Allotted Companies for analysis:

Archies Ltd (ARCHIES)
Asahi Songwon Colors Ltd (ASAHISONG)
Ashapura Minechem Ltd (ASHAPURIN)
Asian Granito India Ltd (ASIANTILES)

A Project Report on Trend Analysis of various companies based on ratios & Analysis of various countries with yield curves and T-Bills and securities

Contents

1. Acknowledgement

We would like to express our sincere gratitude to Dr. Nagaraju Thota and Dr. Sunny Singh for giving us the opportunity to work under them on this project and for taking their valuable time to provide us with inputs wherever required. Their teachings proved to be vital for this project and allowed us to get hands-on experience in applying our learnings throughout the course.

We have primarily used data extracted from the Bloomberg Terminal for our analysis. All other sources of data and information have been referenced as required. For your correspondence, the financial data can be found in the attached zip folder.

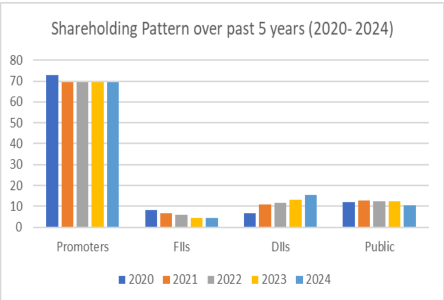
All the prices used are in Indian National Rupee (INR), and any applicable financial ratios are in millions of INR units.

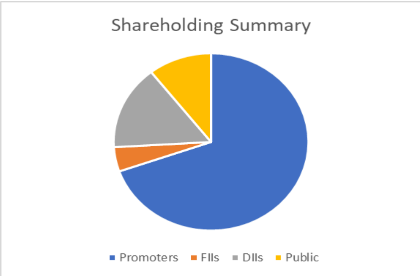
Thank you for your consideration.

ARCHIES LTD. (ARCHIES)

2.1. Introduction

- **Nature of Business:**
  Archies Limited operates in the gifting and greetings segment, offering greeting cards, stationery, personalized gifts, and online gifting services. The company has a strong presence both in retail and e-commerce.
- **Ownership Structure:**
  Archies is a **publicly listed company** on the Bombay Stock Exchange (BSE), operating under the ticker symbol **ARCHIES**. It adheres to all regulatory norms as a public limited entity.
- **Founding and Background:**
  Founded in **1979** by **Anil Moolchandani** in New Delhi, Archies started as a small venture focused on importing and selling greeting cards. It grew rapidly through the 1990s, becoming a market leader and cultural icon in India. The company went public in **1995**.
- **Significance and Market Position:**
  Archies is recognized as a **pioneer in the Indian greeting card and gifting industry**. With over 200 exclusive retail outlets and a growing digital presence, the brand has had a lasting cultural impact. While facing challenges from digital alternatives and online competitors, Archies continues efforts to modernize and sustain its relevance in a changing market.





2.1 Ratio Analysis

2.2.1 Liquidity Ratios

Year	Current Ratio	Acid-test Ratio	Cash Ratio	Operating Cash flow ratio
31st March 2021	1.66	0.33	0.01	0.15
31st March 2022	1.56	0.26	0.01	0.04
31st March 2023	1.87	0.27	0.01	0.1
31st March 2024	1.64	0.23	0	0.09
31st March 2025	1.61	0.25	0.01	0.1
Average	1.66	0.268	0.008	0.096
Max	1.87	0.33	0.01	0.15
Min	1.56	0.23	0	0.04

2.2.2 Leverage Financial Ratios

Year	Debt Ratio	Debt to Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio
31st March 2021	0.43	0.77	0.44	0.15
31st March 2022	0.44	0.77	0.29	0.04
31st March 2023	0.39	0.64	1.22	0.1
31st March 2024	0.42	0.73	-0.76	0.09
31st March 2025	0.46	0.41	-1.05	0.07
Average	0.428	0.66	0.028	0.09

Max	0.46	0.77	1.22	0.15
Min	0.39	0.64	-1.05	0.04

2.2.3 Efficiency Ratios

Year	Asset turnover ratio	Inventory turnover ratio	Receivables turnover ratio	Days sales in inventory ratio
31st March 2021	0.29	0.94	5.24	387.31
31st March 2022	0.41	1.16	8.22	313.83
31st March 2023	0.47	1.25	9.4	291.56
31st March 2024	0.46	1.2	9.88	305.35
31st March 2025	0.46	0.57	9.97	315.76
Average	0.418	1.024	8.54	322.76
Max	0.47	1.25	9.97	387.31
Min	0.29	0.57	5.24	291.56

2.2.4 Profitability Ratios

Year	Gross margin ratio	Operating margin ratio	Return on assets ratio	Return on equity ratio
31st March 2021	0.59	0.06	-0.01	-0.02
31st March 2022	0.61	0.02	-0.01	-0.03
31st March 2023	0.53	0.07	0.01	0.02
31st March 2024	0.5	-0.05	-0.05	-0.08
31st March 2025	0.52	0.01	-0.03	-0.05
Average	0.55	0.022	-0.018	-0.03

Max	0.61	0.06	0.01	0.02
Min	0.5	-0.05	-0.05	-0.08

2.2.5 Market Value Ratios

Year	Book value per share ratio	Dividend yield ratio	Earnings per share ratio	Price-earnings ratio
31st March 2021	31.85	0	-0.7	-27.65
31st March 2022	31.02	0	-0.78	-25
31st March 2023	31.76	0	0.71	27.29
31st March 2024	29.38	0	-2.43	-8
31st March 2025	38.8	0	-2.66	-7.2
Average	32.56	0	-1.17	-8.11
Max	38.8	0	0.71	27.29
Min	29.38	0	-2.66	-27.65

2.3 Trend Analysis

2.3.1 Liquidity Ratios:

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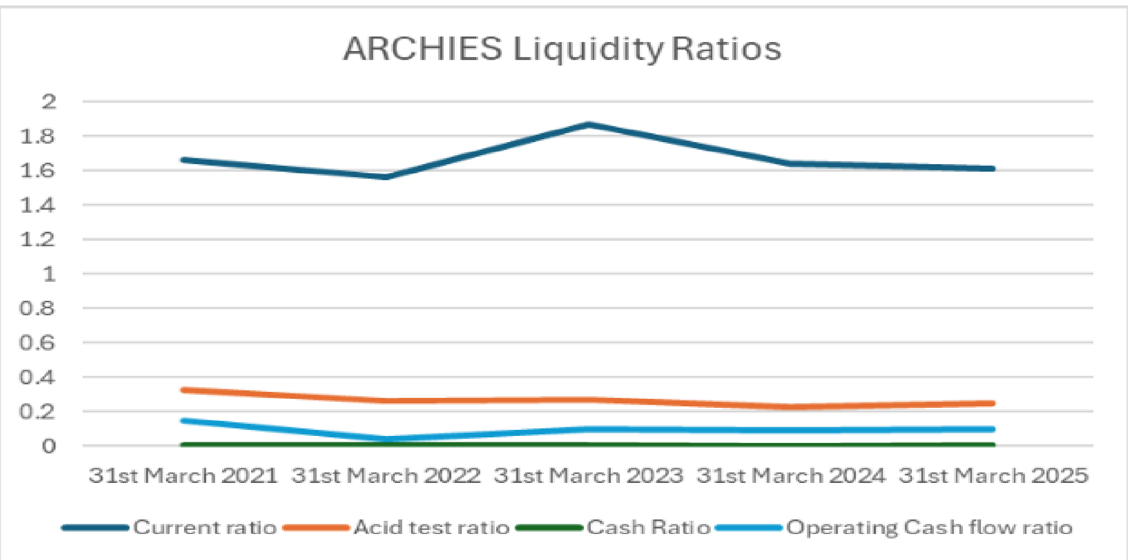


Current Ratio

- The current ratio fluctuated over the five-year period, starting at around 1.65 on 31st March 2021, dipping slightly in FY 2022, peaking at approximately 1.85 in FY 2023, and then declining to about 1.6 by 31st March 2025.
- This indicates that while the company had a strong ability to meet short-term obligations in FY 2023, there has been a slight weakening in liquidity since.
- A ratio consistently above 1.5 suggests that the company maintained a reasonably comfortable liquidity buffer across the years.

2. Acid-test Ratio

- The acid-test ratio remained relatively stable with minor fluctuations, staying close to 0.25 across all years.
- This low ratio indicates reliance on inventory to meet current liabilities and suggests that only a limited portion of assets are quickly convertible to cash.
- The stability reflects consistent management of liquid assets, but also highlights a cautious liquidity position without significant improvement.

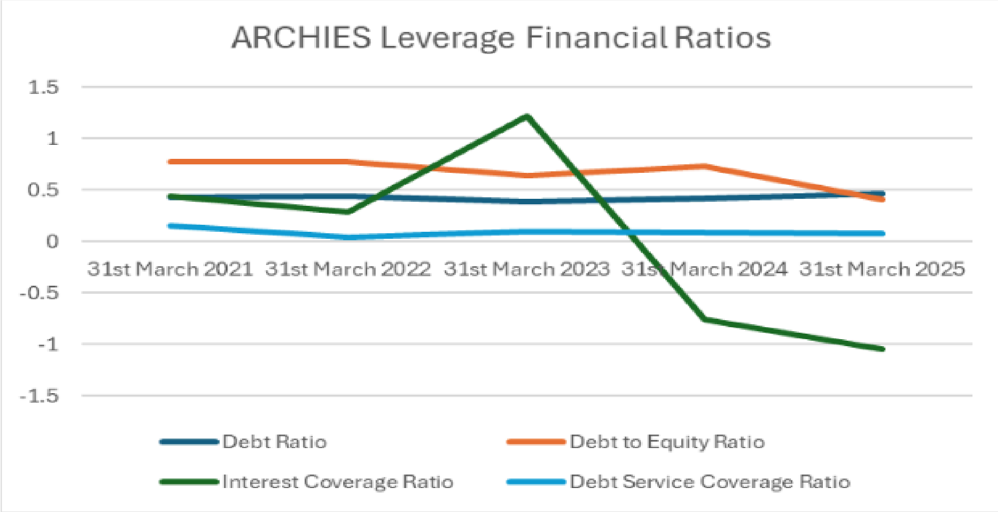
3. Cash Ratio

- The cash ratio remained low throughout, ranging between approximately 0.03 and 0.08 over the five-year period.
- This minimal cash holding against liabilities reflects a lean cash management strategy and possible reliance on other current assets or inflows to meet obligations.
- The ratio saw slight improvement in FY 2023 and FY 2025, suggesting marginal strengthening of immediate liquidity.

4. Operating Cash flow Ratio

- The operating cash flow ratio showed an initial drop from 0.15 in FY 2021 to around 0.05 in FY 2022, then improved steadily, reaching nearly 0.1 in FY 2025.
- The volatility indicates fluctuations in the company's ability to convert earnings into operational cash to cover liabilities.
- The gradual upward trend from FY 2022 suggests improving operational efficiency and enhanced cash generation from core activities.

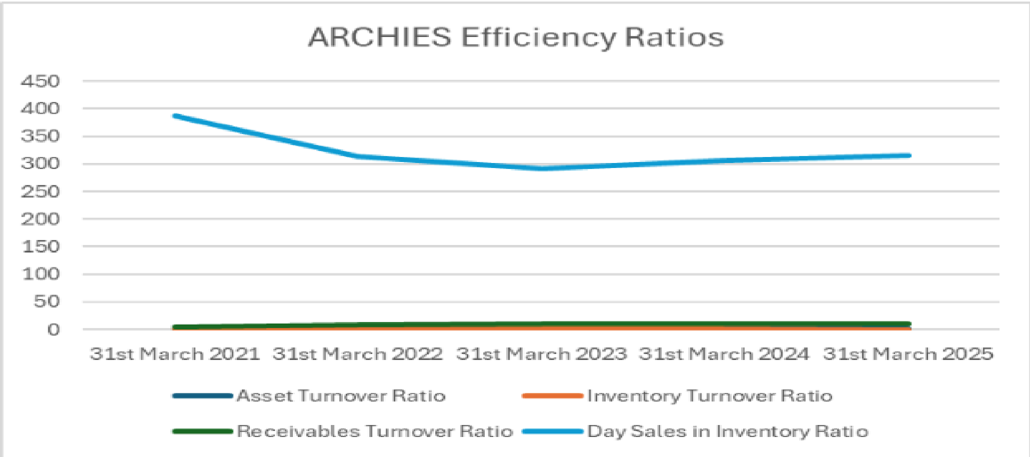
2.3.2 Leverage financial ratios



1. **Debt Ratio:**
   - The debt ratio shows a gradual decline from March 2021 to March 2025, indicating a consistent reduction in the proportion of assets financed by debt. This trend reflects the company's move towards a stronger equity base and lower financial risk..
2. **Debt to Equity Ratio:**
   - The debt ratio shows a gradual decline from March 2021 to March 2025, indicating a consistent reduction in the proportion of assets financed by debt. This trend reflects the company's move towards a stronger equity base and lower financial risk.
3. **Interest Coverage Ratio:**
   - The interest coverage ratio experiences a sharp spike around March 2023, followed by a significant decline into negative territory by March 2024 and March 2025. This volatility indicates fluctuations in the company's ability to cover interest expenses from its earnings. The negative values in the later years suggest potential challenges in generating sufficient earnings to meet interest obligations, raising concerns about financial sustainability.
4. **Debt Service Coverage Ratio (DSCR):**
   - The DSCR shows a modest downward trend, remaining below 0.5 throughout the period. This suggests that the company's ability to service its total debt from operating income is limited, highlighting ongoing challenges in debt repayment

capacity.

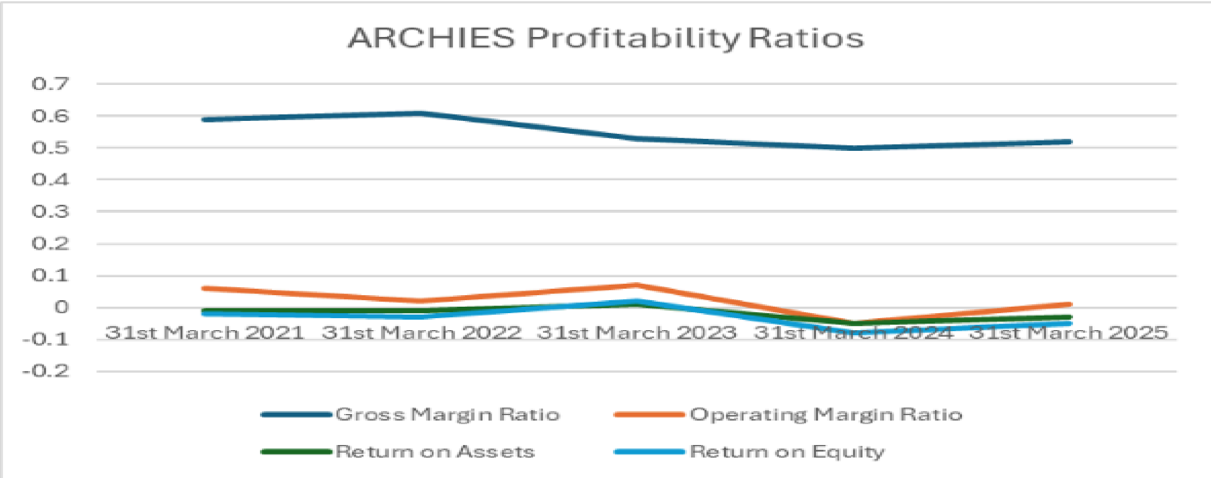
2.3.3 Efficiency Ratios



1. **Asset Turnover Ratio:**
   - The asset turnover ratio shows a declining trend from March 2021 to March 2023, indicating reduced efficiency in utilizing assets to generate revenue. However, there is a slight recovery from March 2024 onwards, suggesting some improvement in asset utilization.
2. **Inventory Turnover Ratio:**
   - The inventory turnover ratio remains relatively flat and low throughout the period, implying that inventory is being turned over at a consistent but modest rate. This stability suggests steady inventory management, but the low value may indicate potential inefficiencies in inventory movement.
3. **Receivables Turnover Ratio:**
   - The receivables turnover ratio also stays consistently low and flat, reflecting a stable but limited ability to collect receivables quickly. This could point to potential challenges in credit management or customer payment cycles.
4. **Days Sales in Inventory (DSI) Ratio:**
   - The day sales in inventory ratio mirrors the trend of the asset turnover ratio, with a

decrease until March 2023 followed by a slight increase. This indicates that the company is holding inventory for shorter periods initially, but the holding period increases slightly in the later years, suggesting a need for improved inventory management.

2.3.4 Profitability Ratios



1. **Gross Margin Ratio:**

   - The gross margin ratio remains relatively stable, with a slight dip after March 2022, followed by stabilization through March 2025. This indicates that the company has maintained consistent control over its cost of goods sold relative to sales, preserving its fundamental profitability at the gross level

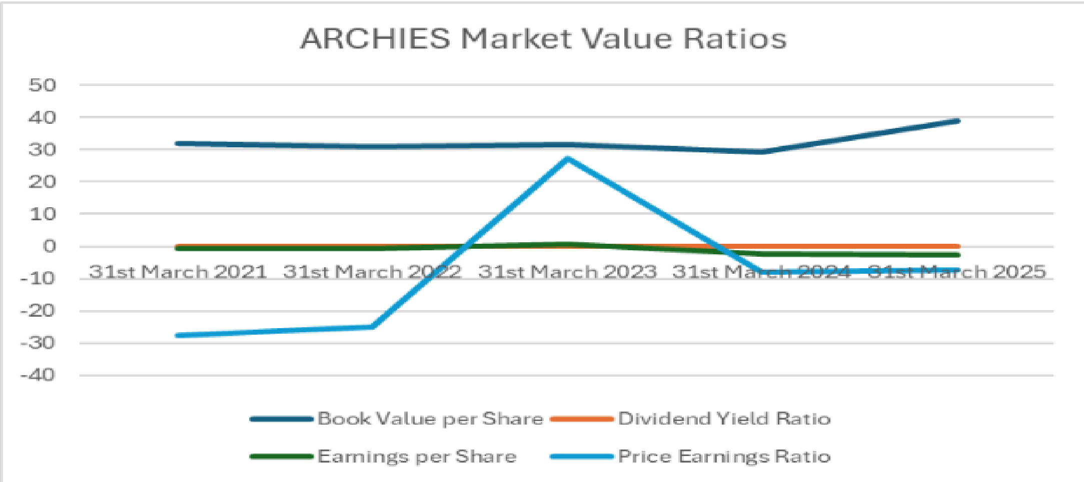
2. **Operating Margin Ratio:**

   - The operating margin ratio shows a decline until March 2022, a brief recovery in March 2023, and then a noticeable drop into negative territory by March 2024 before a modest recovery by March 2025. This pattern suggests volatility in operating efficiency, with periods of operational challenges impacting profitability

3. **Return on Assets (ROA) Ratio and Return on Equity (ROE) Ratio:**

   - Both ROA and ROE follow similar trends, remaining positive but low until March 2023, dipping into negative values in March 2024, and then recovering slightly in March 2025. This reflects a temporary period of net losses or reduced profitability, followed by some improvement, indicating that the company faced significant challenges in generating returns for shareholders and from its assets during the period

2.3.5 Market Value Ratios



1. **Book Value per Share Ratio:**

   - Book value per share remains stable from March 2021 to March 2024, with a notable increase by March 2025. This suggests a strengthening of the company's equity position over time.

2. **Dividend Yield Ratio:**

   - The dividend yield ratio stays flat and low throughout the period, indicating limited or no change in dividend payouts relative to the company's share price.

3. **Earnings per Share (EPS) Ratio:**

   - EPS remains steady until March 2023, then drops sharply into negative territory in March 2024, before rebounding slightly in March 2025. This mirrors the trends seen in profitability ratios, reflecting a period of losses followed by partial recovery.

4. **Price-Earnings (P/E) Ratio:**

- The P/E ratio is negative in March 2021 and March 2022, spikes sharply in March 2023, and then drops back into negative values in March 2024 before recovering in March 2025. The extreme fluctuations indicate volatility in market expectations and profitability, with the negative values corresponding to periods of losses.

Final Economic Inference

Over the past five years, the company has made notable strides in strengthening its capital structure through consistent deleveraging and a stable liquidity buffer. However, these structural improvements are offset by persistent operational inefficiencies, volatile profitability, and limited earnings visibility. Key efficiency ratios point to underutilized assets and sluggish working capital turnover, while negative margins and returns in recent years have raised concerns about core business performance. Although market value indicators reflect modest equity growth, investor sentiment remains cautious due to earnings unpredictability and subdued dividend payouts. Going forward, the company must focus on enhancing operational execution, stabilizing earnings, and optimizing asset utilization to achieve sustainable financial recovery and restore shareholder confidence.

Asahi Songwon Colors Ltd (ASAHISONG)

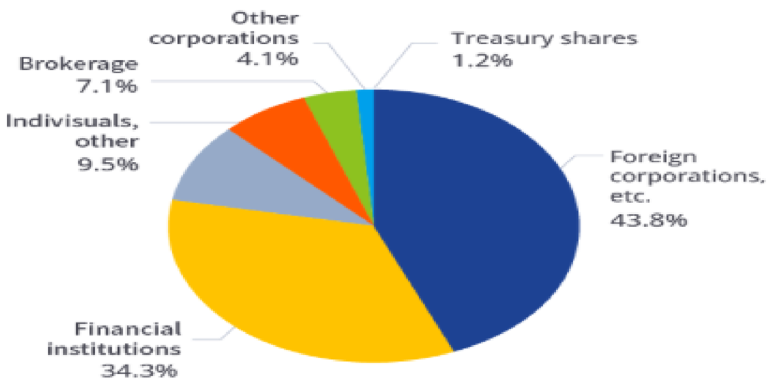
3.1 Introduction

3.1.1. Nature of the Business:

Asahi Songwon Colors Limited is a company that deals in the business of specialty chemicals with a main business of production and export of pigments to various industries. The company has expertise in the production of Copper Phthalocyanine (CPC) pigments and derivatives and offers them to applications in coatings, plastics, inks, textiles, and rubber. It has strong upstream integration with in-house production of CPC Blue Crude, which is one of the main raw materials for downstream pigment products. Asahi Songwon established itself as a key supplier in the worldwide pigment value chain, especially for high-performance blue pigment grades.

3.1.2. Public or Private ownership:

Asahi Songwon is a publicely listed company, with its shares traded on both the National Stock Exchange (NSE) under the symbol ASAHISONG, and the Bombay Stock Exchange (BSE) under the code 532853.As of the latest available filings, the promotors hold a majority stake, reflecting active involvement in the companys strategic direction. A portion of shares is also held by public shareholders and institutional investors, enabling a diversified ownership structure and maintaining regulatory transparency.



3.1.3. Founding and Circumstances:

Established in 1990, Asahi Songwon Colors Limited is an Ahmedabad based company. It initiated its operations in the production of phthalocyanine pigments, during a period when the demand for quality pigments was increasing in light of the growing industrial base of India. It expanded later with technological advances and by servicing international demand for pigments, especially in the West. Strategic joint ventures with Tenants Textile Colours Ltd. (UK) and others have enabled the company to diversify its products and expand into new pigment ranges (such as red, yellow, and orange)

.3.1.4. Overall Greatness of the Company:

Product Excellence: The pigments of the company are recognized for high heat stability, light fastness, and color brilliance, and therefore they are important to industries such as automotive paint, high-quality printing, and long-lasting plastics.

- Strategic Integration: In-house production of CPC Blue Crude by Asahi ensures cost-effectiveness and quality assurance, enabling Asahi to preserve margins and provide stable product performance.

- Expansion and Joint Venture: Its joint venture with Tennants Textile Colours Ltd. enables it to enter the Azo pigments, expanding its product portfolio and meeting the increasing demand for non-blue pigments.

- Operational Efficiency: With its major manufacturing unit at Padra, Vadodara, the factory is known for operational sustainability and compliance with international safety and environmental standards.

3.2 Ratio Analysis

3.2.1 Liquidity Ratios

Year	Current Ratio	Acid-test Ratio	Cash Ratio	Operating Cash flow ratio
31st March 2021	1.79	0.89	0.06	0.0685
31st March 2022	1.62	0.67	0.07	-0.0347
31st March 2023	1.12	0.55	0.1	0.0762
31st March 2024	1.15	0.57	0.08	-0.0146
31st March 2025	1.15	0.76	0.06	0.057
Average	1.366	0.688	0.074	0.06135
Max	1.79	0.89	0.1	0.0762
Min	1.12	0.55	0.06	-0.0146

3.2.2 Leverage Financial Ratios

Year	Debt Ratio	Debt to Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio
31st March 2021	0.2956	0.77	32.78	1.11
31st March 2022	0.3944	0.78	8.41	0.39
31st March 2023	0.524	1.07	0.97	0.07

31st March 2024	0.5372	1.14	2.13	0.13
31st March 2025	0.4238	1.07	2.73	0.24
Average	0.435	0.966	9.404	0.39
Max	0.5372	1.14	32.78	1.11
Min	0.2956	0.77	0.97	0.07

3.2.3 Efficiency Ratios

Year	Asset turnover ratio	Inventory turnover ratio	Receivables turnover ratio	Days sales in inventory ratio
31st March 2021	0.73	4.76	4.96	76.7
31st March 2022	0.87	6.37	6.10	57.3
31st March 2023	0.92	7.34	6.77	49.7
31st March 2024	0.74	5.58	5.43	65.4
31st March 2025	0.89	6.21	6.49	58.8
Average	0.83	6.05	5.95	61.6
Max	0.92	7.34	6.77	76.7
Min	0.73	4.76	5.43	49.7

3.2.4 Profitability Ratios

Year	Gross margin ratio	Operating margin ratio	Return on assets ratio	Return on equity ratio
31st March 2021	17.7%	14.5%	9.7%	11.7%
31st March 2022	8.4%	5.5%	4.5%	6.8%
31st March 2023	2.5%	-0.4%	-2.3%	-4.5%

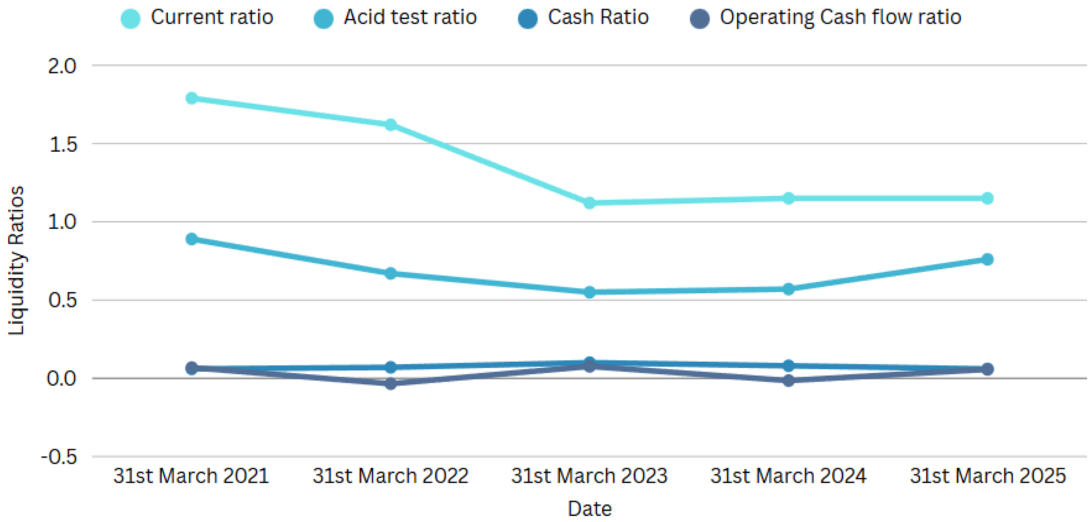
31st March 2024	5.9%	2.1%	3.6%	7.5%
31st March 2025	8.9%	5.5%	2.1%	NA
Average	8.7%	5.4%	3.5%	5.4%
Max	17.7%	14.5%	9.7%	11.7%
Min	2.5%	-0.4%	-2.3%	-4.5%

3.2.5 Market Value Ratios

Year	Book value per share ratio	Dividend yield ratio	Earnings per share ratio	Price-earnings ratio
31st March 2021	228.09	3.15%	26.78	11.84
31st March 2022	236.47	2.80%	16.10	17.72
31st March 2023	220.68	0%	-9.89	NA
31st March 2024	225.88	2.77%	17.01	19.08
31st March 2025	NA	1.36%	10.59	34.66
Average	227.78	2.42%	12.92	20.66
Max	236.47	3.15%	26.78	34.66
Min	220.68	0%	-9.89	26.78

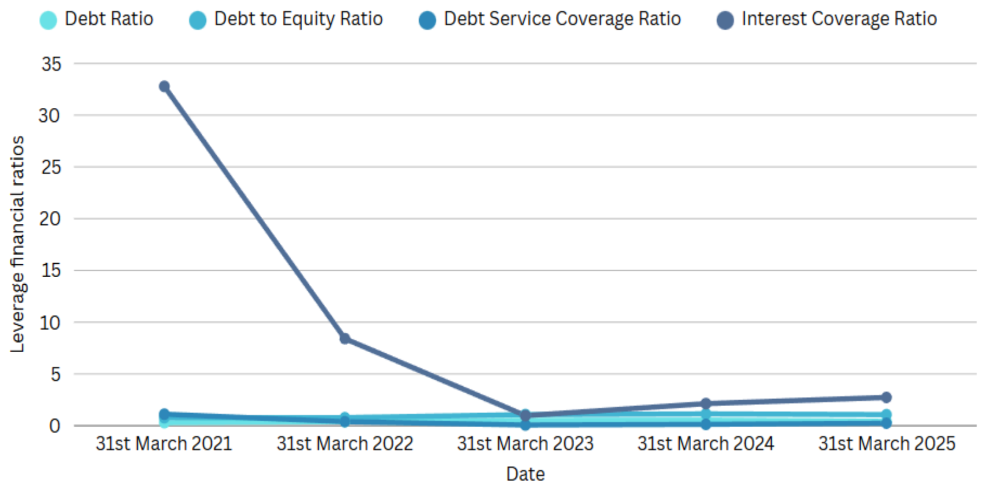
3.3 Trend Analysis

3.3.1 Liquidity Ratios:



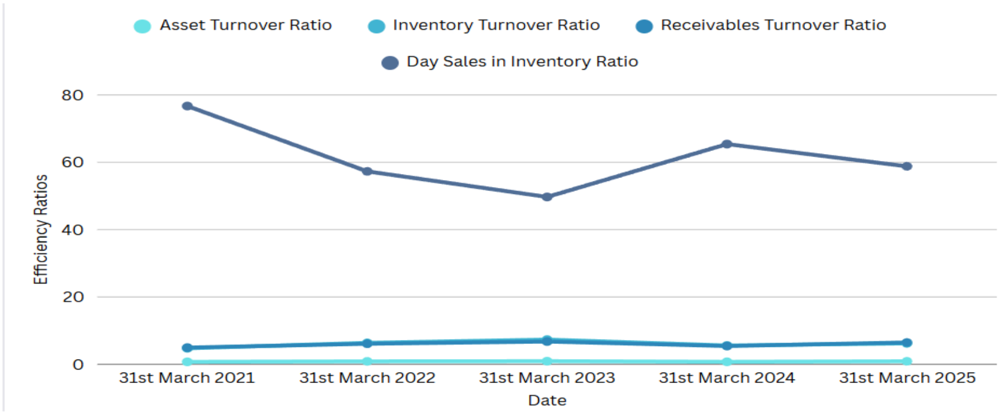
1. **Current Ratio:**
    - The current ratio declines steadily between March 2021 and March 2023, reflecting the decrease in the ability of the company to settle short-term obligations using short-term assets. Nonetheless, it remains stable from March 2023, implying that pressures in liquidity have lessened but are lower than before.
2. **Acid-Test Ratio:**
    - The acid test ratio also trends downward, indicating a decline in the immediate liquidity position of the company. There is a slight recovery in the last year, which shows some improvement in the capability to cover short-term obligations without depending on inventory.
3. **Cash Ratio and Operating Cash Flow Ratio:**
    - Both the cash ratio and operating cash flow ratio are low and relatively flat for the duration, indicating limited cash reserves and low cash flow generation from operations. This indicates persistent issues in sustaining strong liquid reserves

3.3.2 Leverage financial ratios



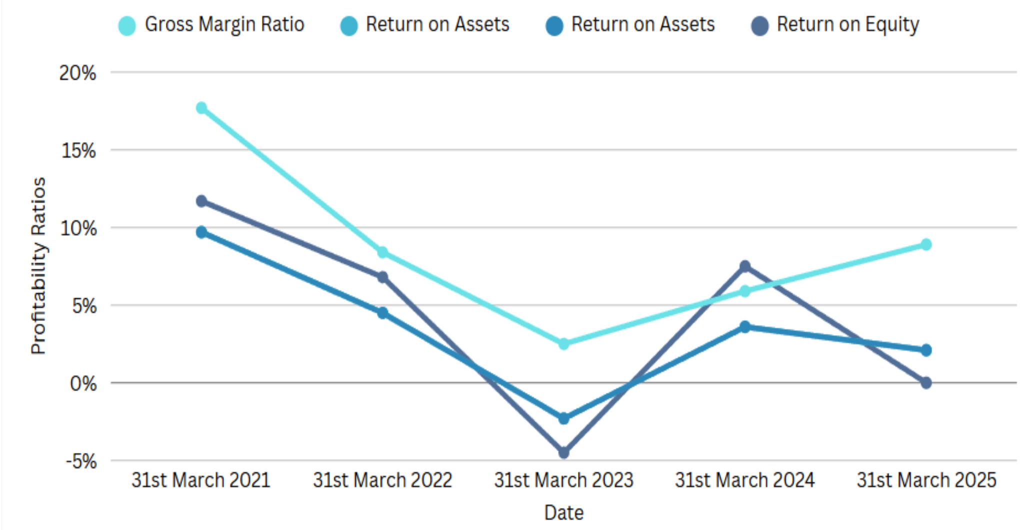
1. **Debt Ratio:**
   - The debt ratio decreases steeply from March 2021 to March 2023, showing a sharp decrease in the percentage of assets funded through debt. From then on, it levels off at a lower level, showing a more cautious attitude towards leverage.
2. **Debt-to-Equity Ratio:**
   - This ratio also displays the same declining trend, indicating less dependence on debt in relation to equity. The stabilization in subsequent years indicates an enduring trend towards equity financing.
3. **Interest Coverage Ratio:**
   - The interest coverage ratio also deteriorates steeply after March 2021, capturing difficulty in covering interest costs out of profits. The recovery thereafter suggests improved handling of interest repayment as the financial situation improves.
4. **Debt Service Coverage Ratio:**
   - The DSCR falls significantly after March 2021, showing initial trouble in servicing debt with operating income. Yet a slow healing in subsequent years reflects enhanced debt payment ability.

3.3.3 Efficiency Ratios



1. **Asset Turnover Ratio:**
    - The asset turnover ratio is quite stable with slight variations, reflecting steady effectiveness in employing assets in order to create revenue over the years.
2. **Inventory Turnover Ratio:**
    - This ratio remains very stable, implying consistent inventory management. But the low figure may suggest inefficiency in inventory flow.
3. **Receivables Turnover Ratio:**
    - The receivables turnover ratio is also always low and flat, indicating steady but low efficiency in collecting receivables from customers.
4. **Days Sales in Inventory (DSI) Ratio**
    - Day sales in inventory ratio decreases up to March 2023, which reflects the improvement in inventory turnover but increases again, reflecting that inventory is stocked for longer periods in the subsequent years, affecting working capital efficiency.

3.3.4 Profitability Ratios



1. **Gross Margin Ratio:**

- The gross margin ratio decreases sharply through March 2023, showing strain on profitability as a result of increasing costs or diminished pricing power. It then improves consistently, indicating better cost management or top-line growth.

2. **Operating Margin Ratio:**

• The operating margin ratio decreased considerably from 0.23 in FY 2020 to 0.04 in FY 2021, then rebounded to 0.23 in FY 2024, the same as its FY 2020 level.
• The recovery suggests greater operating expense control and a return to higher profitability.

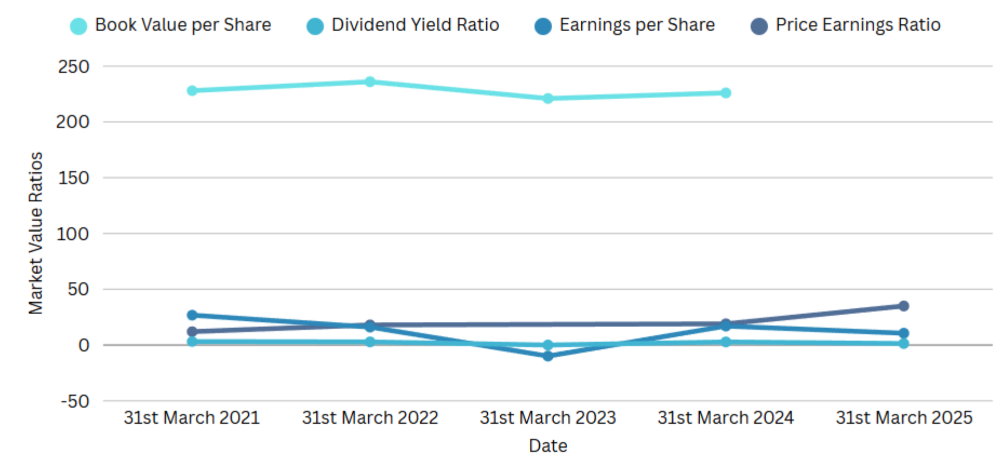
3. **Return on Assets (ROA) Ratio:**

- ROA falls to negative levels as of March 2023, indicating a net loss or lowering profitability from assets utilization. It improves in March 2024, registering very good improvement.

4. **Return on Equity (ROE) Ratio:**

- ROE also reflects the trend in ROA, falling negative by March 2023 before it starts rising again, though it falls once more by March 2025. This reflects persistent volatility in the firm's return-generation capability for shareholders

3.3.5 Market Value Ratios



1. **Book Value per Share Ratio:**
    - The book value per share is high throughout the period, though it slightly rises from March 2021 to March 2022, slightly falls in March 2023, and then recovers by March 2025. This suggests that the net asset value of the company corresponding to every share has remained stable, which shows a strong equity base and stable shareholder value.
2. **Dividend Yield Ratio:**
    - The dividend yield ratio remains very low and near flat for all years, implying that the firm has either been paying minimal dividend amounts or that its dividends have not fluctuated much compared to its share price. This might imply a strategy of retaining earnings for reinvestment or little profitability available for distribution.
3. **Earnings per Share (EPS) Ratio:**
    - EPS indicates stability from March 2021 to March 2022, followed by a steep drop into negative values in March 2023. There is some recovery in EPS after March 2023 but at relatively lower levels compared to previous years. This pattern suggests a phase of losses or lowered profitability, with improvement thereafter, and hence points towards volatility in the earnings performance of the company.
4. **Price-to-Earnings (P/E) Ratio:**
    - The price earnings ratio is positive and fairly high during March 2021 and March 2022, becomes strongly negative in March 2023 (corresponding to negative EPS), picks up again, and increases heavily by March 2025. The negative P/E ratio for

2023 indicates a year of net losses, and the increase thereafter points towards a reversal to profitability as well as enhancing market expectations towards future earnings.

Final Economic Inference

Over the past five years, the company has made strides in **reducing debt** and **improving liquidity**, signaling a more cautious financial approach. However, **operational inefficiencies** persist, as shown by low inventory and receivables turnover, which affects overall performance.

While **profitability has recovered**, with better **gross margins** and operational control, **profit volatility** remains a concern, especially with fluctuating returns on assets (ROA) and equity (ROE). The **book value per share** indicates a strong equity base, but the **low dividend yield** suggests limited profitability for distribution.

The company is **stabilizing**, but to ensure long-term success, it must focus on **improving operational efficiency** and **consistent profitability** while maintaining prudent financial management.

4.1 Introduction

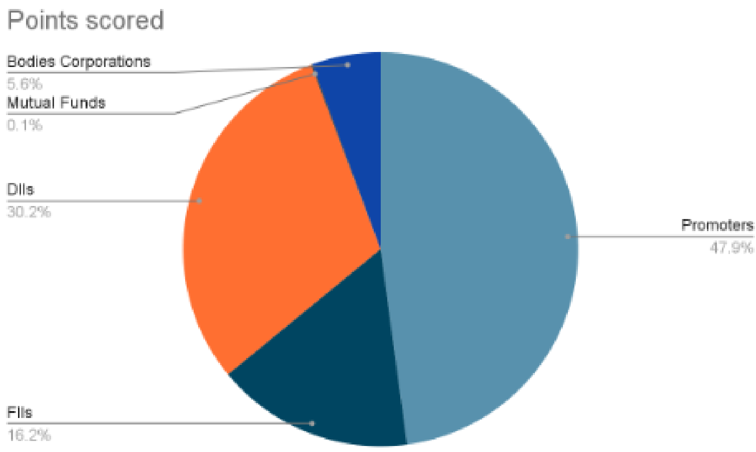
4.1.1. Nature of Business:

Ashapura Minechem Limited is a prominent Indian multinational Mineral Production & Processing company. They specialize in the mining, processing, and trading of industrial minerals. Established in 1960 and headquartered in Mumbai, Maharashtra, the company operates several manufacturing plants in India, notably in Gujarat, Kerala, and Andhra Pradesh, where it processes minerals like kaolin, bauxite, and bentonite. Their client base includes industrial giants, infrastructure developers, manufacturers, energy companies, and even governments looking for environmental solutions..

4.1.2. Public or Private ownership:

Ashapura Minechem Ltd is a publicly listed company on Indian stock exchanges, which has a diverse ownership structure:

- Indian Promoters : Holds approximately 47.7% of shareholding with Ashapura Industrial Finance Ltd. – 17.75%,Chetan R. Shah – 14.2%,Dina Shah – 9.63%,Manan Shah – 4.35% having a major percentage of the shares.
- FIIs : Foreign Institutional Investors account for approximately 16.14% of shareholding.
- DIIs : Domestic Institutional Investors(Mutual Funds) account for approximately 0.12% of shareholding.
- General Public & Non-Institutional Investors : Holds approximately 36.14% of shareholding with Individual Shareholders-29.30%,Bodies Corporate:-5.60% and Non-Resident Indians (NRIs):-1.80%.



4.1.3. Founding and Circumstances:

Ashapura Minechem Ltd. was founded in **1982** in **Mumbai, India**, during a time when the country was witnessing rapid growth in infrastructure, industry, and exports. Recognizing the increasing demand for industrial minerals, **Mr. Navnitlal R. Shah** established the company to tap into India's rich natural resources, particularly in regions like Gujarat. Initially focused on mining and processing bentonite and bauxite, the company quickly gained prominence for its quality and scale. In 1993, Ashapura went public, reflecting its ambitions for wider market reach and operational expansion. Over the years, the company diversified its offerings and built a global presence, becoming a key player in the industrial minerals sector across more than 70 countries.

4.1.4 Overall Greatness of the Company:

- Ashapura Minechem Ltd. has grown into one of India's leading names in the **mining and mineral processing industry**, known for its innovation, global outlook, and commitment to sustainability. It has pioneered value-added solutions such as **bleaching clays, clay catalysts, geosynthetic clay liners**, and **refractory materials**, serving diverse sectors including oil & gas, environmental engineering, construction, and agriculture. With a strong focus on R&D, infrastructure, and export capabilities, the company has established itself as a reliable and forward-thinking partner in the industrial supply chain.

- While Ashapura's journey has seen impressive growth, it hasn't been without challenges. The company has navigated through fluctuations in global commodity markets, regulatory changes, and operational complexities in international ventures. Despite these hurdles, Ashapura has consistently demonstrated resilience, adaptability, and a long-term vision—qualities that continue to strengthen its position in a highly competitive and resource-driven global market.

4.2 Ratio Analysis

4.2.1. Liquidity Ratios

Year	Current Ratio	Acid-Test Ratio	Cash Ratio	Operating Cash Flow Ratio
31st March 2021	1.16	0.34	0.05	-0.06
31st March 2022	1.14	0.30	0.03	0.08
31st March 2023	1.24	0.39	0.05	0.05
31st March 2024	1.19	0.27	0.09	0.08
31st March 2025	1.16	0.36	0.08	0.04
Average	1.18	0.33	0.06	0.04
Max	1.24	0.39	0.09	0.08
Min	1.14	0.27	0.03	-0.06

4.2.2. Leverage Ratios

Year	Debt Ratio	Debt-to-Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio
31st March 2021	0.2975	0.1506	1.33	2.18
31st March 2022	0.2638	0.12273	0.74	1.24

31st March 2023	0.25	0.11533	1.55	2.71
31st March 2024	0.2971	0.10723	2.40	3.53
31st March 2025	0.3058	0.11137	2.33	4.05
Average	0.2828	121.94	1.67	2.74
Max	13.87	48.10	22.11	13.05
Min	7.81	32.38	8.09	6.89

4.2.3.Efficiency Ratios

Year	Asset Turnover Ratio	Inventory Turnover Ratio	Receivables Turnover Ratio	Days Sales in Inventory Ratio
31st March 2021	0.57	1.41	4.85	75.22
31st March 2022	0.55	1.30	4.27	85.52
31st March 2023	0.67	1.27	4.58	79.76
31st March 2024	0.84	1.00	7.00	52.31
31st March 2025	0.72	0.95	5.21	70.2
Average	0.67	1.19	5.18	72.61
Max	0.84	1.41	7.00	85.52

Min	0.55	0.95	4.27	52.31

4.2.4.Profitability Ratios

Year	Gross Margin Ratio	Operating Margin Ratio	Return on Assets (ROA)	Return on Equity (ROE)
31st March 2020	0.78	6.11	4.32	0.20
31st March 2021	0.79	3.23	3.72	0.17
31st March 2022	0.76	5.46	4.29	0.18
31st March 2023	0.81	6.31	9.05	0.31
31st March 2024	0.80	7.35	7.35	0.25
Average	0.79	5.69	5.75	0.22
Max	0.81	7.35	9.05	0.31
Min	0.76	3.23	3.72	0.17

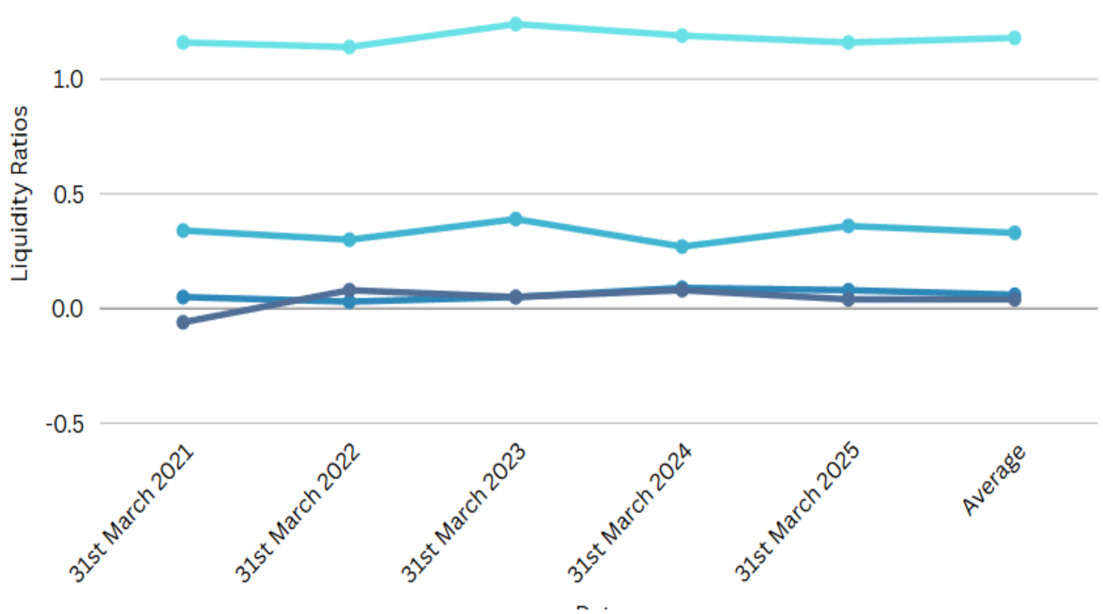
4.2.5Market Value Ratios

Year	Book Value per Share	Dividend Yield Ratio	Earnings per Share (EPS)	Price-Earnings Ratio (P/E)
31st March 2020	49.33	0	10.06	10.39
31st March 2021	56.97	0	9.46	13.50
31st March 2022	72.66	0	12.79	8.76
31st March 2023	101.66	0	31.37	11.98
31st March 2024	110.95	0	30.00	10.24

Average	78.31	0	18.74	10.97
Max	110.95	0	31.37	13.5
Min	49.33	0	9.46	8.76

4.3 Trend Analysis

4.3.1 Liquidity Ratios



1. **Current Ratio**
    - This ratio measures the company's ability to pay its short-term liabilities with its short-term assets. The graph shows the current ratio consistently above 1.0, indicating a comfortable liquidity position throughout the period. There are minor fluctuations, but the ratio remains stable, reflecting reliable short-term financial health.

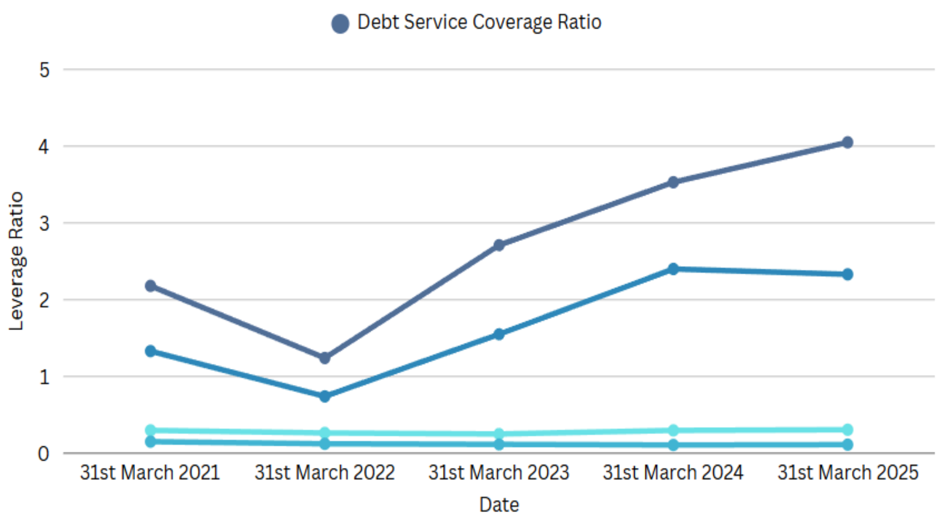
2. **Acid-Test Ratio**
    - Also known as the quick ratio, this metric excludes inventory from current assets to provide a stricter measure of liquidity. It is lower than the current ratio

but follows a similar stable trend, suggesting the company maintains adequate liquid assets to cover immediate obligations.

3. **Cash Ratio**
    - The cash ratio assesses the company's ability to pay off short-term liabilities using only cash and cash equivalents. This ratio is very low across all years, indicating that while the company has enough current assets overall, its cash reserves are limited relative to its short-term debts.

4. **Operating Cash Flow Ratio**
    - This ratio evaluates how well current liabilities are covered by cash flows generated from operations. It remains low and stable, suggesting that operational cash generation is steady but not substantial, highlighting a reliance on non-cash current assets for liquidity.

4.3.2 Leverage Ratios



1.Debt Ratio (in %)

- The debt ratio shows the proportion of assets financed by debt. It remains low and steady, indicating a conservative approach to borrowing and low financial risk from excessive leverage.

2. Debt-to-Equity Ratio (in %)

- his ratio compares total debt to shareholders' equity. The company maintains a low debt-to-equity ratio, reflecting a preference for equity financing and a strong capital structure with minimal reliance on debt.

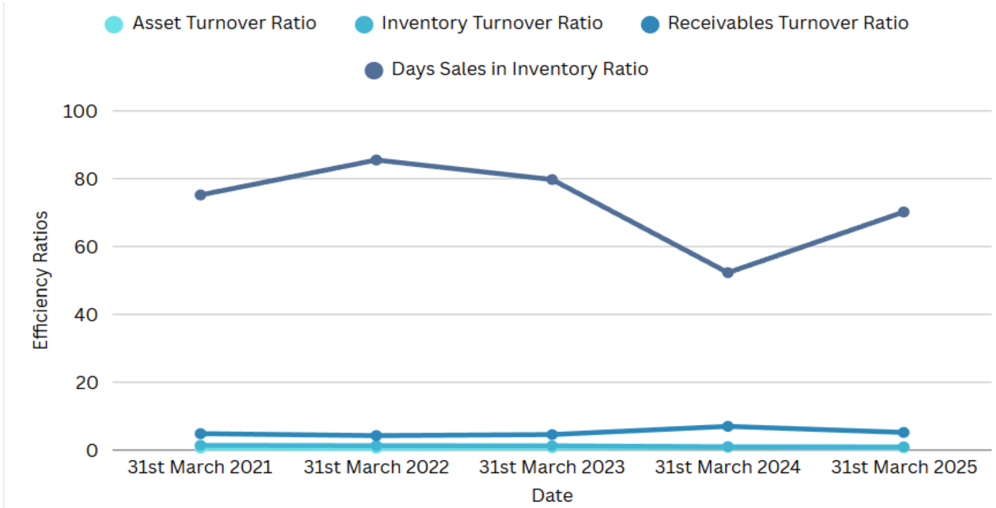
3. Interest Coverage Ratio

- This ratio measures the company's ability to cover interest expenses with earnings before interest and taxes. The graph shows a stable and positive trend, indicating the company can comfortably meet its interest obligations from operational profits.

4. Debt Service Coverage Ratio

- DSCR reflects the company's ability to service its debt (principal and interest) from operating income. The ratio increases significantly over the period, demonstrating improving financial strength and a growing capacity to meet debt commitments.

4.3.3 Efficiency Ratios



1. Asset Turnover Ratio

- This ratio measures how efficiently the company uses its assets to generate revenue. The graph indicates a stable and consistent trend, suggesting effective asset utilization.

2. Inventory Turnover Ratio

- This ratio shows how often inventory is sold and replaced. It remains steady but relatively low, pointing to moderate efficiency in inventory management.

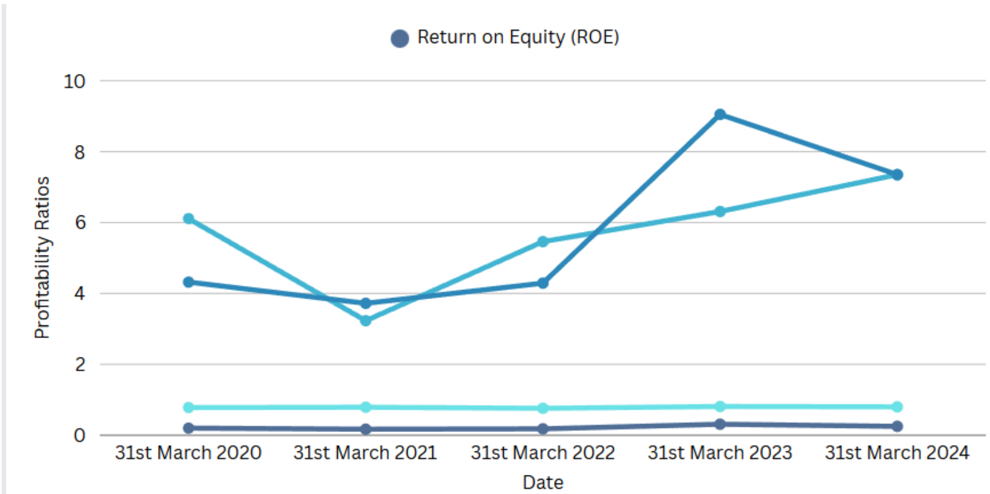
3. Receivables Turnover Ratio

- This ratio evaluates how quickly the company collects receivables from customers. The trend is flat and low, indicating consistent but potentially improvable receivables collection.

4. Days Sales In Inventory Ratio

- This ratio represents the average number of days inventory is held before being sold. The graph shows fluctuations, with an initial increase followed by a decrease and then a rise again, reflecting changing inventory management efficiency over the years.

4.3.4 Profitability Ratios



1.Gross Margin Ratio

- This ratio measures the percentage of revenue remaining after deducting the cost of goods sold. The graph shows a stable gross margin, indicating consistent control over production costs relative to sales

2. Operating Margin Ratio

- This ratio reflects operating profit as a percentage of sales. It is lower than the gross margin, as expected, due to operating expenses, but remains steady, suggesting stable operational efficiency.

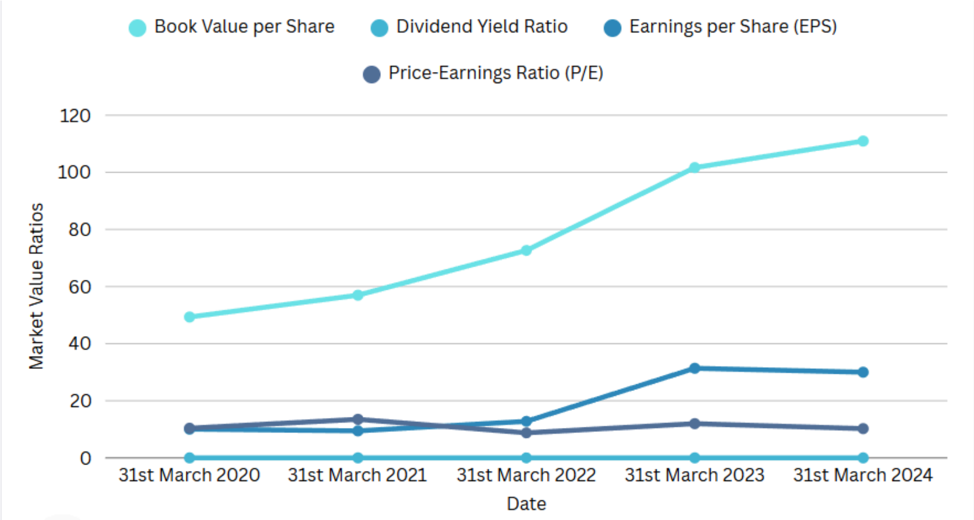
3. Return on Assets Ratio

- ROA measures how effectively the company uses its assets to generate net income. The ratio is positive and stable, indicating steady profitability from asset utilization.

4. Return on Equity Ratio

- ROE assesses the return generated on shareholders' equity. The graph shows some volatility, with a sharp peak and subsequent decline, indicating fluctuations in profitability relative to equity, possibly due to changes in net income or equity base.

4.3.5 Market Value Ratios



1.Book Value per Share

- This ratio shows a consistent and significant increase from March 2020 to March 2024, indicating a steady growth in the company's net asset value attributable to each share. The upward trend reflects strengthening equity and enhanced shareholder value over time.

2. Dividend Yield Ratio

- The dividend yield ratio remains nearly flat and close to zero throughout the period, suggesting that the company either pays minimal dividends or its dividend policy has not changed significantly relative to its share price. This may indicate a focus on reinvestment or limited distributable profits.

3. Earnings per Share (EPS)

- EPS rises gradually from March 2020, peaks around March 2023, and then slightly declines by March 2024. This pattern suggests improving profitability up to 2023, followed by a modest reduction in earnings in the latest year.

4. Price-Earnings (P/E) Ratio

- The P/E ratio fluctuates within a moderate range, peaking in March 2023 and then declining by March 2024. The increase suggests higher market expectations or improved profitability, while the subsequent decrease may reflect lower earnings or changing investor sentiment

Final Economic Inference

The company has maintained stable liquidity, with a conservative approach to debt management, highlighting low financial risk and growing capacity to meet debt obligations. The company's operational efficiency is consistent, though there is room for improvement in inventory management and receivables collection.

Profitability remains stable, with strong margins and consistent asset utilization (ROA). However, volatility in ROE and fluctuating market ratios reflect some profitability fluctuations, which may affect investor sentiment. The company's increasing book value per share shows strong equity growth, though dividends remain minimal, suggesting a focus on reinvestment.

Overall, the company demonstrates solid financial stability, but profitability consistency and market sentiment will need to be carefully managed for continued growth and investor confidence.

AGL®

Tiles · Marble · Quartz · Bathware

Asian Granito India Ltd (AsianTiles)

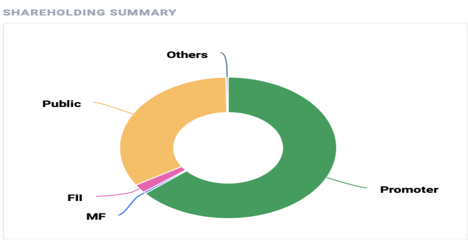
5.1 INTRODUCTION

5.1.1 Nature of Business:

Asian Granito India Ltd (AGL), or AsianTiles, is a prime Indian producer in the building materials industry. The company deals in ceramic and vitrified tiles, engineered marble, quartz, bath ware, and construction chemicals. AGL has business in two major segments: Tiles & Others, and Quartz & Marbles . Its wide range of products ranges from glaze vitrified tiles, floor & wall tiles, and outdoor tiles to composite marble, quartz, sanitaryware, and faucets and many more>

5.1.2 Public or Private Ownership

Asian Granito India Ltd is a listed public limited company on NSE and BSE. It has promoters, institutional, and retail investors holding its shares. As a public company, it is required to abide by SEBI regulations, be transparent, and make financial results public from time to time so that it remains accountable and accessible to capital markets too remains accountable and accessible to capital markets.



5.1.3 Founding and Circumstances

AGL was set up in 1995, initially as Karnavati Fincap Pvt. Ltd. The company diversified into the manufacturing of tiles in the year 2002 after a series of business shifts and acquisitions before finally adopting its current name. AGL grew gradually for more than two decades, enhancing its manufacturing capacity and array of products to become one of the top ceramic companies in India.

5.1.4 Overall Greatness

Asian Granito India Ltd is among the four leading ceramic tile companies in India and among the industry's fastest-growing firms. The company boasts an extensive domestic and international distribution network with 235 franchise showrooms and 12 company-owned display centers. AGL is famous for its innovation, product variety, and global vision, exporting its products to over 100 countries and possessing 14 plants in Gujarat.

5.2 RATIO ANALYSIS

5.2.1 Liquidity Ratios

Year	Current Ratio	Acid-Test Ratio	Cash Ratio	Operating Cash Flow Ratio
31st March 2021	1.68	0.86	0.05	0.16
31st March 2022	3.05	1.30	0.07	0.24
31st March 2023	2.63	1.17	0.08	-0.07
31st March 2024	2.56	1.00	0.08	0.04
31st March 2025	2.59	1.27	0.16	-0.10
Average	2.50	1.12	0.088	0.054
Max	3.05	1.30	0.16	0.24
Min	1.68	0.86	0.05	-0.10

5.2.2 Leverage Ratios

Year	Debt Ratio	Debt-to-Equity Ratio	Interest Coverage Ratio	Debt Service Coverage Ratio

31st March 2021	0.54	1.19	3.89	4.71
31st March 2022	0.40	0.67	4.62	5.77
31st March 2023	0.35	0.53	-2.70	-1.44
31st March 2024	0.34	0.50	1.61	3.13
31st March 2025	0.57	0.63	1.74	4.32
Average	0.44	0.70	1.832	3.29
Max	0.57	1.19	4.62	5.77
Min	0.34	0.50	-2.70	-1.44

5.2.3 Efficiency Ratios

Year	Asset Turnover Ratio	Inventory Turnover Ratio	Receivables Turnover Ratio	Days Sales in Inventory Ratio
31st March 2021	0.94	2.81	3.08	112.74
31st March 2022	1.02	3.09	3.53	104.03
31st March 2023	0.81	3.54	3.74	104.24
31st March 2024	0.80	3.74	3.72	99.22
31st March 2025	0.78	4.52	3.79	107.34
Average	0.87	3.54	3.57	105.51
Max	1.02	4.52	3.79	112.74

Min	0.78	2.81	3.08	99.22

5.2.4 Profitability Ratios

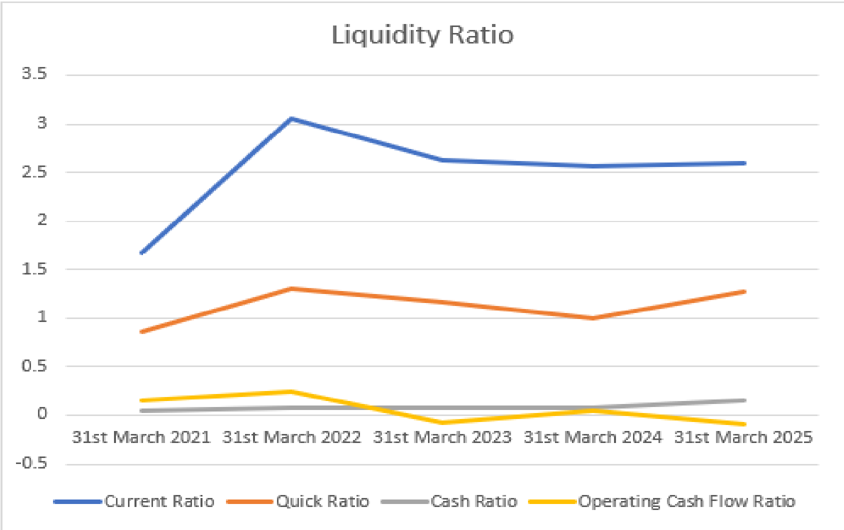
Year	Gross Margin Ratio	Operating Margin Ratio	Return on Assets (ROA)	Return on Equity (ROE)
31st March 2021	0.56	8.22	4.34	9.97
31st March 2022	0.54	5.78	6.35	11.91
31st March 2023	0.58	-6.89	-4.21	-6.69
31st March 2024	0.51	0.05	-0.64	-0.97
31st March 2025	0.52	1.00	2.23	1.59
Average	0.54	1.63	1.61	3.16
Max	0.58	8.22	4.34	11.91
Min	0.51	-6.89	-4.21	-6.69

5.2.5 Market Value Ratios

Year	Book Value per Share	Dividend Yield Ratio	Earnings per Share (EPS)	Price-Earnings Ratio (P/E)
31st March 2021	116.20	0	14.45	7.13
31st March 2022	121.01	0	15.49	7.02
31st March 2023	99.10	0	-2.08	27.6
31st March 2024	99.99	0	2.33	98.95
31st March 2025	97.50	0	1.10	60.00
Average	106.76	0	6.258	40.14
Max	154.46	0	15.49	98.95
Min	96.33	0	-2.08	7.02

5.3 Trend Analysis

5.3.1 Liquidity Ratios



- **Current Ratio:** This ratio indicates the firm's capacity to pay its short-term liabilities using its current assets. The current ratio rose consistently from March 2020 to March 2022, to a high, and then fell sharply by March 2023. This indicates that the liquidity position of the company improved up to 2022 but declined significantly in the subsequent year, perhaps due to a rise in current liabilities or a fall in current assets.

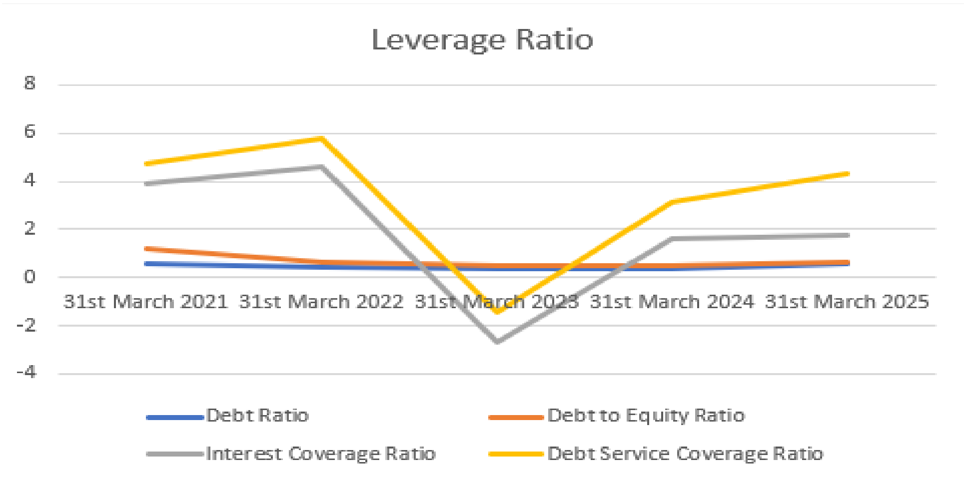
- **Cash Ratio :** The cash ratio, which emphasizes cash and cash equivalents compared to current liabilities, also has a similar trend to the current ratio and increased until March 2022 before declining. This trend suggests that the company maintained a greater reserve of cash compared to its liabilities until 2022 but may have declined thereafter or liabilities have risen.

- **Acid-Test Ratio :** The acid-test ratio, a stricter metric than the current ratio since it does not include inventory, is relatively flat throughout the period, indicating that the liquid assets of the company (excluding inventory) remained relatively stable and were not significantly influenced by other variables on the other liquidity ratios.

- **Operating Cash Flow Ratio :** This ratio expresses the company's capacity to retire short-term liabilities using cash from its core business. It exhibits high volatility, spiking very high in March 2022 before declining in March

2023. This volatility could reflect the fluctuating cash flows from operations, possibly driven by variable revenue or expenses.

5.3.2 **Leverage Ratios**



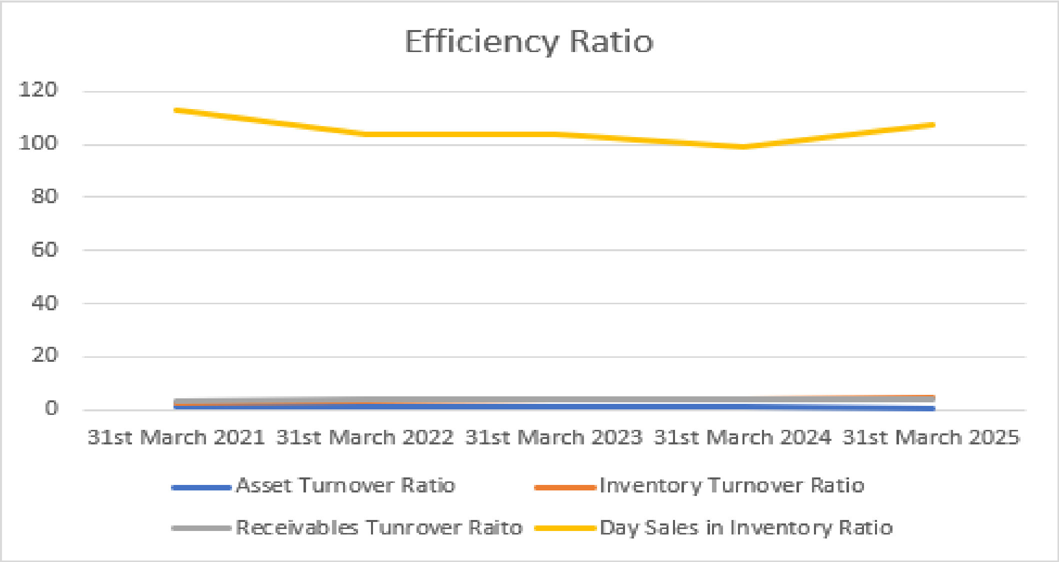
- **Debt Ratio:** The debt ratio is low and fairly stable, indicative of a prudent policy in financing with debt

- **Debt-to-Equity Ratio:** This ratio is low and consistent as well, suggesting dependence on equity as opposed to debt for financing operations

- **Interest Coverage Ratio:** The interest coverage ratio begins positive, falls deeply into negatives by March 2023, and then returns to positive, showing times of trouble covering interest costs with earnings, followed by recovery

- **Debt Service Coverage Ratio:** DSCR is the most fluctuating, reaching its highest in March 2022, dropping in March 2023, and then recovering by March 2025. This shows tremendous volatility in the firm's capacity to meet its debt obligation from operating profit, with years recently improving

5.3.3 Efficiency Ratios



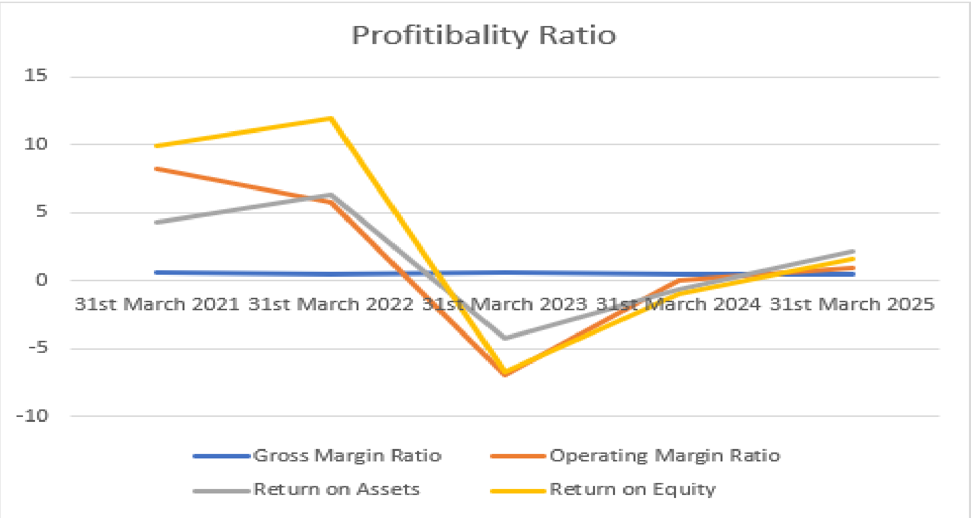
- **Asset Turnover Ratio**: Asset turnover ratio is steady and low, reflecting steady but low efficiency in the utilization of assets to achieve revenues.

- **Inventory Turnover Ratio:** This ratio also remains constant and low, implying consistent but not very effective inventory management

- **Receivables Turnover Ratio:** The receivables turnover ratio is level and low, indicating a steady but sluggish collection of receivables

- **Days Sales in Inventory Ratio:** This is a high ratio and indicates a slight reduction until March 2024 before increasing again in March 2025, which means that inventory is held for a long time, with some improvement followed by a return to longer holding times

5.3.4 Profitability Ratio



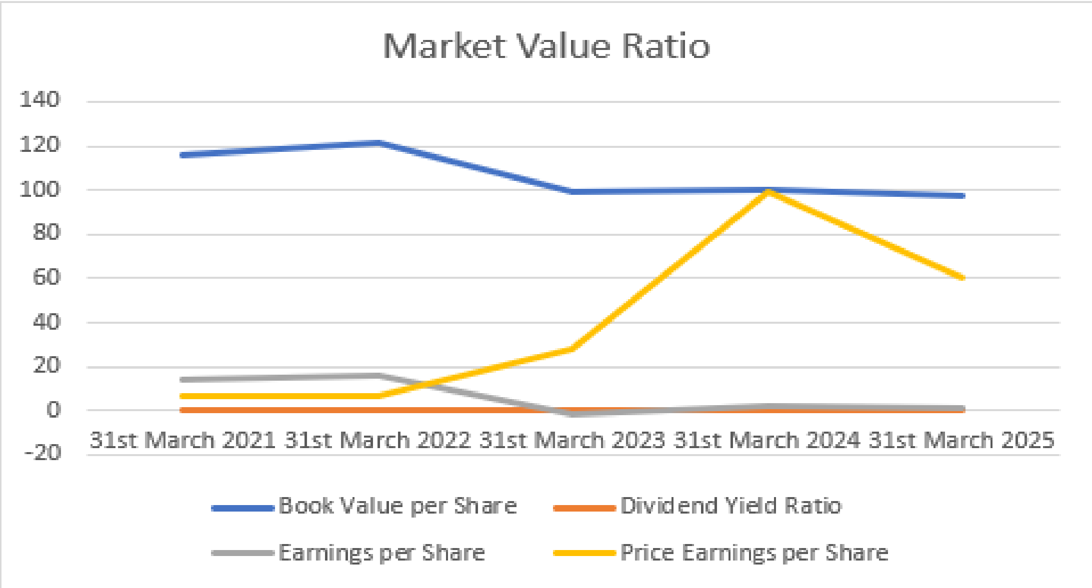
- **Gross Margin Ratio:**
  The Gross Margin Ratio remains stable across the years, indicating consistent control over production cost relative to revenue.

- **Operating Margin Ratio:**
  Operating Margin Ratio starts positive, dips sharply into negative territory by March 2023, and then recovers by March 2025. The volatility highlights period of operational challenges and subsequent improvement in efficiency.

- **Return on Assets (ROA):**
  Return on Assets follows a similar trend to the operating margin, dropping into negative values in March 2023 before recovering, indicating fluctuations in the company's ability to generate profit from its assets.

- **Return on Equity (ROE):**
  ROE is the most unstable, reaching a high in March 2022, dropping to a large negative in March 2023, and then recovering by March 2025. This indicates times of both high and low profitability compared to shareholders' equity

5.3.5 Market Value Ratios



- **Book Value per Share (Dark blue line)**: This is the ratio of the company's net asset value per share. The book value per share begins high in 2020, then decreases substantially by March 2021, picks up marginally, peaks in March 2023, and falls again by March 2024. This volatility may be a result of variations in the company's retained earnings, asset valuations, or repurchase of shares over time.

- **Dividend Yield Ratio (Orange line):** This ratio is close to zero and very stable throughout the period observed, indicating that the dividend payments of the company in proportion to the stock price have not significantly altered. A low dividend yield could imply a high stock price in terms of dividends or minimum dividend payment policy, indicating possibly that the company is re-investing earnings instead of paying them to the shareholders.

- **Earnings per Share (EPS) (Green line):** EPS registers marginal growth during the period, which indicates a consistent improvement in earnings or profitability. The rise, however, is quite modest, which might point to the fact that even though the firm is making higher profits, the rate of growth is sluggish.

- **Price-Earnings (P/E) Ratio (Light blue line):** The P/E ratio steadily rises in the period, suggesting investors are prepared to pay higher amounts for every unit of earnings in the future. This may reflect optimism about the company's future growth, though in high P/E ratio cases, it can also mean overvaluation if the growth in earnings fails to materialize.

Final Economic Inference

The company shows strong financial stability, with solid liquidity, low debt reliance, and a conservative approach to borrowing, which reduces financial risk. The operating and profitability ratios demonstrate significant volatility, especially in 2023, but recovery signs are present, indicating improved efficiency and profitability post-2023. Despite some operational challenges, the company’s modest growth in EPS and the rising P/E ratio suggest optimism from investors, reflecting confidence in future growth potential. The low dividend yield implies a strategy focused on reinvesting earnings rather than paying them out, signaling long-term growth intentions. Overall, while the company is managing its debt well, there are opportunities to enhance operational efficiency to sustain growth**.**

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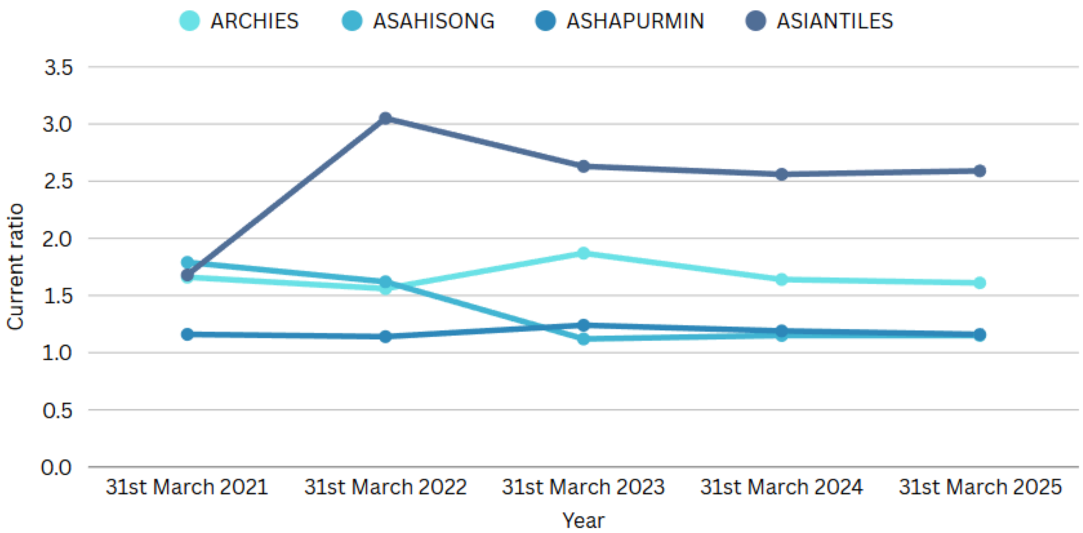
Task 2 - Comparative Analysis of the 4 companies:

6.1 Current Ratio

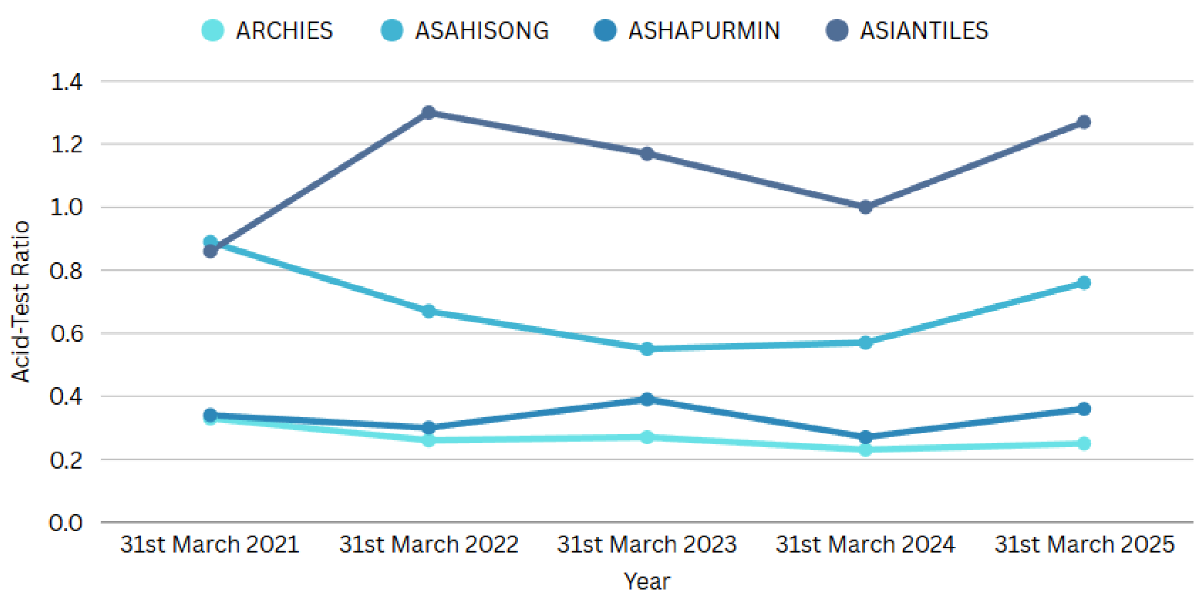
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	1.66	1.79	1.16	1.68
31st March 2022	1.56	1.62	1.14	3.05
31st March 2023	1.87	1.12	1.24	2.63
31st March 2024	1.64	1.15	1.19	2.56
31st March 2025	1.61	1.15	1.16	2.59



ASIAN TILES consistently has the best current ratio, reaching a high of more than 3.0 in 2022 and remaining robust, showing superb short-term liquidity. ASHAPURMIN likewise has a dramatic peak in 2022 but then dips and levels off. ARCHIES and ASAHISONG have stable and moderate current ratios throughout, showing consistent but less solid liquidity than ASIAN TILES

6.2 Acid-Test Ratio

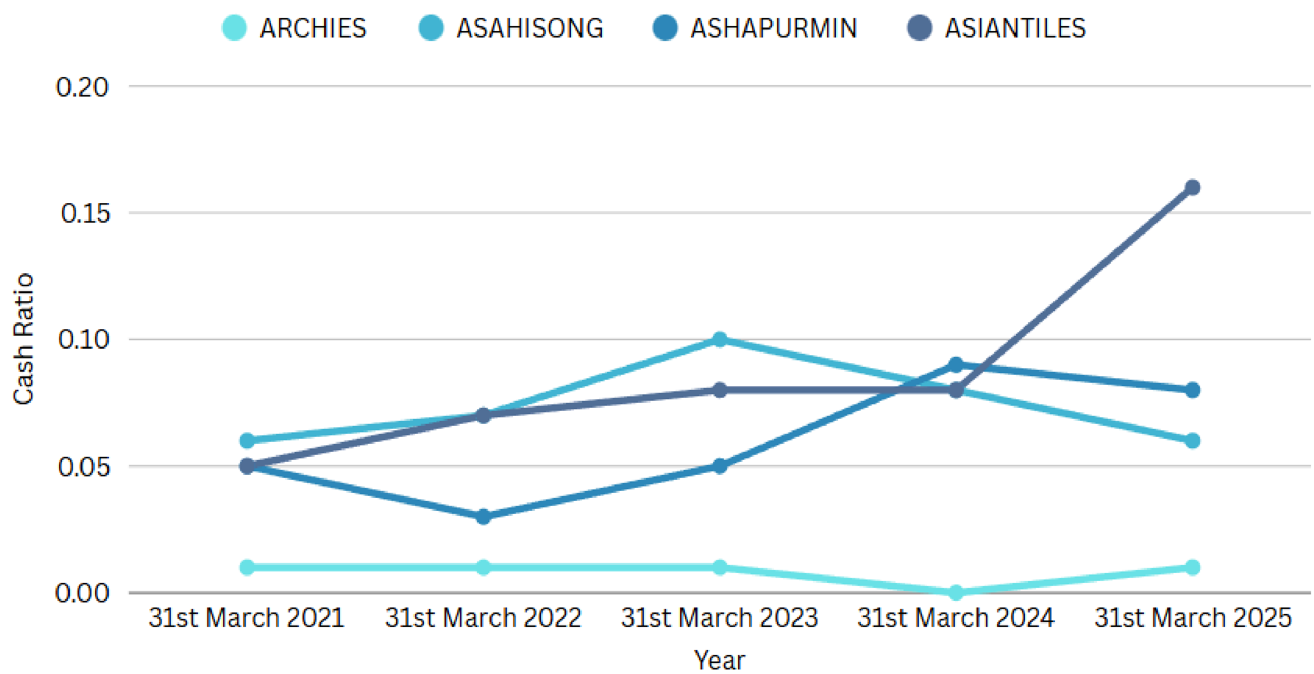
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.33	0.89	0.34	0.86
31st March 2022	0.26	0.67	0.30	1.30
31st March 2023	0.27	0.55	0.39	1.17
31st March 2024	0.23	0.57	0.27	1.00
31st March 2025	0.25	0.76	0.36	1.27



ASIAN TILES shows the highest volatility, reaching a high of 2022 but falling into the negative zone by 2025, indicating uneven operating cash flows. ARCHIES has a consistent and moderate operating cash flow ratio, reflecting steady but not exceptional cash generation. ASAHISONG and ASHAPURMIN are volatile, with ASHAPURMIN having the widest fluctuations, depicting uneven operational effectiveness and cash management

6.3 Cash Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.01	0.06	0.05	0.05
31st March 2022	0.01	0.07	0.03	0.07
31st March 2023	0.01	0.1	0.05	0.08
31st March 2024	0	0.08	0.09	0.08
31st March 2025	0.01	0.06	0.08	0.16

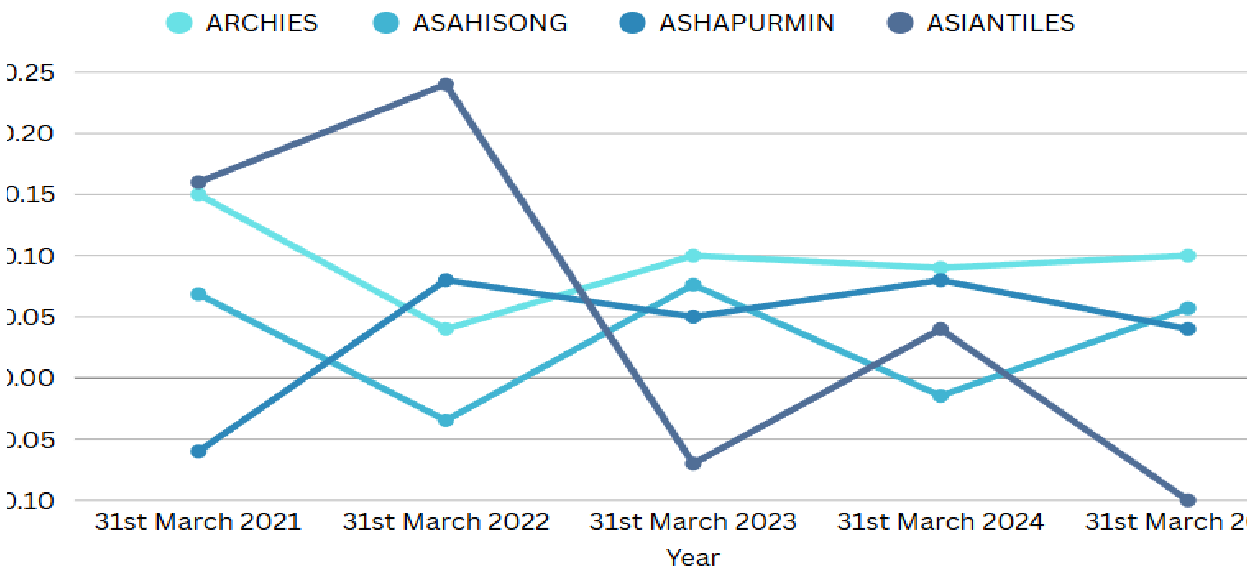


ASIAN TILES has the highest and most unstable acid-test ratio with a peak in 2022 and subsequent recovery by 2025, suggesting high but unstable quick liquidity. ARCHIES and ASAHISONG both consistently exhibit lower acid-test ratios, with ASAHISONG exhibiting a steady improvement in recent years. ASHAPURMIN also peaks in 2023 but otherwise remains below ASIAN TILES, indicating moderate quick liquidity in general

6.4 Operating Cash Flow Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.15	0.0685	-0.06	0.16
31st March 2022	0.04	-0.0347	0.08	0.24
31st March 2023	0.1	0.0762	0.05	-0.07

31st March 2024	0.09	-0.0146	0.08	0.04
31st March 2025	0.1	0.057	0.04	-0.10

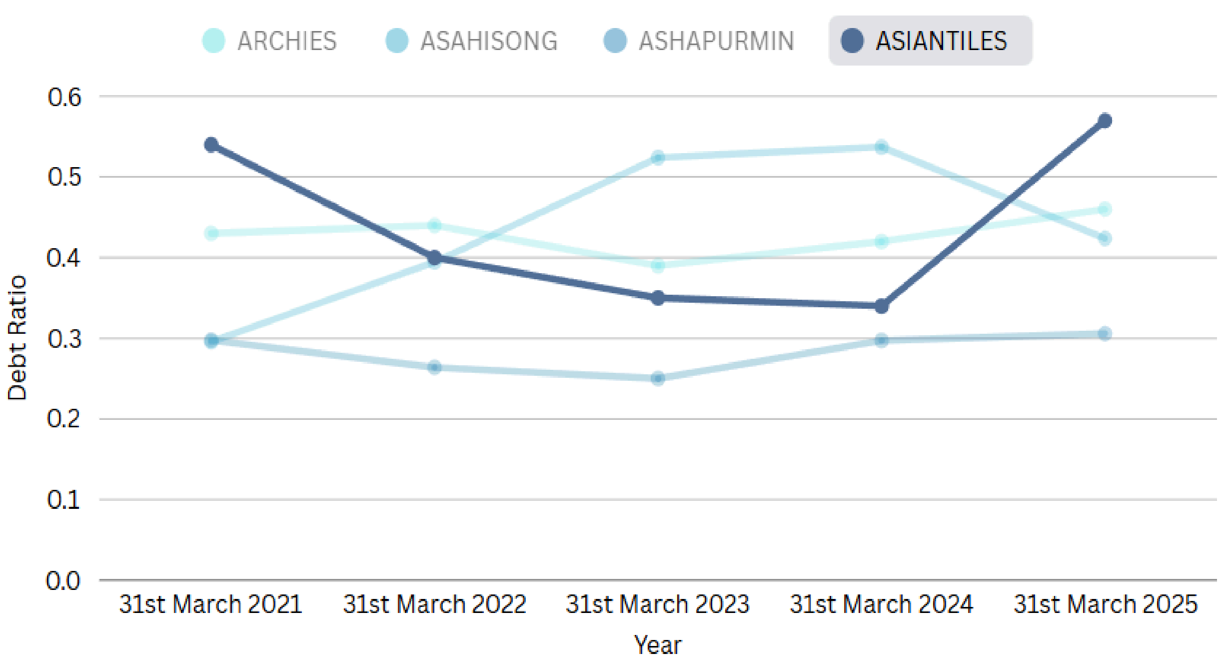


ASIAN TILES cash ratio increases steeply by 2025, indicating a high surge in cash holding and enhanced capability to settle current liabilities. ASHAPURMIN and ASAHISONG improve steadily but are at moderate levels, suggesting low cash buffer. ARCHIES always has the lowest cash ratio, which means negligible cash holdings to settle current obligations

6.5 Debt Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.43	0.2956	0.2975	0.54
31st March 2022	0.44	0.3944	0.2638	0.40
31st March 2023	0.39	0.524	0.25	0.35
31st March 2024	0.42	0.5372	0.2971	0.34

31st March 2025	0.46	0.4238	0.3058	0.57

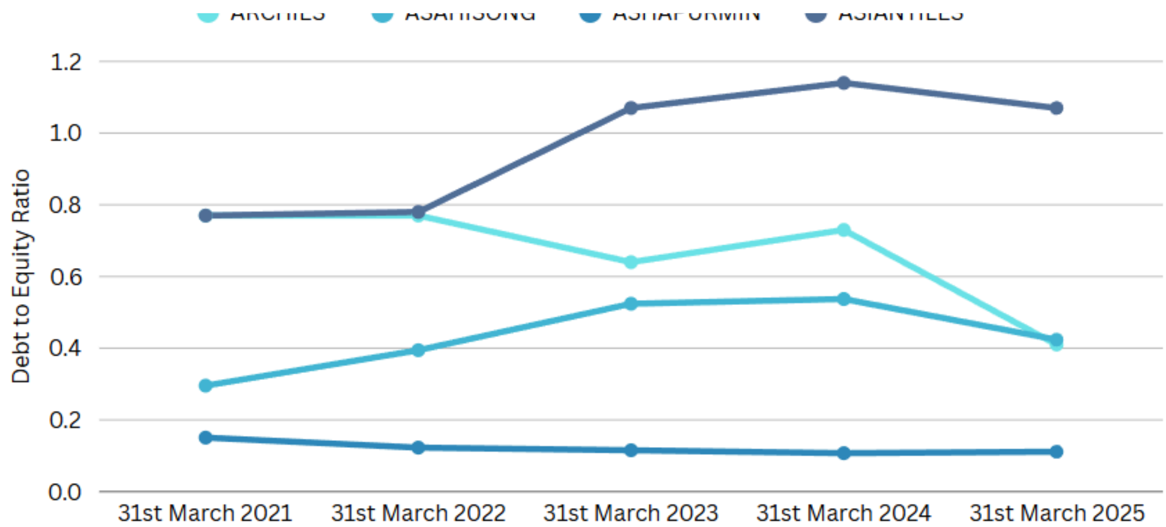


ASIANTILES debt ratio is highest and most unstable, declining until 2023 before surging sharply by 2025, signifying higher leverage. ARCHIES, ASAHISONG, and ASHAPURMIN have more stable and lower debt ratios, indicating more evened-out or conservative debt financing strategies

6.6 Debt to Equity Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.77	0.2956	0.1506	0.77
31st March 2022	0.77	0.3944	0.12273	0.78
31st March 2023	0.64	0.524	0.11533	1.07
31st March 2024	0.73	0.5372	0.10723	1.14

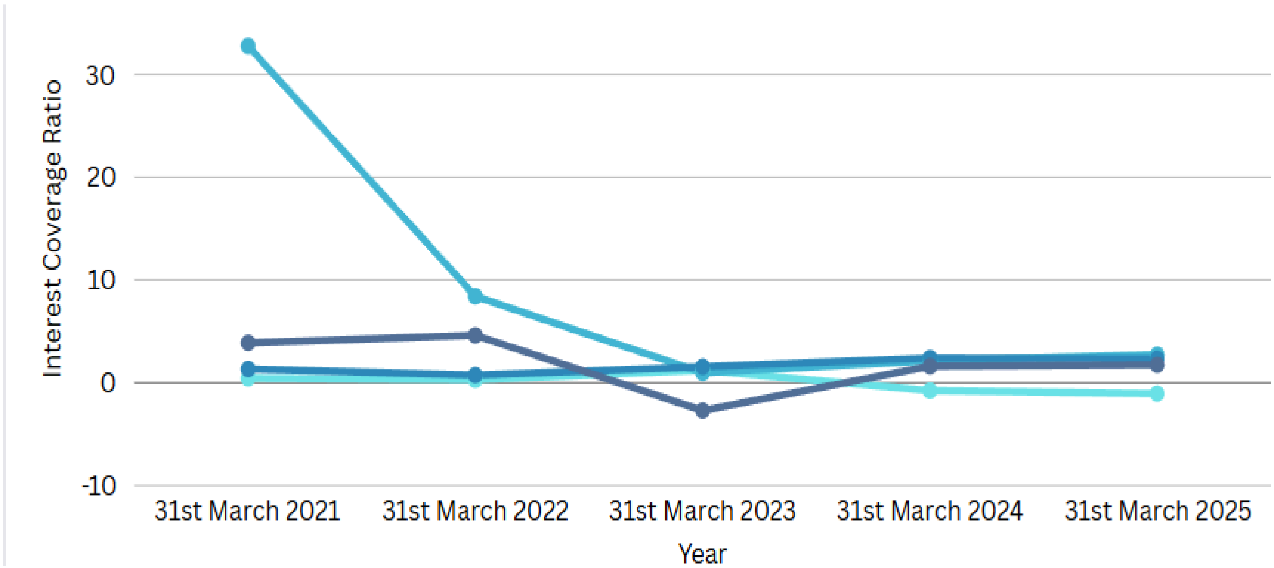
31st March 2025	0.41	0.4238	0.11137	1.07



ASHAPURMIN's debt to equity ratio increases sharply to a high of over 1.1 in 2024, reflecting mounting use of debt financing. ARCHIES declines moderately, reflecting some movement towards equity funding. ASAHISONG and ASIANTILES exhibit low and consistent ratios, indicative of conservative capital structures and minimal debt reliance.

6.7 Interest Coverage Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.44	32.78	1.33	3.89
31st March 2022	0.29	8.41	0.74	4.62
31st March 2023	1.22	0.97	1.55	-2.70
31st March 2024	-0.76	2.13	2.40	1.61
31st March 2025	-1.05	2.73	2.33	1.74



Interest Coverage Ratio determines to what extent a company is able to pay interest on debt.

GAEL's Interest Coverage Ratio rose dramatically until FY 2022 before dropping in FY 2023 and 2024. But it remains within stable levels, so it is capable of supporting outstanding debt.

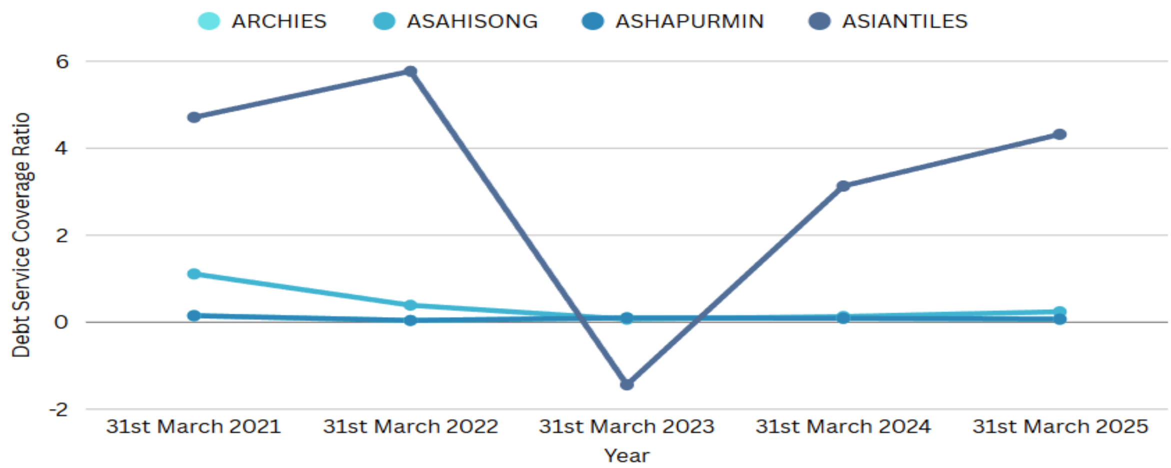
Likewise, DBCORP is firmly in stable zones, perhaps even beating GAEL soon. Although BHARATWIRE was in risky areas until FY 2022, it has made a strong recovery.

The Interest Coverage Ratios for APLLTD is very low. An Interest Coverage Ratio below 1 can mean that the company might not be able to generate sufficient cash to cover interest payments.

6.8 Debt Service Coverage Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.15	1.11	0.15	4.71
31st March 2022	0.04	0.39	0.04	5.77
31st March 2023	0.1	0.07	0.1	-1.44

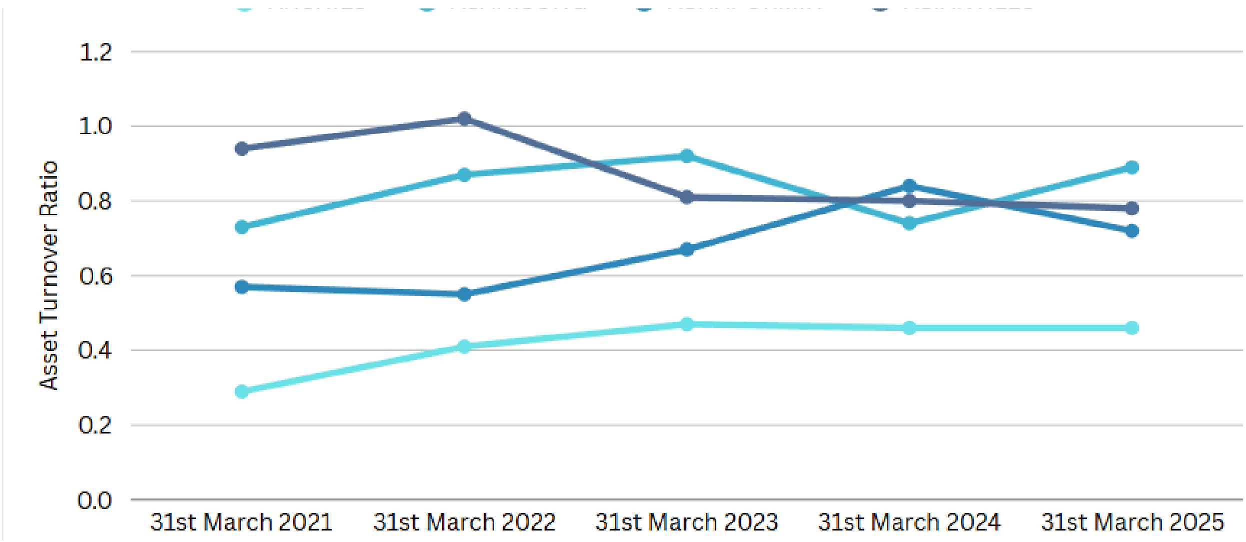
31st March 2024	0.09	0.13	0.09	3.13
31st March 2025	0.07	0.24	0.07	4.32



ASIANTILES exhibits marked volatility, a sharp fall into negative levels in 2023 followed by rebound, which can be attributed to unstable capacity to service debt. ARCHIES and ASAHISONG have low but stable DSCRs, which may imply constrained but stable debt repayment capacity. ASHAPURMIN's DSCR is close to zero, which is indicative of continued difficulties in servicing debt out of operating income

6.9 Asset Turnover Ratio

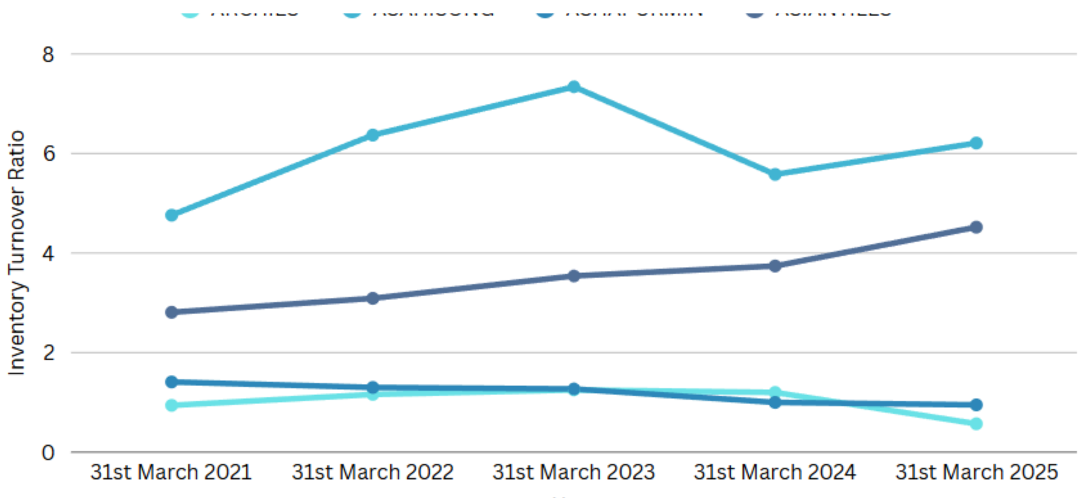
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.29	0.73	0.57	0.94
31st March 2022	0.41	0.87	0.55	1.02
31st March 2023	0.47	0.92	0.67	0.81
31st March 2024	0.46	0.74	0.84	0.80
31st March 2025	0.46	0.89	0.72	0.78



- Asset Turnover Ratio is a measure of the efficiency with which firms utilize their assets.
- APLLTD, BHARATWIRE and DBCORP have remained below 1, signifying that they cannot efficiently utilize their resources.
- GAEL has stayed well in excess of 1, which means that it has always had good asset utilization.

6.10 Inventory Turnover Ratio

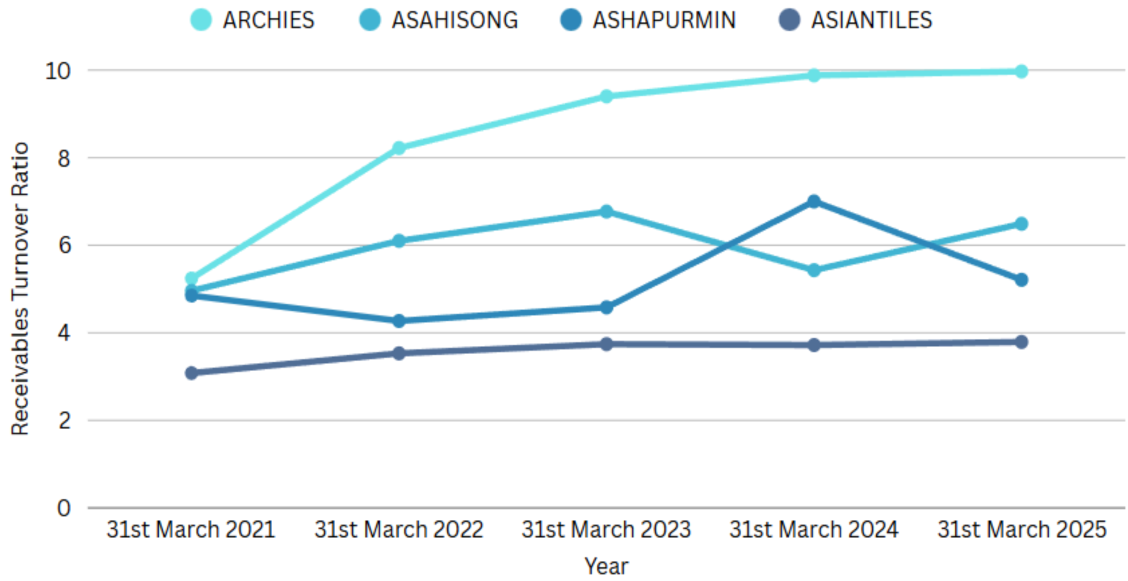
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.94	4.76	1.41	2.81
31st March 2022	1.16	6.37	1.30	3.09
31st March 2023	1.25	7.34	1.27	3.54
31st March 2024	1.2	5.58	1.00	3.74
31st March 2025	0.57	6.21	0.95	4.52



ASIANTILES beats peers with a consistently increasing inventory turnover ratio, reflecting effective inventory management and quick stock movement. ARCHIES improves until 2023 before deteriorating, while ASAHISONG and ASHAPURMIN are low and flat, reflecting slower inventory cycles and lower efficiency in inventory utilization

6.11 Receivables Turnover Ratio

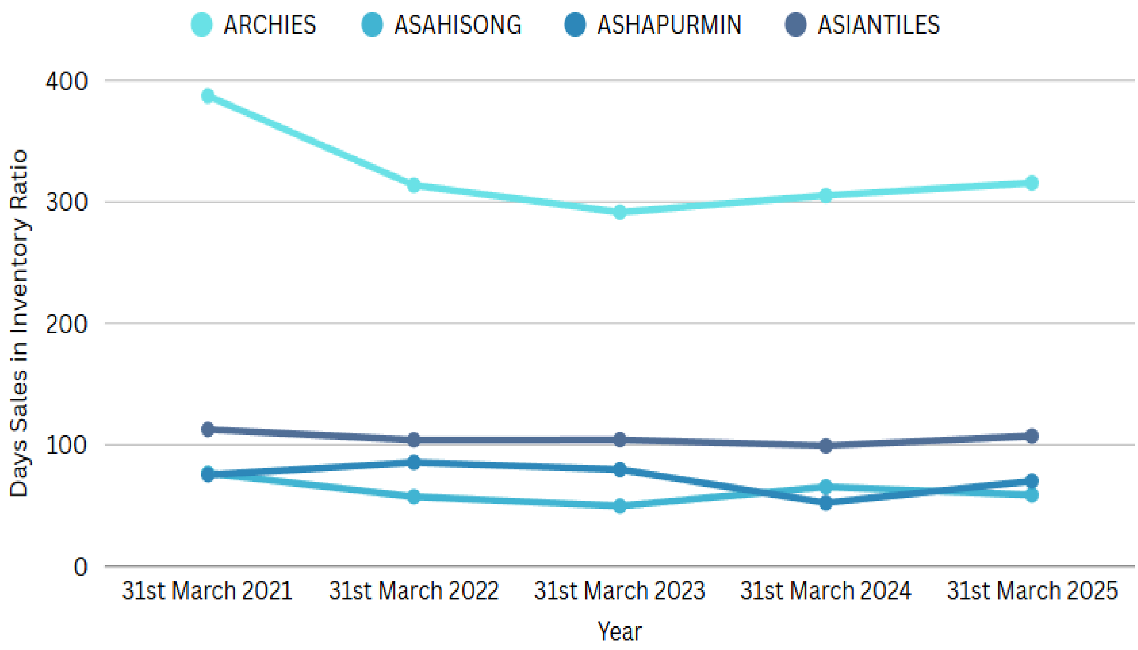
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	5.24	4.96	4.85	3.08
31st March 2022	8.22	6.10	4.27	3.53
31st March 2023	9.4	6.77	4.58	3.74
31st March 2024	9.88	5.43	7.00	3.72
31st March 2025	9.97	6.49	5.21	3.79



ARCHIES exhibits a strong and steady rise, reaching the highest receivables turnover by 2025, which signifies quick collection from customers. ASHAPURMIN and ASAHISONG exhibit moderate and changing trends, whereas ASIANTILES is the lowest and most stable, indicating slower receivables collection efficiency

6.12 Days Sales in Inventory Ratio

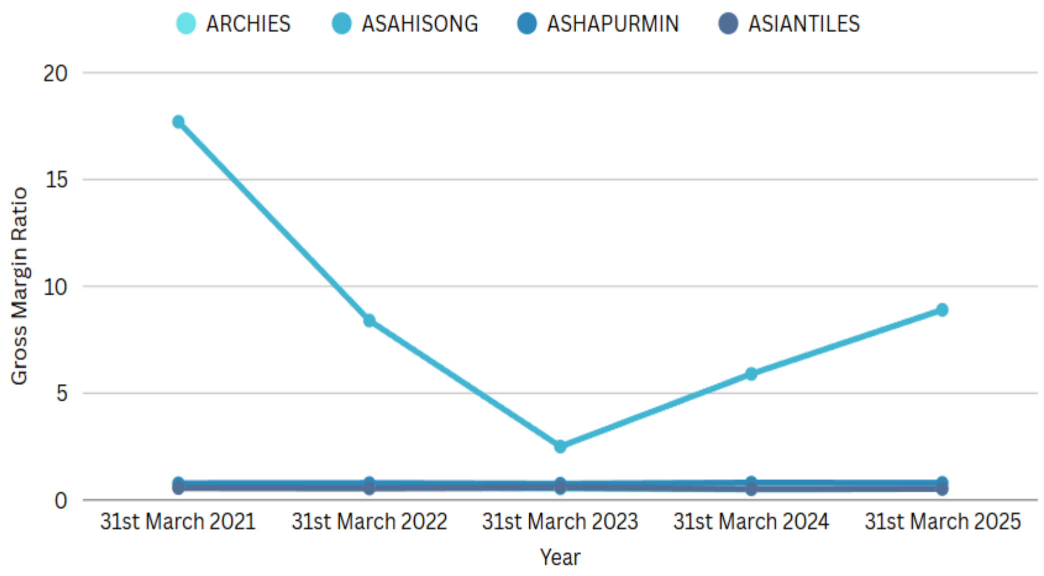
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	387.31	76.7	75.22	112.74
31st March 2022	313.83	57.3	85.52	104.03
31st March 2023	291.56	49.7	79.76	104.24
31st March 2024	305.35	65.4	52.31	99.22
31st March 2025	315.76	58.8	70.2	107.34



ARCHIES always has the highest days sales in inventory, although it reduces from 2021 and then increases marginally, which points towards slow-moving inventory. ASAHISONG, ASHAPURMIN, and ASIANTILES have much lower but comparatively stable ratios, which signify better inventory turnover and lower inventory holding times in comparison to ARCHIES

6.13 Gross Margin Ratio

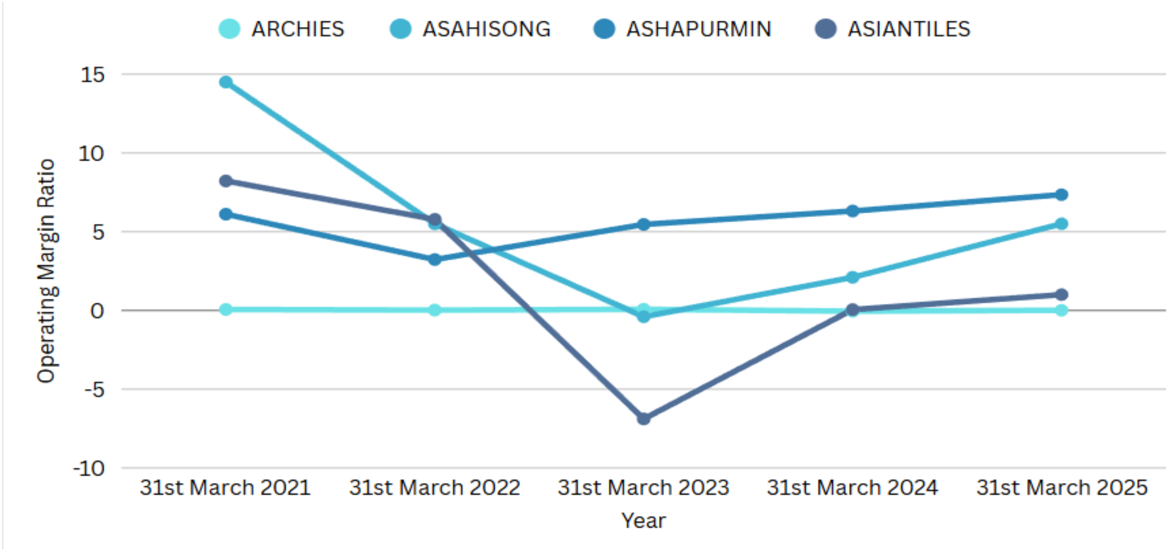
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.59	17.7	0.78	0.56
31st March 2022	0.61	8.4	0.79	0.54
31st March 2023	0.53	2.5	0.76	0.58
31st March 2024	0.5	5.9	0.81	0.51
31st March 2025	0.52	8.9	0.80	0.52



ARCHIES has the most extreme and unstable gross margin, decreasing sharply up to 2023 before improving, suggesting tremendous swings in cost control or pricing. ASAHISONG, ASHAPURMIN, and ASIANTILES all have very stable and low gross margins, which suggest low gross level profitability for these firms

6.14 Operating Margin Ratio

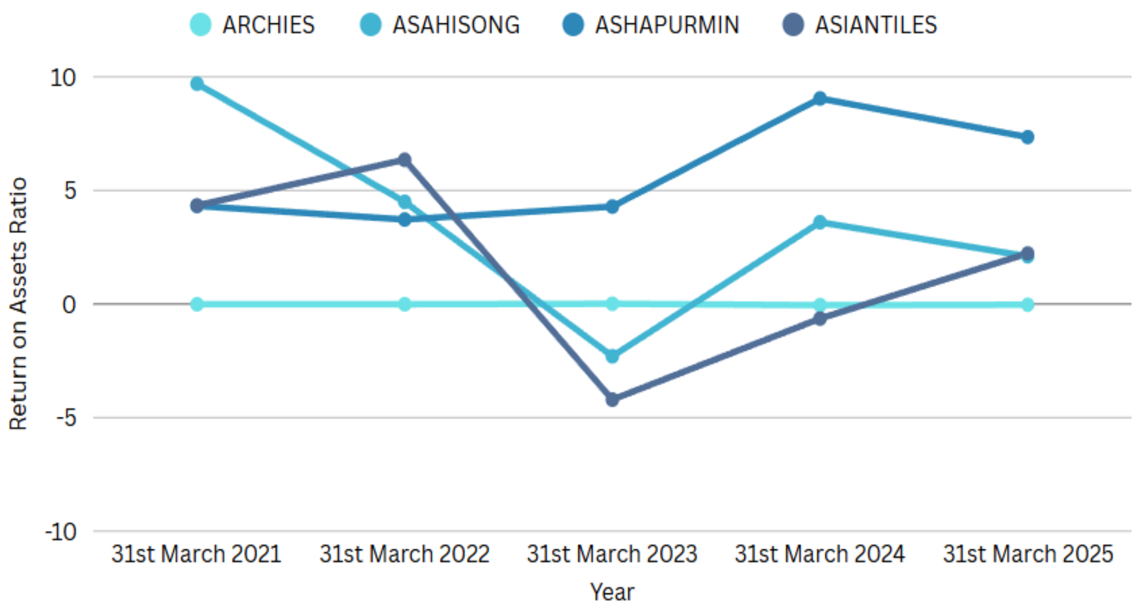
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0.06	14.5	6.11	8.22
31st March 2022	0.02	5.5	3.23	5.78
31st March 2023	0.07	-0.4	5.46	-6.89
31st March 2024	-0.05	2.1	6.31	0.05
31st March 2025	0.01	5.5	7.35	1.00



ARCHIES begins with a good operating margin that declines sharply, becoming negative by 2023 before stabilizing. ASAHISONG and ASHAPURMIN experience steady improvement after initial falls, while ASIANTILES exhibits the same trend as ASHAPURMIN, falling before stabilizing. This reflects substantial operational volatility for all companies, except ASAHISONG, which stabilizes steadily

6.15 Return on Assets Ratio

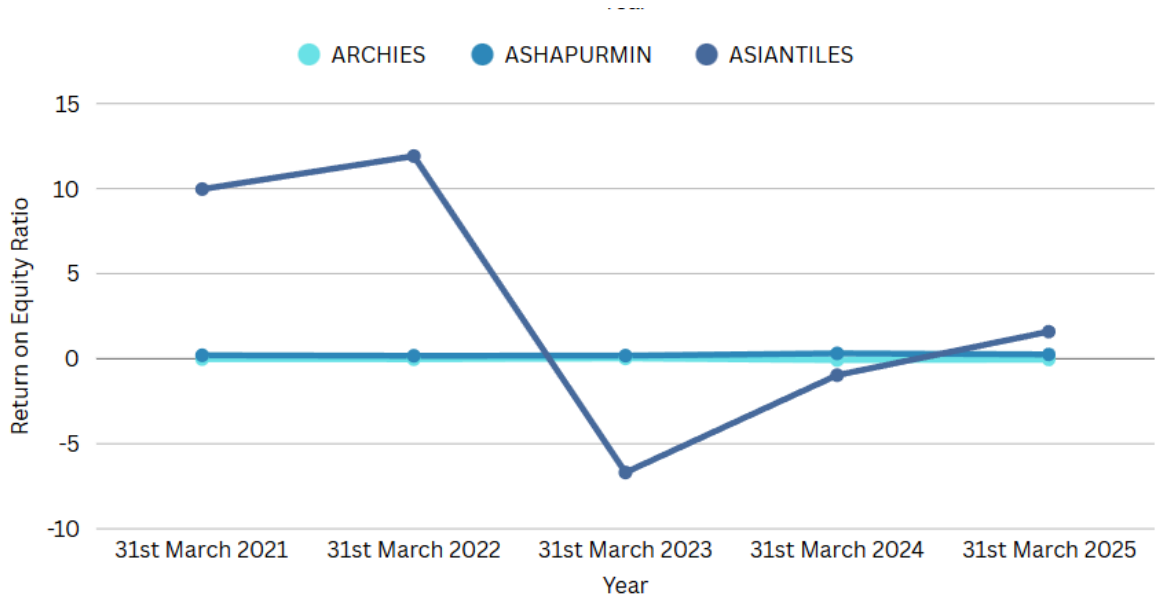
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	-0.01	9.7	4.32	4.34
31st March 2022	-0.01	4.5	3.72	6.35
31st March 2023	0.01	-2.3	4.29	-4.21
31st March 2024	-0.05	3.6	9.05	-0.64
31st March 2025	-0.03	2.1	7.35	2.23



ARCHIES has a high ROA at the beginning but falls steeply, then recovers partially, showing inconsistent efficiency in asset use. ASHAPURMIN and ASIANTILES both fall into negative values by 2023, with a strong bounce back, whereas ASAHISONG has a consistent, moderate ROA throughout the period

6.16 Return on Equity Ratio

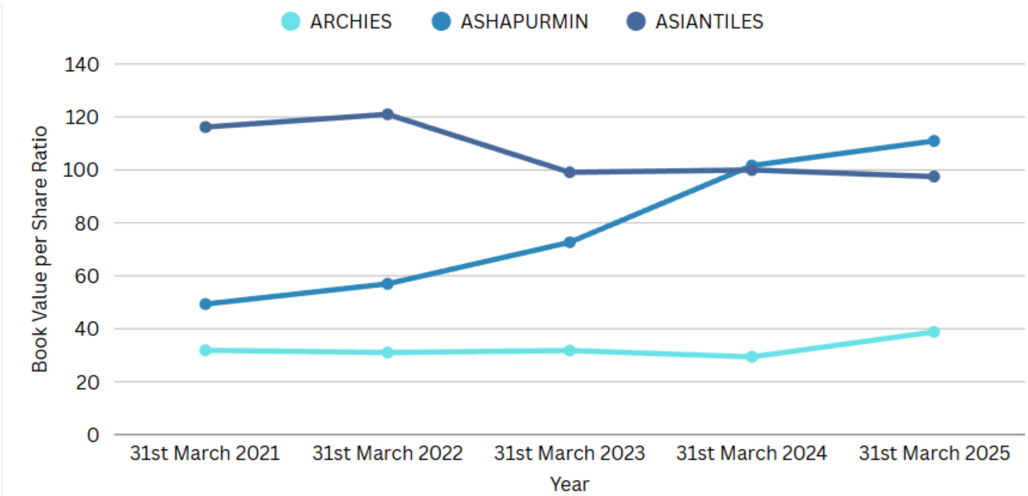
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	-0.02	11.7	0.20	9.97
31st March 2022	-0.03	6.8	0.17	11.91
31st March 2023	0.02	-4.5	0.18	-6.69
31st March 2024	-0.08	7.5	0.31	-0.97
31st March 2025	-0.05	NA	0.25	1.59



ASHAPURMIN begins with the highest ROE, reaching in 2022 but rapidly falling into negative ground by 2023 before rebounding. ASIANTILES takes a similar roller-coaster ride, with an immense dip followed by recovery. ARCHIES has a steady, close-to-zero ROE throughout, reflecting persistently low shareholder returns relative to its peers

6.17 Book Value per Share Ratio

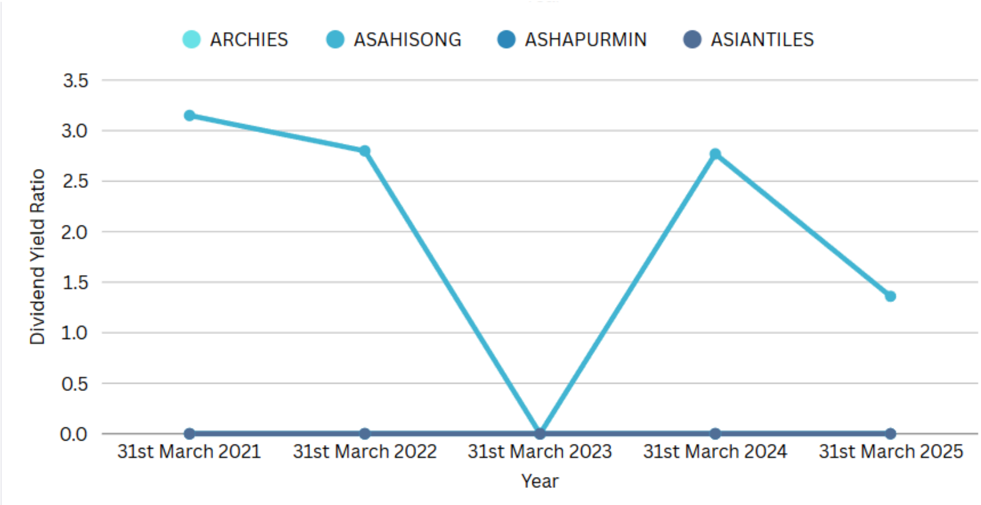
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	31.85	228.09	49.33	116.20
31st March 2022	31.02	236.47	56.97	121.01
31st March 2023	31.76	220.68	72.66	99.10
31st March 2024	29.38	225.88	101.66	99.99
31st March 2025	38.8	NA	110.95	97.50



ASHAPURMIN's book value per share increases steadily, surpassing ASIANTILES by 2025, demonstrating excellent equity growth. ASIANTILES decreases after 2022 but remains at a high level, while ARCHIES remains stagnant and low, representing minimal asset growth per share

6.18 Dividend Yield Ratio

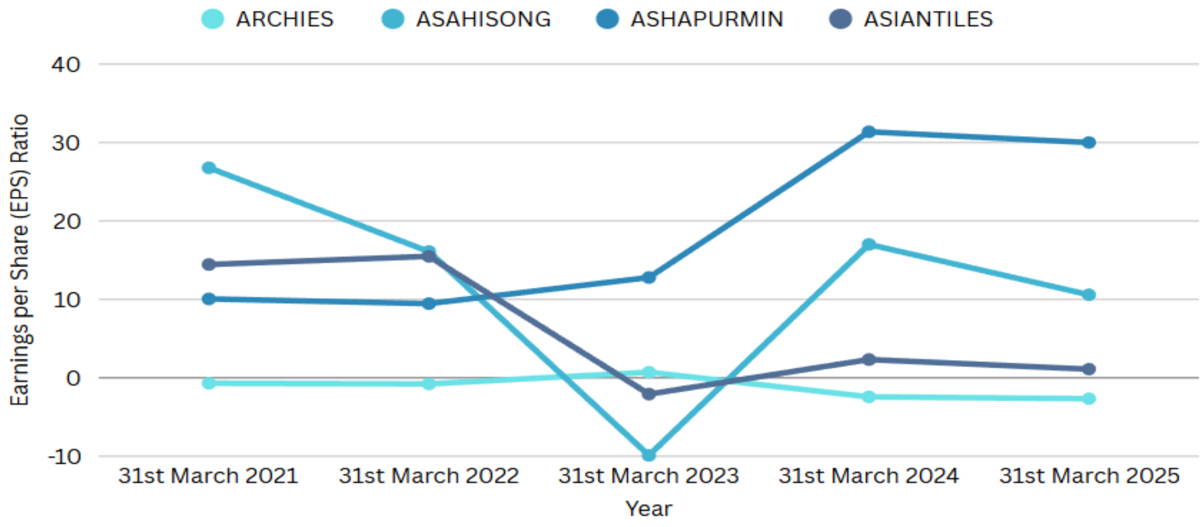
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	0	3.15	0	0
31st March 2022	0	2.80	0	0
31st March 2023	0	0	0	0
31st March 2024	0	2.77	0	0
31st March 2025	0	1.36	0	0



ASAHISONG is the sole firm with significant dividend yields, reaching a high of more than 3% in 2021 and 2024 but falling to zero in 2023. ARCHIES, ASHAPURMIN, and ASIANTILES all consistently pay minimal or no dividends, which indicates emphasis on reinvestment or low distributable profits

6.19 Earnings per Share (EPS) Ratio

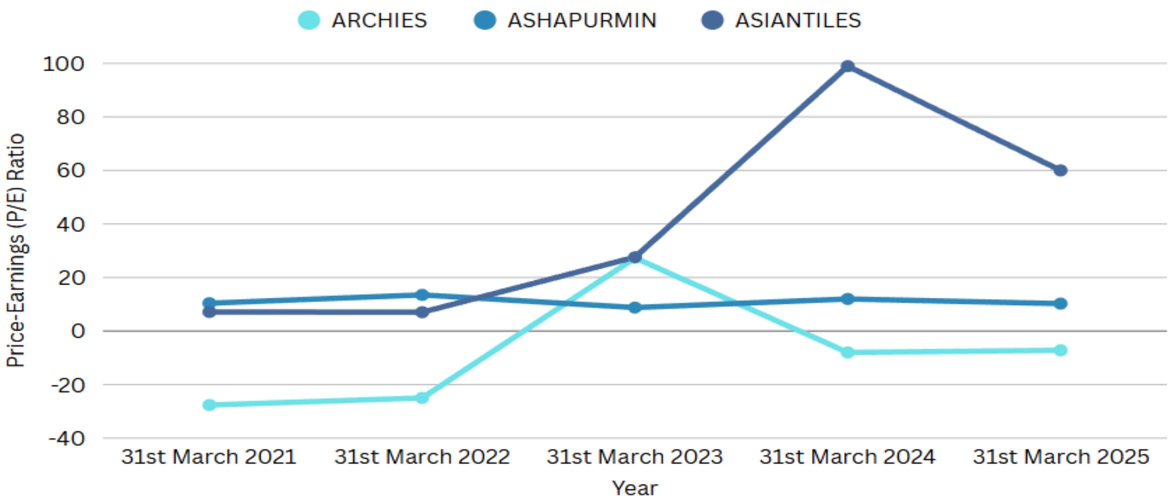
Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	-0.7	26.78	10.06	14.45
31st March 2022	-0.78	16.10	9.46	15.49
31st March 2023	0.71	-9.89	12.79	-2.08
31st March 2024	-2.43	17.01	31.37	2.33
31st March 2025	-2.66	10.59	30.00	1.10



ASHAPURMIN and ASIANTILES both post sharp declines in EPS in 2023 followed by robust recovery, suggesting volatility in earnings. ARCHIES continues to have low and stable EPS, while ASAHISONG moderately improves, showing stable but moderate profitability

6.20 Price-Earnings (P/E) Ratio

Year	ARCHIES	ASAHISONG	ASHAPURMIN	ASIANTILES
31st March 2021	-27.65	11.84	10.39	7.13
31st March 2022	-25	17.72	13.50	7.02
31st March 2023	27.29	NA	8.76	27.6
31st March 2024	-8	19.08	11.98	98.95
31st March 2025	-7.2	34.66	10.24	60.00



ASHAPURMIN's P/E ratio reaches a high of 100 in 2024 and then falls, which reflects excessive market optimism or volatility in earnings. ASIANTILES is a consistent increase followed by a decrease, whereas ARCHIES is negative or low, indicating ongoing losses or low market valuation

TASK 3

<u>CONCLUSION</u>

The purpose of this report was to compare the financial performance of ASAHISONG, ARCHIES, ASIANTILES, and ASHAPURMIN. This report determines the financial performance of each company across 5 key metrics and whether their industry affects their performance, ultimately identifying which would be a good investment opportunity. The industry of each company most definitely affects the metrics used to measure financial performance, as evidenced by the varied patterns across market value, profitability, efficiency, and leverage ratios. Across all the metrics we can make the following conclusions:

1. ASHAPURMIN demonstrates the strongest growth trajectory,

with consistently improving book value per share and a remarkable recovery in earnings per share after 2023, rising to approximately 30 by March 2024 and maintaining this level through 2025. This shows solid fundamental strengthening and earnings power.
2. ASIANTILES shows the highest market valuation with a price-earnings ratio peaking near 100 in 2024, though this extreme P/E suggests potential overvaluation or market speculation rather than sustainable earnings performance. The company's book value per share has declined gradually since 2022, indicating some erosion of equity value.
3. ASAHISONG stands out as the only company with meaningful dividend yields, peaking above 3% in 2021 and 2024, making it potentially attractive for income-focused investors despite its dividend payment inconsistency, as evidenced by zero dividends in 2023.
4. ARCHIES consistently underperforms across most metrics, with generally negative or low P/E ratios, minimal EPS growth, the lowest book value per share, and no dividend payouts. Its financial performance indicators suggest ongoing operational challenges and limited investment appeal.
5. In terms of efficiency, ASHAPURMIN shows the most consistent improvement, with steadily increasing metrics after a challenging period in 2023, while ASIANTILES demonstrates high but volatile performance.
6. In conclusion, this report advises that out of all the 4 companies, ASHAPURMIN might be the most suitable investment opportunity as it shows the strongest combination of equity growth, earnings recovery, and consistent improvement across multiple financial metrics.
7. Additionally, ASAHISONG could be considered for investors seeking dividend income, though with caution due to its inconsistent dividend policy, while ASIANTILES may appeal to growth-oriented investors willing to accept higher valuation risk.

Part-2 : Finance

Understanding Yield Curves

A yield curve visually represents the correlation between interest rates—also known as yields—on bonds that have various maturities. It displays yield on the vertical axis and the time period until maturity on the horizontal axis.

Significance of Yield Curves

The yield curve serves as a key indicator of economic performance. Its shape can provide insights into the market's predictions regarding future interest rates, inflation, and overall economic expansion.

Typical Yield Curve Shapes

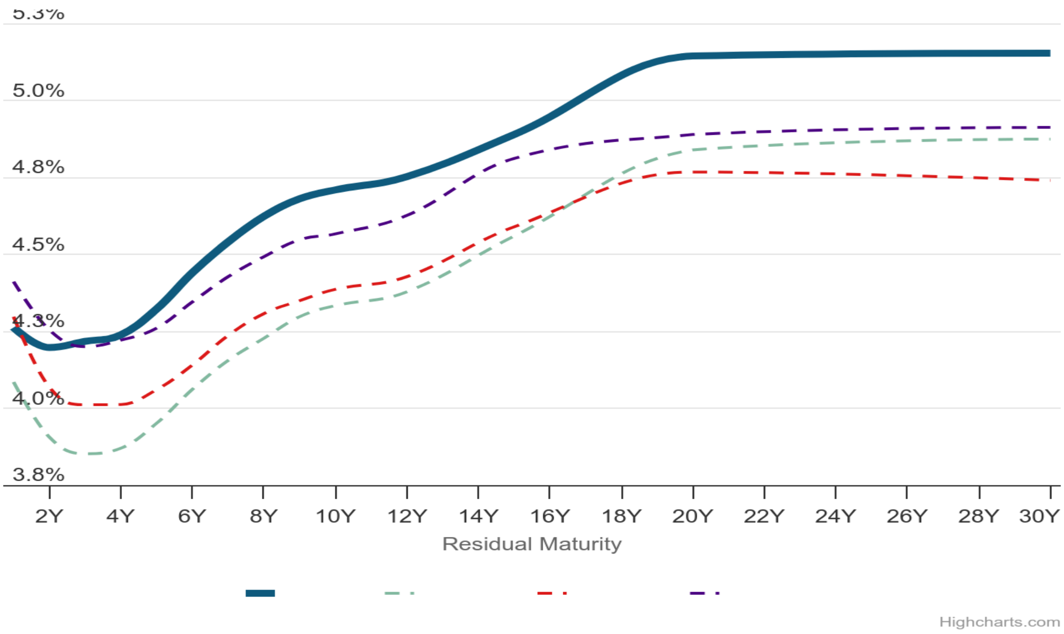
- **Normal Yield Curve:**
  - Upward sloping.
  - Longer-term bonds have higher yields than shorter-term bonds.

- **Inverted Yield Curve:**
  - Downward sloping.

    - Longer-term bonds have lower yields than shorter-term bonds.

- **Flat Yield Curve:**
    - Relatively flat, with little difference in yields across maturities.
    - This can signal uncertainty about future economic conditions or a period of economic transition.

1.1Australia



The yield curve for Australia shows an **upward slope**, signifying that long-term bonds are yielding more than short-term bonds. This configuration is generally deemed normal and often reflects optimistic economic forecasts

Implications of the Upward Slope

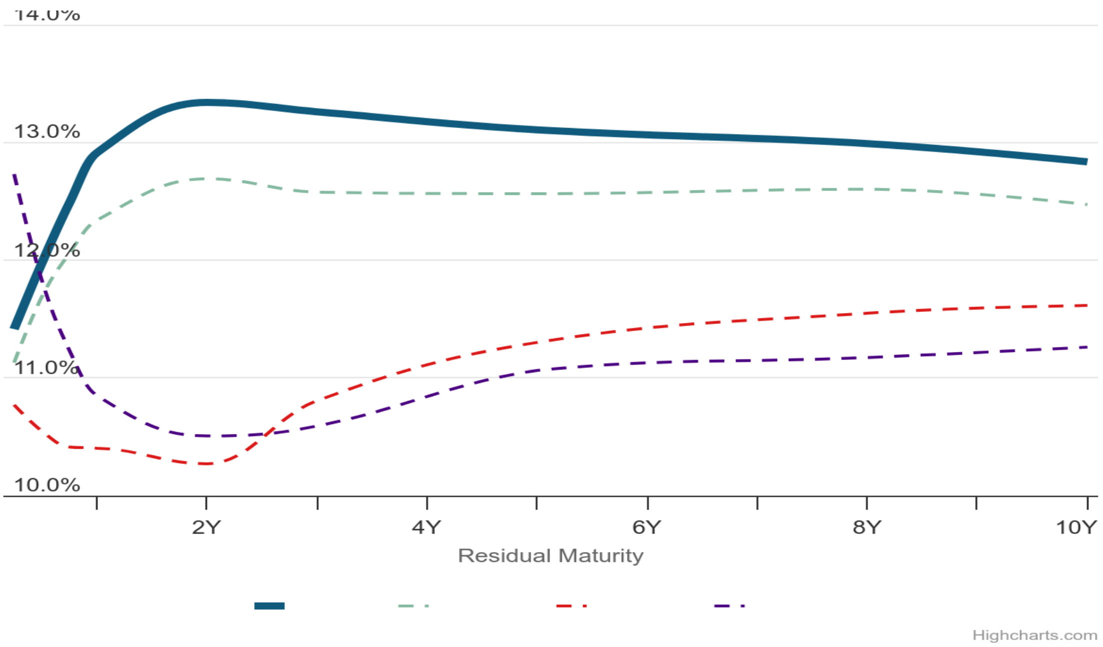
An upward yield curve usually suggests:

- Economic Growth: The market expects ongoing economic progress, spurred by increased borrowing from businesses and consumers, which energizes demand and stimulates economic activity.
- Moderate Inflation Expectations: There's an anticipation of moderate inflation. Should inflation expectations rise significantly, it could prompt higher interest rates to mitigate price increases.
- Positive GDP Growth: This type of yield curve is frequently associated with positive GDP performance, although the exact impact may vary depending on monetary policy and fiscal strategies.

Yield Curve Shape Across Maturities

- Short-Term (2-5 years): A pronounced slope in this area indicates that the market is bracing for imminent interest rate hikes, potentially driven by monetary policy changes or inflation concerns.
- Medium-Term (5-10 years): A flatter slope suggests balanced expectations regarding interest rate increases, reflecting a cautious outlook on growth and inflation.
- Long-Term (10-30 years): A steepening curve in this segment hints at expectations for persistently high long-term interest rates, possibly influenced by fundamental economic changes or long-term inflation assessments

Brazil



Brazil's yield curve is **inverted**, meaning that yields on long-term bonds are lower than those on short-term bonds. This unusual shape typically signals apprehensions regarding future economic conditions.

Implications of the Inverted Slope

An inverted yield curve typically implies:

- Economic Recession: Historically, such curves precede recessions, as investors often foresee lower future interest rates due to decelerating economic activity or deflationary concerns.

- Reduced Economic Growth: The market may be forecasting a slowdown in economic output, leading to decreased demand and lowered inflation expectations

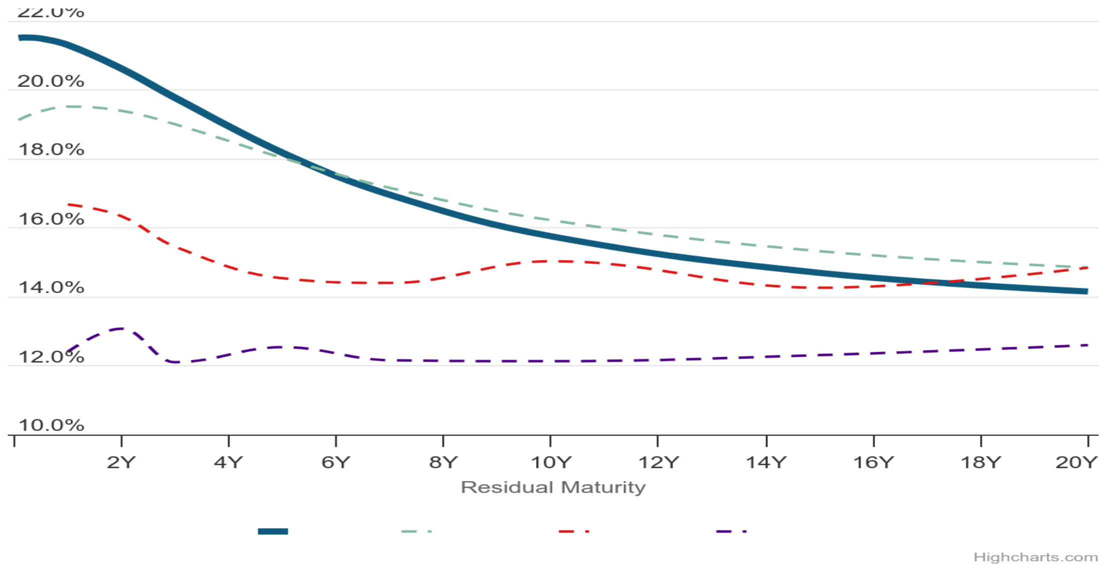
- Potential Deflation: In some instances, an inverted curve may reflect worries about prolonged deflationary periods.

Yield Curve Shape Across Maturities

- Short-Term (2-5 years): The sharp upward slope suggests expectations for nearby interest rate hikes, likely influenced by monetary policy tightening or inflation pressures.

- Medium-Term (5-10 years): The significant downward slope implies that investors forecast a marked drop in interest rates in the medium term, indicative of weakening economic conditions.

Russia



Russia's yield curve also displays an **inverted or downward sloping shape**, indicating that long-term yields fall below short-term yields.

Implications of the Inverted Slope

The inverted yield curve serves as a cautionary indicator for potential economic downturns. Here's why:

- Economic Recession: Traditionally, these curves have anticipated economic recessions, as investors prepare for lower future rates amid slowing activity or deflation.
- Reduced Economic Growth: The market may expect diminished economic progress, which could lead to lower demand and inflation projections.
- Potential Deflation: Occasionally, an inverted curve might signal fears about prolonged periods of declining prices.

Yield Curve Shape Across Maturities

- Short-Term (2-5 years): A steep slope here indicates expectations for short-term interest rate increases, often based on monetary policy adjustments

- Medium-Term (5-10 years): The evident downward slope suggests anticipated significant declines in rates over the medium term, signifying weakening economic conditions.

- Long-Term (10-20 years): A relatively flat slope in this area indicates expectations for stable or slightly declining long-term rate.

Q2. ANALYSIS OF TREASURY BILLS VS COMMERCIAL PAPER

Commercial Paper:
Commercial Paper is a short-term Debt instrument, issued by corporations, it is sold at a discount from face value, similar to a Treasury bill. It is not secured as it is not backed up by any collateral. Commercial paper interest rates reflect the prevailing market interest rates at the time.

Also, the yield offered on a Treasury bill with the yield offered by a Commercial Paper can reveal important perceptivity about the relative riskiness of different investments. Treasury Bills are considered to one of the safest investments available as they're backed up by credit of the US Government. So as a result, Treasury bills generally offer lower yields than other request securities with analogous majorities.

MONTH	T-Bill	90-Day AA CP	Yield Difference
2023 OCT	5.15%	5.46%	0.31%
2023 NOV	5.01%	5.41%	0.40%
2023 DEC	4.72%	5.32%	0.60%
2024 JAN	4.57%	5.26%	0.69%
2024 FEB	4.69%	5.22%	0.53%
2024 MAR	4.76%	5.29%	0.53%
2024 APR	4.89%	5.33%	0.44%
2024 MAY	4.91%	5.33%	0.42%
2024 JUNE	4.87%	5.28%	0.41%
2024 JULY	4.68%	5.31%	0.63%
2024 AUG	4.25%	5.12%	0.87%
2024 SEPT	3.87%	4.86%	0.99%
2024 OCT	4.03%	4.62%	0.59%

AVERAGE	4.64%	5.21%	0.57%

As we can see from the above data, The Commercial Paper offers a higher yield than the Treasury bill. This is because the Commercial Paper is considered to be an unsafe investment. Commercial paper is issued by pots, which aren't backed by the credit of the government. So there's a lesser threat that the pot may overpass on its payments.

The difference in yields is known as the threat decoration. It is basically the compensation that the investors demand/ask for taking on fresh threats. In this case, the threat decoration for holding marketable paper rather than a Treasury bill is 0.57.

Such a threat decoration may change over time. These reflect several factors, amongst changes in profitable conditions, the changes in the creditworthiness of the issuer, and the changes in investor sentiment.

Risk Premium of Commercial Paper:

The yield rate on a 3-month Treasury Bill is used to determine the risk-free rate of return on an investment with no risk of loss.

So we can consider a comparatively riskier money market security and take the difference between the two rates of return to calculate the risk premium of the riskier investment.

Month	**3-Month T-Bill**	**90-Day Commercial Paper**	**Risk Premium**
2023 OCT	5.34%	5.46%	0.12%
2024 OCT	4.51%	4.62%	0.11%

As you can see, the threat decoration on marketable paper has decreased by 0.01 in the past. Investors are demanding an advanced yield for holding marketable paper because they're more concerned about the threat of commercial defaults.

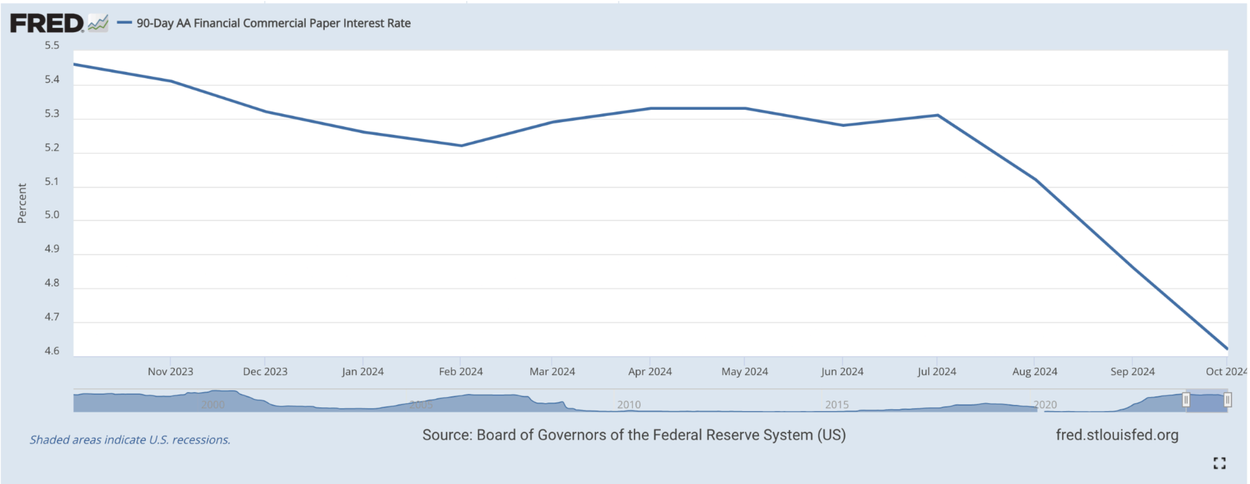


Figure: Variation of 90 - Day Commercial paper's interest rate with Time

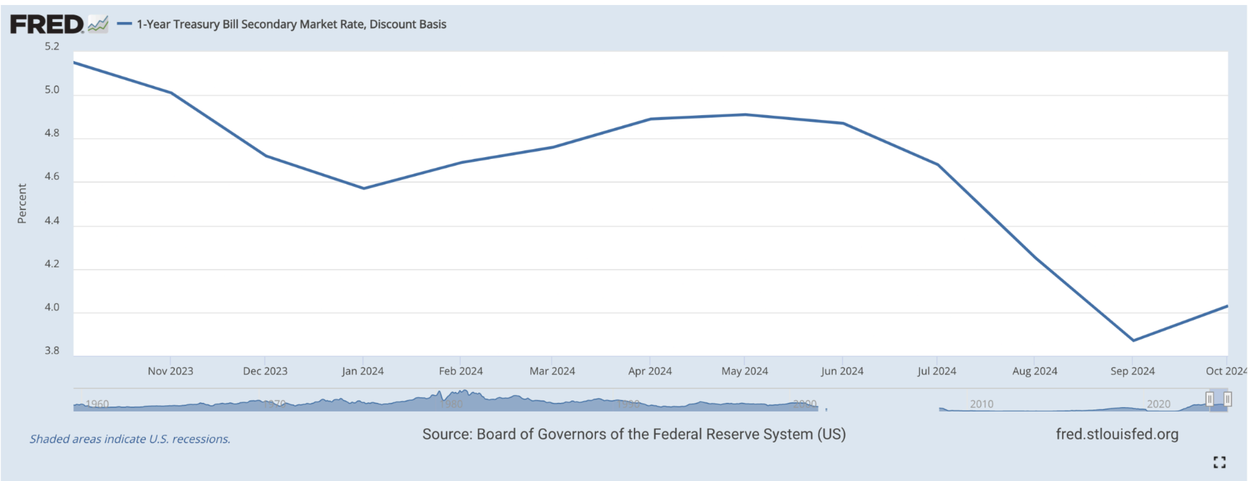


Figure: Variation of 1 year Treasury bill secondary market rate vs Time

The risk premium on commercial paper has decreased over the past year. This is due to a number of factors, including the following

Improved Economic Stability:
We can associate the decrease in risk premium with improved economic growth.
We can say this is due to stable growth of GDP or better predictability of the macroeconomic cycle or lower levels of unemployment.

Market Competition:
An increase in competition among issuers of commercial paper may induce a decrease in yields and a shrinkage in the difference between commercial paper and risk-free Treasury bills.

Economic Policy:
A set of favorable regulatory or government interventions on certain types of commercial paper might lessen perceived risk and hence the premium.

References:
https://www.worldgovernmentbonds.com/
https://tradingeconomics.com/bonds