

Financial Management & Planning

Business Report

MSc International Innovation Management

Module Code: ACPA7002

Supervisor: Howard Davies

Business Review Report of Aston Martin Lagonda PLC

30th January 2023

Student: Sudhir Mahadikar

Email: 2116874@student.uwtsd.ac.uk



Business Review Report of Aston Martin Lagonda PLC

Contents

1. Executive Summary.....	3
2. Introduction.....	3
3. Ratio Results – 5 years	4
4. Analysis	4
4.1. Ratio Limitations	4
4.2. Profitability	5
4.3. Efficiency.....	6
4.4. Liquidity	7
4.5. Investment.....	8
4.6. Gearing.....	9
5. Conclusion.....	9
6. Recommendations	10
7. References	11
8. APPENDIX.....	13
8.1. Explanatory Notes on the Governance and the Calculation of Ratios.....	13
8.2. 5 Year Income Statement.....	15
8.3. 5 Year Balance Sheet.....	16
8.4. 5 Year Cash Flow Report	17

1. Executive Summary

Aston Martin Lagonda comes with a heritage of high valued customer base, strong cultural association, high regard to quality of product build, sensitivity towards society and enormous goodwill. However, financially, as a company there have been several ups and downs and hence survived several bankruptcies. It is understandable that the pandemic has had a potential knock on effect on the global supply chain and AML was not too different in terms of its struggle to acquire parts and supply completed goods to market in time. Although, several of the ratio results are not in favour of the company and are concerning, future long term outlook still seems bright. This is due to its engagement and passion for innovation that can be clearly seen from its ambitious goal of launching electric vehicles as soon as 2025, performing F1 team, associations with educational institutions such as UWTSD for advanced research. As the full annual report for the year ending 2022 is not available, financial outlook of the company at the latest cannot be assessed. Strong focus towards smooth cashflow through controlled inventories, creditors, debtors and reducing administrative costs should put the company back on track.

From a long term investment perspective, recommendation to any new joint venture with AML is to wait for the full results of 2022 and then reassess ratios as well as any new developments regarding equity capital raise by AML to make a final decision on investment.

2. Introduction

Aston Martin Lagonda Global Holdings plc is a British manufacturer of luxury sports cars and grand tourers. The company is trading on the London Stock Exchange (LSE:AML) and is a constituent of the FTSE 250 Index. The company has survived seven bankruptcies throughout its operating history (Morgan Korn, 2018) of over 110 years. Company was founded by Lionel Martin and Robert Bamford on 15th January 1913. Their sports cars are regarded as icon of British cultural and used by the famous fictional character *James Bond*. Aston Martin has over 160 dealerships in 53 countries, making it a global super premium car brand. Aston Martin is venturing into the *Formula 1* with its own team, set to be operational by 2023. According to (Aston Martin Lagonda, 2022) company makes highest of its sales in the North America (~20%) and Asia (~20%), with Asia taking over the North American market very quickly.

Current report will analyse Aston Martin's annual financial statements including its profit & loss accounts, balance sheets and cash flow report over the last 5 years (2017 though 2021). Latest financial reports of 2022 (up to 3rd quarter i.e., Sept 2022), though partial, will also be considered to evaluate the trend lines and financial well being.

Analysis utilises profitability, efficiency, liquidity, investment and gearing ratios to critically evaluate the financial performance, financial health & well being as well as investor financial indices. Sections 3 presents the ratios utilised for the examination of financial performance of the company and are derived from Aston Martin's financial data presented in Sections 8.1 to 8.4. Where possible, analysis also considers market standards, market comparison, trends and theory to identify room to improve financial performance, governance and financial well being.

3. Ratio Results – 5 years

Ratio Analysis	2017	2018	2019	2020	2021	2022 YTD (3Qs)	5Yr Avg.	5Yr Industry Average
PROFITABILITY								
Gross Profit Margin	43.4%	39.7%	35.6%	18.2%	31.4%	33.4%	33.6%	20.7%
Cost of Sales	56.6%	60.3%	64.4%	81.8%	68.6%	66.6%	-	-
Marketing ROI	5.33	3.85	2.73	0.40	3.05	N/A	-	-
Operating Profit Margin	17.0%	6.6%	-3.7%	-52.8%	-7.0%	-15.0%	-8.0%	-4.6%
Tax	9.1%	16.3%	0.1%	11.9%	11.5%	1.3%	-	-
Contribution of Non-Controlling Interests to Annual Profit	3.4%	-9.8%	-8.4%	-2.1%	-1.2%	N/A	-	-
Net Profit Margin	8.8%	-5.2%	-10.5%	-67.1%	-17.3%	-60.4%	-18.3%	-9.8%
Return on Equity	56.4%	-12.7%	-29.1%	-51.1%	-28.7%	-66.0%	-13.0%	0.32%
EFFICIENCY / ACTIVITY								
Asset Turnover	0.54	0.53	0.45	0.22	0.39	0.25	0.42	1.50
Return on Assets	4.7%	-2.8%	-4.7%	-14.7%	-6.7%	-15.3%	-5%	-0.36%
Days Sales Outstanding (DSO), Days	48.2	80.4	91.4	106.1	81.1	N/A	81.5	
Inventory Turnover, Turns per annum	4.05	4.51	3.51	2.45	3.72	N/A	3.65	5.53
Days Payable Outstanding (DPO), Days	355.4	384.6	398.7	422.0	350.1	N/A	382.2	
Non Current Asset Productivity	0.72	0.73	0.60	0.32	0.55	0.43	-	-
LIQUIDITY								
Current Ratio	0.79	0.68	0.66	1.10	0.96	1.31	0.84	1.39
Quick Ratio (Acid Test)	0.55	0.47	0.43	0.84	0.74	N/A	0.61	0.81
Cash Ratio	0.32	0.18	0.13	0.61	0.46	N/A	0.34	
FINANCIAL GEARING								
Gearing Ratio	87.7%	63.9%	73.9%	59.5%	65.9%	66.0%	70.2%	
LT Debt to Equity	607.9%	134.6%	233.8%	120.8%	162.8%	N/A	252.0%	58.0%
Leverage (Total Debt / Total Equity)	1099.2%	358.7%	521.6%	247.6%	330.4%	332.4%	511.5%	149.8%
Interest Cover	355.1%	186.7%	-166.8%	-4819.4%	-765.0%	-100.2%	-1041.9%	
INVESTMENT								
Revenue Per Share	N/A	89.1	61.6	22.0	36.3	N/A	52.25	14.35
Earnings per Share	N/A	-25.0p	-45.8p	-357.3p	-162.5p	N/A	-147.7p	-0.12p
Price Per Earnings Ratio	N/A	-11553.8	-2725.6	-208.4	-308.5	N/A	-3699.1	29.41
Dividend Cover	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dividend Yield	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.22

Table 1: Aston Martin Lagonda Financial Statements - 2017 through 2021 & 2022 (YTD, 3 Quarters), (Aston Martin lagonda PLC, 2023)

4. Analysis

4.1. Ratio Limitations

Financial ratios help better understand and explain financial statements. Financial ratios help in benchmarking a firm's performance with other firms in the same industry, help in identifying problem areas with a company's operations, liquidity, debt position or profitability. They aid in assessing a firm's overall risk. Financial ratios are a means to predict firms' performance, especially return on stocks and return on assets (Soliman, 2008), (Nissim & Penman, 2001).

However, the analysis on financial ratios should be performed carefully and rationally. Financial ratios have inherent limitations that if not understood correctly could result in drawing incorrect conclusions from the results (Faello, 2015). Some of the imitations in the use of financial ratios are discussed below. These ratios are neither a standardized set of performance indices agreed by accounting agencies worldwide nor approved by governing or government bodies and hence are prone to distortion, inconsistencies and might lead to misuse. Ratio analysis does not account for issues related to supply chain, competition, Geo-political issues, pandemic, economic environment, new trends & technology such as electrification of vehicles, business strategy, changes in law and

legislation (e.g., emission norms), currency disparities, Seasonal effects, future prospects of the company (such as heavy investment in R&D) and relativity to other measures. Inflation might induce potential distortions in analysis; therefore, when performing multiannual financial analyses, it is important that the results be interpreted considering inflation (Gadoiu, n.d.).

4.2. Profitability

a) Gross Profit

Gross profit margin for the year 2021 has been 31.4%, which is above the industry average of 20.7%. 2017 has shows the best gross profit margin in the last 5 years with a humongous 43.4%. A 5 years average gross profit margin is healthy at 33.6% and for year 2021 it is slightly below the 5 years average. Gross profit had fallen sharply in 2020 to mere 18.2% due to increased cost of sales (88%) and shortage of sales mostly attributed to Covid 19 pandemic. But, has shown robust comeback during 2021 and the same trend is seen from the results of first 3 quarters of 2022 (33.4%). Aston Martin should keep a check of increasing cost of sales by reducing production costs. It would be ideal to consider cheaper sites for production of parts and assembly to keep the product cost at a minimum.

b) Operating Profit

Operating profit has seen large fluctuations over the last 5 years with 2020 being the worst with an operating loss of 52.8%. Again, it is the pandemic to blame to as this year has seen the lowest revenue in the last 5 years with highest selling and administrative expenses amounting to £433m. 2021 has been a good comeback with an operating loss margin of only 7%. This is mainly due to increased revenues and controlled spending on sales and admin. YTD 2022 admin spending is at a all time high at £414.4m. Aston martin should device mechanisms to control sales and admin spending to improve its profitability situation. Industry average operating loss is at 4.6% signifying losses across the industry, although small.

c) Net Profit

2017 is the year where Aston martin has ever been able to be in profit at 8.8%. Since then the profit margins have steadily declined and bottomed out in 2020 with a net loss of 67.1%. Though 2021 showed reduced losses at 17.3%, 2022 YTD 3Q is down below 60%. Main reasons for 2022 losses are due to increased spending on admin and finance related. Overall this suggests a weak financial management in controlling non value added spending.

d) Return on equity

Except for the year 2017 when the return on equity was 56.4%, all recent years including 2021 have yielded –ve returns on share holder equity. Indicating net loss on the shareholders equity. In the year 2018 Lagonda was merged into the Aston Martin family. Post 2017 the expenses related to marketing, administration and finance have almost doubled and are increasing. A detailed investigation on the increased spending post 2017 should provide insight of any possible negative effective of the merger and this could be mitigated to reduce spending and increase the return on equity. It is interesting to see that the industry 5 year average of return of equity is merely 0.32%. Indicating how low the returns on equity are in the automotive industry.

4.3. Efficiency

a) Non-Current Asset Productivity, Asset Turnover & Return on Assets

There has been a steady increase in the non-current assets over the last 5 years and in YTD 2022. This is as expected considering the future value of non-current assets. Whereas, the current assets have increased exponentially over the last years and especially in YTD 2022 is 3.5 times as much in 2017. This clearly indicates either surplus acquisition of assets or under utilisation of available assets to boost sales or both. This has resulted in lowest asset turnover for the year 2020 and YTD 2022. With the results for last quarter of 2022 still to be published, this is expected to be worse. Industry average asset turnover of 1.5 indicates the lack of efficiency within AML administration in effectively utilising the assets. RoA has plummeted much below the industry average -0.36% over the last years and 2022 is worrying as it stands at -15.3% just for the first 3 quarters. Key opportunities for improvement are:

- Improve cash flow through leasing and/or sale of redundant material, plant, property & equipment
- Investigate root cause for large accumulation of current assets and efficient ways of disposing them to improve productivity, cash flow and hence asset turnover.
- Accelerate inventory turnover to improve return on assets.

b) Receivables

AML's days sales outstanding has been a declining trend since the 2017 up until 2020 and 2020 being the worst at 106.1 days for obvious reasons. Although 2022 has shown some improvement. Receivables trend clearly shows inefficiencies in the cash inflow process.

Possible solutions to look for are:

- Efficient collection processes, timely invoicing, late payment penalties, easy payment of invoices(ENKEL, 2022)
- Adequate credit policies, credit limit/freeze/reduction
- Identify and take legal actions against customers who are not financially viable or creditworthy
- Improve relationships with dealerships, development and support them
- Insist on cash flow vigilance through prompt follow up
- Device mechanisms for recognition and appreciation for prompt payment and turnaround
- Introduce monetary and non-monetary incentives to dealers and associates

c) Payables

A five year average of payables is 382days, which is over a year, indicting an overflow of payables to next financial year. Without insight of an industry average value, it is very difficult to assess a comparative YoY performance of the company as well as setting an acceptable window for payables. In a luxury car industry unless there is the benefit of quick pay discount incentives, or stringent

penalties for late payment, extending payment window will be beneficial. Although this reduces the payout frequency but could increase risk of creditors pile up or clogging the payout channel if over strained. Best approach will always be to adopt payment on sale or return basis to enhance cash flow. Investing in an efficient eProcurement software package to manage creditors and debtors could be a good idea to help manage cash flow through efficient and accurate data management (Vecchio, 2023).

d) Inventory Turnover

5 years average inventory turnover of AML is 3.65 per annum against an industry 5 year average of 5.53. Fairness of comparing an industry average in general to a luxury car manufacturer is certainly questionable. As a relevant benchmark, number for inventory turnover is neither available in free source nor set by any industry standards, it is difficult to comment much on the numbers. Inventory turnover in 2021 has been much better than the pandemic year of 2020 where it is clearly due to stock pile up due to low demand and drop in sales during pandemic (Rao, 2022). Microchip crisis has had a direct impact on the automotive supply chain and jeopardised the inventory management (Margherita Russo, 2022).

Stock pile up is an issue which can be mitigated by

- Smart market intelligence of the sales department
- Using the Economic ordering quantities decision models
- Employing advanced ERP software applications such as SAP, ORACLE,
- Utilising modern data analytic tools to study customer behaviour, future trends, and change in Socio/economic/political trends within customers and supply chain
- Study and utilise just-in-time inventory where suitable
- Sales promotions, increased dealer benefits, penetrating deeper in-market customers, smart pricing and feature subscriptions

e) Non-current assets productivity

During the 5 years of statements under study, the year of pandemic, that is 2020 has been the worst year in terms of efficient utilisation of the non-current assets with only 32% utilisation. Though the utilisation has shown improvements over the last two years, but there seems to be room for efficient or optimal utilisation of non-current assets by deep diving into elements of non-current assets and stimulating their optimum usage.

4.4. Liquidity

a) Current Ratio

AML's current ratio has historically been concerning at below the industry average of 1.39, with the exception of 2020 where it went to 1.10 as well as YTD 2022 of 1.31. If looked closely, even the year 2021 has not been too bad at 0.96. It can be attributed to improved inventories (YOY -5.1%), increase trade and other receivables (26.8%), stabilised cash and cash equivalents (YOY -14.4%) and stabilised barrowing (YOY 0.7%).

b) Quick Ratio

AML's acid-test ratios have always been below the industry average of 0.81, except for the year 2020 due to high cash in hand and low trade and other payables. Again, 2021 has been better than previous years due to improved cash situation as in 2020. AML has good opportunity to improve liquidity through management of receivables, payables, stock turnover and non-current asset productivity. Device mechanisms to control Trade and other payables (YOY 24.5%) to a manageable level.

c) Cash Ratio

Looking at the last 5 years, the cash situation has improved during 2020 and 2021. In 2021 AML had enough liquidity to cover 46% of all short term liabilities. An industry average is not available for comparison; nevertheless there is room for improvement through control of short term liabilities.

4.5. Investment

a) Revenue/Earnings Per Share (RPS, EPS)

Both RPS and EPS have declined over years with lowest in 2020, though EPS has been over the industry average of 14.35. This can be attributed to increased non-controlling interests (YOY 14.1%) and reduced revenues. EPS has been below the industry average of -0.12pence for the last 5 years and is concerning. Improving current and non-current asset productivity, better cash flow through management of debtors and creditors will help accelerate revenues, net profit and EPS.

b) Dividend Cover & Dividend Yield

AML has not been able to pay dividends to share holders in the last 5 years due to net losses. Same seems to be the case for the year 2022. Unless net profit margin is improved to be profitable paying dividends will not be possible. Industry 5 year average dividend yield is 2.22%, indicating AML has to improve performance to keep up share holder credibility and secure future investments. AML has credible goodwill and should thrive to be profitable to be investor friendly. Current situation reflects higher risk for shareholders, although it is important to investigate and understand future investments and growth prospects of the company.

c) P/E Ratio & Market Share Price

Increasing P/E ratio (though much less than the industry average of 29.41) and increasing share price signifies improved investor confidence and growth potential and improved near and far future. Electrification of AML's vehicles and investment in their own formula one team seems to have boosted investor confidence.

4.6. Gearing

a) Gearing Ratio

Average gearing for a period of 5 years (2017 to 2021) of AML is at 70.2%, indicating high leverage over a long period and clearly indicating financial risks. Industry average from free sources is not available to be able to make a pragmatic sense of this level of gearing. Year 2020 showed drop in leverage but this was combined with low volumes of business and lower financial borrowing during the pandemic. AML is investing heavily in its *Formula 1* factory based in Silverstone to be operational on the 13th February 2023 (Aston Martin F1, 2023). AML planning to launch its first ever fully electric vehicle by 2025 and hence a huge investment in R&D of battery and motor technology. Both these life events for AML are high stake and high investment and hence will have a direct impact on the leverage in the near future. But, as they are bound to bounce back the sales and revenues a positive outlook is expected.

b) LT Debt to Equity & Leverage (Total debt/total equity)

LT debt to equity for the year 2021 is at 162.8% which is much higher than the average industry value of 58%. As well the debt/equity for the year 2021 is at 330.4% which is also much higher than the industry average of 150%. This indicates the business is heavily dependent on long-term debt to form the basis of its capital structure. With numbers over twice as much the industry average suggest AML's total liabilities and cashflow outlooks remain grim and vulnerable to volatility, uncertainty, complexity, and ambiguity (VUCA). This would certainly discourage banks and investors from further lending.

c) Interest Cover

Except for the years 2017 and 2018, AML has not shown operating profits and hence has not demonstrated any interest cover. This is a clear indication of the VUCA leading to future short term financial challenges with the investors and finance bodies.

5. Conclusion

AML share prices are the lowest (LONDON STOCK EXCHANGE, 2023) in the history and hence are of dire concern. Although the company has shown good gross profit margins for years, but has failed to achieve profitability due to increased cost of sales, increased administrative expenses and weak cash flow management in both short and long term. AML has not been able to pay dividends to share holders since its inception as a conglomerate and hence the shareholder moral is not at its best. While AML seem unlikely to be attractive for investment in the short terms, due to its major investments in long term projects such as the F1, electrification and strong presence in Asia Pacific, they are likely to be a good investment opportunity from a long term perspective.

Review of the ratio outputs and financial statements show that the company has a lot of room for improvement to improve its cash situation and be profitable. It seems like the company is lacking short term vision and hence reduced control on management of current assets, current liabilities and admin expenses. AML should look for new equity financing to reduce debt and improve cashflow. From a long term perspective recommendation to the management of any new joint venture investment is to wait for 2022 full year results and base the decision on them in light of the findings of this report.

6. Recommendations

Area of Focus	Action	Priority
Equity Financing and investment	Undertake equity capital raise to meaningfully deleverage the balance sheet, strengthen and accelerate long-term growth	Business Critical
Marketing	- Concentrate on emerging markets than the established ones. - Asia pacific sales numbers are lucrative and need more focus. - Improve brand awareness in developing markets for improved sales - Penetrate into new markets, especially south America and South east Asia - Employ data analytics to collect, analyse and deploy tailored marketing strategies and improve target customer focus.	Business Critical
Admin Cost Control	- Investigate elements of cost in admin and carry out cost reduction exercises without unduly affecting the admin performance - Employ smart admin software tools such as SAP, ERP for efficient and low cost administration - Explore outsourcing admin related activities to low cost geographies	Business Critical
Stock Turnover	- Manage stock health through ERP software tools - Identify and fix shortfalls in supply chain - Maintain listed supplier list big enough to find alternative to avoid supply chain failure due to single point of supply - Develop contingency plans for unprecedented circumstances such as war, pandemic, socio-economic changes, political issues.	Business Critical
Cost of Sales	- Revisit list of supplier of parts and accessories to find more cost effective partners - Explore sub-assembly facilities in geographies which are cheaper to the current ones - Carry out 8D analysis of increased cost of sales and find ways of mitigating cost to improve operating profits. - Explore special economic zones for plants, negotiate for tax and duty reduction with local authorities, - Scientific work and method study to improve assembly line efficiency to reduce product labour cost.	Business Critical
Debtor Control	- Negotiate optimum turn-around time for payments from dealers - Payments based on depletion of stock would be preferable over shipment based ones. - Explore late payment penalties, legal action for late or delayed payments, provide quick pay discounts and incentives for prompt on-time payment - Use software tools to generate, issue and track invoices. Alerts for payment/missed payments/penalties/fees can be very effective.	Very high
Creditor Control	- Negotiate pragmatic payment windows with lenders and finance bodies. - Payments based on depletion of stock would be preferable over shipment based ones.	High
Pricing and Competition	- Sales are the only aspect of generating cash and this need to be improved. Sales are directly related to pricing. High frequency products can be sold at marginal profits and low frequency ones at high profits. - Study rival pricing strategy and adopt smart pricing techniques such as subscriptions, reward for cash payments and lucrative finance options - Explore geographical based product pricing and consider local taxation and VAT etc., during pricing.	High

7. References

- Adiloğlu, B. & Vuran, B., 2012. The Relationship Between The Financial Ratios And Transparency Levels Of Financial Information Disclosures Within The Scope Of Corporate Governance: Evidence From Turkey. *The Journal of Applied Business Research*, 28(4).
- ADVFN, 2023. ADVFN. [Online] Available at: <https://uk.advfn.com/stock-market/london/aston-martin-lagonda-glo-AML/financials> [Accessed 25 January 2023].
- Aston Martin F1, 2023. *Aston Martin F1*. [Online] Available at: <https://www.astonmartinf1.com/en-GB/news/announcement> [Accessed 29 January 2023].
- Aston Martin lagonda PLC, 2023. *ANNUAL REPORT 2021*. [Online] Available at: <https://www.astonmartinlagonda.com/investors/annual-report> [Accessed 22 January 2023].
- Aston Martin Lagonda, 2022. *Q3 2022 Results*. Quarterly Financial Report. Aston Martin Lagonda Plc.
- Bhagat, S. & Bolton, B., June 2008. Corporate governance and firm performance. *Journal of Corporate Finance*, 14(3), pp.257-73.
- Brown, L.D. & Caylor, M.L., 2004. Corporate Governance and Firm Performance. *Review of Quantitative Finance and Accounting*.
- Cbonds, 2022. *Cbonds*. [Online] Available at: <https://cbonds.com/news/1691757/> [Accessed 29 January 2023].
- ENKEL, 2022. *ENKEL*. [Online] Available at: <https://www.enkel.ca/blog/bookkeeping/improve-accounts-receivable-turnover/> [Accessed 28 January 2023].
- Faello, J., 2015. UNDERSTANDING THE LIMITATIONS OF FINANCIAL RATIOS. *Academy of Accounting and Financial Studies Journal*, 19(3), pp.75-85.
- Gadoiu, M., n.d. ADVANTAGES AND LIMITATIONS OF THE FINANCIAL RATIOS USED IN THE FINANCIAL DIAGNOSIS OF THE ENTERPRISE. *Scientific Bulletin – Economic Sciences*, 13(2), pp.87-95.
- Lagonda, A.M., 2017, 2018, 2019, 2020, 2021, 2023 (3Qs). <https://www.astonmartinlagonda.com/investors/annual-report>. [Online] Available at: <https://www.astonmartinlagonda.com/investors/annual-report> [Accessed 29 January 2023].
- LONDON STOCK EXCHANGE, 2023. *LONDON STOCK EXCHANGE*. [Online] Available at: <https://www.londonstockexchange.com/stock/AML/aston-martin-lagonda-global-holdings-plc/company-page> [Accessed 29 January 2023].
- Margherita Russo, F.A.J.C.S.G.M.S.R.A.S., 2022. Automotive Value Chains in a Brave New World. *Institute for New Economic Thinking*, 11 January.
- Morgan Korn, 2018. *abc NEWS*. [Online] Available at: <https://abcnews.go.com/Business/british-automaker-aston-martin-survived-bankruptcies-now-invest/story?id=58417290> [Accessed 23 January 2023].

Mulyadi, D., Sihabudin & Sinaga, O., 2019. Analysis of Current Ratio, Net Profit Margin, and Good Corporate Governance against Company Value. *A multifaceted review journal in the field of pharmacy*, 11(1), pp.588-600.

Nissim, D. & Penman, S.H., 2001. Ratio Analysis and Equity Valuation: From Research to Practice. *Review of Accounting Studies*, 6, pp.109-54.

Rao, Z., 2022. *The Supply and Demand Shocks in Central and Eastern European Countries A Study in the Automotive Industry*. Masters Thesis. Prague: CHARLES UNIVERSITY IN PRAGUE.

Ratings, S.G., 2023. *S&P Global Ratings*. [Online] Available at: <https://www.spglobal.com/ratings/en/about/understanding-credit-ratings> [Accessed 29 January 2023].

Soliman, M.T., 2008. The Use of DuPont analysis by Market Participants. *American Accounting Association*, 83(3), pp.823-53.

Vecchio, L.D., 2023. *PLANERGY*. [Online] Available at: <https://planergy.com/blog/how-to-improve-accounts-payable-turnover-ratio/> [Accessed 28 January 2023].

8. APPENDIX

8.1. Explanatory Notes on the Governance and the Calculation of Ratios

Relationship between corporate governance, financial performance, corporate capital structure and ownership structure is often complex and debated (Bhagat & Bolton, June 2008). Implementation of good corporate governance can ensure smooth operation of company's activities; including matters relating to the company's performance both financial and non-financial (Brown & Caylor, 2004). In October 2022 S&P a global credit rating agency affirmed the Global Rating of Aston Martin at CCC+ and considers the outlook to be stable (Cbonds, 2022). Credit ratings only reflect a rating agency's opinion of an entity's overall creditworthiness as well as its capacity to satisfy its financial obligations (Ratings, 2023). Credit agencies are generally concerned with the quality of governance as weak governance can impair a firm's financial position and leave stakeholders at debt.

According to a hypothesis, a company's overall value is determined by the quality of financial ratios and good corporate governance (Mulyadi et al., 2019). Although, this is only a hypothesis and there is no mathematical technique to quantify quality of governance, this can be used as an indicator of company's worth only and not a measure. As, according to (Adiloğlu & Vuran, 2012), firms with poor governance indices in emerging markets can have better financial performance due to low levels of constraints and increased opportunities to take up high risk ventures.

In many instances within this report an industry average data was not able to be presented for comparison due to lack of free source data availability. It is to be noted that these industry average data (ADVFN, 2023) utilised in Section 3 for comparison purpose might not have used the same calculation methodology to that listed below.

Profitability Ratios

- Gross Profit Margin = Gross profit / Net Sales
- Marketing ROI = (Gross Profit-Marketing cost) / Marketing cost
- Operating Profit Margin = Operating profit / Net Sales
- Contribution of Non-Controlling Interests = Non-controlling interests / Net profit
- Net Profit Margin = Net income / Net Sales
- Return on Equity = Net income / Shareholder's Equity

Efficiency Ratios

- Asset Turnover = Net Sales / Total Assets
- Return on Assets = Profit for the year / Total Assets
- Days Sales Outstanding (DSO) = Trade and Other Receivables / Average Revenue per Day
- Inventory Turnover = Cost of Goods Sold / Average Inventory
- Days Payable Outstanding = Trade and Other Payables / Average CoGS per Day
- Non Current Asset Productivity = Net Sales / Non Current Assets

Liquidity Ratios

- Current Ratio = Current Assets / Current Liabilities
- Quick Ratio = Current Assets Less Stock / Current Liabilities
- Cash Ratio = Cash and Cash Equivalents / Current Liabilities

Financial Gearing

- Gearing Ratio = Non Current Liabilities / (Equity + Non Current Liabilities) %
- Long Term Debt to Equity = Long Term Debt / Stockholders Equity %
- Leverage (Total Debt / Total Equity) = Total Liabilities / Stockholders Equity %
- Interest Cover = Operating Profit / Interest Charge %

Investor Ratios

- Revenue Per Share = Net Sales / (Share capital + Non-Controlling Interests)
- Earnings Per Share (EPS) = Net Income (profit after tax) / no of Shares
- Price per earnings Ratio = Market Value per Share / EPS
- Dividend Cover = Net Income (profit after tax) / Dividend Proposed and Shared
- Dividend Yield = Dividend per Share / Market Value per Share

Note:

- In section 3, some of the ratios for the YTD 2022 were not calculated due to lack of availability of data
- Dividend was neither proposed nor paid for the duration under study and hence both the Dividend Cover and Dividend Yield were not calculated in Section 3.

8.2. 5 Year Income Statement

INCOME STATEMENTS							YoY (2021/22)
	£m						
	YEAR	2017	2018	2019	2020	2021	2022 (2)
Revenue		876	1,096.50	997.3	611.8	1,095.30	857.2
Cost of sales (COGS)		-496.2	-660.7	-642.7	-500.7	-751.6	-571
Gross profit		379.8	435.80	354.6	111.1	343.7	286.2
Selling and distribution expenses		-60	-89.8	-95	-79.6	-84.8	
Administrative and other expenses		-171	-293.2	-277.3	-354.4	-335.4	-414.4
Other income		-	20	-19	-		
Operating profit		148.8	72.8	-36.7	-322.9	-76.5	-128.2
Finance income		35.6	4.2	16.3	40	36.4	
Finance expense		-99.9	-145.2	-83.9	-183.1	-173.7	-362.9
Interest paid (1)		-41.9	-39	-22	-6.7	-10.0	-128
(Loss)/profit before tax		84.5	-68.2	-104.3	-466	-213.8	-511.3
Income tax credit/(charge)		-7.7	11.1	-0.1	55.5	24.5	-6.7
(Loss)/profit for the year		76.8	-57.1	-104.4	-410.5	-189.3	-518
Earnings per ordinary share							
Basic		38.3p	(31.0p)	(49.6p)	(543.0p)	(165.9p)	(156.1p)
Diluted		36.5p	(31.0p)	(49.6p)	(543.0p)	(165.9p)	
(Loss)/profit attributable to:							
Owners of the group		74.2	-62.7	-113.2	-419.3	-191.6	
Non-controlling interests		2.6	5.6	8.8	8.8	2.3	
		76.8	-57.1	-104.4	-410.5	-189.3	
Other comprehensive income							
Items that will never be reclassified to the Income Statement							
Remeasurement of defined benefit liability		2.9	5.4	-1.4	-59.1	3.8	
Related income tax		-0.5	-0.9	0.2	12.3	-1	
Items that are or may be reclassified to the Income Statement							
Foreign exchange translation differences		-0.7	0.7	-2.7	0.8	2.3	
Fair value adjustment on cash flow hedges and secured –			-23.5	21.2	13.2	-3.4	
Other comprehensive income for the period, net of incc		1.7	-18.3	17.3	-32.8	7.7	
Total comprehensive income for the period		78.5	-75.4	-87.1	-443.3	-181.6	
Total comprehensive income for the period attributable to:							
Owners of the group		75.9	-81	-95.9	-452.1	-183.9	
Non-controlling interests		2.6	5.6	8.8	8.8	2.3	
		78.5	-75.4	-87.1	-443.3	-181.6	
(1) Sum of all the interest paid (Interest on lease liabilities +Net interest expense on the net Defined Benefit liability+Interest on contract liabilities held)+Other Interests							
(2) Data used as per YTD of 3 quarters							

(Lagonda, 2017, 2018, 2019, 2020, 2021, 2023 (3Qs))

8.3. 5 Year Balance Sheet

BALANCE SHEET							YoY (2021/22)
	£m						
YEAR	2017	2018	2019	2020	2021	2022 (1)	
Non-current assets							
Intangible assets	930.7	1,071.70	1,183.60	1,336.80	1,384.10		3.5%
Property, plant and equipment	243.9	313	350.5	389.6	355.5		-8.8%
Right-of-use lease assets	-	-	81.8	71.4	76		6.4%
Trade and other receivables	2.1	1.8	1.8	0.9	2.1		133.3%
Other financial assets	-	-	0.2	0.1	0.5		400.0%
Deferred tax asset	37.1	123.1	45.7	106.5	156.4		46.9%
	1,213.80	1,509.60	1,663.60	1,905.30	1,974.60	1,978.20	3.6%
Current assets							
Inventories	127.8	165.3	200.7	207.4	196.8		-5.1%
Trade and other receivables	115.7	241.6	249.7	177.9	243.4		36.8%
Income tax receivable	-		0.3	0.2	1.5		650.0%
Other financial assets	7	0.1	8.9	14.6	7.3		-50.0%
Cash and cash equivalents	167.8	144.6	107.9	489.4	418.9		-14.4%
	418.3	551.6	567.5	889.5	867.9	1,416.00	-2.4%
Total assets	1,632.10	2,061.20	2,231.10	2,794.80	2,842.50	3,394.20	1.7%
Current liabilities							
Borrowings	13.5	99.4	114.8	113.5	114.3		0.7%
Trade and other payables	483.1	696.1	702.1	578.9	721		24.5%
Income tax payable	2.7	4.9	8.9	1.2	5.5		358.3%
Other financial liabilities	18.2	4.2	6.3	83.3	34.8		-58.2%
Lease liabilities	-		14.1	9.3	9.7		4.3%
Provisions	12	10.8	12	22.1	19.9		-10.0%
	529.5	815.4	858.2	808.3	905.2	1,082.80	12.0%
Non-current liabilities							
Borrowings	827.4	604.7	839.1	971.3	1,074.90		10.7%
Trade and other payables	17.7	12.2	9.4	7.5	9.8		30.7%
Other financial liabilities	-	4.4	2.6	-			
Lease liabilities	-		97.3	93.7	93.7		0.0%
Provisions	13.9	25.4	16.2	16.8	19		13.1%
Employee benefits	46.9	38.7	36.8	92.5	78.7		-14.9%
Deferred tax liabilities	60.6	111	12.6	0.6	0.8		33.3%
	966.5	796.4	1,014.00	1,182.40	1,276.90	1,526.40	8.0%
Total liabilities	1,496.00	1,611.80	1,872.20	1,990.70	2,182.10	2,609.20	9.6%
Net assets	136.1	449.4	358.9	804.1	660.4	785.00	-17.9%
Capital and reserves							
Share capital	-	2.1	2.1	11.5	11.6		0.9%
Share premium	353.7	352.3	352.3	1,108.20	1,123.40		1.4%
Share warrants	18.5	-	-	-	-		
Merger reserve	-	-	-	144	143.9		-0.1%
Capital redemption reserve	-	-	-	9.3	9.3		0.0%
Capital reserve	94.1	6.6	6.6	6.6	6.6		0.0%
Translation reserve	1.6	2.3	-0.4	0.4	2.7		575.0%
Hedge reserve	-	-23.5	-2.3	10.9	6.7		-38.5%
Retained earnings	-339.4	99.4	-13.5	-503.1	-662.4		31.7%
Equity attributable to owners of the group	128.5	439.2	344.8	787.8	641.8		-18.5%
Non-controlling interests	7.6	10.2	14.1	16.3	18.6		14.1%
Total shareholders' equity	136.1	449.4	358.9	804.1	660.4	785	-17.9%

(1) Data used as per YTD of 3 quarters

(Lagonda, 2017, 2018, 2019, 2020, 2021, 2023 (3Qs))

8.4. 5 Year Cash Flow Report

CASH FLOW	£m							YoY (2021/22)
	YEAR	2017	2018	2019	2020	2021	2022(1)	
Operating activities								
(Loss)/profit for the year		76.8	-57.1	-104.4	-410.5	-189.3		-53.9%
Adjustments to reconcile (loss)/profit for the year to net cash inflow from operating activities								
Tax on continuing operations		7.7	-11.1	0.1	-55.5	-24.5		-55.9%
Net finance costs		64.3	141	67.6	143.1	137.3		-4.1%
Other non-cash movements		-25.1	13.3	-4.4	2.2	-0.1		-104.5%
Loss/(profit) on sale of property, plant and equipment		-0.1	0.4	0.9	-			
Depreciation and impairment of property, plant and equipment		27.4	32.4	38.8	50.8	65.3		28.5%
Depreciation and impairment of right-of-use lease assets		-		13.3	14.8	9.3		-37.2%
Amortisation and impairment of intangible assets		54.7	67.6	112.4	168.5	137.6		-18.3%
Difference between pension contributions paid and actuarial gains/losses		-21.8	-3.8	-4.4	-4.1	-11.4		178.0%
Increase in inventories		-10.6	-37.5	-33.3	-4.8	7.7		-260.4%
Increase in trade and other receivables		-7.8	-122.4	-28.9	67.4	-75.4		-211.9%
(Decrease)/increase in trade and other payables		166.7	136.1	-70	-118.6	52.8		-144.5%
Increase in advances and customer deposits			68.8	48.4	-52.8	70.7		-233.9%
Movement in provisions		12.5	10	4.5	11	-0.2		-101.8%
Cash generated from operations		344.7	230.5	40.6	-188.5	179.8	-56.9	-195.4%
Increase in cash held not available for short-term use		-	-	-8.7	-0.9	8.1		-1000.0%
Income taxes paid		-0.7	-7.9	-12.5	-9.2	-9		-2.2%
Net cash inflow from operating activities		344	222.6	19.4	-198.6	178.9	-56.9	-190.1%
Cash flows from investing activities								
Interest received		3.1	4.2	5	2.3	1.1		-52.2%
Increase in loan assets		-	-	-	-	-1.4		
Decrease in loan assets		-	-	-	-	0.9		
Proceeds on the disposal of property, plant and equipment		0.2	-	-	-	-		-
Loan to shareholders		-5.6	-	-	-	-		-
Payment to acquire subsidiary undertaking		-50.1	-	-	-	-		-
Payments to acquire property, plant and equipment		-75	-101.9	-82.2	-81	-40.7		-49.8%
Payments to acquire intangible assets		-219.2	-208.6	-228	-179.7	-144		-19.9%
Net cash used in investing activities		-346.6	-306.3	-305.2	-258.4	-184.1	-231.4	-28.8%
Cash flows from financing activities								
Interest paid		-49.8	-42.2	-52	-82.3	-118	-65.3	43.4%
Proceeds from equity share issue		-	4.6	-	812.8	-		-
Proceeds from issue of equity warrants		-	-	-	34.6	15.3		-55.8%
Proceeds from financial instrument utilised as part of financing		-	-	-	6.9	-		-
Dividend paid to non-controlling interest		-	-3	-	-	-		-
Principal element of lease payments		-	-	-10.9	-12.2	-9.9		-18.9%
Repayment of existing borrowings		-	-	-91.5	-1,092.30	-37.3		-96.6%
Movement in existing borrowings		-474.3	0.3	102.3	-	-		-
Proceeds from inventory repurchase arrangement		-	-	38.7	76.8	19		-75.3%
Repayment of inventory repurchase arrangement		-	-	-	-80	-40		-50.0%
New borrowings		606.1	98.1	260.8	1,252.70	108.5		-91.3%
Transaction fees paid on issuance of shares					-34.9	-1.3		-96.3%
Transaction fees on new borrowings		-12.1	-	-4.1	-41.9	-2.8		-93.3%
Net cash inflow from financing activities		69.9	57.8	243.3	840.2	-66.5	666.7	-107.9%
Net (decrease)/increase in cash and cash equivalents		67.3	-25.9	-42.5	383.2	-71.7		-118.7%
Cash and cash equivalents at the beginning of the year		101.7	167.8	144.6	107.9	489.4		353.6%
Effect of exchange rates on cash and cash equivalents		-1.2	2.7	5.8	-1.7	1.2		-170.6%
Cash and cash equivalents at the end of the year		167.8	144.6	107.9	489.4	418.9		-14.4%
(1) Data used as per YTD of 3 quarters								

(Lagonda, 2017, 2018, 2019, 2020, 2021, 2023 (3Qs))