

Evaluation of Aston Martin Lagonda using Key Financial Performance Indicators for a proposed JV into Electric Car Development

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1 Executive Summary

Aston Martin Lagonda is a luxury car manufacturer based in the United Kingdom, that has international fame from being the car of choice for fictional spy James Bond. They are renowned for exceptional quality and are the statement of luxury sport cars.

Despite these the past 5 years the company has been in minor turmoil, following public listing on the FTSE250 an initially successful IPO that raised of £5billion (following in the footsteps of Ferrari who had successfully listed and launched an IPO in previous years), the company stocks plummeted immediately following listing (Baldoncini, 2019). This led to a cashflow crisis which sparked two rescue deals from Canadian Billionaire Laurence Stroll. The board was removed and changed to its current structure bringing in industry experts such as the Financial Officer from Mercedes and Toto Wolff to provide technical direction.

This report analyses the key financial ratios for Aston Martin based off the previous 5 years published financial statements, calculated ratios include: profitability, liquidity, activity, leverage and investor ratios. The analysis showed that the performance of Aston Martin has been variable for the previous five financial years from 2017 -2021, steadily declining following the failed IPO in 2018. Despite this there have been minor signs of recovery in 2021, following the restructuring of the board and slimming of the company.

As a company, we are looking towards Aston Martin as a potential £5 million joint-venture partnership to accelerate both companies exploration into the electric car industry. This report will evaluate the key financial metrics and provide a recommendation to the board as to whether to pursue the joint-venture or not.

At this time following the analysis of the company income statement and balance sheets, it is not recommended to pursue the joint-venture, but to instead wait for an additional financial year to further evaluate the finances of Aston Martin and to explore other opportunities with other companies such as Mercedes-Benz Group that already have substantial experience in the electric/hybrid market.

2 Introduction

Aston Martin Lagonda Global Holdings PLC is a historic English manufacturer of luxurious sports cars since 1913 (Dowsey, 2007). It was founded by business partners Lionel Martin and Robert Bamford, growing associated with luxury sports cars following its appearances as the car brand of choice for fictional spy James. The company partnered with Mercedes AMG in 2013, with Mercedes-Benz Group (Daimler) taking an initial 5% equity in the business, and signing a new agreement to supply Aston Martin with engines. A decision was taken in late 2017 to list the company on the London Stock Exchange (FTSE250). The initial public offering completed in October 2018, this led to over \$5 billion in funds being generated from the initial share offering (Espinasse, 2021). However, despite the success of the IPO, an immediate 85% fall in stock price in the year following the IPO (initial purchase offering) led the company to need a rescue deal in 2020 after struggling sales and poor cash flow forecast led to a dire situation for the company (Ventura, 2021).

A consortium (Yew Tree Investments) headed by the multi-billionaire Canadian Lawrence Stroll acquired an initial 16.9% of the company, later increasing to 25% in a deal worth over £500 million invested into the company & saving Aston Martin from any potential liquidity crisis in the short term. However, following the emergence of COVID-19 a new rescue deal was required, and Stroll whom at this time had joined the Board of Directors as CEO faced a new liquidity crisis (Ventura, 2021). With the global slowdown of the automotive industry, supply issues caused by lockdowns and the indefinite delay of the new James Bond movie (No Time To Die – that features no less than four Aston Martin vehicles), Stroll yet again needed to restructure – this time Stroll restructured his initial share buyout to increase his overall stake in the company with an initial investment of only £571 million from the proposed £500 million.

Following this the company has started to rebound from the COVID-19 pandemic, and despite making over 500 staff members redundant during the pandemic (Ventura, 2021), the company has instead seen the COVID-19 pandemic as an opportunity to ‘press the reset button’ on its current model and refocus to transitioning towards a new future of electric motor vehicles, this will see the release of the company’s new ‘Valhalla’ vehicle that will mark their first entry into the electric car market (Fazendeiro, 2020; Heubl, 2021).

Whilst the recent history of Aston Martin has been mixed, the company has implemented a pedigree board to replace the previous governance, with internationally known names such as Toto Wolff and Tobias Moers of Mercedes-AMG to name two of a strong board that also

includes international investors from the Saudi Arabia Public investment funds. With the correct investment and strategy, the company could continue to be a world leader in luxury automotive industry, however, they are at major risk of falling behind competitors such as Porsche and Lotus who already have electric cars in the market. Efforts have been made to secure manufacturing with a 2022 deal signed with Britvolt (Aston Martin, 2022; Britvolt, 2022), the British Storage company, however, following Britvolt falling into administration in 2023 (BBC, 2023), this leaves Aston Martin again with no battery supplier for their upcoming electric ranges, that is heavily referenced as the future of Aston Martin in the most recent annual reports by Chief Executive Chairman, L Stroll (Aston Martin, 2021), with 'electric' being mentioned no less than 26 times.

This report will examine the previous 5 years financial history of the Aston Martin company using the published income statements and balanced sheets to generate the following key ratios: profitability, liquidity, activity, leverage and investor ratios. Share price history will also be briefly examined.

A recommendation will then be made to the Board of Directors as to whether a joint-venture partnership with Aston Martin should be explored or not based on their financial position and their 'fit' to our company moving towards an 'EV future'.

3 Aston Martin Financial Results

Aston Martin Calculated Financial Ratios 2017 - 2021						5 Year Average	5 Year Average (2020 Removed)	Pre-Covid Year Average (2017-2019)
Financial Year	2017	2018	2019	2020	2021			
Profitability Ratios								
Gross Profit Margin	43.36	39.74	34.45	18.16	31.38	33.42	37.23	39.18
Operating Profit Margin	16.99	6.64	-5.30	-52.78	-6.98	-8.29	2.83	6.11
Net Profit Margin	8.77	-5.21	-11.99	-67.10	-17.28	-18.56	-6.43	-2.81
Return on Assets	4.71	-2.77	-5.27	-14.69	-6.66	-4.94	-2.50	-1.11
Return on Equity	56.43	-12.71	-35.68	-51.05	-28.66	-14.33	-5.16	2.68
Liquidity Ratios								
Current Ratio	0.79	0.68	0.64	1.10	0.96	0.83	0.77	0.70
Acid Test Ratio (QR)	0.55	0.47	0.41	0.84	0.74	0.60	0.54	0.48
Cash Ratio	0.32	0.18	0.12	0.61	0.46	0.34	0.27	0.21
Activity Ratios								
Day Sales Outstanding (DSO)	49.08	81.02	93.62	1058.31	81.81	272.77	76.38	74.58
Inventory Turnover	-3.88	-4.00	-3.20	-2.41	-3.82	-3.46	-3.73	-3.69
Days Payable Outstanding (DPO)	-440.47	-518.03	-558.72	-1714.49	-468.34	-740.01	-496.39	-505.74
Leverage Ratios								
Gearing Ratio	87.66	63.93	75.42	59.52	65.91	70.49	73.23	75.67
Debt/Equity Ratio	1099.19	358.66	576.91	247.57	330.42	522.55	591.30	678.25
Long Term Debt/ Equity Ratio	617.85	156.68	289.41	134.91	180.07	275.78	311.00	354.65
Interest Coverage	329.93	163.23	-94.03	-328.15	-50.56	4.08	87.14	133.04
Investor Ratios								
Earnings per ordinary share (pence)	31	-31	-290.6	-543	-165.9	-199.90	-114.13	-96.87
Dividend cover			No dividends paid			-	-	-
Price per Earnings Ratio	-	-93.94	-4.26	-1.37	-3.02	-25.65	-33.74	-49.10
Dividend Yield Ratio			No dividends paid			-	-	-
Market Value of SP (pence)	-	2912.07	1237.08	744.68	501.52	1348.84	1550.22	2074.58

Figure 1 - Aston Martin 5-year results from 2017 to 2021 using the published balance sheet and income statements. 5 year averages are calculated following the calculation of the key-performance ratios – these were calculated using the published balance sheet and income statements in Appendix 1 and 2 respectively. All ratio calculations can be found in Appendix 3 (Aston Martin, 2017, 2018, 2019, 2020, 2021).

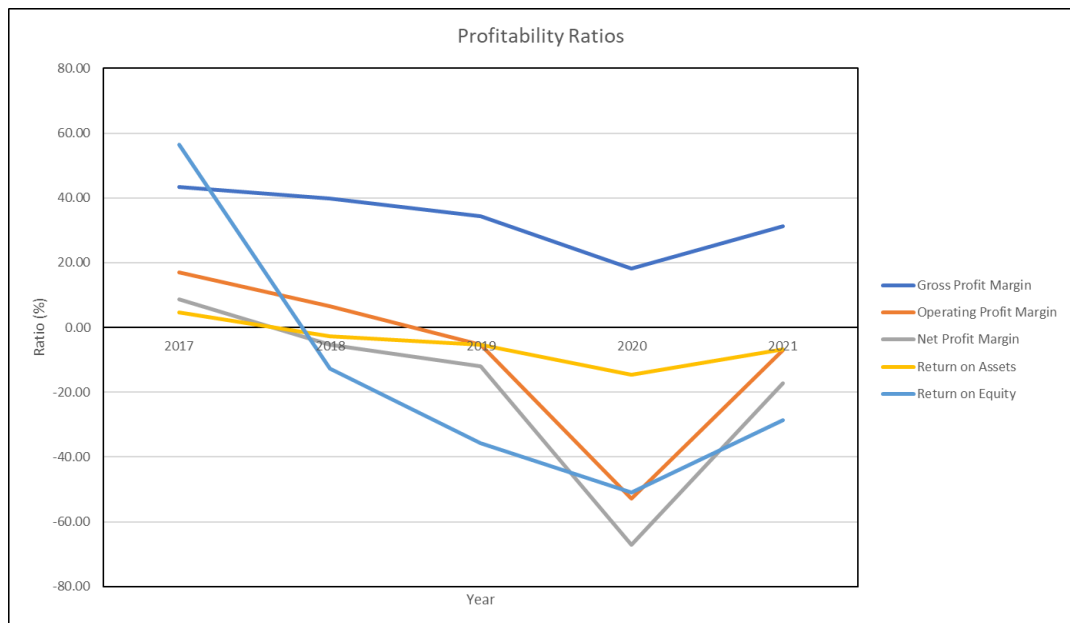


Figure 2 Profitability ratios calculated over the previous 5 years for Aston Martin.

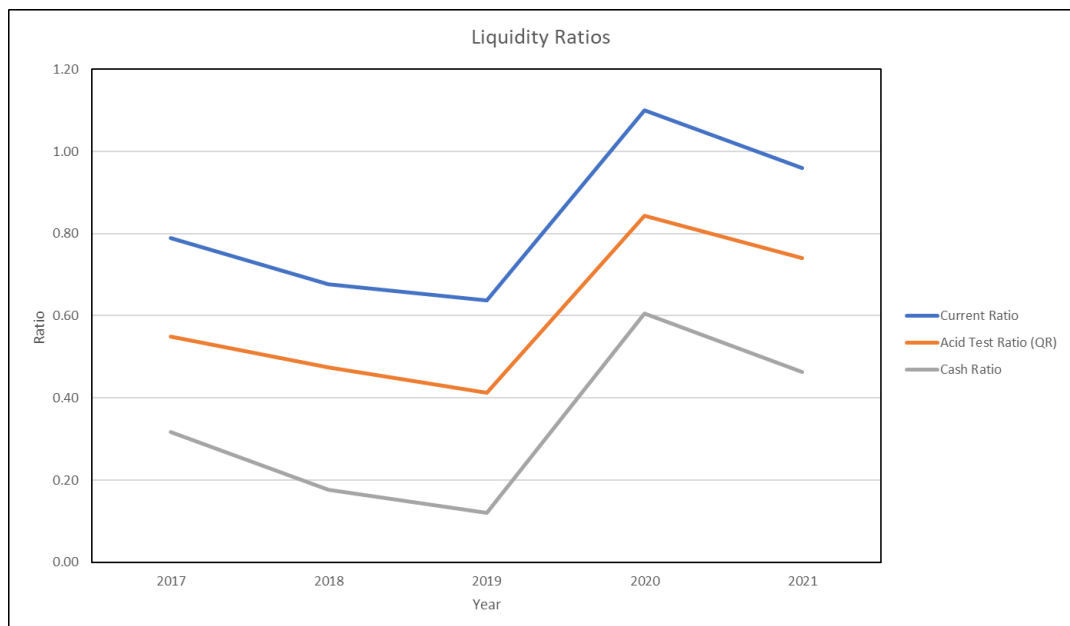


Figure 3 Liquidity ratios calculated over the previous 5 years for Aston Martin.

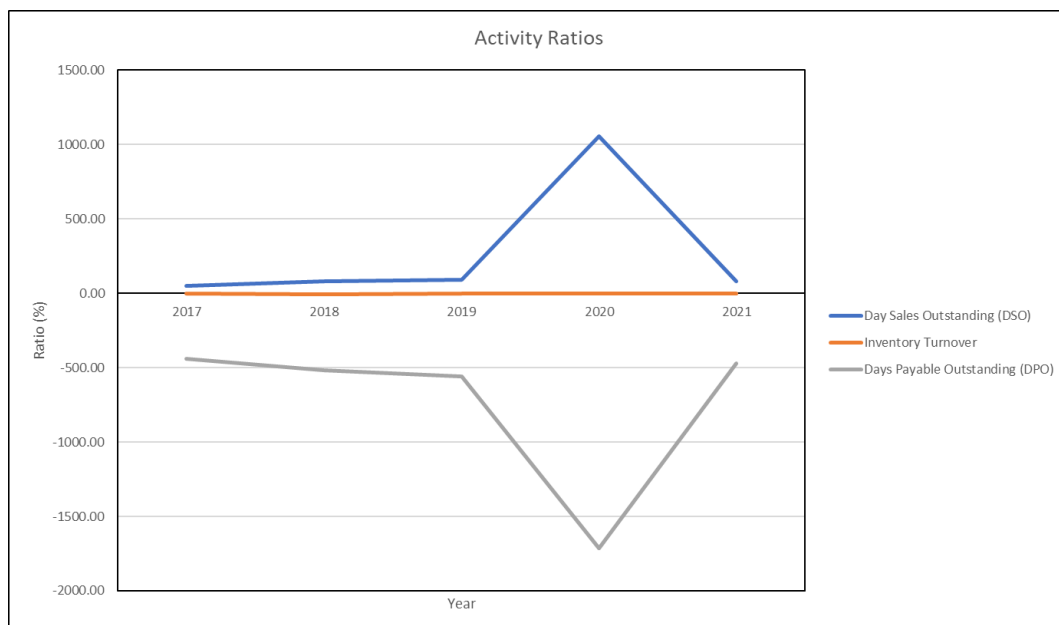


Figure 4 Activity ratios calculated over the previous 5 years for Aston Martin.

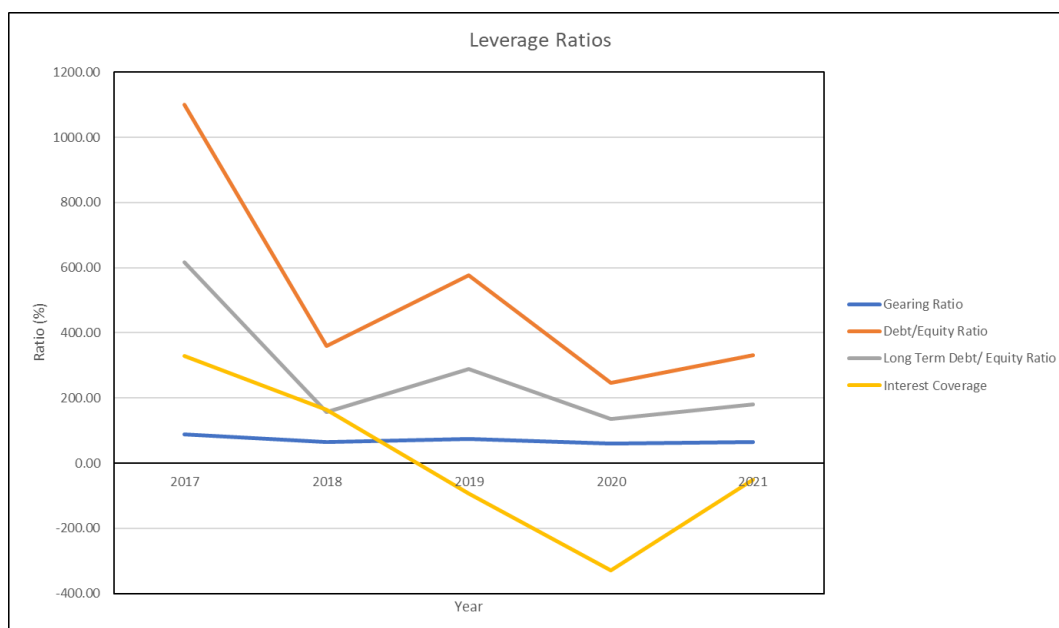


Figure 5 Leverage ratios calculated over the previous 5 years for Aston Martin.

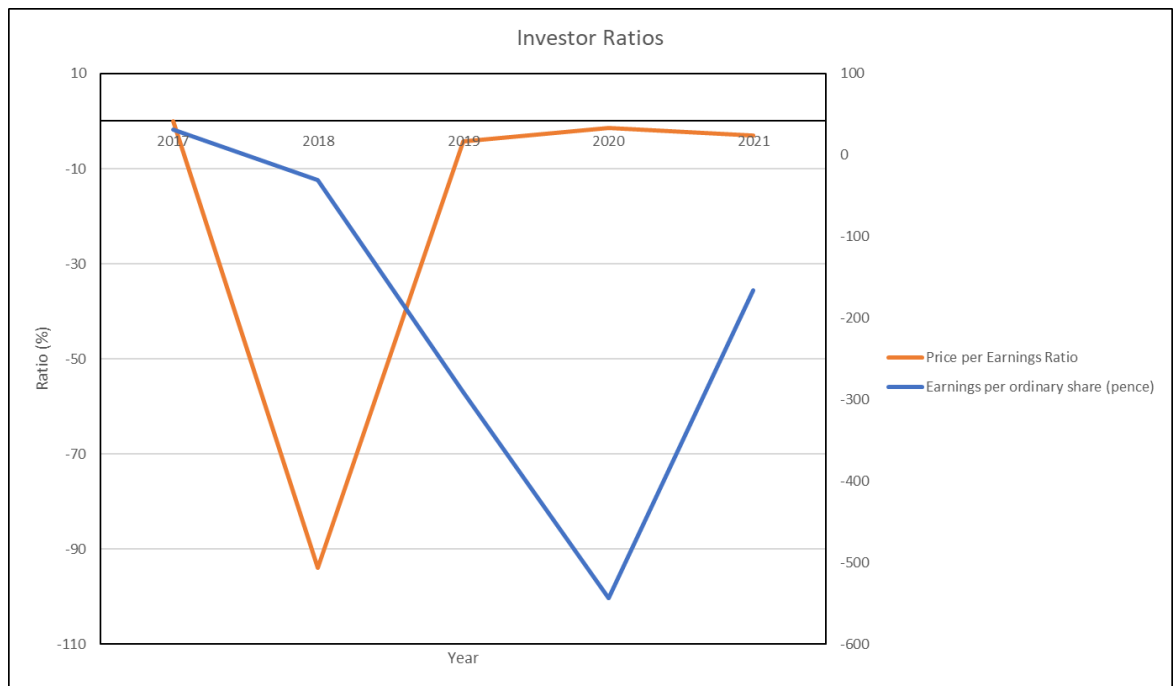


Figure 6 Investor ratios calculated over the previous 5 years for Aston Martin.

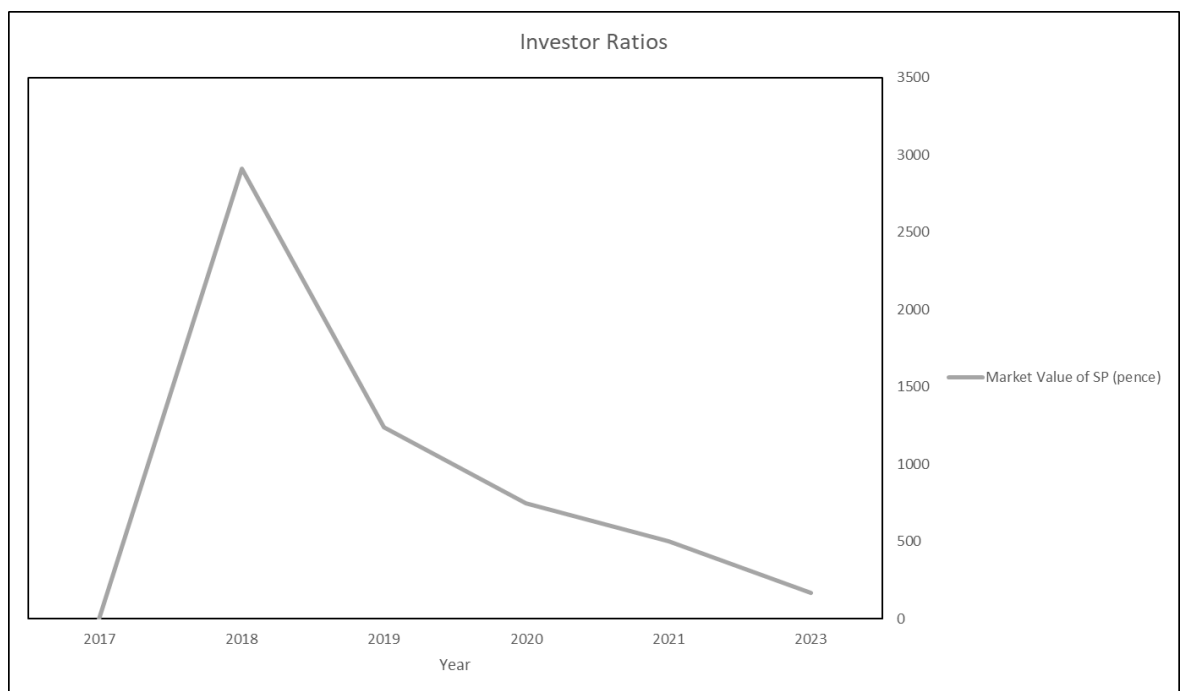


Figure 7 Current market value of share price over the previous 5 years for Aston Martin (sourced from the London Stock Exchange online).

4 Key Performance Ratios Analysis

4.1 Ratio methodology and limitations

Financial statements include the key business accounting principles that are published, such as the end of year balance sheet and income statement. These are often provided as part of a company published report (if a company is publicly floated on a stock exchange such as the NASDAQ or FTSE100), or may be published in a semi-redacted form if submitted to the authorities (such as those submitted to companies house). They allow for external investors, researchers, staff members, public etc. to view the financial figures of a company in a consistent and easy to read manor based off the accounting principles (Kieso et al., 2011). As all companies will publish some form of financial statements consistent with the accounting principles, it allows for further analysis such as financial ratios to be calculated (Beaver, 1966).

Financial ratios (or key financial performance ratios) are a widely used and long-founded technique, having been used for nearly 100-years to evaluate the 'credit-worthiness' or in simple terms the likelihood of a business to fail or succeed. (Altman, 1968; Beaver, 1966; Faello, 2015; Gadoiu, 2014). They play an important role in financial reporting and research, allowing users of the ratio to "expresses the mathematical relationship between one quantity and another" (Faello, 2015; Kieso et al., 2011). However, despite the usefulness the ratios play they should be treated with caution and respect when evaluating the financial health or prosperity of a business.

The main advantage of using financial ratios is that company performance of different companies of various sizes can more accurately be compared against another, despite large differences in capital, revenue size or even company size – examples include the various profitability ratios, such as: gross profit margin and operating profit margin ratios to name two (Barnes, 1987; Kieso et al., 2011). This allows investors (or researchers) to assess the health of a company more accurately when comparing to others within an industry, as opposed to using the raw figures alone (Barnes, 1987; Kieso et al., 2011; Lewellen, 2004). Another use for the ratios can be to breakdown a company's debt and liquidity in terms of its revenue and overall ability to afford borrowing using ratios such as the debt to equity ratio or the interest coverage ratio for example can be used to access the risk of a lender providing capital to a business.

However, despite the uses ratios can have their limitations which should be noted and navigated with caution. False accounting practices (e.g. manipulating balance statements intentionally) or even simple mistakes caused by human error on published balance sheets (Faello, 2015; Gadoiu, 2014), this can lead to false reading of a company's health if the company has not had their accounts sufficiently audited. Another thing to note is that whilst ratios do provide a facility for comparison between businesses, not all businesses are created equally and unfortunately neither are their accounting methods (Altman, 1968; Faello, 2015). Whilst companies will report to accounting standards given in their jurisdictions or countries, the way that they assign their chosen accounting principles may be chosen by the firm and will likely be different to a competitor working in the same space (Beaver, 1966; Faello, 2015; Gadoiu, 2014). This is not to say that either company is wrong for their choice of accounting principle, however, comparison must be treated with caution. The final drawback of ratios is that due to the fact that they are ratios and involve a numerator or a denominator to be calculated, outliers can cause widespread variability within the results (Faello, 2015). For example a denominator approaching zero will cause a large ratio, whilst a numerator approaching zero will cause an extremely low ratio. It is important to recognise that these ratios may be outliers and can potentially be discounted when comparing a company year on year (Beaver, 1966; Faello, 2015; Gadoiu, 2014).

Overall, financial ratios are a tool and like any tool as long as the task that they are being used for is fully assessed they will continue to provide key information to aide external stakeholders, investors, public etc. to make decisions related to the direct success (or likelihood of it) in the future.

4.2 Aston Martin Analysis

The following section will discuss the key performance ratios calculated for Aston Martin, based off the published data from Aston Martin for the period 2017 – 2021. All ratios can be found in Figure 1 tabulated, with Figures 2 – 7 showing graphic plots of the ratios through time.

4.2.1 Profitability Ratios

The profitability ratios calculated include: gross profit margin, operating profit margin, net profit margin, return on assets, and return on equity.

Gross profit margin is healthy, trending at ~13% above the industry average of 18% for 2021, rising above the low seen during the 2020 slowdown caused by the COVID-19 pandemic (Macrotrends LLC, 2021). During the past 5 years Aston Martin Lagonda has outperformed the industry average.

Operating profit margin is lower than industry average, seeing a value of -6.98% for Aston Martin compared with the industry average of 6.98%. Since 2017, operating profit margins have been steadily declining despite the change in regime at Aston Martin. **Net profit** also fairs poorly in this instance, with a punctuated decrease since 2017 with a -17.28% net profit margin reported compared to the industry average of 3.9% that has been steadily increasing in the same time period.

Return on assets and Return on Equity also fair poorly, since 2018 falling year on year and seeing a current value of -6.66% ROA and -28.66% ROE. This is short of the industry averages of 10.8% and 34.2% respectively. This decline in the last 5 years can be attributed to the failed IPO launched back in 2018, which artificially inflated the share price of the company prior to listing which caused the need for rescue deal to take place.

4.2.2 Liquidity Ratios

Liquidity ratios calculated are shown in Appendix 3, and Figures 1 and 3. Calculated ratios included the current ratio, cash ratio and quick test ratio (acid ratio).

The current ratio is below industry average at 0.96 compared to 1.07, however, within Aston Martin there has been considerable recovery in the past 2 years since the failed IPO & levels within the company seem to be back to industry norms. The Quick acid test ratio is low at 0.74 for 2021, however, has seen a slight recovery within Aston Martin for the past 3 years (no publicly published acid ratio values are given). The cash ratio within the

company is slightly below average at 0.46, however, it has also seen a recovery in the past 2 years that is likely due to the repositioning of Aston Martin by Stroll's board.

4.2.3 Activity Ratios

Activity ratios show how efficiently a company is leveraging the assets on its balance sheet, to generate revenues and cash. Activity ratios calculated for Aston Martin include: day sales outstanding, inventory turnover and days payable outstanding (Figures 1 and 4). Day sales outstanding is high for Aston Martin at 81.1 compared with just over 10.7 industry average, the increase in DSO during 2020 is likely related to the COVID-19 pandemic, despite this being corrected in 2021 they remain high. Inventory turnover is more than 10% below industry and is negative at -3.82, this means that although Aston Martin has good sales they are selling more stock than they have inventory for, leading potentially to supply issues – this has remained largely consistent for the previous 5 years. Days payable outstanding is good for Aston Martin, with a value of -484 indicating that they pay their debts quickly.

4.2.4 Leverage Ratios

Leverage ratios evaluate much capital comes in the form of debt and assesses the ability of a company to meet its financial obligations. Leverage ratios calculated for Aston Martin include: gearing ratio, debt/equity ratio, long term debt/equity ratio and interest coverage (see Figures 1 and 5). Gearing ratio is high at 65.91% and is above industry average, indicating that Aston Martin has a high debt-equity ratio that has fluctuated in the past 5 years, but remains high. Debt/equity ratio and Long-term debt/equity ratios are significantly higher than the industry average of 14%, however, in the past 5 years they have been declining sharply at Aston Martin, showing signs of a recovery. Interest coverage is low at -50%, indicating that current revenues are lower than the required amounts to pay their debtors at Aston Martin, which should be of some concern.

4.2.5 Investor Ratios

Investor ratios evaluate the attractiveness of a potential shareholder, whether it be large hedge funds or individuals they are key indicators of the per-share performance bought (Figures 1, 6 and 7). Earnings per share calculated show that currently Aston Martin shares are poor investment with -£1.65 earnings per share, which has steadily declined in the past 4 years. The negative price per earnings ratio indicates that the company did not record a profit in the previous 4 years, which aligns with the figures published in the annual reports and the past 4 years of profitability ratios in the company. Dividend related ratios could not

be calculated due to Aston Martin not paying dividends to shareholders, despite each annual report saying this is 'under continuous review', it is unlikely that they will pay shareholders a dividend until the company can fix its profitability.

Finally, since the IPO market value per share has plummeted from a high of over £30 per share offering to the current market value of £1.69 per share listed on the FTSE250.

5 Conclusions

Aston Martin is a global brand, known internationally as one of the world leaders in statement luxury cars and innovation, mainly thanks to its popularity as the fictional spy's (James Bond) car of choice. However, despite this the company is not in a healthy financial position and has not been for at least the past 4/5 years based off the published financial reports.

The company managed to ride through the COVID-19 wave and come out the other side with an opportunity to trim down its business according to the Chief Executive Chairman Storll, however, this has not filtered down to the key financial performance ratios as of yet. Whilst there has been some evidence of recovery in the past five years, the company seems to be struggling to turn a profit (indicated from the profitability ratios) and carries a large amount of debt-equity ratio, indicating that the current business may struggle to satisfy its debts if it follows current trajectories.

The company has engaged in partnerships before, most notably with Mercedes-Benz Group to provide engines and other car components in 2013, with Mercedes holding a current interest within the company. Despite this, the failed agreement with the now liquidating Britvolt and the failure to bring their only electric vehicle range to the market in 2022 (being delayed to 2025) the future of Aston Martin looks bleak. This has been compounded by the effects of Brexit following the EU referendum in 2016 (Bailey & De Propriis, 2017; Bailey & Rajic, 2022; Holweg, 2019), which is a further concern moving forward for international markets.

And whilst Aston Martin has engaged in what would be considered logical and good partnerships (e.g. as with Mercedes Benz-Group), there is little evidence that cross-pollination as a result of this partnership occurs, and it is merely a mechanism for Aston Martin to source engines for their vehicles as opposed to joint-development. Despite this, the partnership could prove useful if Aston Martin are granted access to the AMG Hybrid or Electric drive trains in the future.

6 Recommendation

Due to the calculated issues surrounding Aston Martin's profitability and high debt-equity ratios, it is recommended that at this current time the company does not pursue the £5million joint venture with Aston Martin. The decision is also influenced by poor performance compared to industry average and the lack of expertise in the electric car industry.

It is instead recommended that we pause the agreement for 12 months to evaluate the finances more effectively 1 full financial year following COVID-19 and to evaluate the effect of Britvolt's collapse on Aston Martin. In the meantime, contact should be made with Mercedes-Benz Group that hold a controlling interest in Aston Martin to evaluate whether the joint-venture could be ran via Mercedes-Benz instead of Aston Martin, who have more experience with electric/hybrid drive trains and already operate with varying product levels from luxury to everyday cars.

7 References

- Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4), 589–609.
- Aston Martin. (2017). *Annual Report 2017*.
<https://www.astonmartinlagonda.com/investors/annual-report>
- Aston Martin. (2018). *Annual Report 2018*.
<https://www.astonmartinlagonda.com/investors/annual-report>
- Aston Martin. (2019). *Annual Report 2019*.
<https://www.astonmartinlagonda.com/investors/annual-report>
- Aston Martin. (2020). *Annual Report 2020*.
<https://www.astonmartinlagonda.com/investors/annual-report>
- Aston Martin. (2021). *Annual Report 2021*.
<https://www.astonmartinlagonda.com/investors/annual-report>
- Aston Martin. (2022). *Aston Martin to develop high performance battery technology with Britishvolt*. Webpage. <https://media.astonmartin.com/aston-martin-to-develop-high-performance-battery-technology-with-britishvolt/>
- Bailey, D., & De Propriis, L. (2017). Brexit and the UK automotive industry. *National Institute Economic Review*, 242, R51–R59.
- Bailey, D., & Rajic, I. (2022). *Manufacturing after Brexit*. London: UK in a Changing Europe. CONTEMPORARY SOCIAL SCIENCE.
- Baldoncini, A. (2019). *The Aston Martin Lagonda IPO and the correlation with Ferrari NV shares trend: will the market disinvest in RACE?*
- Barnes, P. (1987). The analysis and use of financial ratios. *Journal of Business Finance Dan Accounting*, 14(4), 449.
- BBC. (2023). *Britishvolt: UK battery start-up collapses into administration*. Webpage.
<https://www.bbc.co.uk/news/business-64303149>
- Beaver, W. H. (1966). Financial ratios as predictors of failure. *Journal of Accounting Research*, 71–111.

- Britvolt. (2022). *Britishvolt and Aston Martin partner to develop high performance battery technology*. Webpage. Britishvolt and Aston Martin partner to develop high performance battery technology
- Dowsey, D. (2007). *Aston Martin: Power, Beauty and Soul*. Images Publishing.
- Espinasse, P. (2021). *IPO: A global guide*. Hong Kong University Press.
- Faello, J. (2015). Understanding the limitations of financial ratios. *Academy of Accounting and Financial Studies Journal*, 19(3), 75.
- Fazendeiro, E. A. (2020). *Equity Research-Aston Martin Lagonda*. Universidade de Lisboa (Portugal).
- Gadoiu, M. (2014). Advantages and limitations of the financial ratios used in the financial diagnosis of the enterprise. *Scientific Bulletin-Economic Sciences*, 13(2), 87–95.
- Heubl, B. (2021). News-Briefing. The Graphic: 007's Aston Martins. *Engineering & Technology*, 16(9), 8.
- Holweg, M. (2019). *Death by a thousand cuts: The strategic outlook for the UK automotive industry beyond Brexit*.
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2011). *Intermediate Accounting, Working Papers* (Vol. 2). John Wiley & Sons.
- Lewellen, J. (2004). Predicting returns with financial ratios. *Journal of Financial Economics*, 74(2), 209–235.
- Macrotrends LLC. (2021). *Group 1 Automotive Financial Ratios for Analysis 2009-2021*. Webpage. <https://www.macrotrends.net/stocks/charts/GPI/group-1-automotive/financial-ratios>
- Ventura, C. A. B. (2021). *Aston Martin Lagonda case study*. <https://doi.org/https://run.unl.pt/handle/10362/123024>

8 Appendix

Appendix 1 – Balance Sheet 2017 -2022

Aston Martin Balance Sheet 2017 - 2021 (Consolidated)					
	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Non-current assets					
Intangible assets	930.7	1,071.70	1,183.60	1,336.80	1,384.10
Property, plant and equipment	243.9	313	350.5	389.6	355.5
Right-of-use lease assets	-	-	81.8	71.4	76
Trade and other receivables	2.1	1.8	1.8	0.9	2.1
Other financial assets	-	-	0.2	0.1	0.5
Deferred tax asset	37.1	123.1	45.7	106.5	156.4
	1,213.80	1,509.60	1,663.60	1,905.30	1,974.60
Current assets					
Inventories	127.8	165.3	200.7	207.4	196.8
Trade and other receivables	115.7	241.6	249.7	1773	243.4
Income tax receivable	-	-	0.3	0.2	1.5
Other financial assets	7	0.1	8.9	14.6	7.3
Cash and cash equivalents	167.8	144.6	107.9	489.4	418.9
	418.3	551.6	567.5	889.5	867.9
Total assets	1,632	2,061.00	2,231.00	2,794.80	2,842.50
Current liabilities					
Borrowings	13.5	99.4	114.8	113.5	114.3
Trade and other payables	483.1	696.1	734.1	578.9	721
Income tax payable	2.7	4.9	8.9	1.2	5.5
Other financial liabilities	18.2	4.2	6.3	83.3	34.8
Lease liabilities	-	-	14.1	9.3	9.7
Provisions	12	10.8	12	22.1	19.9
Total	529.5	815.4	890.2	808.3	905.2
Non-current liabilities					
Borrowings	827.4	604.7	839.1	971.3	1,074.90
Trade and other payables	17.7	12.2	9.4	7.5	9.8
Other financial liabilities	-	4.4	2.6	-	-
Lease liabilities	-	-	97.3	93.7	93.7
Provisions	13.9	25.4	16.2	16.8	19
Employee benefits	46.9	38.7	36.8	92.5	78.7
Deferred tax liabilities	60.6	111	9.9	0.6	0.8
	966.5	796.4	1,011.30	1,182.40	1,276.90
Total liabilities	1,496.00	1,611.80	1,901.50	1,990.70	2,182.10
Net assets	136.1	449.4	329.6	804.1	660.4
Capital and reserves					
Share capital	-	2.1	2.1	11.5	11.6
Share premium	353.7	352.3	352.3	1,108.20	1,123.40
Merger reserve	-	-	-	144	143.9
Capital redemption reserve	-	-	-	9.3	9.3
Capital reserve	94.1	6.6	6.6	6.6	6.6
Translation reserve	1.6	2.3	-0.4	0.4	2.7
Share warrants	18.5	-	-	-	-
Hedge reserves	-	-23.5	-2.3	10.9	6.7
Retained earnings	-339.4	99.4	-42.8	-503.1	-662.4
Equity attributable to owners of the group	128.5	439.2	315.5	787.8	641.8
Non-controlling interests	7.6	10.2	14.1	16.3	18.6
Total shareholders equity	136.1	449.4	329.6	804.1	660.4
Other Values					
Other Values	-	-	-	-	-
Bank Loans, overdrafts and secured notes	45.1	44.6	55.3	98.4	151.3
Total Shares	23,000,000	23,000,000	6,332,393	6,332,393	6,332,393
Proposed Dividend	-	-	-	-	-
Market Value of share at year end (pence)	-	2912.07	1237.08	744.68	501.52

Appendix 2 – Aston Martin Income Statement 2017 -2021

Aston Martin Income Statements 2017 - 2021					
	2017	2018	2019	2020	2021
	(Total £milllion)				
Revenue	876	1,096.50	980.5	611.8	1,095.30
Cost of sales	-496.2	-660.7	-642.7	-500.7	-751.6
Gross profit	379.8	435.8	337.8	111.1	343.7
Selling and distribution expenses	-60	-89.8	-95	-79.6	-84.8
Administrative and other expenses	-171	-293.2	-275.8	-354.4	-335.4
Other income	-	20	-19	-	-
Operating profit	148.8	72.8	-52	-322.9	-76.5
Finance income	35.6	4.2	16.3	40	36.4
Finance expense	-99.9	-145.2	-83.9	-183.1	-173.7
(Loss)/profit before tax	84.5	-68.2	-119.6	-466	-213.8
Income tax credit/(charge)	-7.7	11.1	2	55.5	24.5
(Loss)/profit for the year	76.8	-57.1	-117.6	-410.5	-189.3

Appendix 3 – Financial Ratios Calculated

Profitability Ratios:

Gross profit margin = (Gross Profit / Sales) x 100

Operating profit margin= (Operating Profit / Sales) x 100

Net profit margin = (Net Income / Sales) x 100

Return on assets = (Net Income / Assets) x 100

Return on equity = (Net Income / Shareholder's Total Equity) x 100

Liquidity Ratios:

Current ratio = Current Assets / Current Liabilities

Acid test ratio (quick ratio) = (Current Assets – Stock) / Current Liabilities

Cash Ratio = (Cash + Cash Equivalents) / Current Liabilities

Activity Ratios:

Day sales outstanding = (Trade + other receivables) / Average revenue per day

Inventory turnover = Cost of goods sold / Average Inventory or Stock

Days payable outstanding = (Trade + other receivables) / Average cost of goods sold per day

Leverage Ratios:

Gearing ratio = (Non-current liabilities / Equity + Non-current liabilities) x 100

Debt/Equity ratio= (Total Liabilities / Stockholders Equity) x 100

Long term debt/equity ratio= (Long Term Debt / Stockholders Equity) x 100

Interest coverage = (Operating Profit / Interest Charge) x 100

Investor Ratios:

Earnings per ordinary share = Net Income / Total Number of Shares

Dividend cover = (Net Income / Dividend proposed and paid) x 100

Price per earnings ratio = Market value per share / earnings per ordinary share

Dividend yield ratio = (Dividend per share / market value per share) x 100

Appendix 4 – Macro Trends Automotive Average Key Financial Ratios calculated using the published automotive statements from across the industry (Macrotrends LLC, 2021).

Annual Data		2021-12-31	2020-12-31	2019-12-31	2018-12-31	2017-12-31	2016-12-31	2015-12-31	2014-12-31	2013-12-31	2012-12-31	2011-12-31
Current Ratio	Link	1.0794	1.0876	1.0388	1.0066	1.0595	1.0475	1.0731	1.0588	1.0551	1.1222	1.125
Long-term Debt / Capital	Link	0.4986	0.469	0.5328	0.5391	0.5397	0.5659	0.5664	0.5078	0.3907	0.3922	0.3742
Debt/Equity Ratio	Link	1.4063	1.6721	2.4652	2.7846	2.6031	2.9385	3.0199	2.5258	2.0609	1.9238	1.5739
Gross Margin	Link	18.1035	16.3591	15.1959	14.8698	14.7927	14.6503	14.4272	14.5699	14.4927	14.9443	15.8
Operating Margin	Link	6.5592	4.6754	3.0902	2.9402	3.0745	3.125	2.6178	3.04	3.0646	3.0764	3.1827
EBIT Margin	Link	6.5592	4.6754	3.0902	2.9402	3.0745	3.125	2.6178	3.04	3.0646	3.0764	3.1827
EBITDA Margin	Link	7.1629	5.4206	3.7421	3.5479	3.6283	3.6295	3.0964	3.5723	3.6221	3.672	3.8251
Pre-Tax Profit Margin	Link	5.9406	3.5924	1.9202	1.7705	1.9688	2.0883	1.7133	1.6543	2.1516	2.15	2.1727
Net Profit Margin	Link	3.9572	2.6056	1.4451	1.3136	1.851	1.2968	0.8503	0.901	1.2225	1.2699	1.2768
Asset Turnover	Link	2.3449	2.0828	2.0821	2.3198	2.2836	2.4401	2.4183	2.3996	2.335	2.4731	2.4551
Inventory Turnover Ratio	Link	10.2892	6.1298	5.1719	5.3556	5.3752	5.6257	5.2358	5.4538	4.9445	5.3244	5.9013
Receivable Turnover	Link	33.9766	26.3163	24.2178	25.2369	22.4701	24.5841	25.9199	25.5619	24.7591	23.6867	23.3584
Days Sales In Receivables	Link	10.7427	13.8697	15.0716	14.463	16.2438	14.847	14.0818	14.2791	14.742	15.4095	15.6261
ROE - Return On Equity	Link	34.261	20.4663	13.4586	14.4018	18.981	15.81	10.2367	9.5095	11.0119	11.6484	10.2087
Return On Tangible Equity	Link	4924.429	135.0479	-2770.558	-123.4744	-286.8895	-63.5437	-38.4846	-59.4983	-3137.739	122.4421	78.5042
ROA - Return On Assets	Link	10.8777	5.8298	3.034	3.1553	4.381	3.296	2.1379	2.2457	2.9845	3.3149	3.3272
ROI - Return On Investment	Link	17.179	10.8673	6.2877	6.6381	8.7371	6.8625	4.4386	4.681	6.7099	7.0804	6.3886
Book Value Per Share	Link	106.2645	80.1282	67.4093	59.7992	53.7985	43.4571	39.2164	40.1828	42.5753	37.8546	35.5441
Operating Cash Flow Per Share	Link	25.9166	24.5265	6.8745	4.2138	-8.5111	12.0513	-1.876	5.8993	5.3888	-12.2144	11.899
Free Cash Flow Per Share	Link	23.3284	28.6934	0.2815	12.5703	-11.1715	8.0557	-5.0411	5.693	7.5349	-11.9542	10.4726