



St. Xavier's College (Autonomous), Kolkata



Xavier's Finance Community

Presents

EQUITY REPORT

ON



AMARA RAJA

Gotta be a better way

CONTRIBUTORS:

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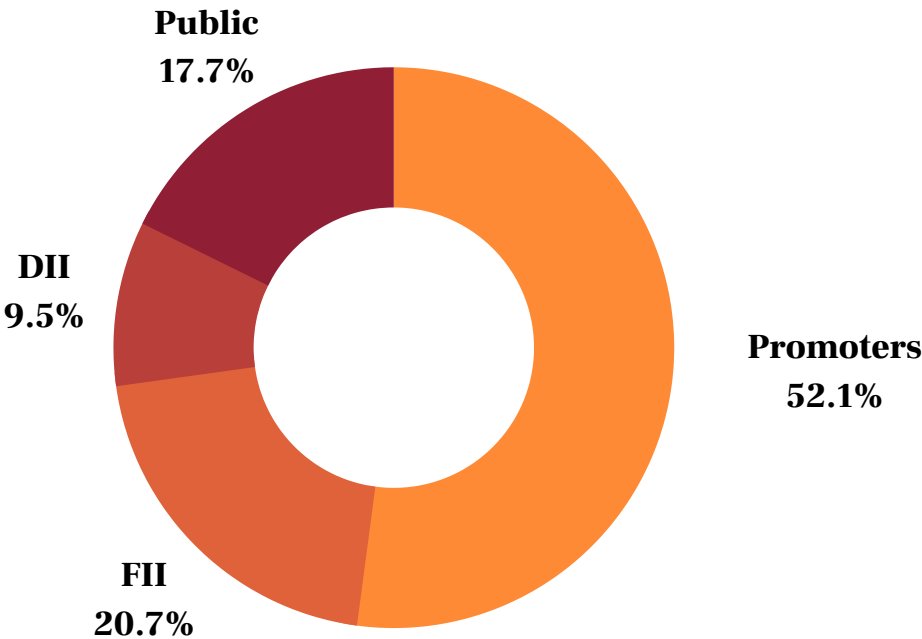
COMPANY PROFILE

From initially manufacturing standby valve-regulated lead-acid (VRLA) batteries at its unit in Karakambadi (Andhra Pradesh) to becoming the technology leader and one of the largest manufacturers of lead-acid batteries for both industrial and automotive applications in the Indian storage battery industry, Amara Raja Batteries Limited (ARBL), promoted by Mr. Ramachandra Galla in 1985, is the flagship company of the Amara Raja Group. Currently it has Jayadev Galla as its Vice Chairman & Managing Director and Harshavardhana and Vikramaditya Gourineni as its executive directors.



JAYDEV GALLA
(Managing Director)

SHAREHOLDING PATTERN

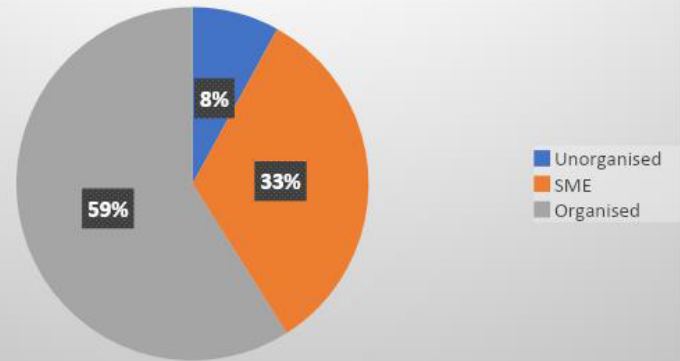




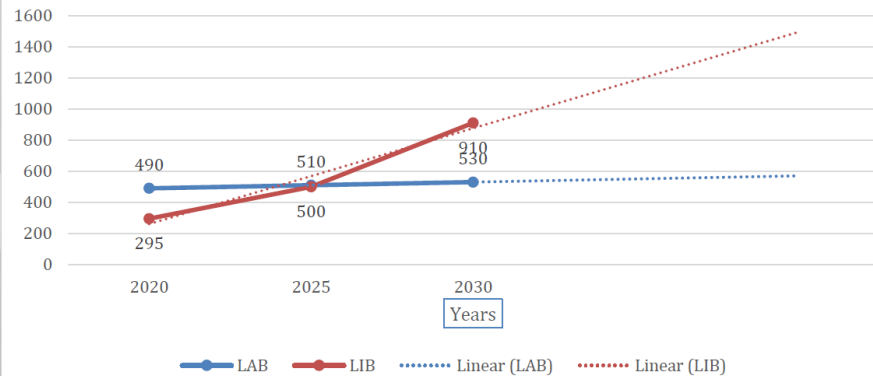
INDUSTRIAL OUTLOOK



Battery segment industry composition



LAB vs LIB demand evolution



- As of FY20, Global Lead Acid Battery (LAB) market was ~US\$38 billion in size comprising automotive (66%), industrial (29%), and others (5%), & the Indian LAB market was worth ~ Rs 36,500 crore (automotive 51%, inverter 22%, stationary 15%, unorganized 12%),
- The automobile industry in India is poised to grow at 12.7% CAGR between 2019-2026 to reach USD 512 billion by 2026 (Including new & used vehicles and associated services). Since the pandemic has prompted many individuals to move from shared and public transport to private transport for safety concerns, 2W and 4W PV are expected to see a definite uptrend in the coming years.
- The passenger vehicle (PV) segment in India is expected to grow up to 25% in 2021- 22. As for CAPEX, the industry's total investment outlay is estimated at Rs 28,000-33,000 crore during FY22-FY23.
- India is the second-largest producer of two-wheelers in the world. The Indian 2-wheeler market sales stood at 21.2 million units in 2019 and it is expected to reach 26.6 million units by 2025 displaying a reasonable CAGR of 2.6% over the forecast period (2020-2025).
- Healthy OEM offtake in FY16-19 (CAGR of 8.7%) should result in continued traction on the aftermarket side given the usual replacement cycle of ~three years. This provides an element of revenue visibility till FY22, post which replacement demand is slated to soften given the steep drop-off in FY20 OEM volumes.

- The aftermarket segment provides a larger and sustained business opportunity. India has a large and growing passenger vehicle base. Between 2014 and 2018, India has added more than 13 million passenger vehicles which represent the immediate aftermarket opportunity. A passenger vehicle, through its useful life, demands about 2-3 battery replacements, inferring a 3x larger opportunity than the OE market. Also, India has a current 120 million user base of 2W, offering a huge market to the aftermarket segment.
- According to ICRA, over the next five years, electric vehicles will comprise 3-5% of new vehicle sales in the passenger vehicle segment and 8-10% in that of the 2W and intra-city bus segment.
- Cost-effective public transportation, rising environmental awareness, and government incentives to curb environmental degradation is likely expected to propel the Indian electric rickshaw market. The market size will likely rise to US\$500 million by 2025 from US\$250 million in 2019.
- The pandemic almost abruptly transitioned the 'Work-in-Office' culture to 'work-from-home' trend. This change mandated IT companies to provide power backup to its employees. Besides, online education among other transitions shows a robust demand for UPS. Also, all these are a cause of high usage of data and increased preference for bundled services (such as broadband services, cable TV services, e-payment wallets/platforms, music applications, and over-the-top (OTT) transmission platforms). This has brought in high-paying customers, showcasing that the telecom sector is moving towards higher average revenue per user. Thus, the UPS and the telecom industry show promising growth in the demand for batteries owing to the worldwide pandemic.
- Although the unorganized share has been reducing over the years, it remains high at 30-40%, particularly in the replacement market. While the organized players dominate the PV and 2W segments with a 70-80% share, the share of the unorganized players is elevated at 50-60% levels in the CV, tractors, and home inverter segment. Larger players will continue to gain share, driven by the formalization of the economy with the introduction of GST as well as consolidation post-COVID and new production techniques introduced by organized companies. With the introduction of GST, the larger companies have rationalized their distribution networks while the unorganized segment is contending with higher compliance costs. The new stamped grid technology introduced by Amara Raja is a much cleaner operation environmentally and more efficient.

PRODUCT PROFILE

Overview

Amara Raja Batteries Limited is one of the largest manufacturers of lead-acid batteries (LAB) for industrial and automotive applications in the Indian storage battery industry. Currently, it demands 20% of the industry market share, earning 70% of its revenue from the automotive segment and the balance 30% from the Industrial segment



Automotive Batteries Division

The Company is a leading manufacturer of automotive batteries under the brands Amaron® and PowerZone™, distributing through pan-India sales & service retail network. It offers a wide range of battery solutions in Passenger Vehicles, Three Wheelers, Two Wheelers, Commercial Vehicles, Farm Vehicles, E-Rickshaws & E-Autos.



Industrial Batteries Division

Its key products are marketed under various brands namely PowerStack, Amaron Volt, Amaron Sleek, Amaron Brute, Amaron Solar, and Amaron Quanta.

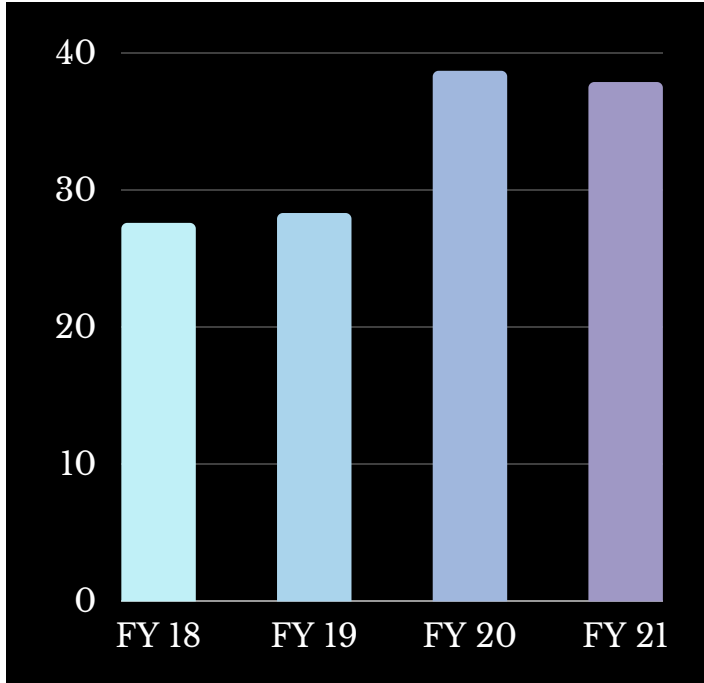




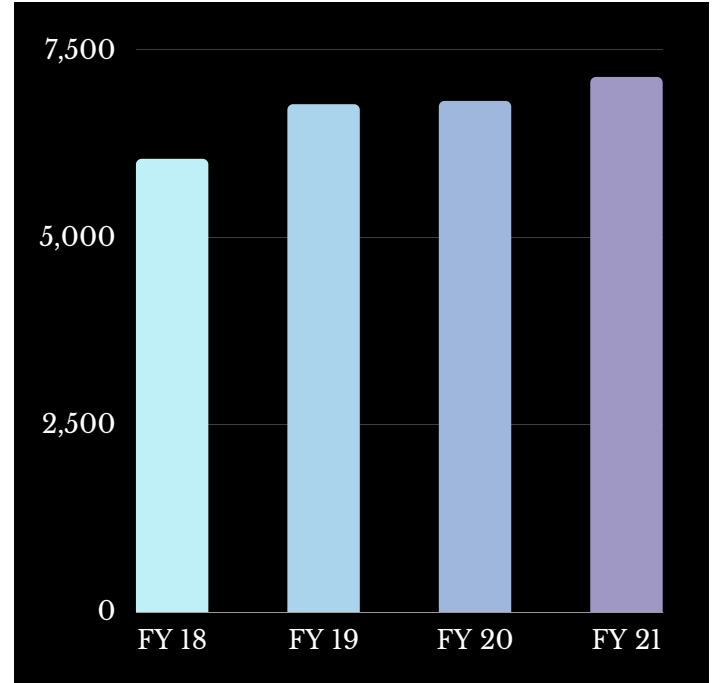
FINANCIAL HIGHLIGHTS



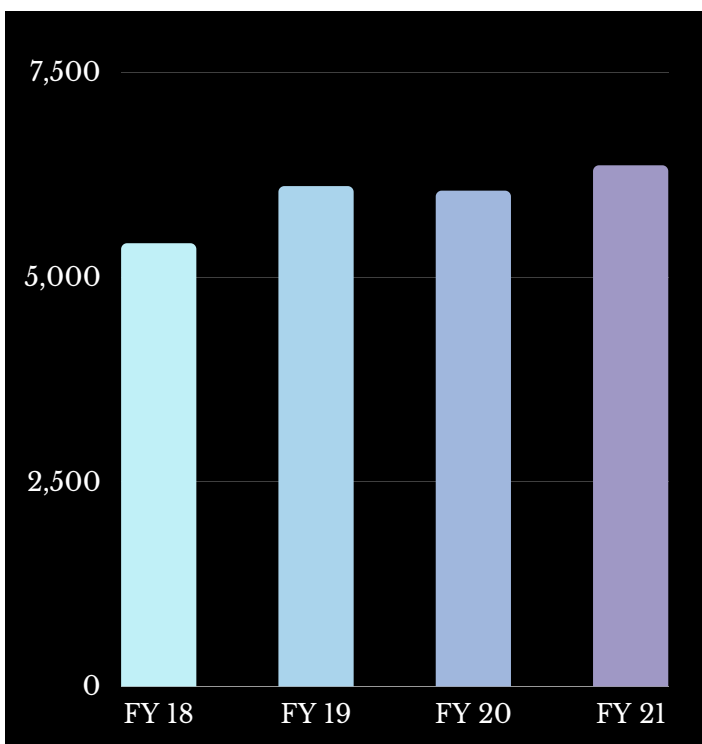
Net Profit (In Rs Crs)



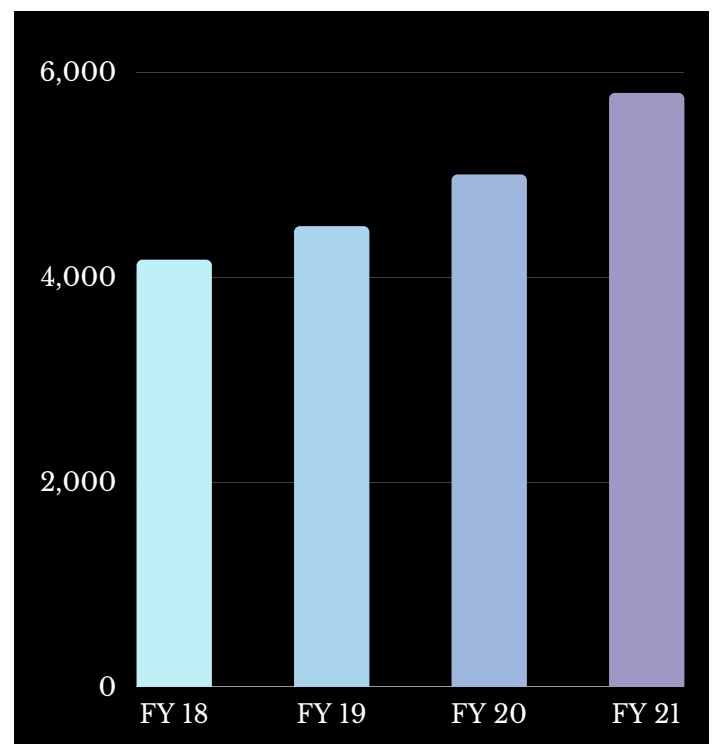
Revenue (In Rs Crs)



Expenses (In Rs Crs)



Total Assets (In Rs Crs)





SWOT ANALYSIS



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STRENGTHS

- Collaboration with Gridtential Energy: Amara Raja is investing in alternative battery chemistries, i.e. lead batteries with silicon at the core, in collaboration with US-based Gridtential Energy, to enhance battery performance. The batteries will come with a wider temperature range and are 40% lighter in weight than conventional batteries. Prudential Energy, will provide high-performing 24V and 48V batteries for hybrid

W

WEAKNESS

- Logistical disadvantages arising from geographical concentration in operations: ARBL currently operates from 2 locations within Andhra Pradesh (Tirupati and Chittoor), while demand is spread across the country, thereby restricting distribution logistics. The single-state-location facilities expose the company to risks relating to geographical concentration

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OPPORTUNITIES

- In other Industrial battery applications such as Inverter, E-Rickshaw, and Motive Power, ARBL has some headroom for growth.
- Can foray into the New Energy business: Lithium-ion/battery pack, EV charging products, energy storage solutions, etc.
- Scope for strong partnership: With limited organic growth prospects in the LAB domain amid

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THREATS

- Fast progress and showed offtake on the LIB domain. For example, the telecom segment, which accounts for ~10% of Amara Raja's revenues, has witnessed a migration towards lithium-ion batteries. The market leader, Reliance Jio, has adopted the usage of lithium-ion batteries in its towers. The other telecom operators may gradually migrate towards the same in the medium term.
- The lead-acid battery segment is expected to witness the threat of substitution

- automotive, low-speed electric vehicles, energy storage systems, etc.
- High growth potential: Expected topline growth of 15-17% over the next five years. With the increase in using EVs, LAB market demand is also expected to increase as it is installed in the form of auxiliary batteries in EV cars.
 - Focus on R&D: ARBL has set up a lithium-ion technology research hub with a pilot plant facility for cell development and currently has pack assembly capabilities for industrial and automotive use.

- of operations, like natural calamities and others.
- Exide batteries have a long-standing competition with ARBL and fare quite well against them. Most business parameters are more favorable than ARBL and they lead the market in most segments except home UPS and telecom.
 - Intense Competition: Competition is intensifying in the telecom and the aftermarket automobile sector wherein the market players continue to exert pressure on vendors to reduce prices.

- the increasing pace of adoption of electric vehicles, ARBL expressed its intent to scout for a partnership (technology partner, JV, etc) and venture into Li-On cell manufacturing domestically. It is envisaging setting up a globally competitive facility with a capacity of ~10 GWh at a potential CAPEX outlay of ~US\$1billion, over a while.
- Adequate cash blanket of the company, if used efficiently, can lead to new opportunities that can be properly capitalized upon.

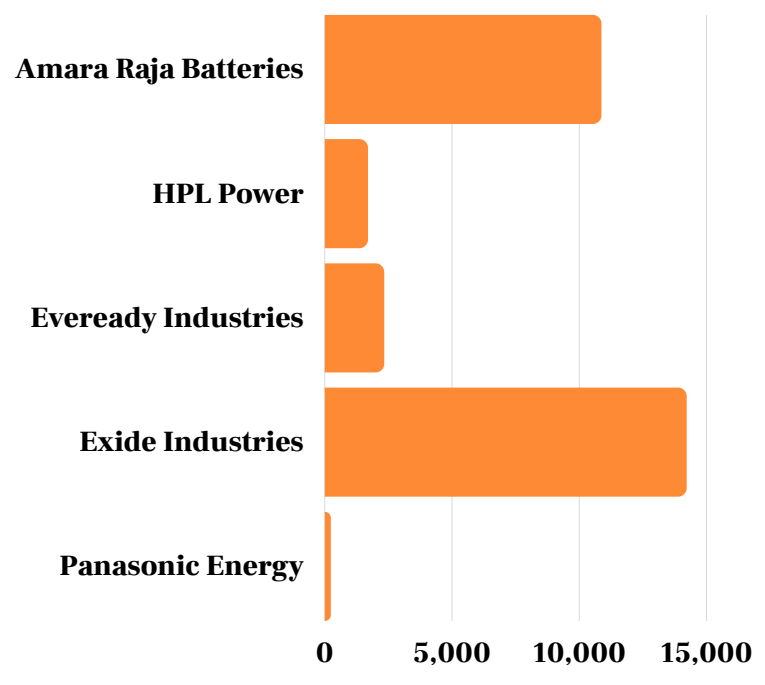
from the next-generation lithium-ion batteries and setting up a lithium-ion facility is very capital intensive. The falling cost of lithium batteries poses a threat not just to the Auto segment, but also to Industrial batteries. As mentioned before, LAB will be converted into auxiliary batteries in EV, therefore, creating a new market when EV takes over the traditional auto industry. However, in Autos, e-2Ws/e-3Ws do not require a lead-acid battery (LAB) as an auxiliary power source. This would, in turn, impact 15- 20% of the revenue of LAB players.



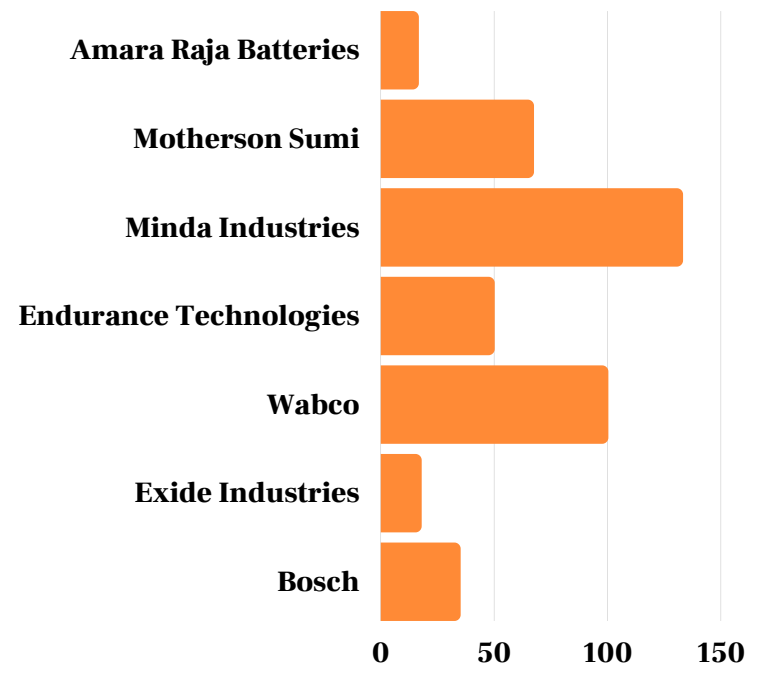
PEER COMPARISON



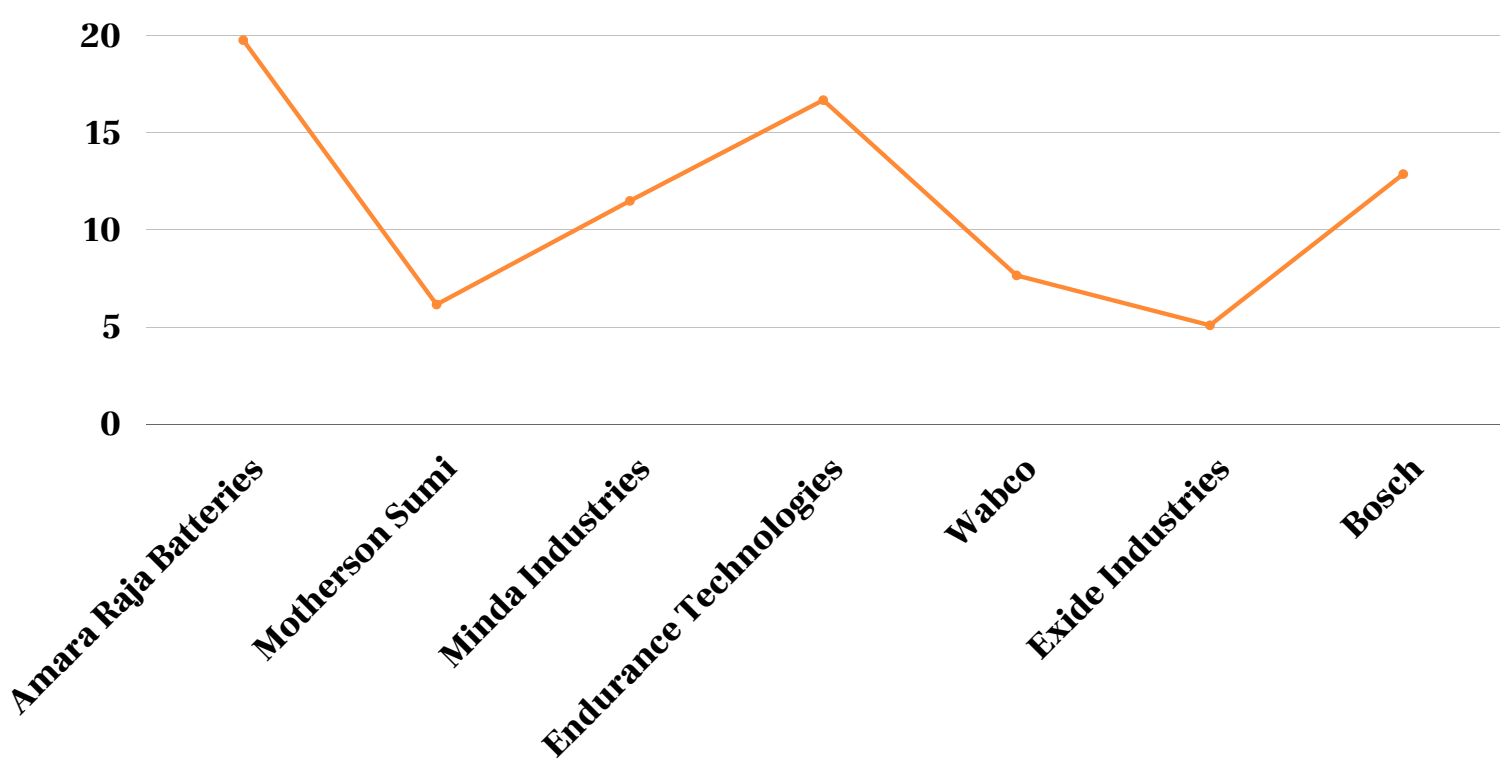
Market Cap(Crs)



P/E Ratio



ROCE(%)

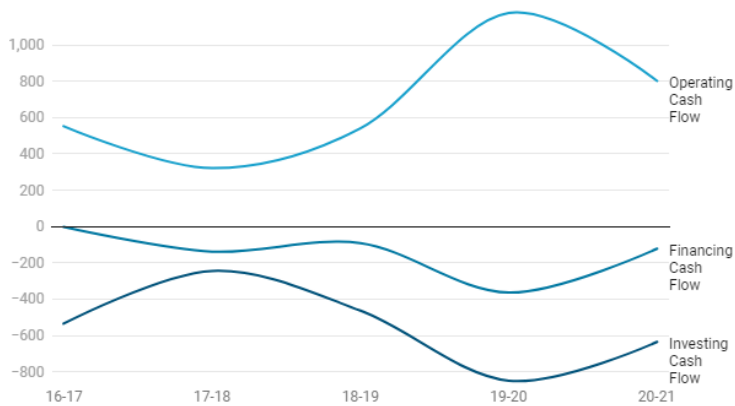




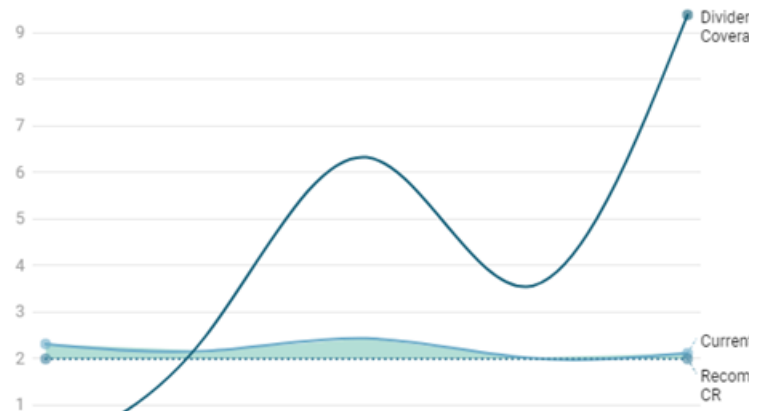
CASH FLOW ANALYSIS



Historical Cash Flow Trends



Excellent cash structure



Cash Hedge of ARBL

■ Liquid assets



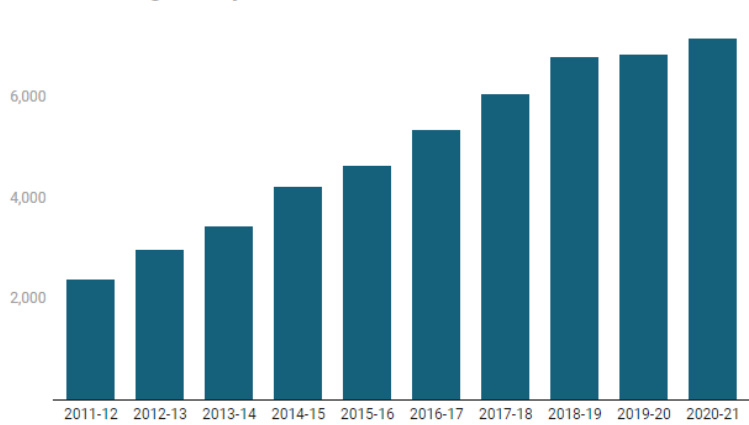
- Major cash investment is made back into the business, in the form of PP&E, and the second most in the dividends distributed. The interest cost is non-existent vs. the operating income of the company, which is a driving point in the company's financials.
- It is expected that the CF structure will remain this way, with growth prospects usually in the green. We can expect an increase in dividend outflow, which may reduce current cash with the business. The company also has a sizeable investment in liquid, savings, and overnight mutual funds, as a cash hedge against unsustainability.



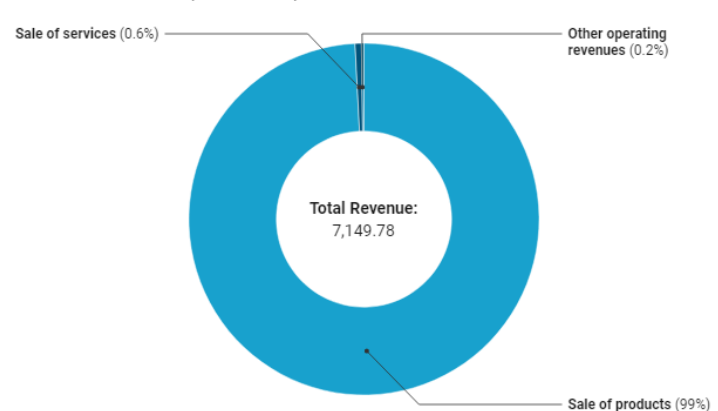
REVENUE ANALYSIS



Sales through the years

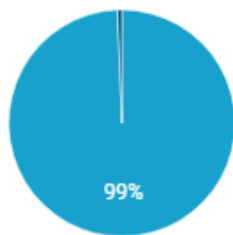


Sales Breakup (2020-21)

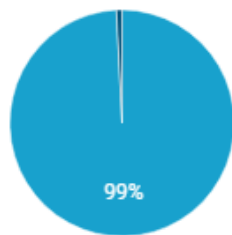


Stable core business

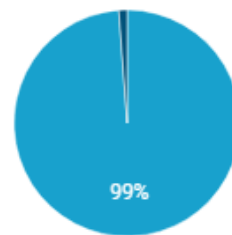
■ Sales ■ Other Income



Mar 2019



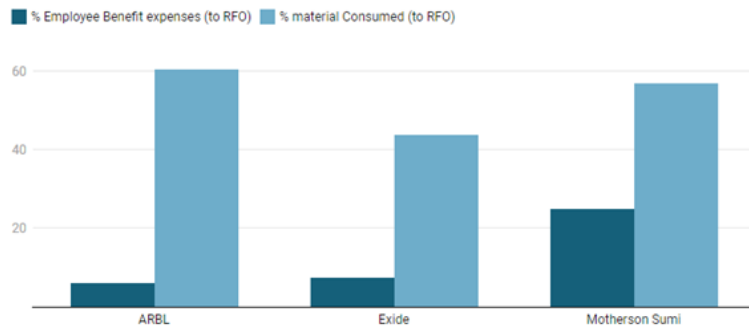
Mar 2020



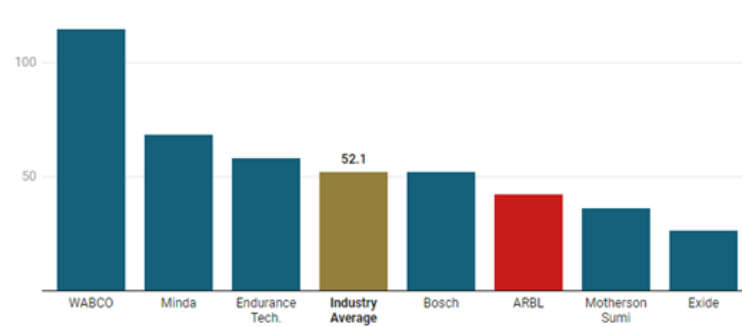
Mar 2021

- ARBL has shown good growth in the past, even though recent years have seen tanking of the numbers, due to Covid-19. The 10-year CAGR has been 11.70%, which falls in the average range for this business.
- The business is in the auto ancillary business, and we have compared them to such industries which may not manufacture batteries as their prime output. Nevertheless, the main consumers of the ARBL are car manufacturers, which qualifies them to be in the auto ancillary business.
- There is a strict confirmation of the vision of the firm in the battery business. They are trying to manufacture the same products- and prepare a different market for them catering to telecom and home UPS segments. This way of thinking is to be applauded, as the business is not going for over-diversification.

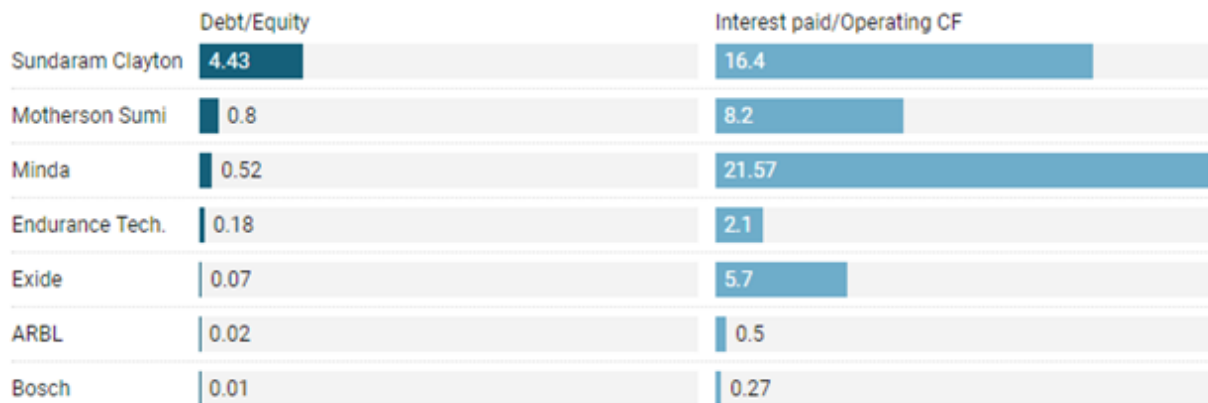
Major Costs, Major Burdens



Debtor Days Debacle



Good debt, bad debt



- Being a capital-intensive business, the major costs of ARBL has inventory as its major costs. It focuses on the production of goods rather than trade (99% vs <1%), and with low finance costs, the working capital remains unblocked. But the debtor days have increased from 33 to 42 days, which is still lower than the industry average but higher than top competitors.
- ARBL fights the old assumption that capital heavy industries always had huge debts and had leveraged business models. We have to compare the interest cost and debt levels of ARBL and its competitors.
- Here, ARBL not only has low debt but also has low-interest payments. Unlike Exide which has a low D/E and a high Finance Cost ratio, we see that most cash is either pulled back into the business or distributed as dividends.

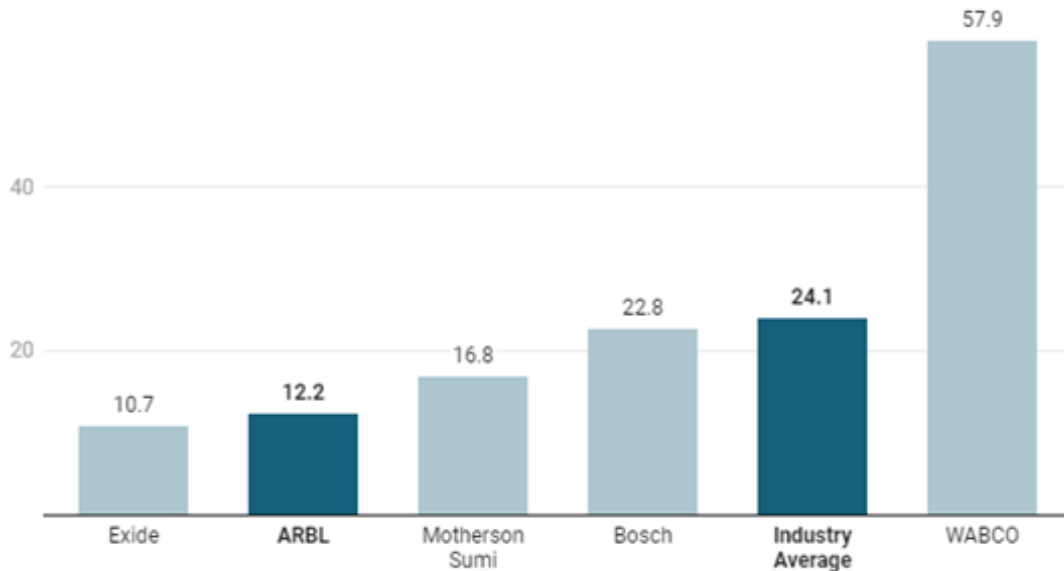


INDUSTRY COMPARISON



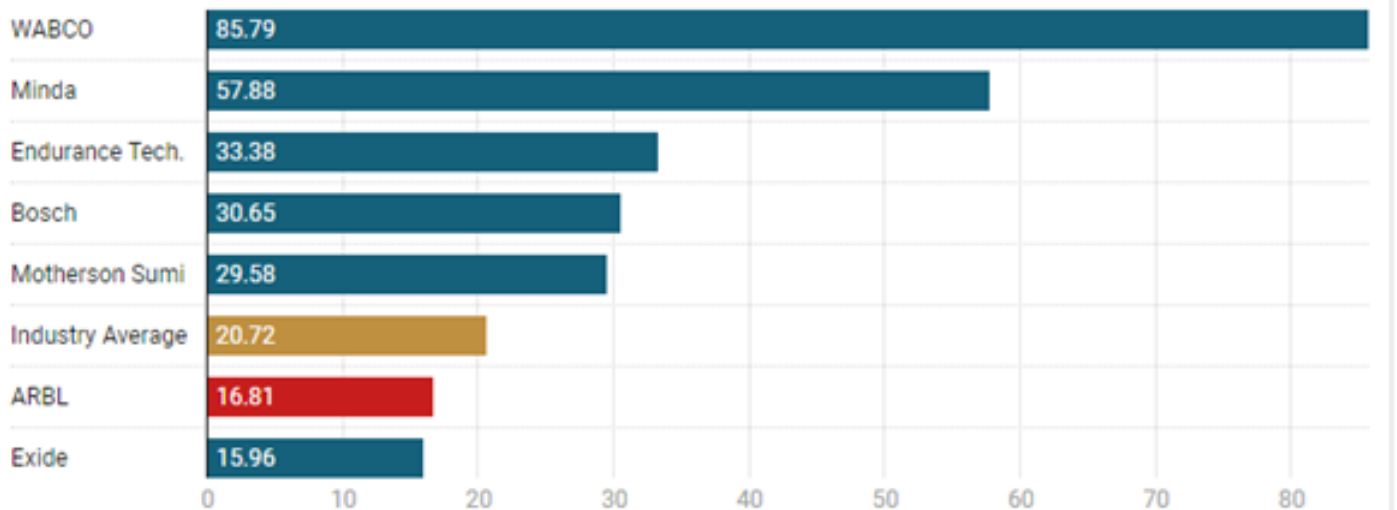
EV/EBITDA

EV/EBITDA Explained



PRICE TO EARNINGS RATIO

Price Earnings Ratio





CORPORATE GOVERNANCE



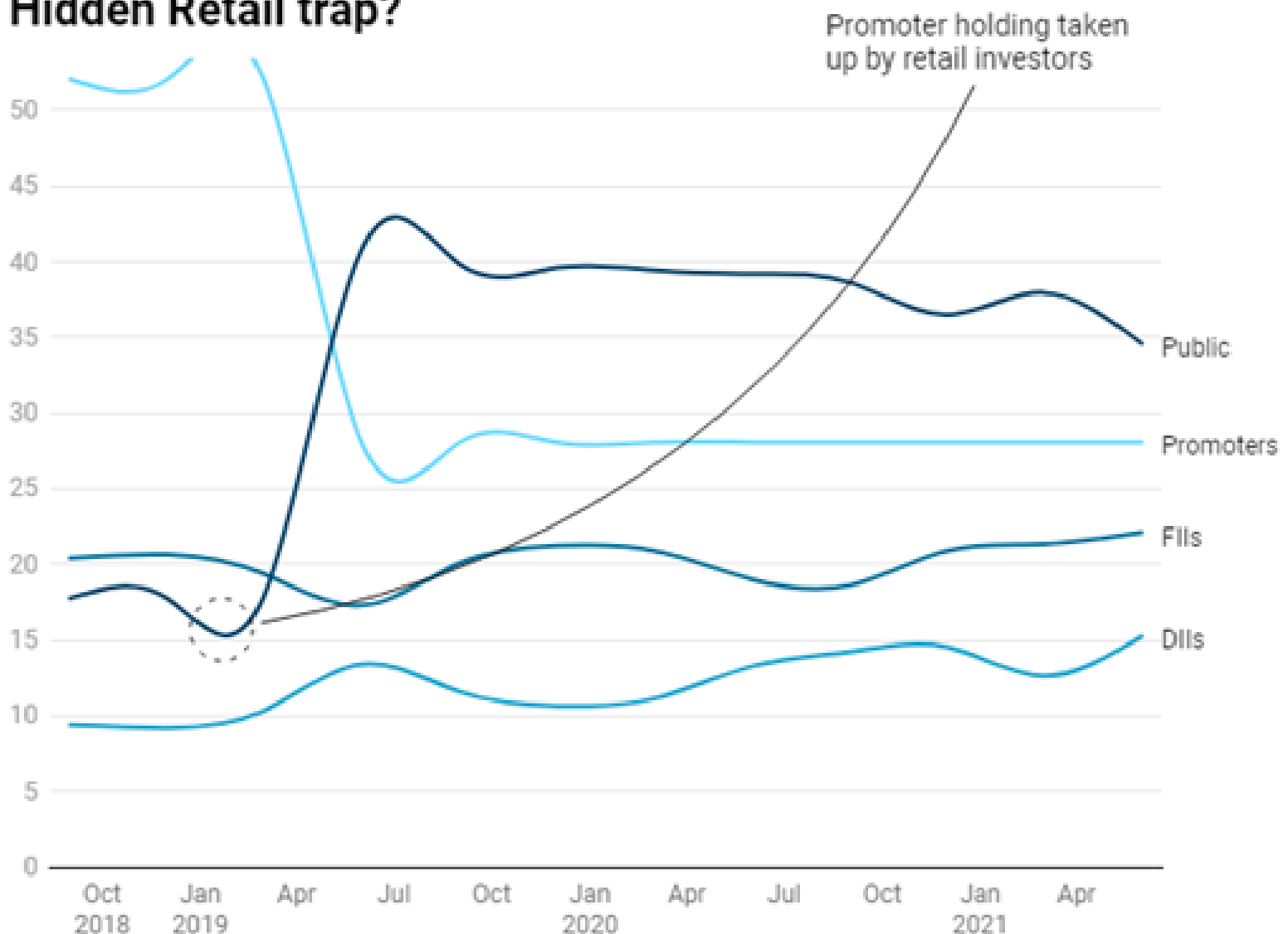
A stable promoter holding is a key to investor confidence in the company. ARBL's promoter holding has dropped sharply, around -24% in the last three years.

This dump has been met with increased retail participation in the stock as they become the largest group involved in the company. This is a red flag and certainly raises questions on the long-term health of the company.

The company also terminated its partnership with Johnson Controls Group of the U.S. and bought its stake of around 1.82% on April 30, 2019.

Clarois, a car manufacturer also sold its stake of around 10%, in May this year. These are some of the very serious issues at hand for the company right now.

Hidden Retail trap?



ARBL vs State of Andhra Pradesh

ARBL was forced to close down its plants situated at Karakambadi and Nunegundlapalli in Chittoor District, Andhra Pradesh. This was after the company received closure orders from the Andhra Pradesh Pollution Control Board (APPCB) on April 30, 2021. This raises the question of the ESG image of the company they are trying to push through their Green energy attempts.

Jaydev Galla, the MD of the company is a member of the TDM, Telugu Desam Party, and currently an MP in the Lok Sabha representing the party. The AP Legislative assembly currently has an overwhelming majority of the YSRCP, Yuvajana Sramika Rythu Congress Party. The TDP has alleged that the closing of the factory is a political vendetta against the opposition party, which has been rejected by the government.

No industry singled out, says Andhra amid allegations of targeting Amara Raja

Kumar made clarifications in the light of some media houses alleging that the state government is targeting Amara Raja Batteries Ltd (ARBL) and attempting to force it out of the state.

What does this mean for the company? The company has complied with the regulations and closed off the factories. Without getting into conspiracies, we can assume that this is a general procedure of the government to close off polluting factories/industries

Amara Raja Batteries issue non-political, linked to pollution: YSRCP

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PORTER'S FIVE FORCES



POWER OF CUSTOMERS

- Due to common standards, interchangeability is possible.
- Many national and local competitors.
- Price over quality preferred.

POWER OF SUPPLIERS

- Huge logistical issues, concentrated supply chain.
- Many competitors, fragmented market.
- Supplier margins are still high and import costs are huge.

INDUSTRY RIVALRY

- Oligopoly market, the lead battery market is virtually a duopoly between ARBL and Exide.
- Low product differentiation, except in national brands.
- Highly dependent on the auto sector, brand deals are common.

POTENTIAL OF NEW COMPETITION

- Medium-high capital requirement.
- Basic brand loyalty + compatibility issues.
- Regulatory issues for international firms.

THREAT OF NEW SUBSTITUTES

- Replacement and service departments are fully interchangeable.
- Price wars are common, falling margins on sales expected.



DCF VALUATION



Free Cash Flow Estimate (In INR Crs)

Particulars	Net cash from Operating Activities (A)	Capital Expenditures (B)	Free Cash Flow (FCF) (A-B)
2018 - 19	541	529	13
2019 - 20	1,177	701	475
2020 - 21	802	497	305

The three-year average FCF comes to Rs. 264.4 Crores

Assumptions in the DCF Primer

Particulars	Amount
Number of years considered	10
FCF Growth rate for first 5 years	15%
FCF Growth rate for last 5 years	10%
Terminal Growth Rate	3.50%
Discount Rate	9%

Cash flow & Present Value Table (in Rs. Crores)

Year	Cash flow	PV of Cash flow
2021 - 22	304	279
2022 - 23	350	294
2023 - 24	402	311
2024 - 25	462	328
2025 - 26	532	346
2026 - 27	585	349
2027 - 28	644	352
2028 - 29	708	355
2029 - 30	779	359
2030 - 31	857	362



- In our assumptions, 2030-31 is the terminal year, and the total CF at the end of 2030-31 is Rs. 16,117.69 Crores.
- The present value (PV) of the terminal cash flow is Rs. 6,808.28 Crores. [Going Concern Concept]
- The total PV of cash flow of the 10 years assumed is Rs. 10,141.71 Crores.

Intrinsic Value Calculation (INR Crs, unless indicated)

Particulars	Amount
Total PV of cash flow	10,141.71
Total Debt	23.39
Cash & Cash Balance	96.93
Net Debt	(73.54)
Share Capital	17.08
Face Value (INR)	1.00
Number of Shares	170,800,000
Share Price (INR)	598.08

MARGIN OF ERROR

Intrinsic Value Band

Particulars	Amount
Model Error leeway	10%
Lower Intrinsic value band	₹ 538.3
Upper Intrinsic value band	₹ 657.9



GORDON GROWTH MODEL



Calculation of Sustainable growth rate

PARTICULARS	AMOUNT
Return on equity(% , latest year ended)	16.2
Earnings per share(Rs, latest year ended)	37.87
Dividend per share(Rs)	6
Retention rate(EPS-Dividend/EPS, in %)	84
Sustainable growth rate	13.6

DDM/GGM Calculation

PARTICULARS	AMOUNT
Constant growth rate expected for dividends in perpetuity(in %)	11.5
Constant cost of equity capital for the company (or rate of return)(in %)	13.6
Value of next year's dividends(in Rs)	6.69
Estimated stock value(in Rs)	313.6

References:

1. Website: (<https://www.amararajabatteries.com/>)
2. Annual Reports:
(<https://www.amararajabatteries.com/investors/annual-reports#invest-content>)
 - [2020-21]
(<https://www.amararajabatteries.com/Files/AnnualReports/2020/ARBL%20Annual%20Report%202020-21%20Double%20page.pdf>)
 - [2019-20]
(<https://www.amararajabatteries.com/Files/AnnualReports/2019/ARBL%20Annual%20Report%202019-20%20double%20spread.pdf>)
 - [2018-19]
(<https://www.amararajabatteries.com/Files/AnnualReports/2019/ARBL%20AR%202018-19.pdf>)
 - [2017-18]
(<https://www.amararajabatteries.com/Files/AnnualGeneralMeetingFiles/2018/Annual-Report-2017-18.pdf>)
 - [2016-17]
(<https://www.amararajabatteries.com/Files/AnnualReports/2016/Annual-Report-2016-17.pdf>)
3. Zerodha Varsity: <https://zerodha.com/varsity/chapter/equity-research-part-1/>