's total liabilities relative to its assets have been reducing steadily.



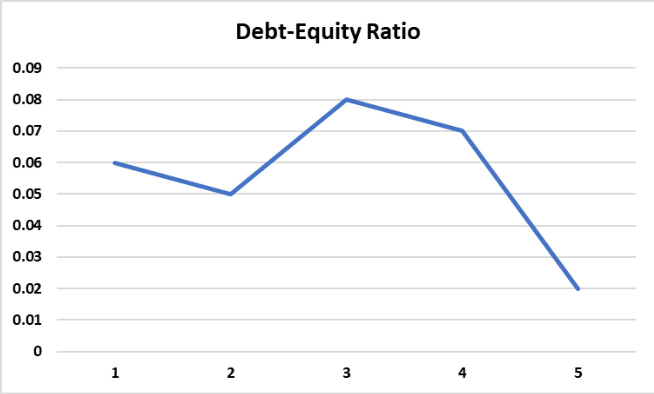
Economic Inference

- During the pandemic (2020-2021), companies implemented very conservative financial strategies. Cummins India likely ***did not increase outstanding liabilities*** too much to avoid most of the risks that surfaced during this uncertain phase of economic uncertainty due to COVID-19 in demand slowdowns and supply chain disruptions. Recovery in later years helped the company ***maintain low debt levels.***

4.3.3 Debt-Equity Ratio

Trend Analysis

- The **debt-to-equity ratio *increased*** from 0.01 in 2020 to 0.08 in 2022, but then ***decreased*** to 0.02 in 2024. The initial increase may reflect ***moderate debt issuance***, ***followed by a decline*** in 2024.



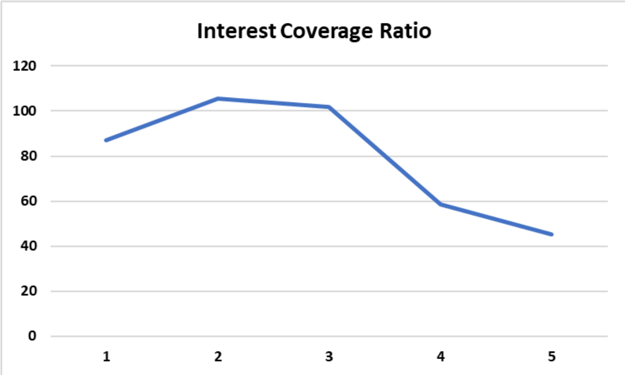
Economic Inference

- An increase in this ratio during 2021-2022 may thus be indicative of ***minor borrowing by the company*** to ***sustain operations and cash flow during the pandemic***. Thereafter, falling ratios would be supported by a return to normal operations and strengthened equity, backed by improved market conditions post-COVID.

4.3.4 Interest Coverage Ratio

Trend Analysis

- The **interest coverage ratio** has ***significantly declined*** from ***86.97 in 2020*** to ***45.32 in 2024,*** which indicates a decreasing ability to cover interest ***expenses from earnings before interest and taxes (EBIT).***



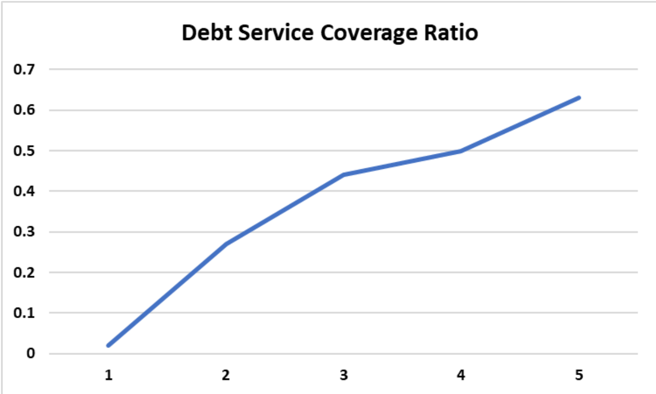
Economic Inference

- ***Decreases in 2020-2022*** align with ***lower earnings caused by the disruption the pandemic wrought***, among them factory shut-downs and low industrial demand. ***Borrowing costs***, still likely as a factor since then, can account for the ***continued decline throughout 2024.***

4.3.5 Debt Service Coverage Ratio

Trend Analysis

- The **debt service coverage ratio** has shown a ***steady improvement*** from ***0.02 in 2020*** to ***0.63 in 2024***, indicating a ***better ability to meet debt obligations.***



Economic Inference

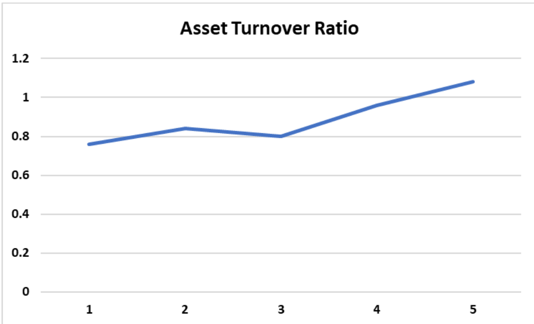
- The ***low ratio in the initial years*** reflects pandemic challenges, ***tight cash flows***, and operational constraints. Improving in the range of 2022-2024, this would mark in tandem with economic recovery, ***better cash management***, and ***increased industrial activity***, thus enabling Cummins India to derive stronger financial stability.

4.4 Efficiency ratios

4.4.1 Summary

Year	Efficiency Ratios			
	Asset Turnover Ratio	Inventory Turnover Ratio	Receivables Turnover Ratio	Days Sales in Inventory Ratio
31st March 2020	0.76	5.69	6.00	64.15
31st March 2021	0.84	6.25	6.40	58.40
31st March 2022	0.80	6.29	6.41	58.03
31st March 2023	0.96	7.54	7.29	48.42
31st March 2024	1.08	8.07	7.96	45.22
Average	0.89	6.78	6.81	54.85
Maximum	1.08	8.07	7.96	64.15
Minimum	0.76	5.69	6.00	45.22

4.4.2 Asset Turnover Ratio



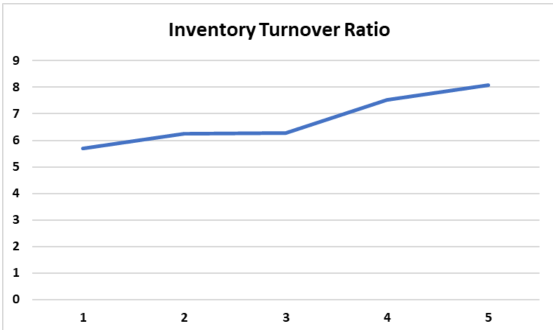
Trend Analysis

- Steady improvement from 0.76 in FY 2020 to 1.08 in FY 2024.

Economic Inference

- The ratio's improvement reflects Cummins India's effective utilization of assets amid increased sales volumes. This highlights the company's ability to adapt to post-pandemic economic recovery and scale its operations efficiently, leveraging both domestic and global opportunities.

4.4.3 Inventory Turnover Ratio



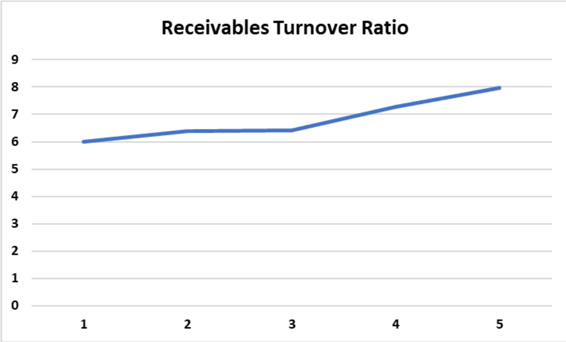
Trend Analysis

- Increased from 5.69 in FY 2020 to 8.07 in FY 2024, reflecting better inventory management and faster sales.

Economic Inference

- The escalating ratio indicates that Cummins India effectively adapted to evolving market circumstances by streamlining inventory management and production timelines, reducing carrying expenses, and synchronizing inventory quantities with the increasing demand.

4.4.4 Receivables Turnover Ratio



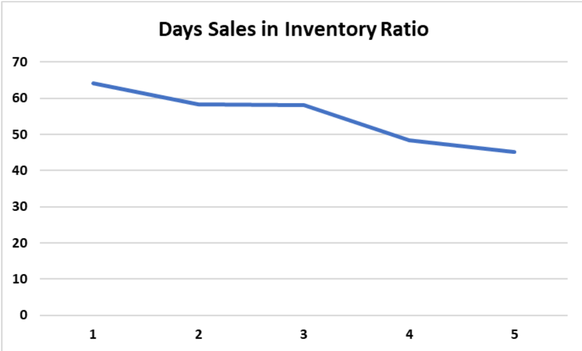
Trend Analysis

- Improved from 6.00 in FY 2020 to 7.96 in FY 2024, signaling efficient collection processes and strong cash flow management.

Economic Inference

- The enhancing ratio illustrates Cummins India's robust credit management strategies, alongside the overarching resurgence in economic activities, which facilitates improved collections from clients despite an increase in credit sales.

4.4.5 Days Sales in Inventory Ratio



Trend Analysis

- Decreased significantly from 64.15 days in FY 2020 to 45.22 days in FY 2024, showing a reduction in inventory holding periods and quicker conversion to sales.

Economic Inference

- The DSI trend for Cummins India is declining, which shows that business has recovered and streamlined inventory management. This is indicative of improvements in demand forecasting, lower storage costs, and smooth production planning.

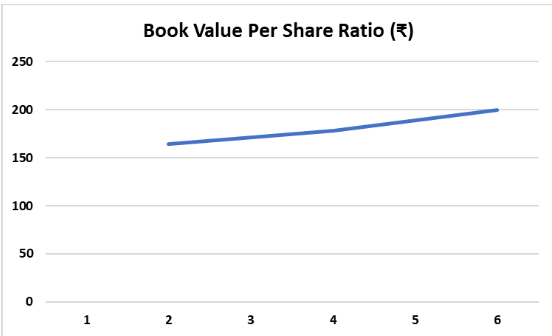
4.5 Profitability Ratios

4.5.1 Summary

Year	Profitability Ratios			
	Book Value Per Share Ratio (₹)	Dividend Yield Ratio (%)	Earnings Per Share Ratio (₹)	Price-Earnings Ratio
31st March 2020	164.29	5.11	25.71	18.28
31st March 2021	171.43	4.81	28.93	17.98
31st March 2022	178.57	4.80	27.68	18.06
31st March 2023	189.29	4.31	36.43	17.84
31st March 2024	200.00	4.00	45.00	17.78

Average	180.71	4.60	32.75	17.98
Maximum	200.00	5.11	45.00	18.28
Minimum	164.29	4.00	25.71	17.78

4.5.2 Book Value per Share Ratio (₹)



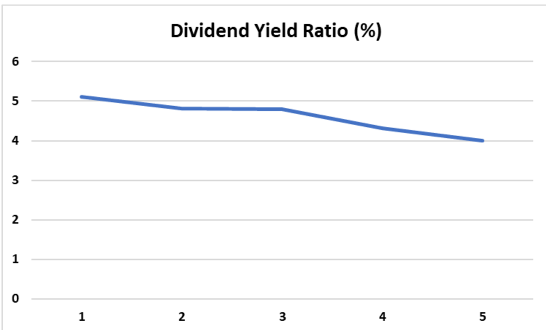
Trend Analysis

- BVPS increased consistently over the period from ₹164.29 (FY 2020) to ₹200.00 (FY 2024), reflecting growth in equity through retained earnings and consistent shareholder investments.

Economic Inference

- Going through the pandemic, stable growth in equity reflects Cummins India's excellent capital and retention of earnings capabilities. The post-pandemic recovery with profit improvement was part of this stable growth.

4.5.3 Dividend Yield Ratio (%)



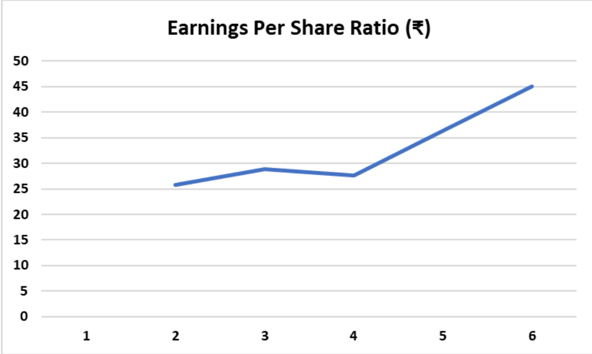
Trend Analysis

- The yield decreased slightly, from 5.11% in FY 2020 to 4.00% in FY 2024, primarily due to a faster increase in market price compared to dividends.

Economic Inference

- Lower yields during FY 2023–2024 were influenced by rising market prices as investor confidence grew with economic recovery and infrastructure spending. The slight yield decline indicates that the company preferred investing rather than a greater payout, reflecting its strategy more on growth.

4.5.4 Earnings Per Share Ratio (₹)



Trend Analysis

- EPS showed significant growth, rising from ₹25.71 in FY 2020 to ₹45.00 in FY 2024, driven by increasing profitability and steady share capital.

Economic Inference

- It shows EPS growth increased with profitability during the expansion stage. The trough in FY 2022 still is due to disruption caused by the pandemic and steep rise in FY 2023–2024 ascribed to strong demand and operational efficiency.

4.5.5 Price-Earnings Ratio

Trend Analysis

- The P/E ratio remained stable, fluctuating slightly around 18x. This indicates that the market consistently valued Cummins India at a comparable multiple of its earnings throughout the period.

Economic Inference

- The stability in the P/E ratio suggests that the market sentiment about future earnings of Cummins India stays consistent. Pandemic recoveries with growth expectations stabilize valuation. Thus, a steady P/E ratio reflects that market confidence towards the growth prospects of Cummins India was strong and unaltered.

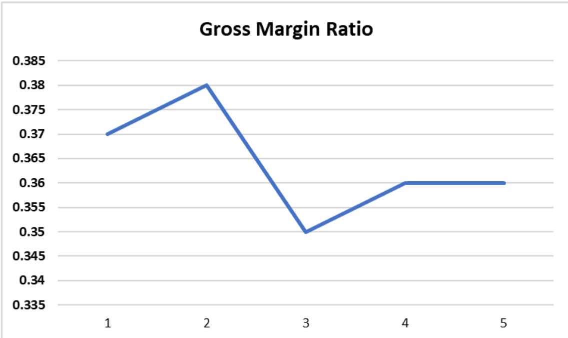
4.6 Market Value Ratios

4.6.1 Summary

Year	Market Value Ratios			
	Gross Margin Ratio	Operating Margin Ratio	Return On Assets Ratio	Return on Equity Ratio
31st March 2020	0.37	0.18	0.10	0.16
31st March 2021	0.38	0.18	0.11	0.17
31st March 2022	0.35	0.17	0.10	0.16
31st March 2023	0.36	0.18	0.13	0.19
31st March 2024	0.36	0.19	0.16	0.23

Average	0.364	0.18	0.12	0.182
Maximum	0.38	0.19	0.10	0.16
Minimum	0.35	0.17	0.16	0.23

4.6.2 Asset Turnover Ratio



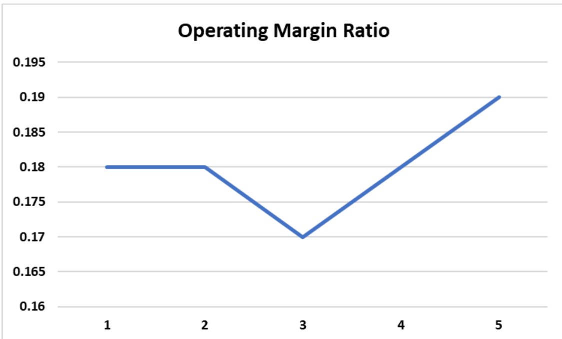
Trend Analysis

- Margins remained stable between 35% and 38%,with a small dip in FY 2022, which could be due to higher COGS, reflecting consistent cost control and profitability despite fluctuations in raw material costs and supply chain disruptions.

Economic Inference

- During FY 2020–2022, the pandemic increased supply chain costs and raw material prices, slightly pressuring gross margins. Recovery from FY 2023 onward and stabilization of input costs, along with Cummins India's operational strategies, helped maintain margins.

4.6.3 Operating Margin Ratio



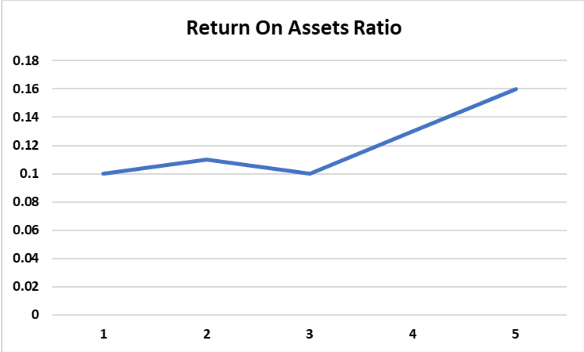
Trend Analysis

- The ratio declined slightly during FY 2021–2022 but improved to 19.06% in FY 2024. This reflects improved operational efficiency and better management of operating expenses in the post-pandemic recovery phase.

Economic Inference

- Pandemic-related disruptions and inflationary pressures caused operating margins to dip slightly in FY 2021–2022. Post-pandemic recovery and increased government spending on infrastructure helped Cummins achieve higher operational efficiency by FY 2024.

4.6.4 Return On Assets Ratio



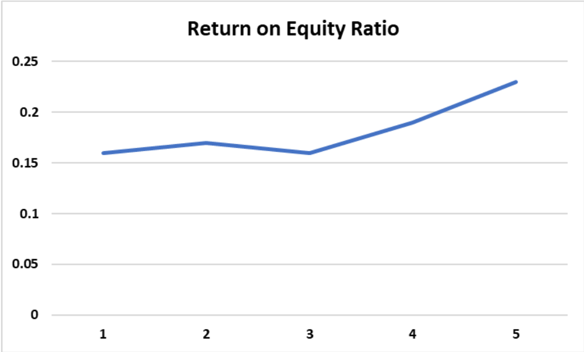
Trend Analysis

- ROA increased from 10.43% in FY 2020 to 15.37% in FY 2024, driven by growing net income and efficient asset utilization. Post-pandemic economic recovery and strong domestic demand contributed to this improvement.

Economic Inference

- The asset utilization was lower during the pandemic, mainly due to reduced sales, which limited returns. However, economic recovery and strong domestic demand saw improved ROA from FY 2023. Rising ROA reflects better resource utilization in a recovering economy. Cummins India's ability to increase profits through optimized asset deployment signals strong operational performance in a growth environment.

4.6.5 Return on Equity Ratio



Trend Analysis

- ROE increases from FY 2020 at 15.65% to FY 2024 at 22.50%, reflecting better profitability combined with improved returns for shareholders. It is, in fact, the growth compatible with higher net earnings utilization equity within the recovery phase.

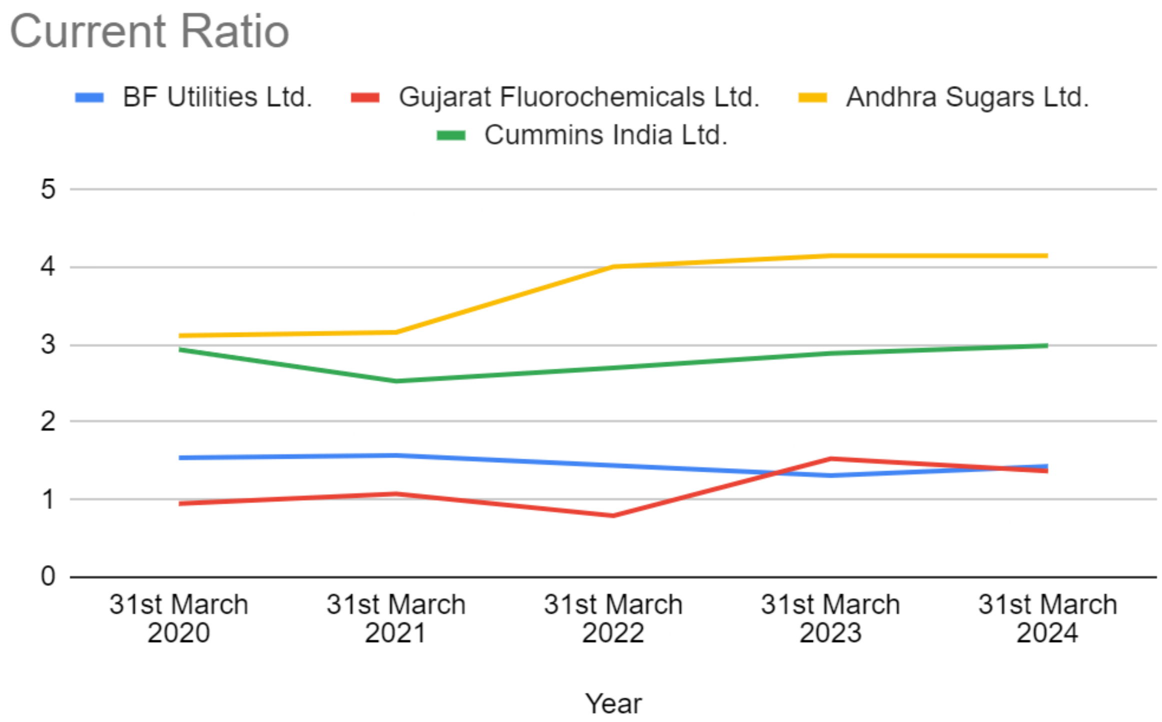
Economic Inference

- The pandemic and worldwide uncertainty restrained ROE during FY 2020–2022. However, with a robust recovery in the post-pandemic profitability and sustained growth in net income, the ROE increased significantly to FY 2024.

5 Comparative Analysis Of Companies

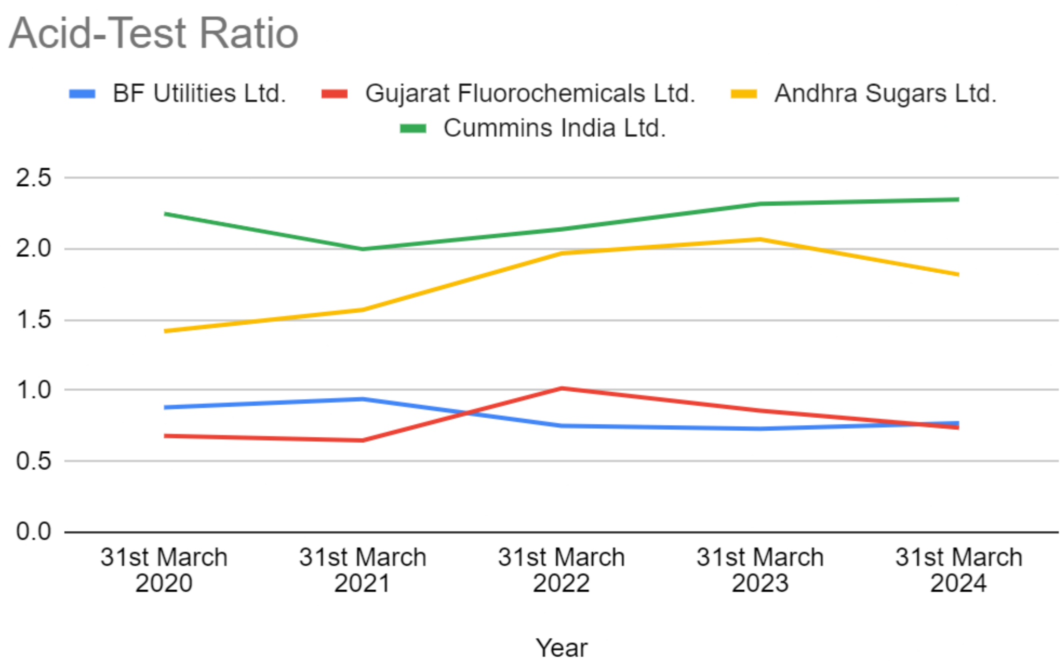
5.1 Liquidity Ratios

5.1.1 Current Ratio



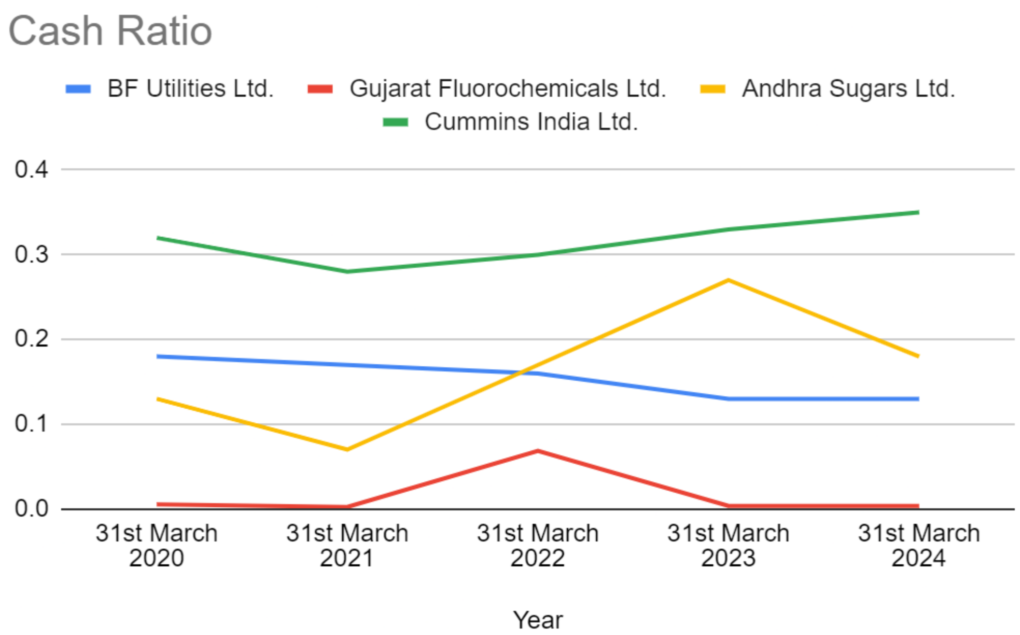
- **BF Utilities Ltd.:** The company's current ratio has consistently hovered around 1 during the studied timeframe, signifying sufficient liquidity. Nonetheless, this metric suggests a constrained capacity to address short-term obligations when compared to its competitors.
- **Gujarat Fluorochemicals Ltd.:** Gujarat Fluorochemicals Ltd. started off with a current ratio of roughly 1 in 2020 and moved up in subsequent years. This is an improving liquidity position, though it remains below good benchmarks.
- **Andhra Sugars Ltd.** shows a good and improving current ratio over the years that reaches more than 4 at the end of 2024. That talks about excellent liquidity and the capacity to respond to short-term liabilities several times over and may be an indicator of good management in working capital.
- **Cummins India Ltd.:** The company maintained a trend of moderately increasing current ratios, starting from above 2 in 2020 and progressing to well over 3 by 2024. This shows stable, sufficient liquidity to meet short-term liabilities.
- **Conclusion:** Andhra Sugars Ltd. presents a superior liquidity position followed by Cummins India Ltd. BF Utilities Ltd and Gujarat Fluorochemicals Ltd have relatively weaker current ratios indicating a scope of improving the management of short-term financial obligations.

5.1.2 Acid-Test Ratio



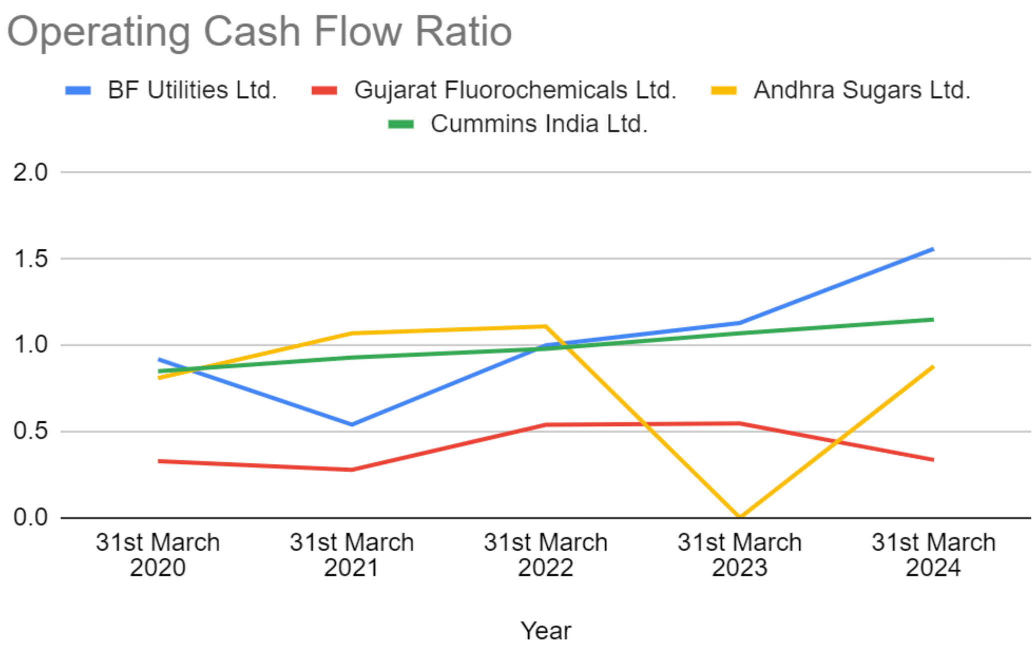
- **BF Utilities Ltd.:** The acid-test ratio for BF Utilities Ltd. has remained steady about 1 over the reviewed period that generally indicates sufficient liquidity to service short-term obligations although with less financial flexibility than its peers.
- **Gujarat Fluorochemicals Ltd.** shows fluctuating trends in the acid-test ratio, with a peak in 2022 followed by a gradual decline thereafter. The shift in the trend may indicate fluctuations in the company's liquidity management, affecting its ability to meet its short-term liabilities on schedule.
- **Andhra Sugars Ltd.** maintains a systematic and significant improvement in its acid-test ratio that has risen from below 1.5 for the year 2020 to almost 2 for the year 2024. This trend reflects strong liquidity and efficient management of working capital, which enabled the company to meet its short-term obligations comfortably.
- **Cummins India Ltd.:** consistently outperforms its peers with the highest acid-test ratio, exceeding 2 throughout the period. This highlights exceptional liquidity and efficient asset utilization, ensuring ample coverage for short-term obligations.
- **Conclusion:** Cummins India Ltd. demonstrates the most robust liquidity position, succeeded by Andhra Sugars Ltd., which has shown considerable progress over the years. Conversely, Gujarat Fluorochemicals Ltd. and BF Utilities Ltd. display less favorable liquidity conditions, with BF Utilities Ltd. showing consistency yet lacking adaptability.

5.1.3 Cash Ratio



- **BF Utilities Ltd.:** Thus, the cash ratio of BF Utilities Ltd. is showing a gradual decline from over 0.2 in 2020 to under 0.1 in 2024. It may indicate that the cash and short-term liabilities' level of reserves is on a decreasing trend and could raise concern for liquidity risk at some point.
- **Gujarat Fluorochemicals Ltd.** consistently exhibits a near-zero cash ratio throughout all assessed years, indicating an exceptionally limited cash buffer available for the settlement of immediate liabilities. This situation may imply a dependency on alternative current assets or financial strategies that constrain the maintenance of cash reserves.
- **Andhra Sugars Ltd.** The cash ratio of Andhra Sugars Ltd. displays a stark improvement at more than 0.3 in the year 2023 and then goes down slightly in 2024. It reflects better liquidity management in recent years, enabling the company to hold more cash against short-term obligations.
- **Cummins India Ltd.** outperforms competitors consistently as indicated by continuously increasing cash ratio projected to reach 0.4 by 2024. This will portray good cash position and, by all means, even exemplary management of liquidity where the firm can easily accommodate current obligations.
- **Conclusion:** Cummins India Ltd. is one of the leaders in the area of liquidity robustness, with the highest and otherwise strengthening cash ratio. Andhra Sugars Ltd. presents considerable improvements in its liquidity management. On the contrary, BF Utilities Ltd. shows a negative trend, while Gujarat Fluorochemicals Ltd. has merely a negligible cash balance, which could exacerbate short-term financial risk.

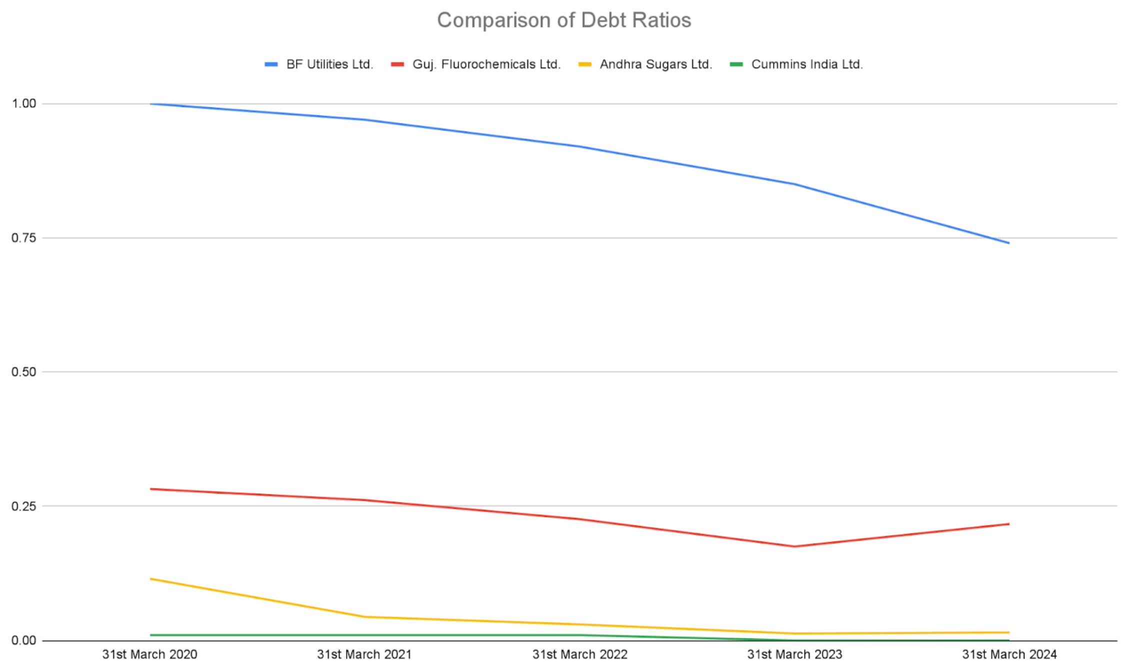
5.1.4 Operating Cash Flow Ratio



- **BF Utilities Ltd.:** The operating cash flow ratios of BF Utilities Ltd. have revealed a sharp decline from 1.0 in the year 2020 to less than 0.5 in 2021 before gradually improving over the period to 2024. This development illustrates there was an early pressure on cash flow managed in relation to the liabilities although there are signs of gradual improvement of the situation.
- **Gujarat Fluorochemicals Ltd.** A slow decrease in its operating cash flow ratio can be observed between the years 2020 and 2023, with a slight increase noticed afterwards in the year 2024. Such an observation has raised issues about the ability to generate sufficient cash flow so as to be able to support the day to day operations with an indication that some improvements are required with regards to liquidity.
- **Andhra Sugars Ltd.** The operating cash flow ratio which began with a strong upsurge Date,231561245 showed an increase to around 1.5. However, the following year records a swift fall due to stress which comes partially sorted within the year 2024. Such a trend could prove the inefficient cash flows which have to be checked to safeguard the operations.
- **Cummins India Ltd.:** The ratio remained stable and above 1.0 throughout the observed period, with the increase being witnessed from 2020 year onwards. This demonstrates effective operations of the company as well as the ability of the company to generate cash flows enabling safeguarding of liabilities.
- **Conclusion:** Cummins India Ltd. emerges as the clear winner in terms of operating cash flows which are consistently stable and showing uptrend as well. On the other hand, Andhra Sugars Ltd. has some promise but suffers from instability. As for Gujarat Fluorochemicals Ltd. and BF Utilities Ltd., their liquid assets are also insufficient, but BF Utilities Ltd. demonstrates some improvement recently.

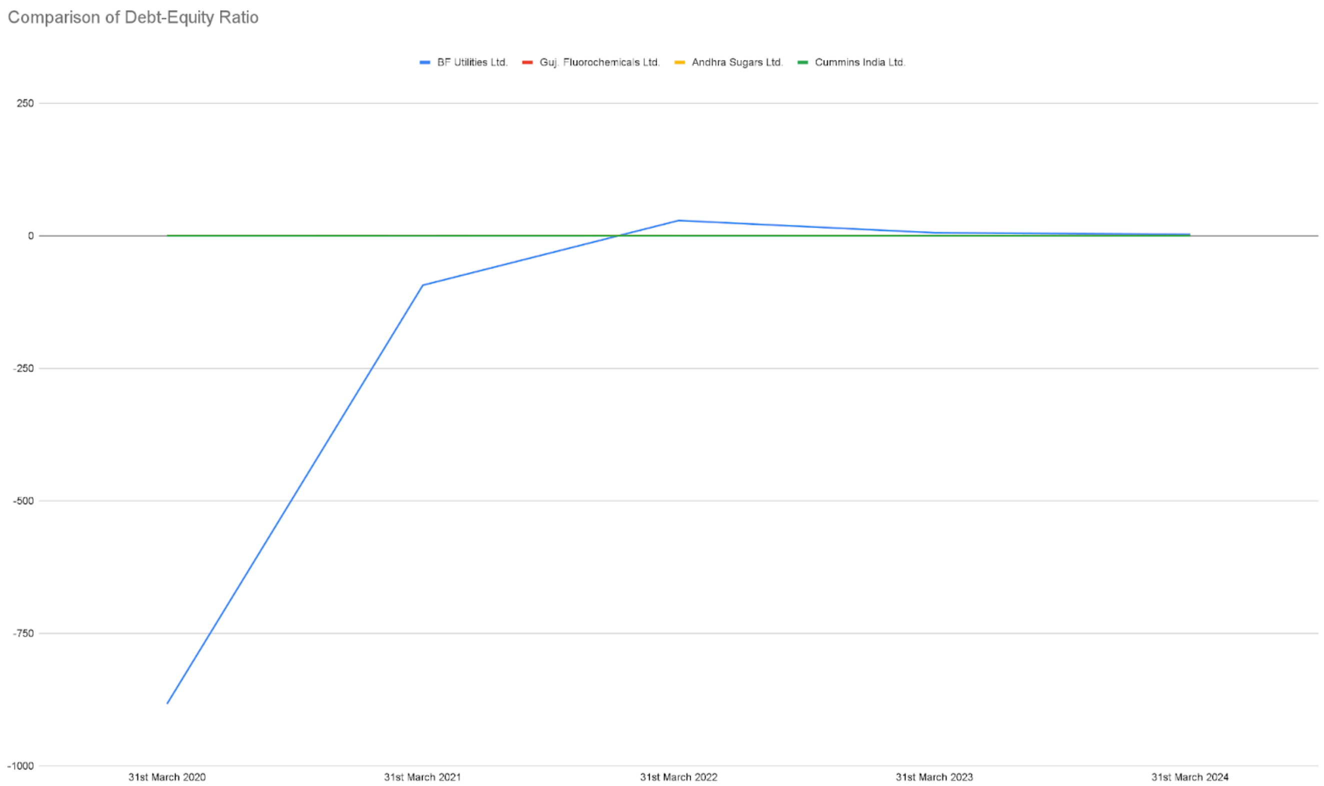
5.2 Leverage Ratios

5.2.1 Debt Ratio



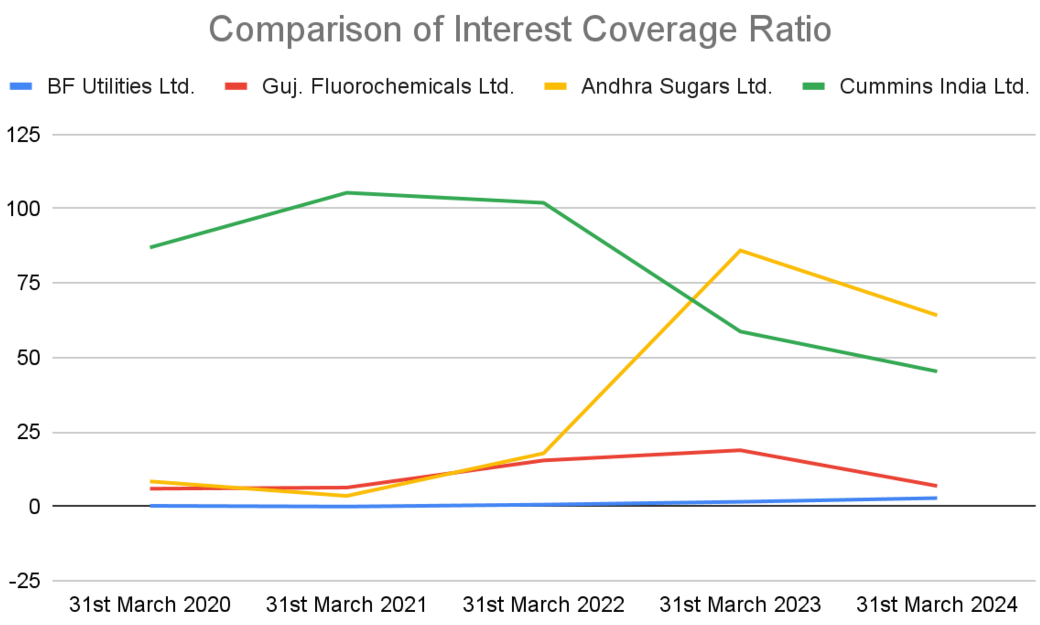
- **BF Utilities Ltd.:** BF Utilities Ltd.'s debt ratio has steadily dropped from 1 in 2020 to 0.74 in 2024. This shows that the company is gradually relying less on debt for financing, which is a positive sign for its financial health. However, it is still more leveraged compared to the other companies in this analysis, so there's room for improvement.
- **Gujarat Fluorochemicals Ltd.:** The debt ratio of Gujarat Fluorochemicals Ltd. decreased from 0.2822 in 2020 to 0.217 in 2024. This steady decline suggests the company is managing its debt well and reducing its dependence on it, which strengthens its financial position over time.
- **Andhra Sugars Ltd.:** Andhra Sugars Ltd. has shown remarkable improvement, with its debt ratio dropping significantly from 0.115 in 2020 to just 0.015 in 2024. This reflects a strong reduction in debt usage and indicates excellent financial discipline, making it one of the least risky companies in this comparison.
- **Cummins India Ltd.:** Cummins India Ltd. has maintained an impressively low debt ratio throughout the period, staying at 0.01 from 2020 to 2022 and reducing to 0.00 in 2023 and 2024. This shows that the company hardly relies on debt, making it very financially stable and secure.
- **Conclusion:** Among the four companies, Andhra Sugars Ltd. and Cummins India Ltd. have the strongest financial positions, as they rely very little on debt. Gujarat Fluorochemicals Ltd. has also managed to reduce its debt dependency consistently. On the other hand, while BF Utilities Ltd. has made progress, it is still relatively more dependent on debt, so it could work on optimizing its financial strategy. Overall, Andhra Sugars Ltd. and Cummins India Ltd. stand out as great examples of good debt management.

5.2.2 Debt-Equity Ratio



- **BF Utilities Ltd.:** BF Utilities Ltd.'s debt-to-equity ratio shows a huge improvement, going from an extreme -883.05 in 2020 to 2.87 in 2024. This shift indicates the company has taken significant steps to address its financial instability, either by reducing debt or improving equity levels. However, even with this progress, the ratio still suggests that the company is quite dependent on debt compared to its equity in 2024.
- **Gujarat Fluorochemicals Ltd.:** Gujarat Fluorochemicals Ltd. steadily reduced its debt-to-equity ratio, starting at 0.461 in 2020 and reaching 0.33 in 2024. This consistent decline reflects the company's efforts to manage its capital structure well and reduce reliance on debt, which points to strong financial management.
- **Andhra Sugars Ltd.:** The debt-to-equity ratio for Andhra Sugars Ltd. showed some fluctuations over the years. It started at 0.210 in 2020, rose to 0.340 in 2022, and then decreased to 0.180 by 2024. Although the ratio remains low overall, the ups and downs suggest there were times when the company relied more on debt before effectively bringing it back under control.
- **Cummins India Ltd.:** Cummins India Ltd. consistently maintained very low debt-to-equity ratios, starting at 0.06 in 2020 and decreasing further to 0.02 in 2024. This reflects the company's conservative approach to financing, relying very little on debt and keeping its financial risk to a minimum.
- **Conclusion:** Cummins India Ltd. stands out as the most financially stable company, with its extremely low debt-to-equity ratios making it a low-risk entity. Gujarat Fluorochemicals Ltd. and Andhra Sugars Ltd. also show strong financial control, with steady or improving trends in their ratios. BF Utilities Ltd. has made impressive progress in reducing its debt-to-equity ratio, but it still relies heavily on debt compared to its peers. Overall, this analysis highlights Cummins India Ltd. as the leader in financial stability, with Andhra Sugars Ltd. and Gujarat Fluorochemicals Ltd. following closely. BF Utilities Ltd. has improved significantly but needs further efforts to reach a more balanced capital structure.

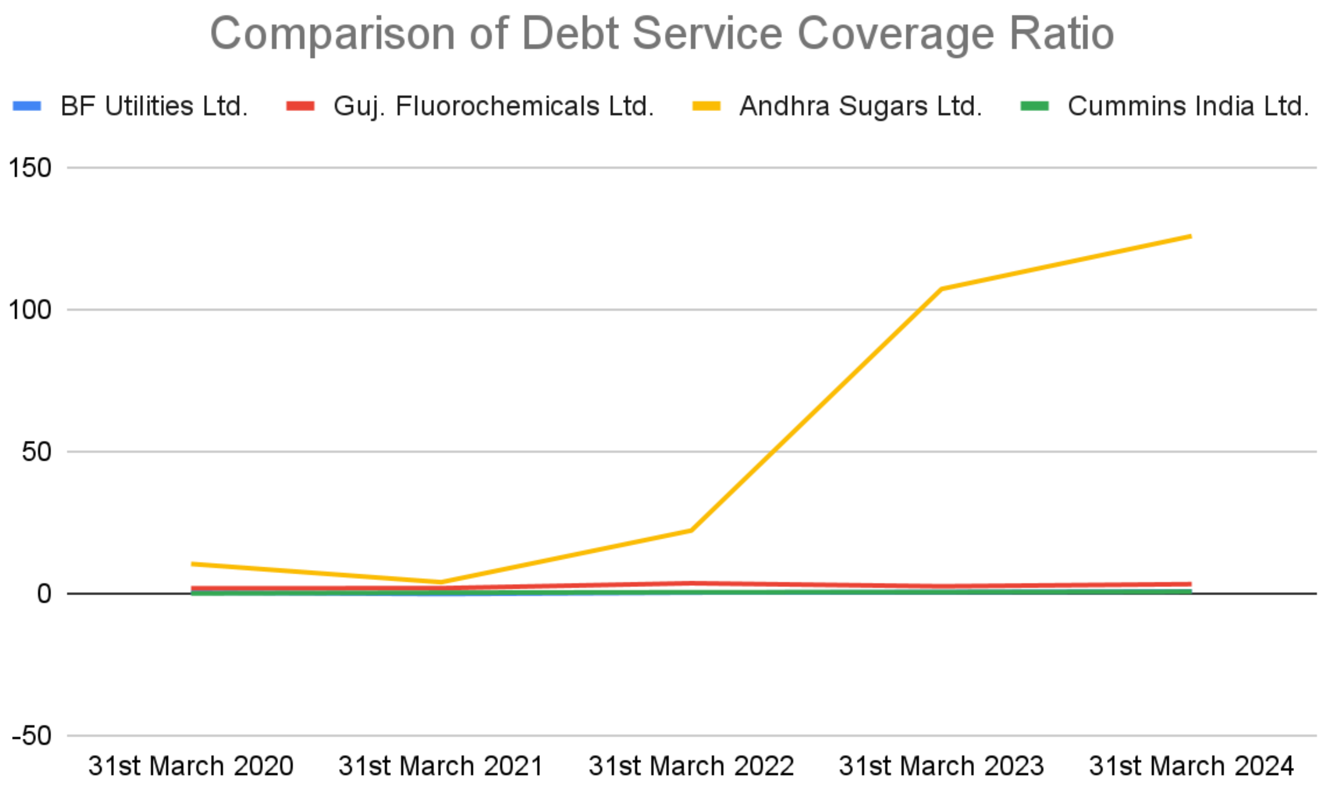
5.2.3 Interest Coverage Ratio



- **BF Utilities Ltd.:** BF Utilities Ltd. showed a gradual improvement in its interest coverage ratio, moving from a low 0.16 in 2020 to 2.76 in 2024. This growth indicates that the company is getting better at covering its interest expenses through operating earnings. However, the ratio, especially in the earlier years, reflects a limited ability to handle interest payments, leaving room for further improvement.
- **Gujarat Fluorochemicals Ltd.:** Gujarat Fluorochemicals Ltd. started with a strong interest coverage ratio of 5.912 in 2020, which peaked at 18.834 in 2023 before dropping to 6.835 in 2024. The trend suggests the company had solid operational profitability for most of the period but experienced some challenges in 2024, possibly due to increased financial costs or slightly reduced earnings.
- **Andhra Sugars Ltd.:** Andhra Sugars Ltd. performed impressively, with its interest coverage ratio rising from 8.36 in 2020 to an exceptional 85.97 in 2023 and settling at 64.18 in 2024. These numbers highlight the company's strong profitability and its ability to easily cover its interest payments, maintaining a very secure financial position.
- **Cummins India Ltd.:** Cummins India Ltd. maintained the highest interest coverage ratios throughout the years, starting at 86.97 in 2020 and finishing at 45.32 in 2024. Even though there was a decline over the period, the ratios remained significantly high, showing that the company has more than enough earnings to cover its interest obligations, reflecting excellent financial management.
- **Conclusion:** Cummins India Ltd. and Andhra Sugars Ltd. clearly stand out with their exceptionally high interest coverage ratios, indicating strong financial health and the ability to comfortably manage debt-servicing obligations. Gujarat Fluorochemicals Ltd. also maintained good interest coverage, despite a slight drop toward the end of the period. BF Utilities Ltd., while showing steady improvement, still lags behind the others and could benefit from further strengthening its profitability to enhance its ability to manage interest payments effectively.

  In summary, Cummins India Ltd. and Andhra Sugars Ltd. are the top performers, with Gujarat Fluorochemicals Ltd. following closely. BF Utilities Ltd. has made progress but remains comparatively weaker in this aspect.

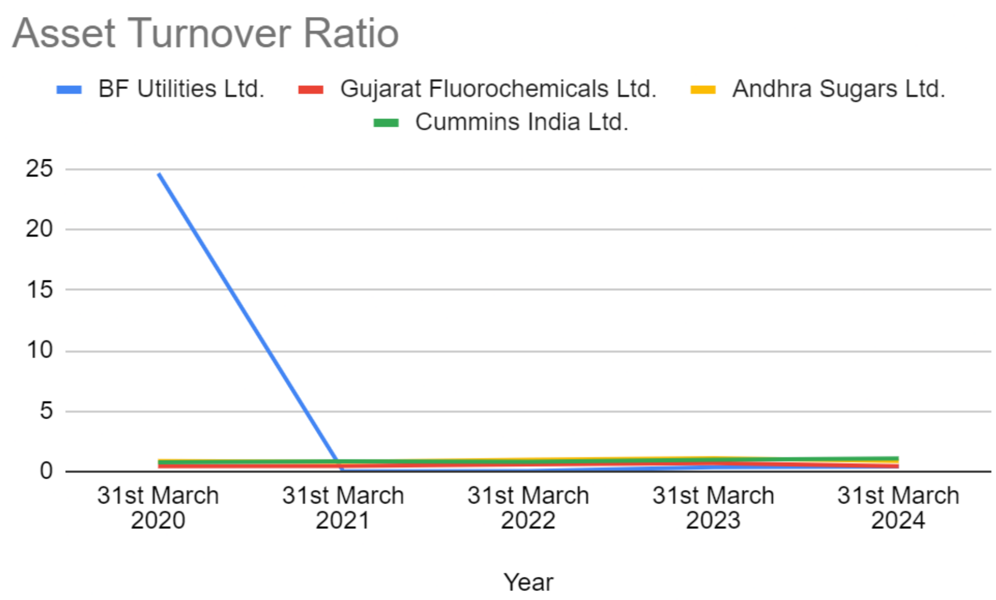
5.2.4 Debt Service Coverage Ratio



- **BF Utilities Ltd.:** BF Utilities Ltd. has steadily improved its debt service coverage ratio (DSCR), moving from 0.30 in 2020 to 0.73 in 2024. While the upward trend is a good sign, the DSCR values remain on the lower side. This shows the company is still facing some challenges in generating enough cash flow to comfortably meet its debt obligations.
- **Gujarat Fluorochemicals Ltd.:** Gujarat Fluorochemicals Ltd. has maintained a solid DSCR over the years, starting at 1.82 in 2020 and peaking at 3.6 in 2022 before settling at 3.29 in 2024. These values indicate that the company has consistently generated sufficient cash flow to cover its debt service requirements, reflecting good financial management.
- **Andhra Sugars Ltd.:** Andhra Sugars Ltd. has shown exceptional performance in its DSCR, starting at an impressive 10.40 in 2020 and skyrocketing to 125.77 in 2024. This dramatic increase highlights the company's excellent ability to generate cash flow well beyond what is needed for its debt obligations, showcasing outstanding financial stability and efficiency.
- **Cummins India Ltd.:** Cummins India Ltd. has shown a gradual increase in its DSCR, starting from a very low 0.02 in 2020 and rising to 0.63 in 2024. While the improvement is encouraging, the overall DSCR values remain quite low, suggesting the company may still struggle to comfortably manage its debt payments.
- **Conclusion:** Andhra Sugars Ltd. stands out as the clear leader in terms of debt service coverage, with extremely high DSCR values that reflect exceptional financial health. Gujarat Fluorochemicals Ltd. also demonstrates strong and consistent DSCR values, showcasing its ability to handle debt obligations efficiently. BF Utilities Ltd. has made progress but still lags behind in meeting ideal benchmarks, while Cummins India Ltd. faces challenges despite showing some improvement. In summary, Andhra Sugars Ltd. and Gujarat Fluorochemicals Ltd. excel in their ability to manage debt servicing, while BF Utilities Ltd. and Cummins India Ltd. show potential but need to strengthen their cash flow management.

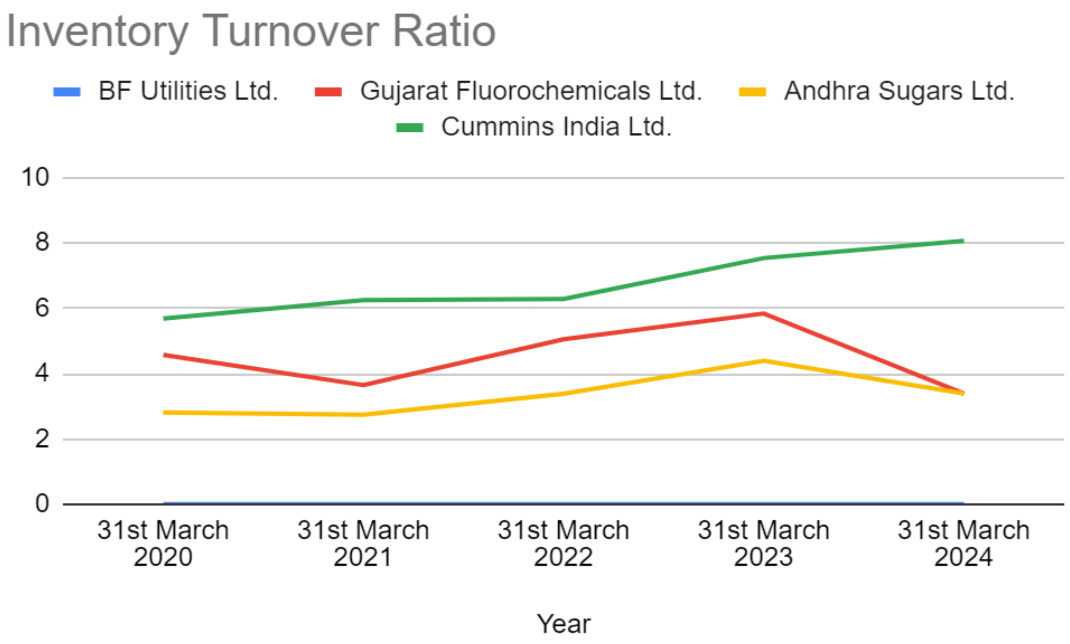
5.3 Efficiency Ratios

5.3.1 Asset Turnover Ratio



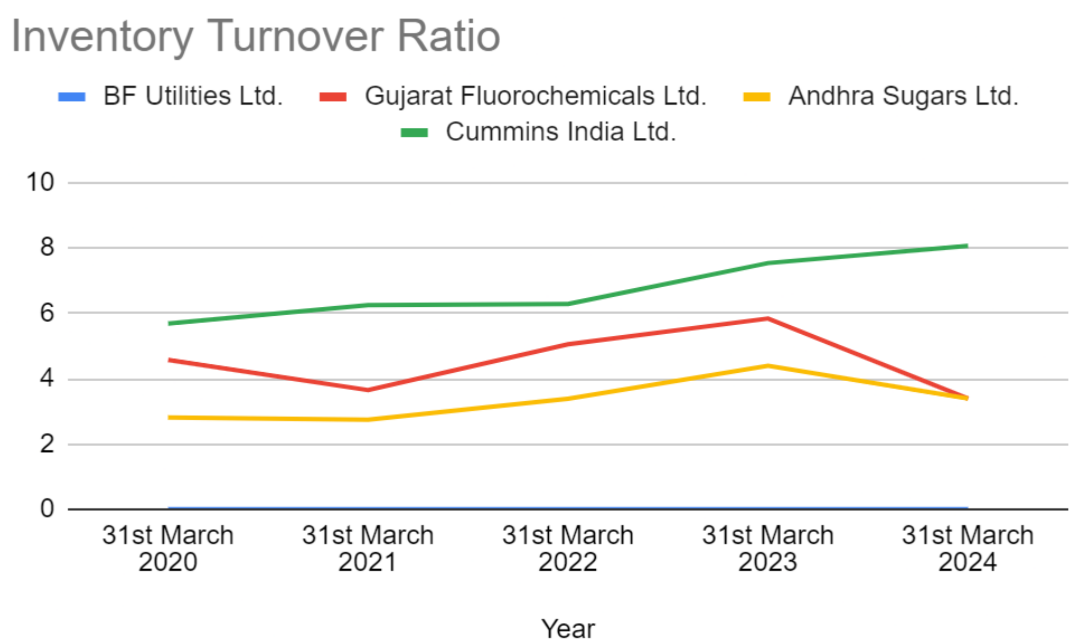
- **BF Utilities Ltd.:** With respect to the asset turnover, BF Utilities Ltd. starts from an exceptionally high value of 25 in 2020 and sharply declines to near zero from 2021 onwards. This kind of drastic drop might represent an exceptional event or extraordinary income in 2020, possibly depending on how the company carries on its business of infrastructure and utility projects with a sporadic flow of revenue.
- **Gujarat Fluorochemicals Ltd.:** Asset turnover ratio through the period studied has been low and stable for Gujarat Fluorochemicals Ltd., indicating low revenue generation against given assets. This can perhaps be explained by the capital-intensive nature of chemical-producing activities needing much-longer-in-horizon financial commitments to get returns.
- **Andhra Sugars Ltd.** A steady improvement recorded during the period under consideration, although it is minute. The ratio indicates a relatively slow, steady increase in revenue efficiency relative to assets, which is indicative of gradual operational streamlining and better utilization of assets over time.
- **Cummins India Ltd.:** The asset turnover ratio has remained more or less constant and slightly superior to its peers in most years (except for BF Utilities Ltd. in 2020), suggesting that it is most effective in utilizing its assets to generate revenue. This performance reflects well-managed operational priorities within a manufacturing-concentrated business.
- **Conclusion:** In terms of asset turnover, this also shows a substantial variance between all benchmarks. After 2020, the asset turnover for BF Utilities Ltd. exhibits a starkly declining curve, indicating its cyclic and project-oriented nature wherein constant or steady income streams cannot be produced. In case of Cummins India Ltd., good efficiencies are largely visible while Andhra Sugars Ltd. shows hints of incremental improvement, although Gujarat Fluorochemicals Ltd. seems to be the one still lagging behind.

5.3.2 Inventory Turnover Ratio



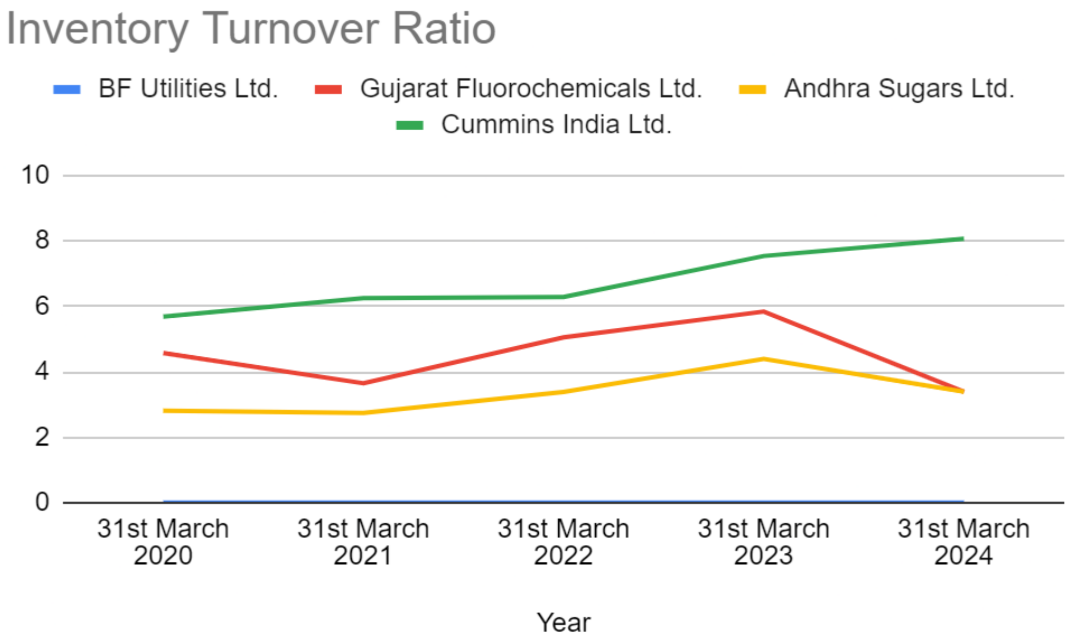
- **BF Utilities Ltd.:** Inventory turnover is not directly applicable in this case since long-term infrastructure projects are involved. The company emphasizes asset utilization and project completion rather than frequent turnover.
- **Gujarat Fluorochemicals Ltd.:** The company has consistent inventory turnover, which suggests consistent inventory management policies. It indicates that the levels of stock and sales are at equilibrium; thus, there will not be any excessive or deficient stock.
- **Andhra Sugars Ltd.** The company has seen a steady increase in turnover, which means that their inventory-management practices are much better than before. This can be attributed to an improved look at demand predictions, more efficient planning on their part, and shorter lead times.
- **Cummins India Ltd.:** Cummins India Ltd. demonstrates the most efficient inventory management practices among the four companies. Their consistently high inventory turnover reflects effective inventory management and strong demand for their products.
- **Conclusion:** While the concept of inventory turnover is not directly applicable to BF Utilities Ltd., the other three companies exhibit varying levels of inventory management efficiency. Cummins India Ltd. stands out with its consistently high inventory turnover, reflecting strong demand and effective inventory management. Andhra Sugars Ltd. has shown improvement, while Gujarat Fluorochemicals Ltd. maintains a stable approach.

5.3.3 Receivables Turnover Ratio



- **BF Utilities Ltd.:** The receivables turnover ratio of BF Utilities Ltd. faces a radical decline from 1050.21 in 2020 to 362.93 in 2024. This represents a major setback in efficiency regarding the collection of receivables, which conceivably reflects late payments by customers or the provision of extended credit terms. It is possible that this trend reflects delays in project completion, in view of BF Utilities' involvement in infrastructure projects, lengthy payment cycles from customers in long-term contracts, and poor liquidity.
- **Gujarat Fluorochemicals Ltd.:** Gujarat Fluorochemicals Ltd. shows some swings in turnarounds of its receivables, reaching a peak of 4.81 in 2023 but dropping to 2.91 in 2024. These changes may signify inconsistencies in the collection process, ghost-printed through market demands and modifications in credit policies. Certainly, the fall in 2024 hints at tougher measures that need to be taken here in terms of credit control to enhance cash flow.
- **Andhra Sugars Ltd.** Andhra Sugars Ltd. has been maintaining a stable receivables turnover ratio from a high of 7.13 in 2021 to a high of 8.94 in 2023, afterward moderating downwardly to 8.187 in 2024. This steadfast showing indicates the company has been consistent in and effective management of receivables, with good customer credit practices backed by consistent demand for products.
- **Cummins India Ltd.:** Cummins India Ltd. shows a constant increase in the receipt of money from 6 in 2020 to 7.96 in 2024. This dictates that there is an increasing trend concerning the efficiency of receivables management, which should be attributed to good relations with customers and good practices in credit management. It showcases a healthy cash flow as well as strong operational control.
- **Conclusion:** BF Utilities Ltd. revealed an alarming decline in their receivables turnover ratio and calls into question the liquidity and cash collection efficiency which is of great essence to an organization involved in capital intensive projects holding. Gujarat Fluorochemicals Ltd. might show variable performances indicating chances of managing receivables inconsistently. Andhra Sugars Ltd. or Cummins India Ltd. shows continuous or upward ratios that imply commendable receivable management and heady operational stability.

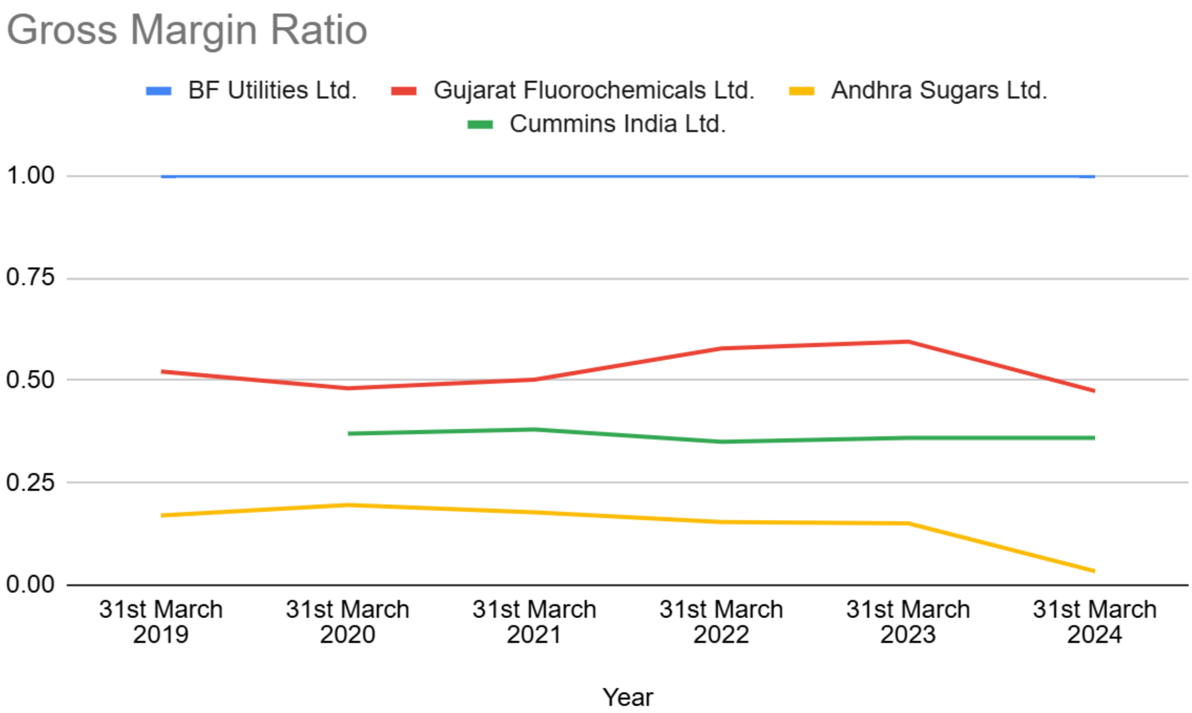
5.3.4 Day Sales in Inventory Turnover Ratio



- **BF Utilities Ltd.:** The DSI fluctuates at very high figures at -13,156.13 for the year 2020 which may imply that there are overstatements or negative values for inventory, which is quite unusual hence more attention seeking. On the other hand, the DSI for 2024 jumped to 30,854.34, meaning that there is a significant inefficiency in managing the turn of the inventory. Such high growth may be caused by overstocking, project delays, or a glitch in converting inventories into revenues.
- **Gujarat Fluorochemicals Ltd.:** The DSI of is quite volatile year after year. It increases to 100 days in 2021 from 79.75 days in 2020, then goes down to 62.5 days in 2023 and has finally gone up to 107.67 days in 2024. Increase in 2024 might be indicative of problem in inventory management or low sell-through. Though not very high, oscillations do indicate that this company may need to work on inventory control so that the firm gets more consistent results and reaches for an efficient one.
- **Andhra Sugars Ltd.** The numbers relating to DSI for Andhra Sugars Ltd. are stable as well as volatile. To an improvement from 2023 to 2024, this DSI indicates a very scary number with slower turnover for inventory which binds working capital and also affects operational efficiency. It could well be that it reflects inherent characteristics of its manufacturing processes or of customer demand patterns.
- **Cummins India Ltd.:** A steady and improving trend has been observed in Cummins India Ltd's DSI. The figure steadily decreased from 64.15 days in 2020 to 45.22 days in 2024, thus again reiterating efficient inventory management with a high strength of turning inventory into sales. Consistency over time is something that indicates proper matching of the levels of inventory with the market demand so as to minimally carry overhead costs with a cash flow improvement.
- **Conclusion:** Cummins India Ltd. excels in inventory management, with consistently improving DSI reflecting strong control and market alignment. BF Utilities Ltd. struggles with extreme volatility, highlighting inefficiencies that need urgent attention. Gujarat Fluorochemicals Ltd. shows moderate fluctuations but a rising DSI in 2024 signals inefficiencies, while Andhra Sugars Ltd. faces challenges with high and inconsistent DSI, indicating slower inventory turnover. Overall, Cummins India leads in efficiency, while the others need to optimize their practices.

5.4 Profitability Ratios

5.4.1 Gross Margin Ratio



BF Utilities Ltd.: BF Utility Ltd. Gross Margin Ratio remained 1.0 over the years studied, indicating that the company maximally converted each dollar in revenue into a dollar of gross profit. This stability indicates good operational control and effective cost management, a real competitive edge as far as this parameter goes.

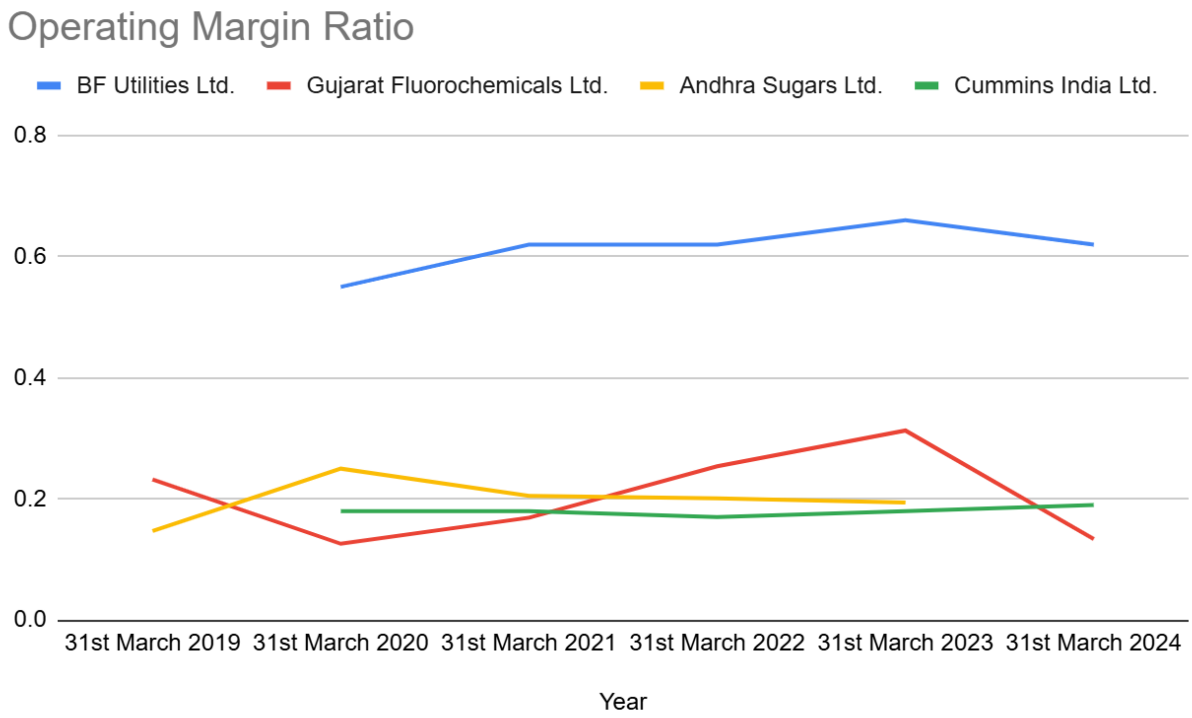
Gujarat Fluorochemicals Ltd.: The gross margin ratio of Gujarat Fluorochemicals Ltd was falling from 2019 to 2020 which dipped through -1% points at a rate of decline of -7.90% but it showed an incredible recovery by increasing +12%-point till it peaked in 2023 reaching values varying between High to Medium (closed the peak year =0.595) But the fall to 0.474 in 2024 premises escalating production costs or plummeting revenue, thus putting into question its gross margin sustainability.

Andhra Sugars Ltd.: Andhra Sugars Ltd. consistently witnessed a decreasing gross margin ratio from 0.196 in 2020 to as low as 0.034 in 2024. Such a steep decline signifies deteriorating operational efficiency, or rising costs of raw materials/other inputs to production which is affecting profits. This trend illustrates why attention to cost structures and revenue generation must be immediate [and most likely continuous].

Cummins India Ltd.: Notice that Cummins India Ltd. had a steady gross margin ratio over these years, only varying marginally from 0.35 to 0.38 across this period of time. Stability is good to see, but the margin on profitability relative to BF Utilities Ltd. is not polished enough suggesting potential for them to either manage production or price more effectively and improve its profit-making capability.

Conclusion: The old champion, BF Utilities Ltd. with a gross margin ratio of 1.0 — no doubt diligent in keeping costs down and efficiency high; — comes first again as per usual. Gujarat Fluorochemicals Ltd. with Improvements up to 2023 but a steep decline in 2024 is problematic There is a major collapse in Andhra Sugars Ltd, reflecting serious structural problems. Cummins India Ltd—stable with lower relative margins, telling us that there might be some strategic play towards better profitability.

5.4.2 Operating Margin Ratio



BF Utilities Ltd.: The operating margin ratio of BF Utilities Ltd. stood to a large extent between 0.55 during 2020 to highest, being 0.66 in the assessment year of 2023 and falling in the next financial year at the balance level with ratio as 0.62(2024). Such historical performance of operations with high control on Cost reflects favourably for the company and the metric scores Low, Making it into a Strong Performer.

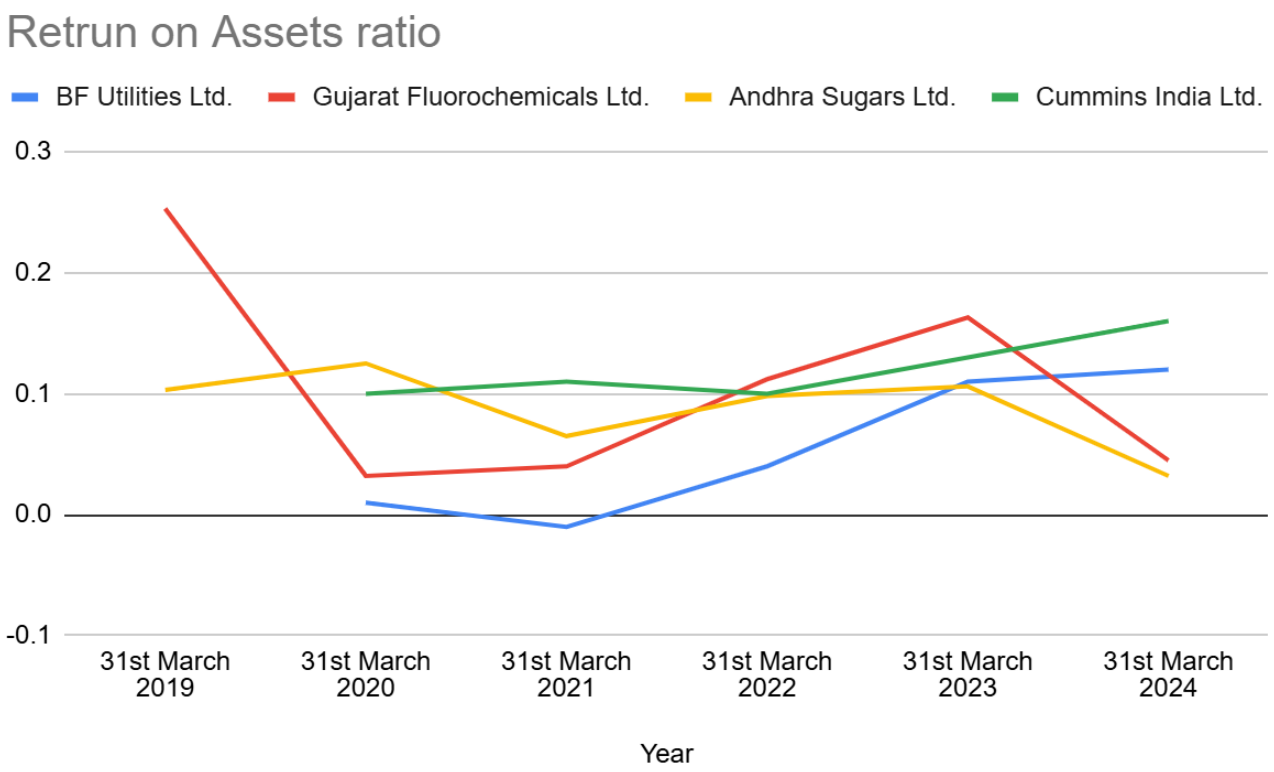
Gujarat Fluorochemicals Ltd.: Operating Margin Ratio Last 5 Years Source–MoL While there was a steady growth of operating margin ratio from 0.126 in 2020 to 0.313in 2023 indicating better operational earning ratio (increase efficiency of getting operative profit). But in 2024 it plummeted to 0.134, indicating either rising costs or declining revenue, and which throws up red flags about the longevity of its margin potential.

Andhra Sugars Ltd.: The full operating margin was strongly built by Andhra Sugars Ltd at 0.25 during the year 2020 and gradually went down to arrived at 0.194 in the ongoing financial year which is FY23. 2024 data is not available, but we see a continued downward trend before this as meaning that operational performance has become increasingly difficult to achieve, likely due to rising costs or pricing pressures.

Cummins India Ltd.: Cummins India Ltd: Operating margin ratio remained steady at ~0.17 — 0.19 range over the time span While this is an admirable level of consistency, the margin is somewhat lower than its competitors and reflects somewhat low operational profitability. It also indicates that the company might have to either tighten management on its costs or else raise prices in order to reach an appropriate level of profit.

Conclusion: BF Utilities Ltd. holds the number one position with the operational margin ratio as it has a higher and relatively stable margin, revealing an effective operation prowess of the company. While Gujarat Fluorochemicals Ltd. appeared well positioned for growth through 2023, the collapse in 2024 may expose weaknesses. The fall of Andhra Sugars Ltd. raises questions about the sustainability of its margins, while a full assessment isn't possible as no 2024 data was available. Cummins India Ltd: relatively low margins but in a stable area

5.4.3 Return on Assets Ratio



BF Utilities Ltd.: Interest cast on the ROA performance of BF Utilities Ltd. The ratio initially started at 0.01 in 2020, then briefly went into a downturn over the next year, recording -0.01 (-1 being unprofitable) in 2021. The following years experienced a recovery, with ROA climbing to 0.12 by 2024. This shows it has become more effective in employing its assets while the loss ratio back in 2021 is an indication of earlier operational difficulties.

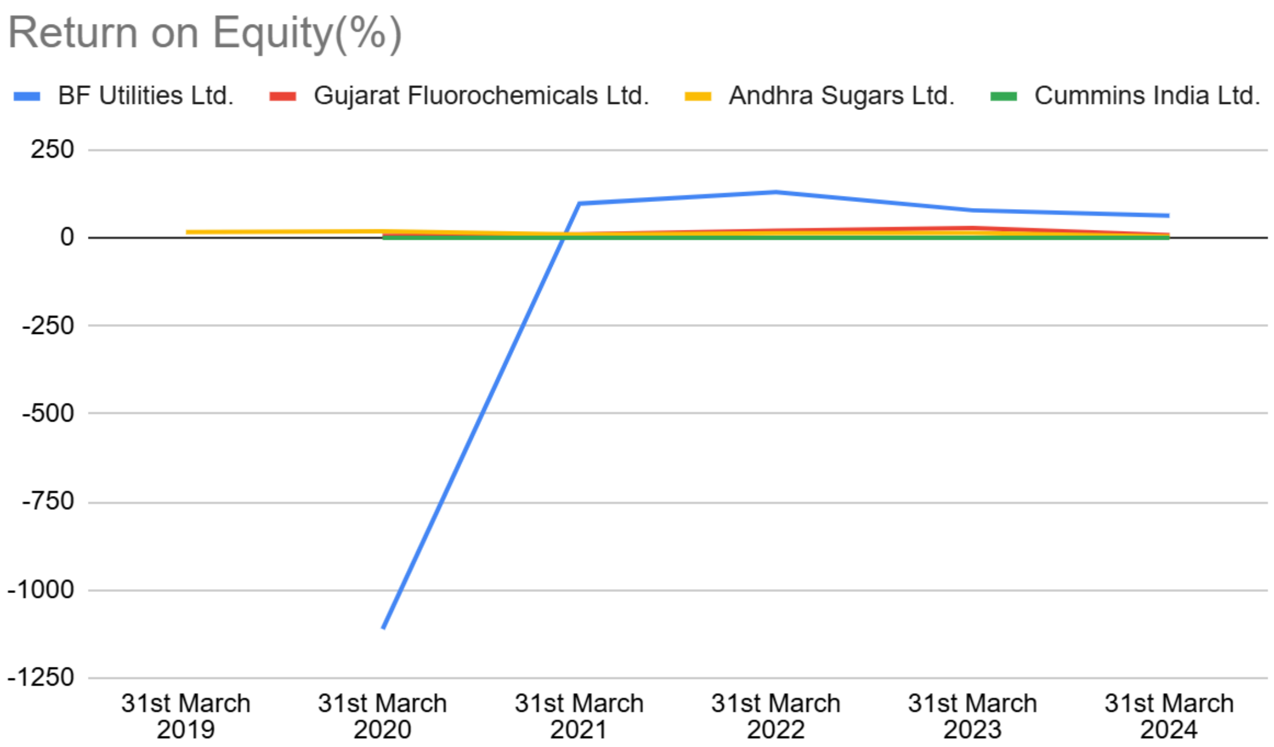
Gujarat Fluorochemicals Ltd.: The ROA of Gujarat Fluorochemicals Ltd. showed a significant upward movement from 0.032 in the year 2020 to a number of 0.163 in the year 2023. Nevertheless, it is concerning that the figured drops to 0.045 in 2024. Though the prior expansion denotes most efficient use, the more recent decline indicates corrective actions to handle inefficiency or some operational dysfunction that is affecting profitability.

Andhra Sugars Ltd.: ROA of Andhra Sugars ltd fluctuated widely. The ratio started at 0.125 in 2020, reached a high point of 0.106 in 2023, and then plummeted to a low of 0.032 in 2024 Indicates challenges in sustaining asset utilization efficiency and possible pressure on operational efficacy.

Cummins India Ltd.: Cummins India Ltd. having year on year steadiness in ROA.(Improved from 0.1 One Five in 2020 to 2024). The consistent increment showcases the operational capability of the firm and its asset utilization, making it the most reliable performer on this metric.

Conclusion: In terms of consistency and efficiency, Cummins India Ltd. tops on the chart amongst all companies for ROA; also consistent improvement can be seen here. BF Utilities Ltd. Again, significant recovery here but cautious optimism due to the previous volatility. Gujarat Fluorochemicals Ltd had a spectacular run until 2023 but the stark fall in 2024 points to things to keep an eye on. While Andhra Sugars Ltd. has had some very strong years, there has been a massive drop in recent times and it may require strategic action to better utilise costs and improve profitability throughput on the assets.

5.4.4 Return on Equity (%)



BF Utilities Ltd.: BF Utilities Ltd ROE was -1111% in 2020, so it had extensive financial difficulty. Its ROE plunged 94% to bottom out in 2020 but the company staged an incredible revival to deliver a peak ROE of 130% in 2023, declining smoothly to reach its nadir at around 63%. While there are some positive signs, the data indicates a significant amount of volatility and it appears that consistency in delivering shareholder returns is going to be an ongoing challenge.

Gujarat Fluorochemicals Ltd.: The business showed a consistent upward trend in ROE from 5.3% in 2020 to an all-time high of 27.82% for the financial year ended March, '23. Yet in 2024 this plunged to just 7.31%. The baffling reversal implies that although Gujarat Fluorochemicals Ltd. had managed to get shareholders a bumper return over a substantial time frame, its viability of continued profitability has suddenly become uncertain.

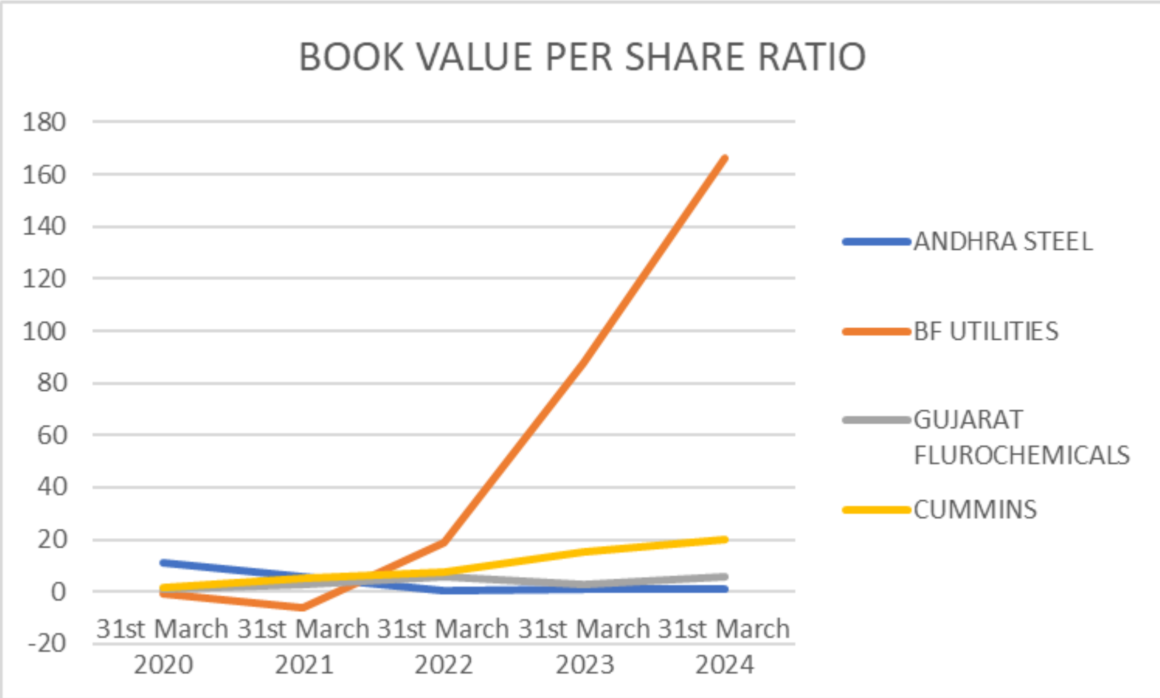
Andhra Sugars Ltd.: Andhra Sugars Ltd. also started strong with ROE growing from 9.1% in 2021 to a peak of 13.49% in 2023 before crashing down to as low as 4.05% in 2024. But this recent decline may be possible signs of inefficiencies or challenges ahead that could hurt shareholder returns. It was definitely better than during the growth period, but still potentially a problem for being able to keep ROE stable.

Cummins India Ltd.: In the observed period Cummins India Ltd. had a consistently low ROE of 0.16% in 2020 and increasing to only 0.23% by the end of the period in 2024. The company is operatng stable but the ROE levels are far below industry average, which means less efficiency in creating returns for shareholders.

Conclusion: Terrific ROE combined with the recent drop, spots Gujarat Fluorochemicals Ltd as(outstanding) performer between 2020 and 2023. While BF Utilities Ltd. recovered strongly from the previous year, it's worth investigating (or avoiding) and Andhra Sugars Ltd has proven we do need to its investigate precipitous drop in ROE that occurred in 2024 Q3: Overall ROE performance – not a single GQ brand posted overall total returns in excess of 10% compared to the previous year with Cummins India Ltd., stable even lagging by a wide margin on overall relative P&L situations.

5.5 Market Value Ratios

5.5.1 Book Value per share Ratio



Andhra Steel: has shown minimal change in its book value per share over the years, indicating stagnant financial performance. This suggests the company has struggled to grow its assets or retained earnings, possibly due to inefficiencies or a lack of profitable ventures. Shareholders are unlikely to see significant equity appreciation with this trend.

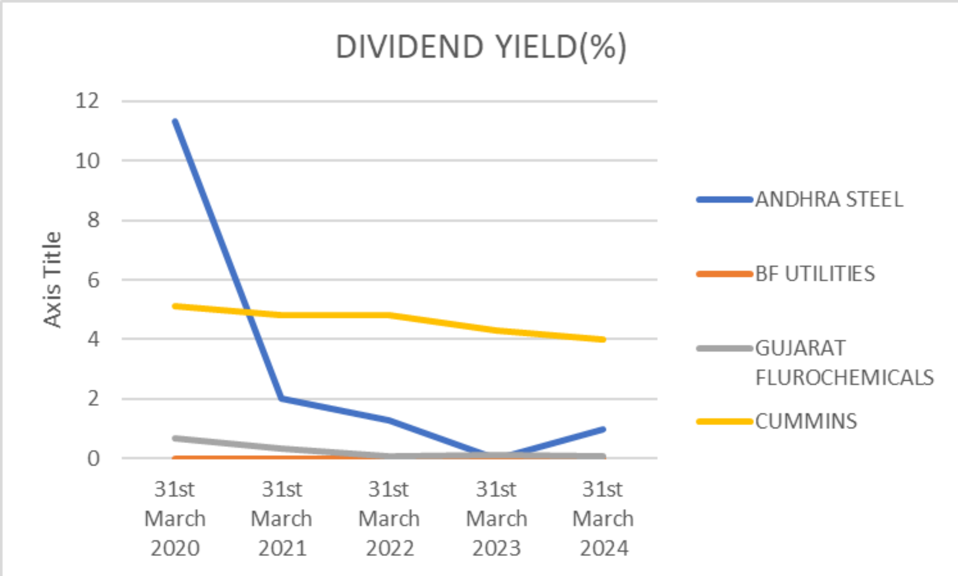
BF Utilities: experienced a dramatic increase in its book value per share starting in 2023, following a period of stagnation. This sharp rise indicates substantial improvement in financial health, likely driven by strong earnings growth, reduced liabilities, or asset revaluation. This company appears to be undergoing significant transformation, making it a standout performer in the group.

Gujarat Fluorochemicals: displays consistent growth in its book value per share, reflecting stable and reliable financial performance. The steady increase in shareholder equity is likely the result of robust profitability and efficient reinvestment of earnings. This makes the company a dependable performer with a strong growth trajectory.

Cummins: maintains a relatively high book value per share throughout the period, with only minor growth. This indicates a mature company with a stable financial base. However, the limited increase in book value suggests that the company has prioritized maintaining stability over aggressive expansion.

Conclusion: Among the four companies, BF Utilities stands out with its significant improvement in book value, signaling substantial financial progress. Gujarat Fluorochemicals showcases steady and reliable growth, making it a strong performer. Cummins offers stability but limited growth potential, while Andhra Steel appears stagnant, reflecting underperformance in enhancing shareholder equity.

5.5.2 Dividend Yield (%)



1. Andhra Steel (Blue Line): Andhra Steel's dividend yield starts at a high of around 12% in 2020 but experiences a sharp decline, hitting nearly 0% by 2023. In 2024, there is a slight recovery. This trend suggests an initial phase of strong payouts, possibly due to robust profits or surplus cash, followed by a sharp downturn, which may indicate financial strain, reduced profitability, or a shift in dividend policy. The slight recovery in 2024 might hint at stabilizing financial performance.

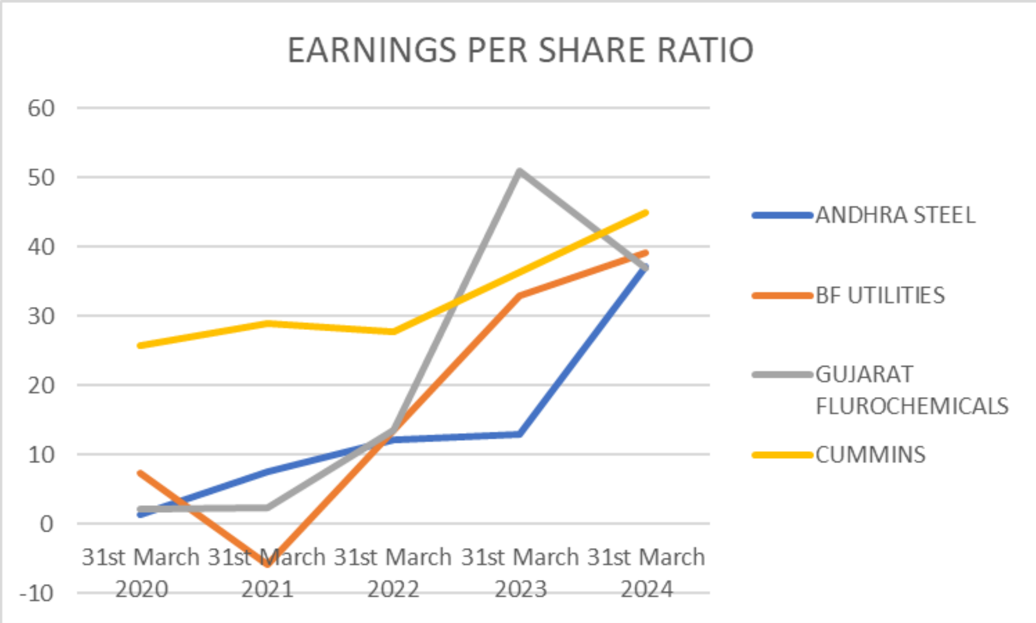
2. BF Utilities (Orange Line):BF Utilities maintains a consistently low and flat dividend yield over the five-year period. This reflects a conservative or minimal dividend distribution strategy. The stability might be attractive to risk-averse investors, but the low yield indicates limited direct returns for shareholders.

3. Gujarat Fluorochemicals (Gray Line): Gujarat Fluorochemicals exhibits a consistently flat trend with negligible dividend yield throughout the period. This could indicate a strategy focused on reinvesting earnings back into the business rather than distributing them as dividends. Such a trend may attract investors prioritizing capital appreciation over dividend income.

4. Cummins (Yellow Line): Cummins starts at a relatively steady 4% dividend yield in 2020 and gradually declines over time, reaching approximately 2% in 2024. The gradual decrease suggests a consistent payout policy but possibly lower earnings growth or a shift toward retaining profits for reinvestment. Cummins provides stable returns to income-focused investors, although its declining trend may raise concerns about future yields.

Conclusion:The graph reveals distinct dividend policies among the companies. Andhra Steel shows significant volatility, reflecting fluctuating financial health. BF Utilities and Gujarat Fluorochemicals demonstrate stability, though their low yields suggest a focus on reinvestment or financial caution. Cummins, with its consistent but declining trend, reflects a balance between income distribution and reinvestment. Overall, these trends indicate that investors seeking high returns may need to balance risks (as in Andhra Steel) against the stable but lower yields of companies like BF Utilities and Cummins.

5.5.3 Earnings Per Share Ratio



1. Andhra Steel (Blue Line): Andhra Steel's EPS ratio starts near zero in 2020 and rises steadily over the period, showing significant growth from 2022 onward. By 2024, the EPS reaches around 30, indicating improved profitability and operational performance. This upward trend suggests that the company has managed to overcome earlier financial struggles or implemented effective growth strategies, making it increasingly attractive to investors.

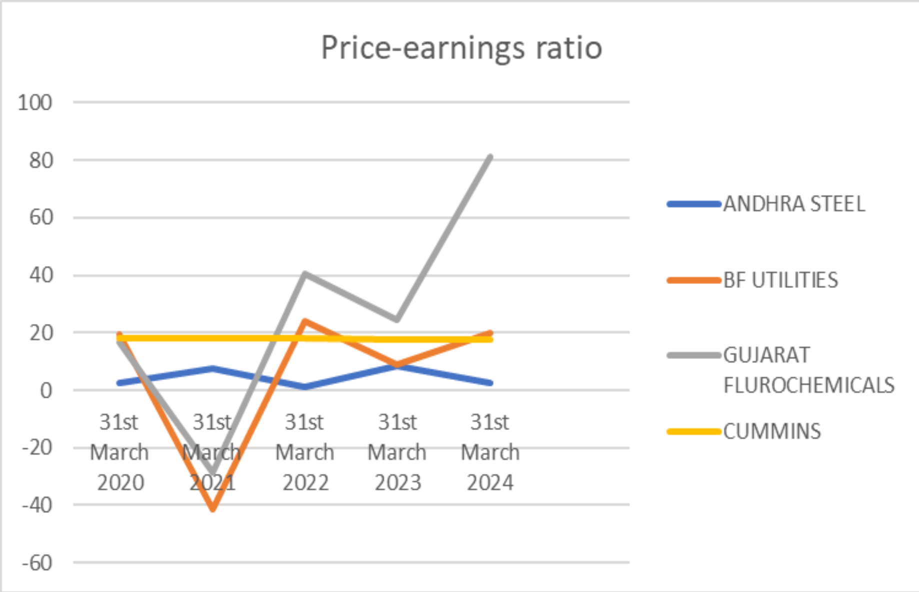
2. BF Utilities (Orange Line):BF Utilities begins with a negative EPS in 2020, reflecting losses during that year. However, it demonstrates a remarkable turnaround, achieving steady growth from 2021 onward. By 2024, its EPS aligns closely with that of Andhra Steel, around 30. This recovery suggests a successful restructuring or increased profitability, though the initial losses highlight potential risks for early investors.

3. Gujarat Fluorochemicals (Gray Line): Gujarat Fluorochemicals shows the most dramatic growth among the four companies. The EPS rises sharply from 2021, peaking at nearly 55 in 2023 before a slight decline in 2024. This indicates a surge in profitability, possibly due to high demand, improved margins, or strong operational efficiency. Despite the minor drop in 2024, the company remains the leader in terms of EPS, suggesting a strong market position.

4. Cummins (Yellow Line): Cummins demonstrates consistent and steady growth throughout the period, starting at an EPS of around 30 in 2020 and increasing to just under 50 by 2024. This indicates stable profitability and reliable operational performance, which may appeal to investors looking for long-term, low-risk growth opportunities.

Conclusion: The graph highlights varying profitability trends among the companies. Gujarat Fluorochemicals stands out with its rapid growth and highest EPS, though its slight dip in 2024 warrants monitoring. Andhra Steel and BF Utilities showcase impressive recoveries, particularly BF Utilities, which turned from losses to strong growth. Cummins offers steady and predictable performance, making it a reliable option for conservative investors. Overall, the data suggests that Gujarat Fluorochemicals and Cummins are leaders in terms of profitability, while Andhra Steel and BF Utilities show potential for further growth.

5.5.4 Earnings Per Share Ratio



1. Andhra Steel (Blue Line): Andhra Steel exhibits a stable but low P/E ratio throughout the period, hovering slightly above zero. This trend suggests that the company's earnings have not been highly valued by the market, possibly due to slow growth or limited investor confidence. A consistently low P/E ratio might indicate undervaluation or lower future growth expectations.

2. BF Utilities (Orange Line):BF Utilities begins with a brief dip in 2021 but quickly recovers to stabilize around a P/E ratio of 20. The recovery indicates a positive market reassessment of the company's earnings potential. Its stability suggests moderate investor confidence and consistent earnings relative to its stock price, making it appealing for investors seeking steady, predictable returns.

3. Gujarat Fluorochemicals (Gray Line):Gujarat Fluorochemicals shows the most dramatic movement, starting with a negative P/E ratio in 2020, surging to around 80 by 2024. The initial negative ratio reflects losses, but the subsequent sharp rise signals a significant increase in earnings and strong investor confidence. A P/E ratio this high, however, could indicate that the stock is overvalued, requiring scrutiny to determine if the growth is sustainable.

4. Cummins (Yellow Line): Cummins maintains a consistent P/E ratio around 20 throughout the period, indicating balanced investor sentiment. This steady trend reflects consistent profitability and reliable stock valuation. It suggests Cummins appeals to long-term investors seeking stability without high risk or speculation.

Conclusion: The P/E ratios reveal diverse market valuations for the companies. Gujarat Fluorochemicals stands out with its dramatic rise, reflecting strong investor confidence but potential overvaluation risks. BF Utilities and Cummins exhibit stable trends, making them attractive for risk-averse investors. Andhra Steel's low and stable P/E ratio suggests undervaluation or stagnant growth prospects. Investors should weigh the growth potential of Gujarat Fluorochemicals against its high valuation and consider the steady performance of BF Utilities and Cummins for safer investments.

6 Summary & Conclusion

Cummins India Ltd.:

- The liquidity ratios consistently indicate the company's strong ability to repay its short-term obligations.
- A low debt-to-equity and good interest coverage ratio reflect excellent control over debt and financial stability.
- Strong performance in receivables and inventory turnover indicate efficient functioning.
- It has maintained steady investor confidence with stable growth in ROA, ROE, and EPS though the profitability margins are moderate.

Andhra Sugars Ltd.:

- Therefore, solid liquidity ratios denote the company's ability to maintain overall short-term liabilities.
- Reduction in debt dependency has been relatively good at the company, with enhanced debt coverage.
- Receivables management is stable, but the high DSI indicates slower inventory turnover.
- Despite solid ROA and ROE performance, the company faces challenges in profitability and asset utilization in recent years.

Gujarat Fluorochemicals Ltd.:

- The company's liquidity ratios have been fluctuating, showing a lot of need for stronger management of short-term obligations.
- Even though the debt level had declined, the company faced inconsistent receivables and inventory turnover.
- Gujarat Fluorochemicals has shown sound profitability in previous years but is vulnerable now on account of erosion in margin and declines in key financial ratios in 2024.
- Strong market confidence is epitomized in the company with a high PE ratio. However, recent declines in performance might dent investor sentiments.

BF Utilities Ltd.:

- The liquidity ratios of the company are weak, signifying a worrying decline in receivables turnover, showing that the cash collection process has been quite inefficient.
- Despite the progress made in decreasing its debt to equity ratio, BF Utilities runs on a major dependence on debt-a risk for stability in the future. Operations margin is high; however, asset turns have declined consistently.
- The latest annual report indicates that inventory management has been quite volatile, thus logistics and cash flows need to be drastically improved.
- Profits rebounded to an extent, but much more will have to happen to restore investor confidence.

Sector Analysis:

1. **Engineering Sector (Cummins India Ltd.):**
   The engineering company, Cummins India Ltd., is excellent with substantial liquidity and efficient operational strategies. It is not much dependent on debt, has high asset turnover rates, and has better inventory management capabilities that reflect a fine financial profile. It is unique in the abilities of maintaining profitability and growth, making it an outstanding company in the industry. The financial strength of this organization coupled with its market leadership qualities makes it one of the best in this business.
2. **Chemical Sector (Andhra Sugars Ltd. and Gujarat Fluorochemicals Ltd.):**
   Both Andhra Sugars Ltd. and Gujarat Fluorochemicals Ltd. are chemical companies, but their operating performance is quite divergent. Andhra Sugars had a pretty smooth trend about liquidity and debt management but lags in profitability and inventory turnover ratios. On the other hand, Gujarat Fluorochemicals has reflected increased profitability in preceding years, but changes in liquidity and profitability ratios in recent years emphasize sensitivity points. Although both companies have managed their liabilities well, Gujarat Fluorochemicals needs to improve its operational efficiency and profitability, whereas improvement in Andhra Sugars' inventory management practice is much needed.
3. **Infrastructure Sector (BF Utilities Ltd.):**
   BF Utilities Ltd. thus faces very tough challenges in the infrastructure sector. Though it has improved certain financial metrics, it is weak on both liquidity and debt management. It fares weakly on receivables turnover and inventory management, and hence such inefficiencies prevail over its operational efficiency as a whole. To ensure sustaining long-term growth, therefore, BF Utilities needs to correct all these inefficiencies, especially through management of short-term obligations and enhancing asset turnover.

Final Conclusion:

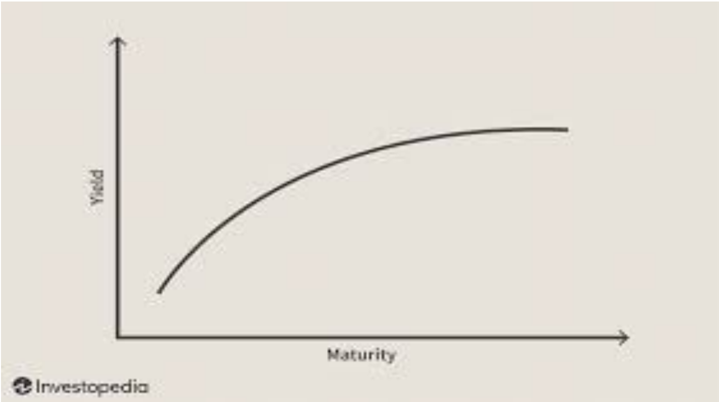
Cummins India Ltd. is the front runner in the engineering business due to robust financial soundness and good operating discipline. The chemical line of activity holds great promises for Andhra Sugars Ltd. as well as Gujarat Fluorochemicals Ltd. Yet, each of them has competed against each other in slightly different arenas concerning profitability and optimum operational efficiency. BF Utilities Ltd. has outperformed diversified areas; yet liquidity and operational performance have to be improved to ensure growth in the infrastructure line of activity.

PART- II
Finance

7 Yield Curve (Task 1)

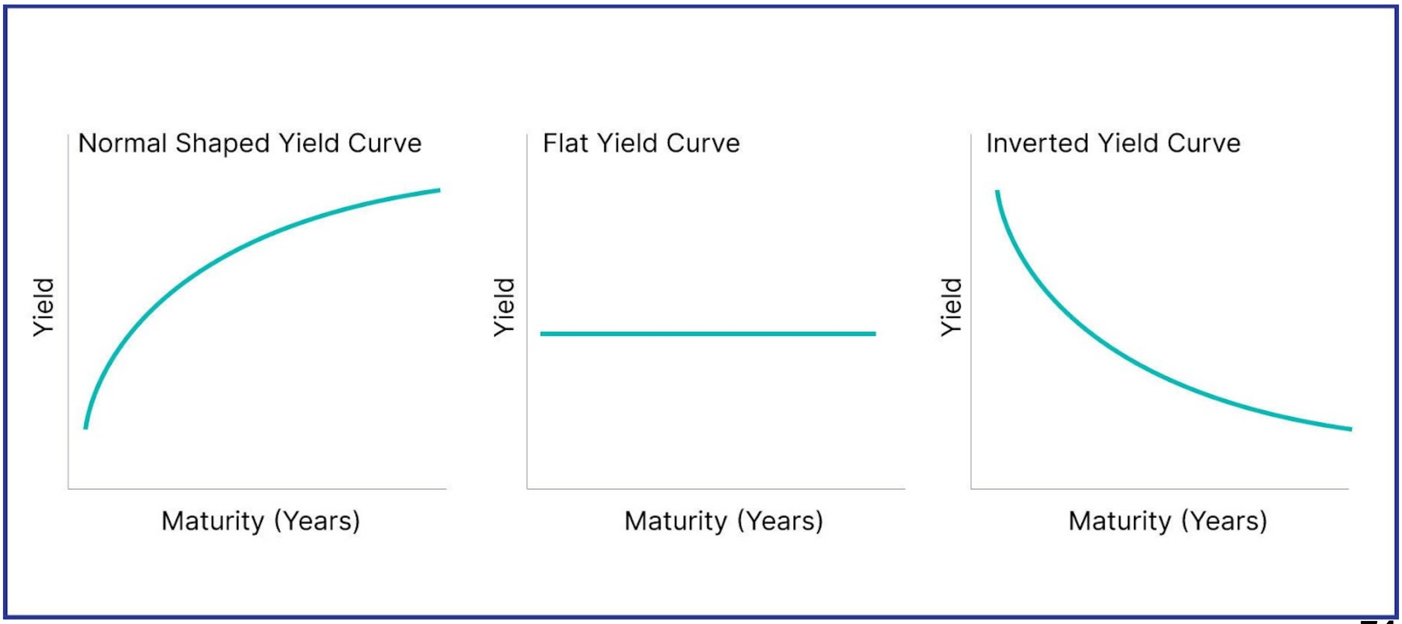
7.1 What is a Yield Curve ?

A yield curve is the graphical interpretation of interest rates on debt for a range of maturities. The curve shows the expected return that an investor can expect to receive if money is invested for a certain period. In the graphical representation, the vertical axis represents the bond's yield and the time it takes to mature gets represented on the horizontal axis. When investors lend money for a specified time, the graph helps predict expected returns. This graph helps investors understand the difference in the interest rate between short-term and long-term government bonds. The curve might take several shapes.



7.2 Shapes of Yield Curve

- A **normal yield curve -** slopes upward, long-term bonds bear higher yields than the shorter-term bonds, and this reflects expectations of growth in the economy and inflation.
- An **inverted yield curve -** slopes downward,where short-term interest rates are higher than the long-term interest rates. An inversion curve represents the case of an economic recession, where investors believe that yields in bonds with extended maturities are expected to be lower in the future.
- A **flat yield curve -** shows similar yields across all maturities, and therefore implies an ambiguous economic environment or can signal a transition between economic conditions.



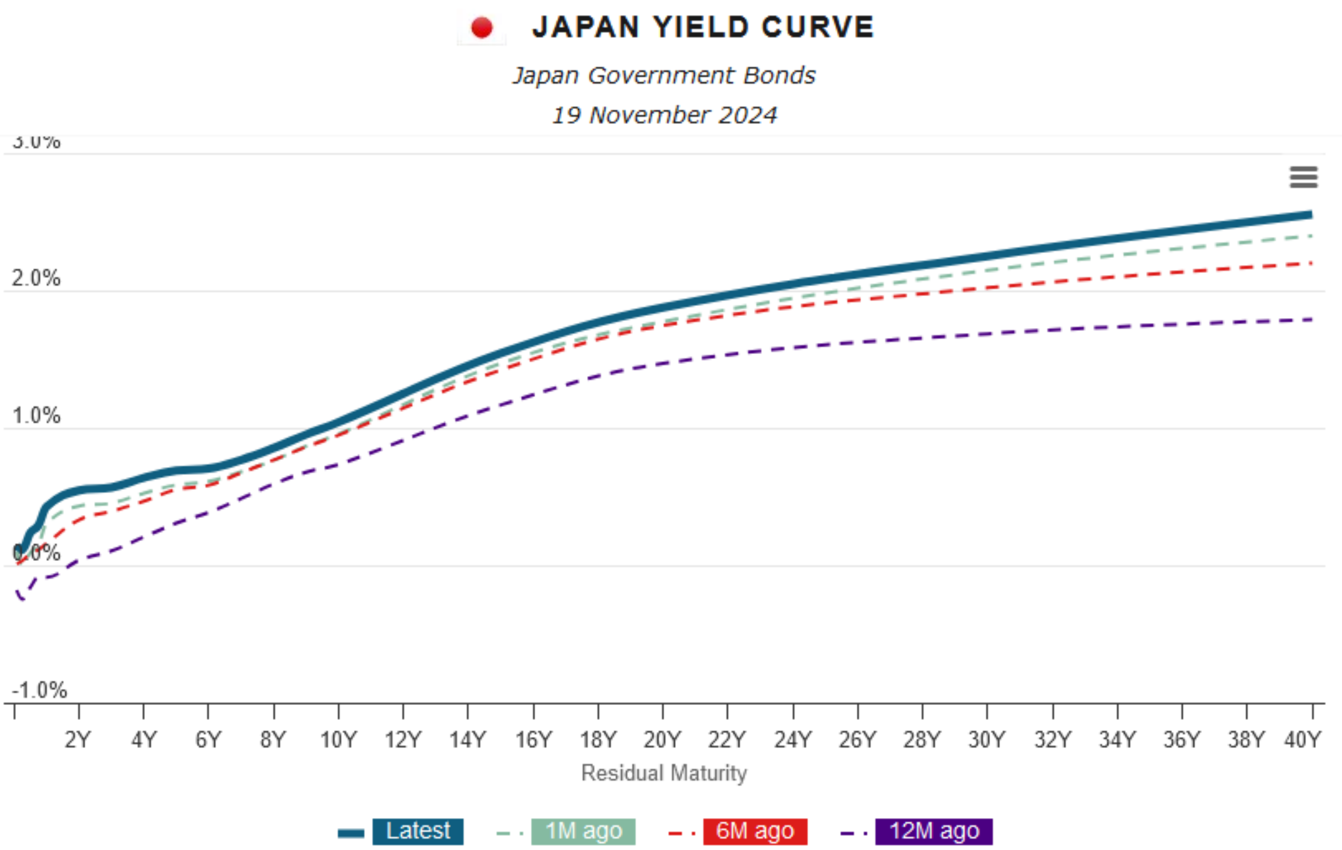
8 Yield Curve Analysis

In this section, we will analyze the yield curves of three different countries—**Japan**, **Germany**, and **South Korea**—using data up to October 2024. Understanding these curves allows us to predict economic trends and identify potential risks in different countries.

Following Table depicts the relationship between the yield curve, GDP Growth, and Inflation.

Yield Curve	GDP Growth	Inflation
Upward	High	Low
Flat	Moderate	Moderate
Inverted	Low	High

8.1 Japan



8.1.1 Shape of the Yield Curve

- **Short-term bonds (up to 10 years):** The curve starts near 0%, indicating extremely low short-term interest rates. This reflects a long-standing legacy of Japan holding ultra-low interest rates, which have characterized its economic stagnation since the 1990s.
- **Mid- to long-term bonds (10–30 years):** The yield increases gradually, with long-term rates hovering around 1.5% to 2%. This steepening portion of the curve suggests that investors expect modest inflationary pressures and economic recovery in the medium term.
- **Slight flattening beyond 30 years:** The yield curve is still rising but is flatter past the 30 year. It would seem to indicate investors have tempered long-term inflation expectations.

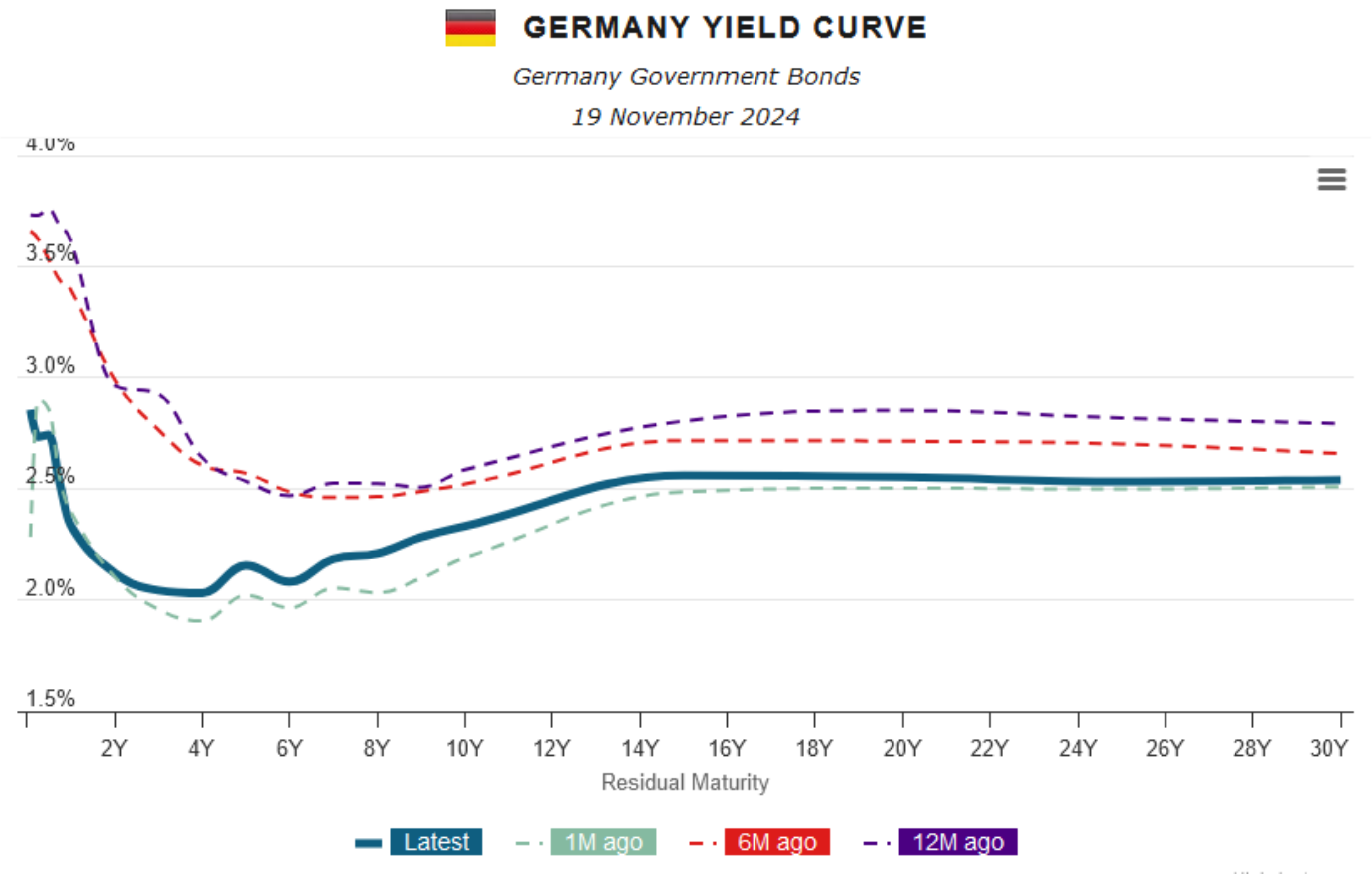
8.1.2 Comparison to 1, 6, and 12 months ago

- **1 month ago:** The subtle upward shift in the latest curve relative to one month ago suggests that market participants are seeking marginally higher rates and maybe even slightly higher inflation or growth expectations.
- **6 and 12 months ago:** The latest curve is above the curves from 6 and 12 months ago, indicating a gradual change in sentiment, with bond yields increasing over time. This might be some sign of a brighter view toward inflation and growth and does it at a remarkably slow pace.

8.1.3 Macroeconomic Implications

- **Low short-term rates:** Again, the very low yields on short-term bonds suggest that the BoJ is fully committed to spurring economic growth. Japan has faced extended periods of slow growth and deflationary issues for decades, and the accommodative measures by the BoJ seek to increase lending, investment, and consumer spending.
- **Long-term yields rising slowly:** The slight steepening in the yield curve suggests a cautious optimism regarding economic growth. However, the modest slope shows that investors are not expecting rapid growth or major inflationary pressures. In the context of Japan's aging population and high debt-to-GDP ratio, the slow rise suggests limited growth prospects in the near term.
- **GDP projections:** When looking at the yield curve, it seems like GDP growth in Japan is likely to stay modest, probably around 1-2%. While low interest rates are intended to motivate businesses and consumers to spend and invest, there are some bigger, long-term hurdles in play. For example, an aging workforce and slow productivity growth continue to hold back Japan's economic potential over the long run.
- Moderate inflation expectations: As for inflation, the upward slope of the yield curve shows that the market expects inflation to stay moderate in the future. Japan has faced years of deflationary struggles and has had a tough time meeting its 2% inflation target. The current yield curve suggests that inflation might remain relatively low but could gradually increase over time.

8.2 Germany



8.2.1 Shape of the Yield Curve

- **Short-term bonds:** The yield curve begins at around 2.5% for short-term bonds (2-year maturities) but then dips to roughly 2.0% at the 6-year mark. This dip shows that investors are willing to accept lower returns for mid-range maturities compared to very short-term bonds. It could point to short-term uncertainty or cautious sentiment in the market.
- **Mid- to long-term bonds:** From 6-year to 16-year maturities, the yield curve rises gradually to about 2.5%, forming a slight hump. In this range, the curve stabilizes, which suggests that investors expect the economic situation to steady out over the medium term.
- **Slight flattening beyond 16 years:** After 16 years, the curve remains mostly flat at around 2.5% and edges up slightly to 2.6% for 30-year bonds. This flattening suggests uncertainty about long-term economic growth and low inflation expectations. A flat yield curve in this range typically reflects slower expected economic growth or subdued inflation in the distant future.

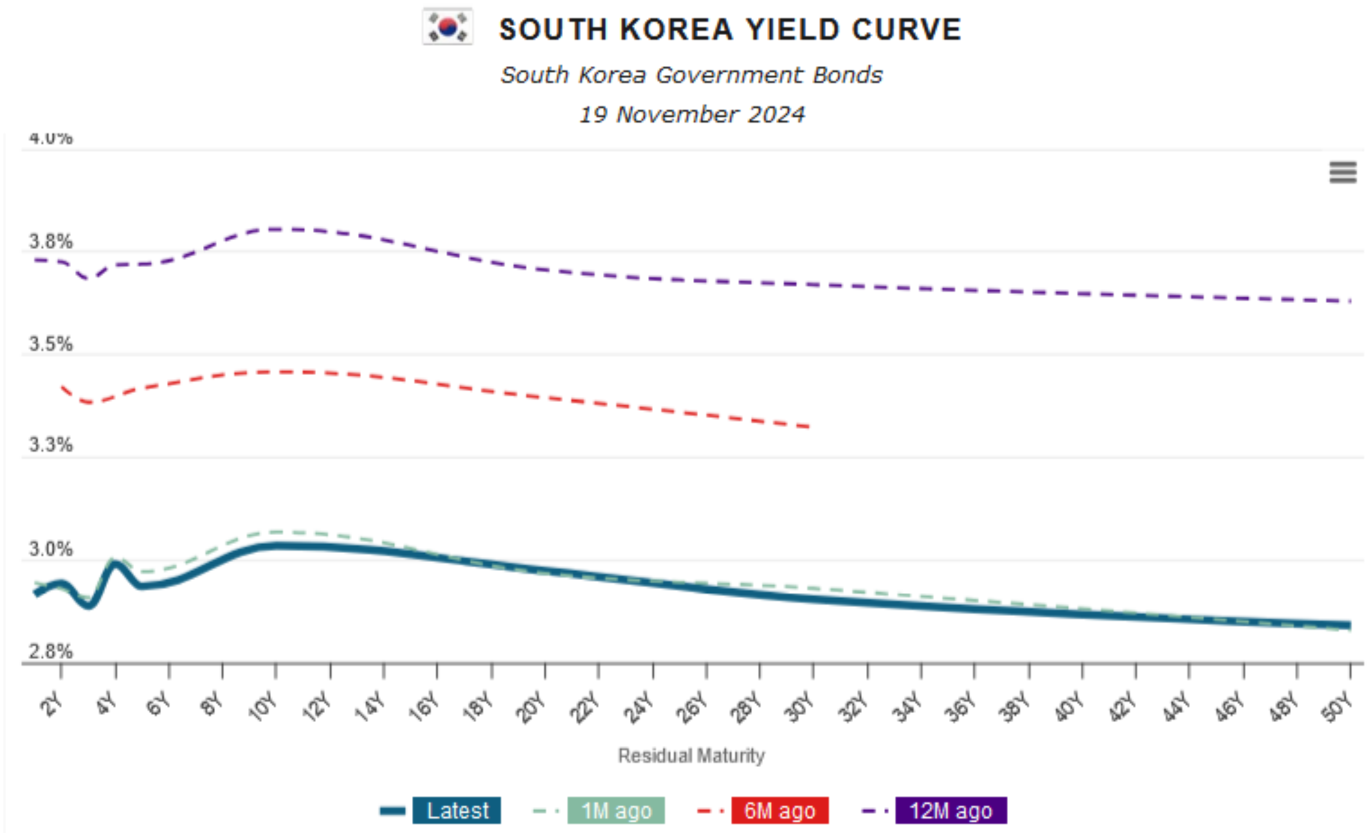
8.2.2 Comparison to 1, 6, and 12 months ago

- **Short-Term Yields (2Y-6Y)**: Short-term yields have dropped noticeably compared to 6 and 12 months ago. This could be a response to softer inflation data and reduced expectations for further rate hikes.
- **Mid-Term Yields (6Y-16Y)**: Yields in this range have seen a moderate decline, suggesting that medium-term economic growth forecasts have been adjusted downward.
- **Long-Term Yields (16Y-30Y)**: Long-term yields have flattened out, signaling that inflation expectations and long-term growth outlooks are stabilizing.

8.2.3 Macroeconomic Implications

- **Economic Growth Concerns:**
  The initial dip in the curve, particularly between the 2-year and 6-year maturities, might reflect short-term uncertainty about economic growth. For Germany, this could be tied to ongoing global challenges like geopolitical tensions, energy prices, and supply chain disruptions, which heavily impact its export-driven economy.
- **Low Inflation Expectations:**
  The flattening of the curve beyond 20 years suggests that inflation is expected to stay under control in the long run. If inflation were projected to rise significantly, long-term yields would increase to account for the eroding value of money over time. Instead, investors seem to believe that factors like central bank policies and slow wage growth will help keep inflation in check.
- **Inverted Section (2Y-6Y):**
  The inversion between 2-year and 6-year maturities, where shorter maturities have higher yields than mid-range maturities, reflects a sense of caution. This could be due to macroeconomic risks such as potential recession fears, the impact of energy prices, or concerns over tighter monetary policies. Investors may be prioritizing safe-haven assets to shield themselves from short-term volatility.

8.3 South Korea



8.3.1 Shape of the Yield Curve

- **Short-Term vs Long-Term Yields**: For shorter-term bonds (2–6 years), the curve slopes upward a bit, showing some added return investors want for taking on near-term risks. But after this, yields either level out or even drop for longer-term bonds.
- **Downward Slope Post 10-Year**: After the 10-year mark, the curve starts sloping downward, meaning long-term bond yields are lower. Beyond 20 years, it flattens out a lot, indicating that yields don't change much for ultra-long bonds.

8.3.2 Comparison to 1, 6, and 12 months ago

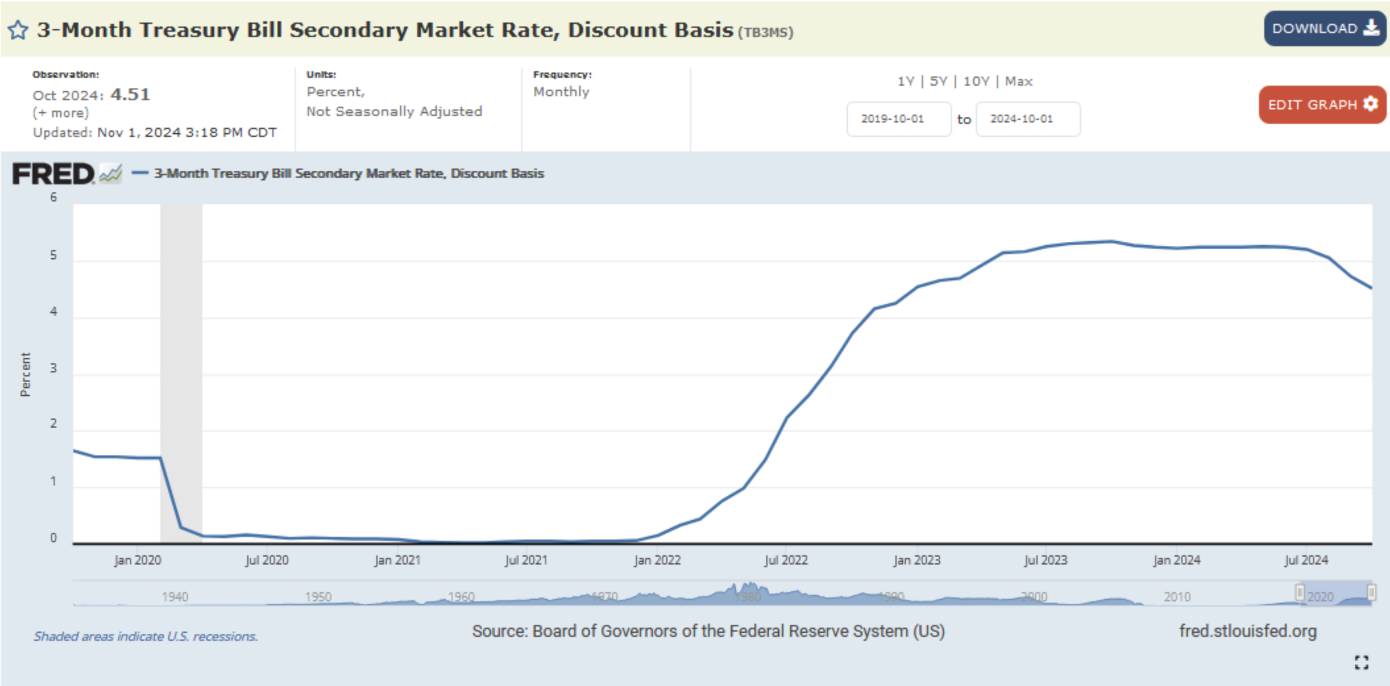
- **1 Month Ago**:
  Compared to a month ago, the long-term end of the curve has dropped a little, which might show growing worries about slower economic growth and weaker inflation. Short-term yields, on the other hand, haven't changed much, suggesting no big shifts in what's expected for interest rates soon.
- **6 and 12 Months Ago:**
  Over the last year, the curve has moved lower overall, especially for long-term bonds. This reflects how people are seeing slower long-term growth and lower inflation ahead. The drop in long-term yields is tied to concerns about South Korea's vulnerability to global issues like trade tensions and regional instability.

8.3.3 Macroeconomic Implications

- **Economic Growth**:
  The shape of the curve shows that investors aren't expecting much strong economic growth anytime soon. The downward slope past 10 years hints at long-term challenges, like slowing productivity or population issues, that might limit how fast South Korea can grow.
- **Inflation Expectations:**
  The flat part of the curve, especially for longer maturities, shows that inflation isn't expected to get out of hand. Even though inflation is high in many parts of the world, South Korea seems to have it under control, thanks to stable energy prices and careful central bank policies.
- **Monetary Policy Outlook:**
  The flatness at the short end of the curve suggests that the central bank won't need to aggressively raise rates anytime soon. Markets are expecting a long period of low rates to help the economy recover without triggering high inflation.

9 Analysis of T-bills and AA Commercial Paper Yields (Task 2)

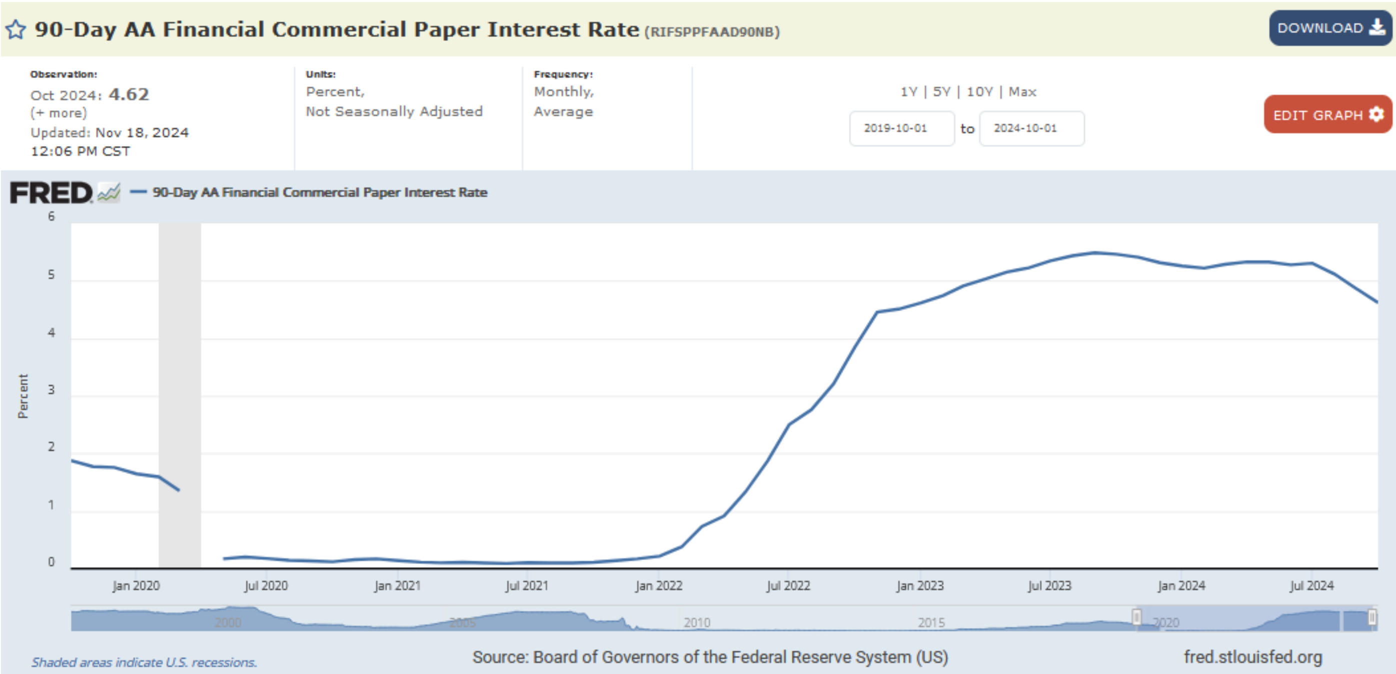
9.1 3-Month Treasury Bill Yield Analysis



From the data, the **3-Month Treasury Bill (T-bill)** yield started at extremely low levels in October 2019, hovering below 1%, following the Federal Reserve's policies of low interest rates aimed at stimulating economic activity. The yield stayed fairly low throughout most of 2020, reflecting the Federal Reserve's stance on maintaining accommodative monetary conditions during the COVID-19 pandemic. In late 2021, however, the T-bill yield began to rise as the economy started to recover and the Federal Reserve began signaling its intent to tighten monetary policy to address rising inflation.

By 2022 and 2023, the yield shot up significantly, reaching around 5% at its highest point. This sharp rise happened because the Federal Reserve was aggressively raising interest rates to control inflation and keep the economy steady. Since mid-2023, the yield has been hovering around 4.5%, staying much higher than it was before the pandemic. This overall increase in T-bill yields shows how the Fed has been tightening monetary policy to keep inflation in check.

9.2 90-Day AA Financial Commercial Paper Yield Analysis



On the other hand, the **90-Day AA Financial Commercial Paper (CP)** yield was below 1% in 2019 and dropped even further during the early stages of the pandemic, hitting near-zero levels. Around mid-2021, it began to climb sharply as the economy started to recover and credit demand in financial markets picked up. Unlike T-bill yields, the rise in commercial paper (CP) yields was much steeper, shooting past 5% in 2022. This surge was mainly driven by tighter liquidity conditions in financial markets.

In 2023, CP yields stayed high, similar to T-bill yields, but were much more volatile, especially during times of economic uncertainty and financial stress. This is because commercial paper, though generally a safe investment, carries more risk than T-bills, particularly when the financial sector is under pressure.

9.3 Comparison of Yields

Yield Difference (October 2024):

- T-bill yield: **4.51%**
- AA commercial paper yield: **4.62%**
- Difference: **0.11%**

Reason for Yield Difference:
The higher yield on AA commercial paper reflects a risk premium due to:

- **Credit Risk**: CPs carry a slight chance of default, unlike T-bills.
- **Liquidity Risk**: T-bills are easier to trade, which makes CPs riskier in terms of liquidity.

9.4 Changes in Risk Premium (Year-on-Year Analysis)

October 2023:
In October 2023, T-bill yields were around **5%**, while AA commercial paper yields were higher at **5.12%**. This yielded a risk premium of **0.12%**.

October 2024:
The risk premium declined slightly to **0.11%**, reflecting tightening credit spreads.

Factors Behind the Change:

- **Improved Economic Conditions**: As the economy stabilized following the inflationary surge of 2022-2023, default risk in commercial paper reduced, narrowing the risk premium.
- **Liquidity Conditions**: With central banks scaling back quantitative tightening, liquidity improved slightly, narrowing the spread between T-bill and commercial paper yields.

9.5 Impact of Economic Conditions

- **Pandemic Era (2020-2021)**:
  During this period, both T-bill and commercial paper yields were at historic lows due to Federal Reserve rate cuts and reduced credit demand. Risk premiums were minimal, as market participants sought safety and liquidity.
- **Inflation Surge (2022-2023)**:
  Inflation pushed the Fed to raise rates aggressively, causing yields to spike. The spread between CPs and T-bills widened as corporate risks and uncertainty grew.
- **Stabilization Phase (2024)**:
  As inflation setteled and the economy adjusted to higher interest rates, the risk premium on commercial paper narrowed. Markets now reflect more stable conditions and better liquidity, even if uncertainty hasn’t disappeared entirely.