

A report on

Advanced Industry 4.0

ACPA 7002 Finance management and planning

Aston Martin business review

University of Wales Trinity Saint David
(MADE Project)



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Executive Summary

Aston Martins financial performance is very much in the public eye being such an iconic brand of prestige cars but even more so since their introduction into Formula 1 creating new Market strategies by engaging with the 150 million fan base of formula 1. Currently there is a lot a of risk around the financials of the company with the majority of financial ratios returning negative or concerning figures. Post 2020 and Revenue has grown positively with 2022 seeing a 26% increase and a 31% increase in Gross profit. De-risking the business for long term success is visible and any investors looking for short term gain won't be looking at Aston Martin. If year on year revenue growth continues as 2022 did then the company will achieve its target of £2bn by 2025. 2022 saw the company complete a significant £654m equity capital raise, which has seen the Public Investment Fund welcomed as a new anchor shareholder and enabled them to take action to deleverage the balance sheet. Aston Martins target remains to become free cash flow positive from 2024 and a focus on levelling out the difference between assets and cash and liabilities will have a positive effect. (Lagonda, 2022).

New models or product lines which include DBX707, V12 Vantage, and the ultra-luxury DBR22and DBS770 are on pre order and sold out for the year indicating that interest in the brand is high. Along with this end of year price increases of 21% have been in place and not impacted sales. Increasing Revenue and reducing cost of goods sold and administrative costs will help push the Net Profit Margin up into positive results.

Concerns highlighted through the report are dividend payment seem to have been missed or undisclosed for a few years indicating a possibility its been added to current liabilities or the payment of dividends has been waived.

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2. Introduction

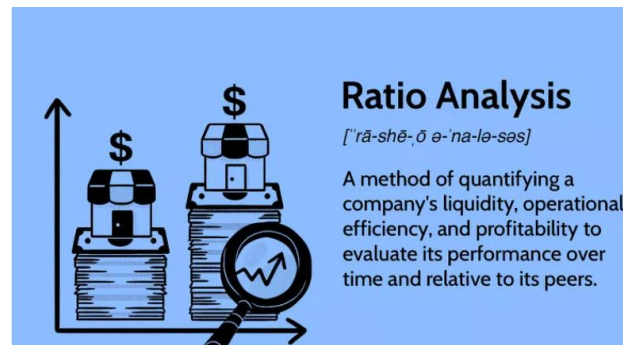
Aston Martin Lagonda Holdings PLC is luxury car manufacturer made famous by the James bond movies. Aston Martin is acknowledged as an iconic global brand synonymous with style, luxury, performance and exclusivity. Over the past century, the marque has stayed true to the original values of Lionel Martin, who believed that an Aston Martin must be “a quality car of good performance and appearance. A car for the discerning owner driver with fast touring in mind, designed, developed, engineered and built as an individual”. This philosophy has led to the creation of some of Britain’s most iconic sports cars. (Martin, 2017).The company sells they’re cars under the Aston Martin and Lagonda brands and exports cars to 55 countries. The company manufactures sports cars in Gaydon, the UK and luxury vehicles in its facility in St. Athan, Wales.

Aston Martin Lagonda is trading on the London stock exchange as part of the FTSE 250 Index, which is comprised of the 101st to 350th largest companies listed. In early 2020 Lawrence Stroll led a group of investors to invest \$250 million in the Aston Martin F1 racing team, a 16.7% majority share. In essence, he is the current owner and director of the Aston Martin F1 team. Currently, Stroll has green-lit the development of a new Aston Martin factory for 2023 that will be equipped to produce models that will innovate in F1 through the next decade. This report will examine key financial ratios on Aston Martin from 2018 through to 2023 using income statement and balance sheets that are available on the Aston Martin Website. The said financial data sheets can be found in the Appendices.

3. Ratio Analysis

What are financial ratios? Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by studying its financial statements such as the balance sheet and income statement (Bloomenthal, 2023). Ratio analysis to evaluate the financial health of companies by scrutinizing past and current financial statements. Comparative data can demonstrate how a company is performing over time and can be used to estimate likely future performance. This data can also compare a company's financial standing with industry averages while measuring how a company stacks up against others within the same sector. Investors can use ratio analysis easily, and every figure needed to calculate the ratios is found on a company's financial statements (Bloomenthal, 2023).

Although ratios offer a quick and useful method of analysing the position and performance of a business, they suffer from problems and limitations. It must always be remembered that ratios are based on financial statements. The quality of ratio analysis will, therefore, depend on the quality of these underlying statements (Atrill, 2020).



3.1 ratio limitations

Incorrect conclusions can be made from ratios and there are some limitations. Some of the most important limitations of ratio analysis include:

- **Historical Information:** Information used in the analysis is based on real past results that are released by the company. Therefore, ratio analysis metrics do not necessarily represent future company performance.

- Inflationary effects: Financial statements are released periodically and, therefore, there are time differences between each release. If inflation has occurred in between periods, then real prices are not reflected in the financial statements. Thus, the numbers across different periods are not comparable until they are adjusted for inflation.
- Changes in accounting policies: If the company has changed its accounting policies and procedures, this may significantly affect financial reporting. In this case, the key financial metrics utilized in ratio analysis are altered, and the financial results recorded after the change are not comparable to the results recorded before the change. It is up to the analyst to be up to date with changes to accounting policies. Changes made are generally found in the notes to the financial statements section.
- Operational changes: A company may significantly change its operational structure, anything from their supply chain strategy to the product that they are selling. When significant operational changes occur, the comparison of financial metrics before and after the operational change may lead to misleading conclusions about the company's performance and future prospects.
- Seasonal effects: An analyst should be aware of seasonal factors that could potentially result in limitations of ratio analysis. The inability to adjust the ratio analysis to the seasonality effects may lead to false interpretations of the results from the analysis.
- Manipulation of financial statements: Ratio analysis is based on information that is reported by the company in its financial statements. This information may be manipulated by the company's management to report a better result than its actual performance. Hence, ratio analysis may not accurately reflect the true nature of the business, as the misrepresentation of information is not detected by simple analysis. It is important that an analyst is aware of these possible manipulations and always complete extensive due diligence before reaching any conclusions (Team, 2020).

The above limitation factors can lead to misleading conclusions on ratios so further information and supplementary data may be needed to allow informed decisions to be made on company performance.

3.2 Profitability ratios

These ratios convey how well a company can generate profits from its operations. Profit margin, return on assets, return on equity, return on capital employed, and gross margin ratios are all examples of profitability ratios.

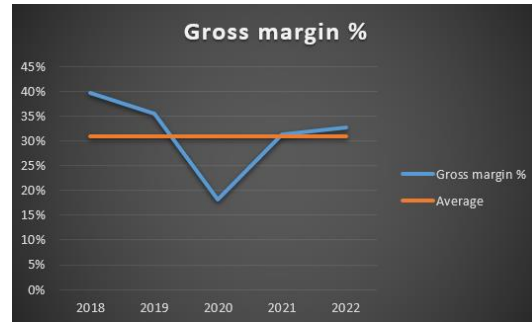
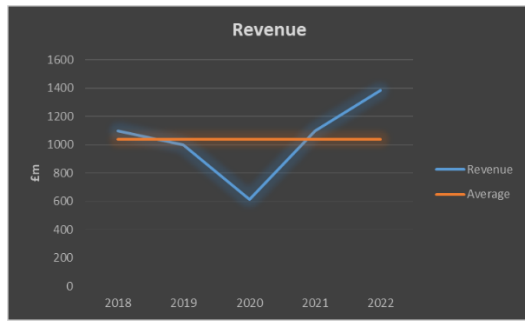
Gross profit

Gross margin is calculated as Revenue – Cost of Goods Sold. Gross Profit Margin % is the Gross Profit Margin / Revenue. Aston martins gross profit margin 5 year average of 31% is above the industry standard for the automotive sector which is suggested to be 22% as seen below.(ready ratio and csi market). This statistic is for automotive sector one but doesn't split out prestige cars from whole sale cars which is a factor of consideration. A quick search highlighted that one particular prestige car manufacture averages around the 50% Gm so is above Aston martin.

Financial ratio	Year					
	2022	2021	2020	2019	2018	2017
Profit margin	unlock	4.6%	3.4%	2.4%	2.4%	3.8%
ROE (Return on equity), after tax	unlock	29.1%	12.9%	15.2%	15.2%	20.7%
ROA (Return on assets)	unlock	8.9%	4.1%	4.5%	4.7%	5.8%
Gross margin	unlock	21.3%	18.5%	21.7%	24.3%	24.7%
Operating margin (Return on sales)	unlock	7.2%	5.2%	3.4%	3.4%	4%

(Ratios, 2022)

Declines in 2020 to 18% is likely to be the impact of Covid and is linked with lower Revenue that year. It also likely that a slight drop in 2019 id due to the start of Covid.



Year	2018	2019	2020	2021	2022	Average
Revenue	1096.5	997.3	611.8	1095.3	1381.5	1036.48
COGS	660.7	642.7	500.7	751.6	930.8	
	9.0	38.7	44.1	-26.1		
Gross Profit margin = $\frac{\text{Gross profit}}{\text{Sales}} \times 100$						
Gross profit	435.8	354.6	111.1	343.7	450.7	
Gross margin %	40%	36%	18%	31%	33%	31%

A recovery in 2021 and 2022 can be seen where both revenue and gross margin raise back above the year average. It was well documented during Covid that the Automotive sector was one of the sectors heavily impacted with Aston martins revenues slumping by 38% year on year for 2020 however an improvement was seen in the final quarter in 2020 when revenues grew 3% compared to the same period in 2019 (Guardian, 2020).

Operating and net profit

Operating profit margin ratio relates the operating profit for the period to the sales revenue. Operating profit for the automotive sector seems to be low with a 5 year average of 4.64%. Aston Martin however are operating at a loss with 5 year averages of a 13% loss. Within note 4 of the financial statement which related to the operating profit a lot of the cost related to research and development. Further research shows that Aston martin are investing lots of resource and funds into the DBX and vantage models and hoping that they're the models that turns their fortunes.

Operating profit margin = $\frac{\text{Op profit}}{\text{Sales}} \times 100$	Operating profit		72.8	-36.7	-322.9	-76.5	-141.8	
	Operating profit %		7%	-4%	-53%	-7%	-10%	-13%



Net profit

Net profit margin is the profit that remains in a company after subtracting both the COGS and operating expenses from revenue. The average net profit margin for the auto industry was 7.5% in the five years before 2020, with most companies scoring at least 4% (Maverick, 2023) .

Aston martin net profit is well below this average at -28% with 2020 being the biggest impact at 67%. Removing 2020 figures and discounting Covid still returns a loss of -18%. 2022 has the next biggest loss of net profit and a finance expense of £368.7m stands out on top of an operating loss. Note 8 of the financial statement indicates that in both 2020 and 2021 bank loans and overdrafts build up the bulk of that cost which further research suggest that may be due to acquisition.

		2018	2019	2020	2021	2022
Net profit margin margin = $\frac{\text{Net income}}{\text{Sales}} \times 100$	Net income (PL 4 Year)	-57.1	-104.4	-410.5	-189.3	-527.7
	Net Profit %	-5%	-10%	-67%	-17%	-38%



3.3 Liquidity ratios

Liquidity ratios measure a company's ability to pay off its short-term debts as they become due, using the company's current or quick assets. Liquidity ratios include the current ratio, quick ratio, and working capital ratio and are important to investors, lenders and suppliers.

Current ratios

Current ratio compares the 'liquid' assets (that is, cash and those assets soon to be turned into cash) of the business with the current liabilities. Different sectors of business require different average ratios 1.06 (Focus, 2023).

Aston martins current ratio seems relatively normal since 2020-2022 returning results of 1.1, 0.95 and 1.08 respectively. Prior to 2020 ratios were much lower around the 0.7 mark.

This improvement since 2020 has mainly been due to intangible assets and liabilities after the takeover investment from Mr L stroll. It may also be linked to a refinancing package that will primarily be invested into newer factories and machinery allowing the manufacturer to develop new models and also investment into electric cars after partnering up with Mercedes (Guardian, 2020).

Current ratios = $\frac{\text{Current assets}}{\text{Current liabilities}}$	2018	2019	2020	2021	2022	Average
	551.6	567.5	889.5	867.9	1125.4	
	815.4	858.2	808.3	905.2	1041.9	
	0.68	0.66	1.10	0.96	1.08	

Quick ratio

Quick ratio is an indicator of a company's short-term liquidity position and measures a company's ability to meet its short-term obligations with its most liquid assets.

With a quick ratio of under 1.0 year on year Aston Martin don't seem to be in favourable position to cover its current liabilities. Assets are less than the total of its short-term debt obligations. This mean they may not be able to pay off the current obligations using only quick assets as its quick ratio is well below 1 for the 5 previous years averaging 0.66. This shows that even disregarding profitability/loss or income, the short-term financial health in respects to being able to meet its short-term debt requirements is questionable. On the other hand there is almost a 50% improvement from 2018-2022 which as always an upwards trend is positive to see.

Quick ratios = $\frac{\text{Current assets (less stock)}}{\text{Current liabilities}}$	2018	2019	2020	2021	2022	Average
	386.3	366.8	682.1	670.1	839.2	
	815.4	858.2	808.3	905.2	1041.9	
	0.47	0.43	0.84	0.74	0.81	

Cash ratio

Cash ratio is a liquidity measure that shows a company's ability to cover its short-term obligations using only cash and cash equivalents. The cash ratio is derived by adding a company's total reserves of cash and near-cash securities and dividing that sum by its total current liabilities. A return greater than 1 means a company has more cash on hand than current debts, while less than 1 means a company has more short-term debt than cash. It is a good way to evaluate short term risk of a business. Aston Martins. Current liabilities

remain high compared to cash and equivalents but since the Mr stroll investment there has been growth in cash and equivalents and that has positively affected the cash ratio of around 32% between 2018 and 2022.

Cash ratios = $\frac{\text{Cash and equivalents}}{\text{Current liabilities}}$		144.6	107.9	489.4	418.9	583.8	
		815.4	858.2	808.3	905.2	1041.9	
		0.18	0.13	0.61	0.46	0.56	0.39

3.4 Activity ratios

Also called efficiency ratios, activity ratios evaluate how efficiently a company uses its assets and liabilities to generate sales and maximize profits. Key activity ratios include days sales outstanding (DSO), inventory turnover, and days payable outstanding.

The inventory turnover ratio is an important evaluation metric specifically within the auto industry. The average automotive inventory turnover ratio was 10.11 for the first three months of 2022. In other words, the average car manufacturer had sold through its entire inventory just over ten times over the previous twelve months (Maverick, 2023). A high inventory turnover ratio indicates that a company is efficiently managing its inventory, which can lead to lower holding costs and potentially higher profits. On the other hand, a low ratio suggests that a company may be overstocked, which can lead to higher holding costs and potentially obsolete inventory. Aston Martins average ratio over the last 5 years is 3.61 or 85.5 days which when compared to other prestige car brands such as Porsche is aligned or slightly above. This is positive as turnover growth continued to rise YOY from 2021-2022 by 0.13.

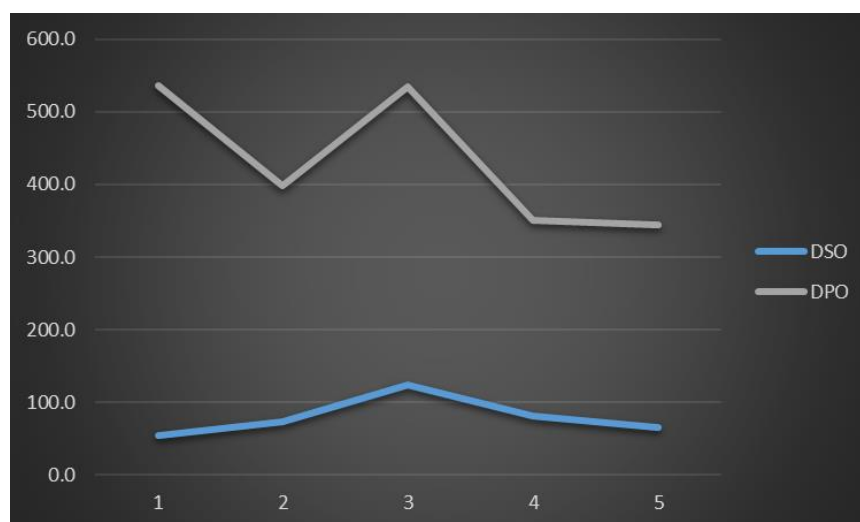
Days sales outstanding (DSO) = $\frac{\text{Accounts receivable}}{\text{Average revenue per day}}$		2018	2019	2020	2021	2022	
		241.6	251.5	178.8	245.5	252	
		3.0	2.7	1.7	3.0	3.8	
		80.4	92.0	106.7	81.8	66.6	85.5

Days payable outstanding (DPO) is an indicator is the average time a company takes to pay its bills. A high DPO means a company can retain its funds longer in order to use the funds on other opportunities albeit may not sit well with suppliers etc. as it takes a long time for them to accrue their money. Aston martin has a high DPO (last 2 years is 351) seem to be

using the extra cash for short term investment into assets potentially to create more modern models of cars.

Days Payable = $\frac{\text{Accounts payable}}{\text{Average Cogs per day}}$		708.3	711.5	586.4	730.8	885.4	
Outstanding		1.81	1.76	1.37	2.06	2.55	351.0
		391.3	404.1	427.5	354.9	347.2	

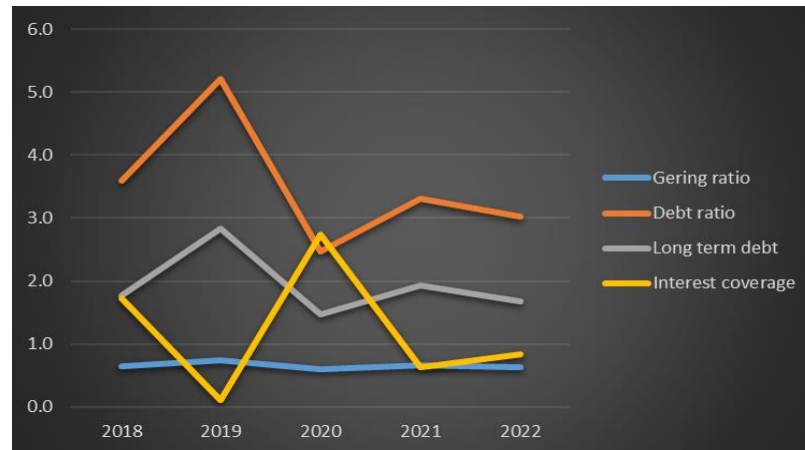
Day's sales outstanding (DSO) is the average number of days it takes for a business to collect money from a sale. In an ideal world a company would want to collect outstanding money in as quick as time as possible and pay its suppliers in as long as time as possible. This maximises Cash available to a company. A high DSO number shows that a company is selling its product to customers on credit and waiting a long time to collect the money. Aston Martin has a DSO of 79.6 (5yr average but did see a drop of 20% YOY to that figure from 2021-2022. Given that Aston Martin take a long time to pay their bills but are quick to collect money they should generate Cash to spend. Possibly the name of the brand helps them to use DSO and DPO in this way.



3.5 Leverage ratios

Leverage ratios also known as gearing occurs when a business is financed, in part, by contributions from borrowing. Furthermore, the level of financial gearing is important when assessing the risks and likely future returns to ordinary shareholders. Comparing a company's equity to debt is used in leverage ratios and demonstrates which of a company's operations are funded by equity versus debt. A high ratio indicates a company

has high financial leverage but could be susceptible to economic downturns. A decline from 2021-2022 from 65.9%-62.5% in Aston martins gearing ratio is a positive step along with long term debt dropping from 193.4%-167% showing that the company can pay off debt. The company though is still not in a healthy position and still has a lot of debt and remains below the industry standard.



	2018	2019	2020	2021	2022
Gearing = $\frac{\text{Non current liabilities}}{\text{Equity plus non current liabilities}} \times 100\%$	63.9%	73.9%	59.5%	65.9%	62.5%
Debt/ = $\frac{\text{Total liabilities}}{\text{Stockholders equity}} \times 100$	358.7%	521.6%	247.6%	330.4%	301.9%
Equity ratio	3.6	5.2	2.5	3.3	3.0
long term Debt/ = $\frac{\text{long term debt}}{\text{Stockholders equity}} \times 100$	177.2%	282.5%	147.0%	193.4%	167.0%
Equity ratio	1.8	2.8	1.5	1.9	1.7
Interest paid (no tax)	42.2	52	82.3	118	141.2
Interest coverage = $\frac{\text{Operating profit}}{\text{Interest charge}} \times 100$	172.5%	70.6%	392.3%	64.8%	100.4%
	1.7	0.1	2.7	0.6	0.8

3.6 Investor ratios

Investor ratios are the financial ratios that the investors use in order to evaluate the company's ability to generate the return for their investment. In general, investors usually want to know which one is a good company to invest their money in, in accordance with their risk appetites. In this case, investor ratios can provide the information which shows the company's health and its ability to provide the return to investors for the risks involved in their investment (guide, N/A)

- Earnings per share (EPS) is the financial ratio that looks at the bottom line of the company's income statement,
- P/E ratio is the financial ratio that looks at how much it costs to own a share in the company compared with the benefits or earnings generated from that share

- Dividend cover is the financial ratio that looks at the amount of time the company can pay out the dividends to its shareholders by comparing the company's net income to the dividend paid.
- Dividend yield is the financial ratio that provides a direct measure of the return on investment in the shares of the company by comparing dividend per share to the market price per share.

A company that has a high EPS would be considered to be more profitable allowing shares to be sold at a higher price. Aston martins EPS is -1.79 as a 5 year average and even with Covid year removed is still -0.91 suggesting that investor may not want to look at the company. There has been a 24% improvement YOY from 2021-2022 which is positive. PE or Price per share share/earning per share has been difficult to find due to lack of information available and further research shows that dividends have been zero.

Investor ratios

	2018	2019	2020	2021	2022
Earnings per = <u>Net income(profit after tax)</u>	-75.4	-87.1	-443.3	-181.6	-521.2
Share No of shares	202.1	228	77.2	115.5	424.7
	-0.37	-0.38	-5.74	-1.57	-1.23
Dividend = <u>Net income(profit after tax)</u> x100%	-75.4	-87.1	-443.3	-181.6	-521.2
Cover Dividend proposed and paid	0	0	0	0	0
	0	0	0	0	0
Price per = <u>Market value per share)</u>	2.22	1.57	10.42	5.72	1.82
Earnings ratio EPS	-0.4	-0.4	-5.7	-1.6	-1.2
	-6.0	-4.1	-1.8	-3.6	-1.5
Dividend = <u>Dividend per share</u> x100%					
Yield ratio Market value share	2.22	1.57	10.42	5.72	1.82
	0	0	0	0	0

4.0 Conclusions and Recommendations

Although Aston martins financial figures don't paint a pretty picture and almost all key financial ratios return negative figures its not all doom and gloom. Being such an iconic brand in the automotive sector they market their brand very well and seem to have a strategy to turn the business around. A lot of investment has been made in 2022 and intangible assets has raised to £1394.6m (This is up approximately 26% on the previous year) which may be down to the buyout by Mr Stroll but also factory and machinery investment £369.9m allowing them to manufacture cars of the future shows ambition.. Revenue stands at £1381.5m again showing growth on previous years. Operating loss and net debt are high at £141.8 and £766m respectively with operating loss 85% higher than previous year. Cash and equivalents EOY was £583.3m.

Reviewing the financial ratios I would recommend anyone who's looking to invest in a short term financial gain does not invest in Aston Martin. Signs of business growth are there but I would suggest the growth plan is long term and it's a high risk business to invest in. Growth Margin is 31% but operating profit is down -13% and net profit margin -28% for the 5 year averages (Covid year does impact these figures). For 2022 the net profit/loss has been heavily impacted by net finance and interest and tax with a 21% increase net loss Year 2021-2022. Cash flow from operating activities has recovered since 2020 and has shown positive growth YOY but on the flip side Cash flow from investing activities is also high. YOY Current liabilities massively outweigh Current assets and cash and equivalents with a 5 year average returning a score of 0.39 implying a lot of short term risk.

Recommendations

Area	Suggestion
Debt	Improve the amount of debt seen in the balance sheet. The primary area for this is to highlight either: A) Promote and Sell more of the vehicles that have the biggest profit margins B) Promote and focus on the best selling cars that have lower margins but bigger volumes.
Competition	Benchmark against other prestige Brands such as Porsche and Ferrari and use that benchmark to create products that are customer focussed for the prestige market.
Marketing	Utilise James bond and link it with Formula 1 to Promote the Brand. This avenue would allow higher prices models of vehicles to be in the face of formula 1's high money environment and be an attraction for the wealthy drivers, celebrities and supporters.
Shares	Celebrate wins when shares rise or start to recover in order to gain interest in further Share holders. Additional shares could be used to pay done some of the debt.
Capital investment	Raise equity Capital from large investors to help with lowering debt.
Revenue	Sell more models to raise more revenue The raise in revenue 20221-2022 YOY was 26% but cost of goods was 24% so a 2% gain. Continuing in this vein would grow gross margin and have a positive effect on the income statement
Innovation	Within the business report its it stated that innovative improvement into DBX and Vantage models have had positive impacts and a big raise to intangible assets. Note 12 states that access to Mercedes Benz (MB)technology a portion of the intangible assets. Access to utilise the MB group is highly likely to support innovation. Focus on Hybrid and eclectic models will fall into this innovation.
Liabilities	Reduce liabilities specifically specifically trade and other payables to improve liquidity ratios. Note 20 indicates that a lot of liabilities are held with contractual and customer deposits.

6: References and Appendices

Income statement 2018-2022

	2018	2019	2020	2021	2022
	Total £m	Total £m	Total £m	Total £m	Total £m
Revenue	1096.5	997.3	611.8	1095.3	1,381.5
Cost of sales (cost of goods sold)	-660.7	-642.7	-500.7	-751.6	-930.8
Gross profit	435.8	354.6	111.1	343.7	450.7
Selling and distribution expenses	-89.8	-95	-79.6	-84.8	-113
Administrative and other operating expenses	-293.2	-277.3	-354.4	-335.4	-479.5
Operating loss/profit	72.8	-36.7	-322.9	-76.5	-141.8
Finance income	4.2	16.3	40	36.4	15.5
Finance expense	-145.2	-83.9	-183.1	-173.7	-368.7
Loss before tax	-62.8	-104.3	-466	-213.8	-495
Income tax (charge credit)	11.1	-0.1	-55.5	24.5	-32.7
Loss for the year	-57.1	-104.4	-410.5	-189.3	-527.7

(loss)/profit attributed to

Owners of the group	-419.3	-191.6	-528.6
Non-controlling interests	8.8	2.3	0.9

Other comprehensive income	-18.3	17.3	-32.8	7.7	6.5
Total comprehensive income	-75.4	-87.1	-443.3	-181.6	-521.2

Balance sheet

	2018	2019	2020	2021	2022
	Total f�m	Total f�m	Total f�m	Total f�m	Total f�m
Non-Current Fixed Assets	1,509.6	1,663.6	1,905.3	1,974.6	1,978.9
Current Assets	551.6	567.5	889.5	867.9	1,125.4
Total Assets	2,061.2	2,231.1	2,794.8	2,842.5	3,104.3
Current Liabilities	-815.4	-858.2	-808.3	-905.2	-1,041.9
Long Term Liabilities	-796.4	-1,014.0	-1,182.4	-1,276.9	-1,289.9
Total Liabilities	-1,611.8	-1,872.2	-1,990.7	-2,182.1	-2,331.8
Assets Less Liabilities	449.4	358.9	804.1	660.4	772.5
Inventries	165.3	200.7	207.4	196.8	286.2
Cash and cash equivalents	144.6	107.9	489.4	418.9	583.3
Trade and other recievables	241.6	251.5	178.8	245.5	252.0
Trade and other payables	708.3	711.5	586.4	730.8	885.4
Ordinary Shares	339.8	358.3	1,290.9	1,304.2	1,937.9
Retained Earnings	99.4	-13.5	-503.1	-662.4	-1,184.9
Non-controlling interests	10.2	14.1	16.3	18.6	19.5
Shareholder's Equity	449.4	358.9	804.1	660.4	772.5

Ratios formula
Profitability ratios
Gross Profit margin = $\frac{\text{Gross profit} \times 100}{\text{Sales}}$
Operating profit margin = $\frac{\text{Op profit} \times 100}{\text{Sales}}$
Net profit margin margin = $\frac{\text{Net income} \times 100}{\text{Sales}}$
Return on asset = $\frac{\text{Net income} \times 100}{\text{Asset}}$
Return on Equity = $\frac{\text{Net income}}{\text{Shareholders equity}}$
Liquidity Ratios
Current ratios = $\frac{\text{Current assets}}{\text{Current liabilities}}$
Quick ratios = $\frac{\text{Current assets (less stock)}}{\text{Current liabilities}}$
Cash ratios = $\frac{\text{Cash and equivalents}}{\text{Current liabilities}}$
Activity ratios
Days sales outstanding (DSO) = $\frac{\text{Accounts recievable}}{\text{Average revenue per day}}$
Inventory Turnover = $\frac{\text{cost of goods sold}}{\text{Average inventory}}$
Days Payable Outstanding = $\frac{\text{Accounts payable}}{\text{Average Cogs per day}}$
Investor ratios
Earnings per Share = $\frac{\text{Net income(profit after tax)}}{\text{No of shares}}$
Dividend Cover = $\frac{\text{Net income(profit after tax)} \times 100\%}{\text{Dividend proposed and paid}}$
Price per Earnings ratio = $\frac{\text{Market value per share}}{\text{EPS}}$
Dividend Yield ratio = $\frac{\text{Dividend per share} \times 100\%}{\text{Market value share}}$
Gearing ratios
Gearing ratio = $\frac{\text{Non current liabilities} \times 100\%}{\text{Equity plus non current liabilities}}$
Debt/ Equity ratio = $\frac{\text{Total liabilities}}{\text{Stockholders equity}} \times 100$
long term Debt/ Equity ratio = $\frac{\text{long term debt}}{\text{Stockholders equity}} \times 100$
Interest coverage = $\frac{\text{Operating profit} \times 100}{\text{Interest charge}}$

2018 statement examples

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2018

	Notes	2018			2017 (restated **)		
		Adjusted £m	Adjusting Items* £m	Total £m	Adjusted £m	Adjusting Items* £m	Total £m
Revenue	3	1,096.5	–	1,096.5	876.0	–	876.0
Cost of sales		(660.7)	–	(660.7)	(496.2)	–	(496.2)
Gross profit		435.8	–	435.8	379.8	–	379.8
Selling and distribution expenses		(89.8)	–	(89.8)	(60.0)	–	(60.0)
Administrative and other expenses	6	(219.1)	(74.1)	(293.2)	(195.3)	24.3	(171.0)
Other income	5	20.0	–	20.0	–	–	–
Operating profit	4,6	146.9	(74.1)	72.8	124.5	24.3	148.8
Finance income	8	4.2	–	4.2	35.6	–	35.6
Finance expense	9	(83.3)	(61.9)	(145.2)	(87.0)	(12.9)	(99.9)
(Loss)/profit before tax		67.8	(136.0)	(68.2)	73.1	11.4	84.5
Income tax credit/(charge)	10	0.6	10.5	11.1	(3.6)	(4.1)	(7.7)
(Loss)/profit for the year		68.4	(125.5)	(57.1)	69.5	7.3	76.8
Earnings per ordinary share							
Basic	12			(31.0p)			38.3p
Diluted	12			(31.0p)			36.5p
(Loss)/profit attributable to:							
Owners of the group				(62.7)			74.2
Non-controlling interests				5.6			2.6
				(57.1)			76.8

Other comprehensive income

Items that will never be reclassified to the Income Statement

Remeasurement of defined benefit liability	27		5.4		2.9
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Related income tax

Items that are or may be reclassified to the Income Statement

Foreign exchange translation differences

Fair value adjustment on cash flow hedges and securities

Other comprehensive income for the period, net of tax

Total comprehensive income for the period

Total comprehensive income for the period attributable to:

Owners of the group

Non-controlling interests

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Group	Share Capital £m	Share Premium £m	Share Warrants £m	Capital Reserve £m	Non- controlling Interest £m	Translation Reserve £m	Hedge Reserve £m	Retained Earnings £m	Total Equity £m
At 1 January 2018 (restated – note 2)	–	353.7	18.5	94.1	7.6	1.6	–	(339.4)	136.1
Total comprehensive income for the period									
(Loss)/profit for the year	–	–	–	–	5.6	–	–	(62.7)	(57.1)
Other comprehensive income									
Foreign currency translation differences	–	–	–	–	–	0.7	–	–	0.7
Fair value adjustment on cash flow hedges and secured loan	–	–	–	–	–	–	(27.0)	–	(27.0)
Income tax on fair value adjustment on cash flow hedges and secured loan	–	–	–	–	–	–	3.5	–	3.5
Remeasurement of defined benefit liability (note 27)	–	–	–	–	–	–	–	5.4	5.4
Dividend paid to non-controlling interest	–	–	–	–	(3.0)	–	–	–	(3.0)
Income tax on other comprehensive income (note 10)	–	–	–	–	–	–	–	(0.9)	(0.9)
Total other comprehensive income	–	–	–	–	(3.0)	0.7	(23.5)	4.5	(21.3)
Total comprehensive income for the period	–	–	–	–	2.6	0.7	(23.5)	(58.2)	(78.4)
Transactions with owners, recorded directly in equity									
Shares issued during the year	2.1	–	–	–	–	–	–	–	2.1
Share premium on shares issued	–	–	–	–	–	–	–	–	–
Capital reduction (note 28)	–	–	–	–	–	–	–	–	–
Exercise of share warrants (note 28)	–	–	–	–	–	–	–	–	–
Charge for the year under equity settled share based payments	–	–	–	–	–	–	–	–	–
Tax on items credited to equity	–	–	–	–	–	–	–	–	–
Total transactions with owners	2.1	–	–	–	–	–	–	–	2.1
At 31 December 2018	2.1	–	–	–	–	–	–	–	2.1

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2018

	Notes	2018 £m	2017 restated £m
Non-current assets			
Intangible assets	13	1,071.7	930.7
Property, plant and equipment	15	313.0	243.9
Other receivables	19	1.8	2.1
Deferred tax asset	10	123.1	37.1
		1,509.6	1,213.8
Current assets			
Inventories	17	165.3	127.8
Trade and other receivables	19	241.6	115.7
Other financial assets	18	0.1	7.0
Cash and cash equivalents	20	144.6	167.8
		551.6	418.3
Total assets		2,061.2	1,632.1
Current liabilities			
Borrowings	23	99.4	13.5
Trade and other payables	21	696.1	483.1
Income tax payable		4.9	2.7
Other financial liabilities	22	4.2	18.2
Provisions	26	10.8	12.0
		815.4	529.5
Non-current liabilities			
Borrowings	23	604.7	827.4
Trade and other payables	21	12.2	17.7
Other financial liabilities	22	4.4	–
Employee benefits	27	38.7	46.9
Provisions	26	25.4	13.9
Deferred tax liabilities	10	111.0	60.6
		796.4	966.5
Total liabilities		1,611.8	1,496.0
Net assets		449.4	136.1
Capital and reserves			
Share capital	28	2.1	–
Share premium		352.3	353.7
Share warrants		–	18.5
Capital reserve		6.6	94.1
Translation reserve		2.3	1.6
Hedge reserve		(23.5)	–
Retained earnings		99.4	(339.4)
Equity attributable to owners of the group		439.2	128.5
Non-controlling interests		10.2	7.6
Total shareholders' equity		449.4	136.1

2019 statement examples

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2019

		2019		2018	
	Notes	Adjusted £m	Adjusting items* £m	Adjusted £m	Adjusting items* £m
Revenue	3	997.3	–	997.3	–
Cost of sales		(642.7)	–	(642.7)	–
Gross profit		354.6	–	354.6	–
Selling and distribution expenses		(95.0)	–	(89.8)	–
Administrative and other operating expenses		(235.2)	(42.1)	(277.3)	(74.1)
Other (expense)/income	5	(19.0)	–	20.0	–
Operating profit/(loss)	4	5.4	(42.1)	146.9	(74.1)
Finance income	8	16.3	–	4.2	–
Finance expense	9	(77.3)	(6.6)	(83.3)	(61.9)
(Loss)/profit before tax		(55.6)	(48.7)	67.8	(136.0)
Income tax (charge)/credit	10	(8.9)	8.8	0.6	10.5
(Loss)/profit for the year		(64.5)	(39.9)	68.4	(125.5)
(Loss)/profit attributable to:					
Owners of the Group			(113.2)		(62.7)
Non-controlling interests			8.8		5.6
			(104.4)		(57.1)

Other comprehensive income

Items that will never be reclassified to the Income Statement

Remeasurement of defined benefit liability	26		(1.4)		5.4
Taxation on items that will never be reclassified to the Income Statement	10		0.2		(0.9)

Items that are or may be reclassified to the Income Statement

Foreign exchange translation differences	--		(2.7)		0.7
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Fair value adjustment – cash flow hedges

Amounts reclassified to the Income Statement – cash flow hedge

Taxation on items that may be reclassified to the Income Statement

Other comprehensive income/(loss) for the year, net of income tax

Total comprehensive loss for the year

Total comprehensive (loss)/income for the year attributable to:

Owners of the Group

Non-controlling interests

Earnings per ordinary share

Basic loss per share

Diluted loss per share

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Group	Share Capital £m	Share Premium £m	Capital Reserve £m	Translation Reserve £m	Hedge Reserves £m	Retained Earnings £m	Non- controlling Interest £m	Total Equity £m
At 1 January 2019	2.1	352.3	6.6	2.3	(23.5)	99.4	10.2	449.4
Adjustment on adoption of IFRS 16 (note 16)	–	–	–	–	–	(2.2)	–	(2.2)
At 1 January 2019 adjusted	2.1	352.3	6.6	2.3	(23.5)	97.2	10.2	447.2
Total comprehensive loss for the year	–	–	–	–	–	(113.2)	8.8	(104.4)
(Loss)/profit for the year	–	–	–	–	–	(113.2)	8.8	(104.4)
Other comprehensive income	–	–	–	(2.7)	–	–	–	(2.7)
Foreign currency translation differences	–	–	–	(2.7)	–	–	–	(2.7)
Fair value movement – cash flow hedges (note 23)	–	–	–	–	9.0	–	–	9.0

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2019

	Notes	2019 £m	2018 restated* £m
Non-current assets			
Intangible assets	13	1,183.6	1,071.7
Property, plant and equipment	15	350.5	313.0
Right-of-use lease assets	16	81.8	–
Trade and other receivables	18	1.8	1.8
Other financial assets	20	0.2	–
Deferred tax asset	10	45.7	32.1
		1,663.6	1,418.6
Current assets			
Inventories	17	200.7	165.3
Trade and other receivables	18	249.7	240.8
Income tax receivable		0.3	0.8
Other financial assets	20	8.9	0.1
Cash and cash equivalents	19	107.9	144.6
		567.5	551.6
Total assets		2,231.1	1,970.2
Current liabilities			
Borrowings	23	114.8	99.4
Trade and other payables	21	702.1	671.0
Income tax payable		8.9	4.9
Other financial liabilities	22	6.3	4.2
Lease liabilities	16	14.1	–
Provisions	25	12.0	10.8
		858.2	790.3
Non-current liabilities			
Borrowings	23	839.1	604.7
Trade and other payables	21	9.4	49.8
Other financial liabilities	22	2.6	4.4
Lease liabilities	16	97.3	–
Provisions	25	16.2	12.9
Employee benefits	26	36.8	38.7
Deferred tax liabilities	10	12.6	20.0
		1,014.0	730.5
Total liabilities		1,872.2	1,520.8
Net assets		358.9	449.4
Capital and reserves			
Share capital	27	2.1	2.1
Share premium		352.3	352.3
Capital reserve		6.6	6.6
Translation reserve		(0.4)	2.3
Hedge reserves	23	(2.3)	(23.5)
Retained earnings		(13.5)	99.4
Equity attributable to owners of the group		344.8	439.2
Non-controlling interests		14.1	10.2
Total shareholders' equity		358.9	449.4

* Further detail on the restatement of the comparison period is disclosed in note 9

Appendices

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Wider research

- <https://www.wsj.com/market-data/quotes/AMGDF/financials/annual/income-statement>
- <https://tools.morningstar.co.uk/uk/stockreport/default.aspx?tab=10&vw=is&SecurityToken=0P0001EQ84%5D3%5D0%5DE0WWE%24%24ALL&Id=0P0001EQ84&ClientFund=0&CurrencyId=BAS&orderType=ascending&rounding=2&view=0&period=5>

- <https://uk.investing.com/equities/aston-martin-income-statement>
- <https://www.youtube.com/watch?v=BM2MSWgOHHs>
- <https://www.marketwatch.com/investing/stock/amgdf/financials>